RedTitan User Guides

EscapeE

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EscapeE

Print file conversion resources

Published November 2020.

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In the interests of users RedTitan are constantly developing and improving their products and new versions of EscapeE are released from time to time. This manual may therefore differ in some ways from the version in use.

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Part I

RedTitan EscapeE

RedTitan EscapeE

The *EscapeE* program for reprocessing print files is the heart of the RedTitan *EE Applications Programming Interface*. It can read PCL®, PostScript® and Epson® print files, AFP® and Zenographics© print streams, RTF document format, PDF and other image formats such as BMP, GIF, TIFF, JPEG, PNG and Xerox® IMG. Also PCC, DICOM® medical, DCX/PCX fax, STAR® Point-Of-Sale and of course, RedTitan DDF, IDF, RS2 and UberEd files. Wizards are provided for creating documents in IDF which users may edit and export in other formats.

It is the host program for the EscapeE *Software Development Kit*.

This section describes

- What this document transform system can do: see About EscapeE conversion resources.
- How to download and install EscapeE from the internet; 'demonstration' and 'try-before you buy' editions: see Downloading EscapeE from the internet.
- How to register for a fully-functioning trial edition: see Registering your software.
- About Updating and upgrading EscapeE.
- How to move your EscapeE to a new system: see Transferring EscapeE to another PC or Virtual Server.
- Uninstalling EscapeE.
- The RedTitan software licence agreement.

About EscapeE conversion resources

The RedTitan® *EscapeE* program interprets print files and reads image files such as:

DCM
DCX/PCX
RTF
TXT
CSV
XML
PCC
BMP
GIF
PNG
TIF/TIFF
JPEG/JPG

Adobe®
PS®
EPS
PDF
PDF/A

Epson®
ESC/P®
ESC/P 2®

Hewlett-Packard®
PCL®
PCL6
XL
HP-GL

IBM®
AFP

RedTitan®
EE
EEC
DDF
PPO
PPI
PRE
HP
LOF
LSH
IDF
RS2

STAR micronics®
STAR

Xerox®
IMG

Zenographics®
ZJS

Typical uses for the program are:

- Viewing a print file
  on screen 44 and printing 104 sample pages. This means you can view the layout of a job before production printing.
- Converting a print file
  to other formats 118. Some of these formats are useful for archiving documents: e.g. TIFF (Tagged Image File Format), PDF (Portable Document Format), plain text or the MS Windows Vista 448® 448 default format XPS (XML paper specification). Other formats are useful for transferring jobs to other printers, e.g. IBM 448® IPDS and AFP images, Xerox 449® IMG images, PostScript files and FDL (Forms Description Language). You can export files manually 123 or set up EscapeE to run continuously 127, converting new files as they arrive. EscapeE supports TCP/IP 129 input from a specified port and can send its PDF output via LPR 130. EscapeE also can be controlled remotely from a standard browser using the RedTitan nQ server 449.
- Extracting data from a print file
  by marking out the position of the data fields 200 on a page. EscapeE then saves the data in those positions into comma separated values (CSV 445), extensible markup language (XML 448) or plain text (TXT 448).
- Converting between image formats
  Whole or part images, with options to change the compression 133, resolution 132, shading 135, smoothing 135 plus other format-specific options such as rotation 190.
- Building new documents
  by extracting clipped areas 266 from existing images, documents and data files and re-formatting them together (with new text if needed). Wizards simplify the creation of regular documents such as booklets 348, multi-column 348 lists and music parts 350; data may also be extracted and used for mail-merges 359.

See the Overview 31 section for an introduction to EscapeE. The functions available depend on which edition of the program you have installed:

- *EscapeE Viewer* has full viewing features.
- *EscapeE Transformer* has full viewing features and many of the conversion format options.
- *EscapeE Batch Automation* has all the features of the Transformer plus the command line execution feature which can act as an API to client systems.
- *EscapeE Professional* has all the features of the Batch Automation, extensive composite document features and IDF control capability.

For more details, see Compare features 450.

Important note: If you have downloaded 19 EscapeE from the Internet, you will need to register it to use all of these features. See Registering your software 21 for more information.

Downloading EscapeE from the internet

EscapeE can be downloaded from the RedTitan PCLViewer web-site.

- A *demonstration* edition is available: just Download 20 and Install 20 the EXE file.
- Fill out the Registration dialog too and you may try *all* the features free for one month with no obligation to purchase. This may be done directly after downloading 20 and installing 20 the EXE file or later from EscapeE: see Registering your software 21.

Downloading the current EscapeE

1. View https://www.pclviewer.com/escdownload.htm web-page in you internet browser.
2. Click **download a free evaluation now** *or* the **DOWNLOAD** image.
3. Click **EscapeE Current Version** (OPTION 1).
4. You will be prompted to "open binary file", e.g. "EE1051.EXE": click **Save File**.
5. You will be prompted to **Show all downloads**. Open the 'Downloads' folder to see the EXE file in its list.
6. *Double*-click the EXE file.
   - Any anti-virus security firewalls installed on your computer may request that you confirm that it's OK to allow this change: click **Yes** to display the RedTitan EscapeE Setup 20 dialog.

Setup RedTitan EscapeE

With the 'Setup - RedTitan EscapeE' dialog (see steps above 20) on view:

1. Read the License Agreement 26 set out in the dialog's scroll box.
2. Choose **I accept the agreement** then click **Next**.
   - If you choose **I do not accept the agreement** instead, you will not be able to continue the Setup: click **Cancel** to exit.
3. An edit box on the 'Select Destination Location' dialog shows a default file path, e.g.
   `C:\Program Files\RedTitan`
   You may use this location *or* type-in *or* **Browse** to a different location in which to install EscapeE.
   Then click **Next**.
4. An edit box on the 'Select RT.INI file folder' dialog shows a default file path, e.g.
   `C:\users\public\redtitan`
   You may use this location *or* type-in *or* **Browse** to a different location in which to store the RT.INI file 417.
   Then click **Next**.
5. A drop-down box on the 'Default paper size' dialog lists a choice of paper sizes. Choose **A4** *or* **Letter** then click **Next**.
6. The Setup is now complete, ready for the installation of EscapeE on your computer.
   - Click **Install**: EscapeE can now be run in demonstration mode.
     The Registration dialog is displayed automatically, see Registering your software 21. *Or*
   - click **Back** if you want to review or change any settings. *Or*
   - Click **Cancel** to discontinue installation.

◆ Tip: you may opt download an earlier version of EscapeE rather than the current version, see Transferring EscapeE 24.

◆ Note

To run EscapeE on Vista 448®, Windows 448® 2008 or Windows 448® 7 you must be running version 8.50 or later. At least 33.8 MB of free disk space is required to install EscapeE.

Registering your software

If you have downloaded *EscapeE* from pclviewer.com web-site you will only be able to run it in demonstration 19 mode until you register it. You may register your EscapeE software on completing the Installation 21 or later from EscapeE 22 itself.

Registering on installation

If you have just completed the download and installation of EscapeE, the Registration dialog will be displayed automatically.

1. Select **Register a trial version via the Internet**.
   - 1.1. Choose an edition 450:
     - **Viewer** *or*
     - **Transformer** *or*
     - **Batch Automation** *or*
     - **Professional**.
   - 1.2. Choose a language:
     - **Deutsch** *or*
     - **English** *or*
     - **Espanol** *or*
     - **Francais** *or*
     - **Portuges**.
   - 1.3. Click **OK**.
2. The 'RedTitan Software Registration' form is displayed. Your computer's ID 22 is supplied automatically but you need to enter:
   - 2.1. **Your name**,
   - 2.2. The name of your **Company** and
   - 2.3. Your **Email** address.
     (In addition you may also supply your **Telephone number** and **Address** but these details are for convenience, not a requirement.)
   - 2.4. Read the privacy policy then tick **I accept the RedTitan privacy policy** to continue.
   - 2.5. Click **Register**.
3. Thank you for registering – you should now see a message with your temporary licence number, informing you that your licence RTZ file will be sent to your Email address. Full instructions are included but should you need further help, please contact the RedTitan Help Desk.

Registering from EscapeE

If you have been running a demonstration edition and would like to try more EscapeE features, you may register it from EscapeE itself:

1. Select **Register EscapeE** from the 'File' menu.
2. Click **Offline** to expand the setup dialog for offline details.
3. Please enter:
   3.1. Your **User's Name**,
   3.2. Your **Company name** and
   3.3. Your **Email** address.

   Your computer's ID 22 and the Product name (ESCAPEE) are supplied automatically; entering your **Address**, **Country** and **Phone** number are options for convenience, not a requirement.
4. Send your registration details – *either*:
   - Click **Email data to RedTitan** to set up an Email then click **Send**. *Or*
   - click **Print** to open a 'Save file as' dialog so that you may set up a file containing your registration details.
     Enter a **File name** (you may click **Browse Folders** to open a standard file selection window) and select a **type** of file.
     Click **Save** then please mail *or* fax the printout of the file to RedTitan Technology Ltd 444.

You will be Emailed a temporary licence for one month during which time you can try the features. You may upgrade to a full licence for that computer by sending payment to RedTitan Technology Ltd: see https://www.pclviewer.com/about.html. Then:

1. Open EscapeE and select **Install RTZ licence file** from the 'File' menu.
2. Use your standard dialog to select and **Open** your **RTZ** file.
3. When informed that your licence has installed successfully, click **OK**.

See the Overview 31 section for an introduction to using EscapeE.

◆ Tip: your ID and Licence number are shown on the About 23 box ('Help' menu).

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Updating and upgrading EscapeE

EscapeE is frequently updated and developed to support customers' needs and handle emerging technologies.

- To review EscapeE's update history, browse to www.pclviewer.com/escdownload.htm web-page and click **View release notes**.

When EscapeE has been purchased directly from RedTitan® (rather than supplied as part of an OEM 446 system), you may:

- check whether there is a more recent version of EscapeE available by selecting **Check for updates to EscapeE** from the 'File' menu;
- enable EscapeE to check for newer versions once a month automatically: tick **Check the RedTitan web site each month for updates to EscapeE** on the 'Automatic' 128 page of the 'Configuration' dialog (Options menu, or **F8**).

If you have a maintenance contract you can update to newer versions of EscapeE free of charge. Just send an Email to help@redtitan.com requesting a licence update and supplying your licence number 23 and company details.

If you do *not* have a maintenance contract and would like to update, please Email help@redtitan.com and we will send you back a quote for an update.

Upgrading EscapeE

There are a number of permission codes which enable additional EscapeE features: Email sales@redtitan.com for details. To install the licence or permission codes which RedTitan Emails to you:

1. Select **Install RTZ Licence file** from the 'File' menu.
2. Enter/select your RTZ file then click **Open** to install it.

Licence number

Details relating to the installation (e.g. your ID and Licence number, the EscapeE Edition and Version number) are shown on the 'About' dialog.

- Select **About** from the 'Help' menu.
  - Clicking the **Copy to clipboard** button is a convenient way to extract these details for archiving or when upgrading or Transferring EscapeE 23 to another PC or virtual server.

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Transferring EscapeE

A licence 22 allows *EscapeE* to be run on a particular PC or virtual server, identified by its ID and specified in the licence. It may be transferred to another computer or virtual server (for example when you buy a new PC) but it cannot be run from a copy. If you would like to run EscapeE on more than one computer please Email help@redtitan.com and RedTitan® will supply details regarding the appropriate licence.

Moving EscapeE

To install your existing EscapeE on a new PC or virtual server you must *either* Reuse the original software 24 *or* Download it from the internet 24: see below.

Reuse the original software

Your current EscapeE would have been supplied as a 'ZIP' or 'EXE' file. Install this on the new PC or virtual server, then:

1. Once the installation is complete, run EscapeE (it opens in demonstration 19 mode).
2. Select **About** from the 'Help' menu. This displays the About 23 dialog showing your computer's ID number, EscapeE details and licence information.
3. Click the **Copy to clipboard** button (*or* **Ctrl C**) – this will extract the information in the dialog for you.
4. Create an Email and **Paste** the clipboard information into it. Add a note explaining your requirements then send it to RedTitan. We will send back a licence file 23 for the new computer.

Or

Download from internet

If you have the *latest* version of EscapeE:

1. View pclviewer.com/escdownload.htm web-page in you internet browser.
2. Click **download a free evaluation now** *or* the **DOWNLOAD** image.
3. Click **EscapeE Current Version** (OPTION 1).
4. You will be prompted to "open binary file", e.g. "EE1051.EXE": click **Save File** and follow the steps in Downloading EscapeE from the internet 20.
5. Then send an Email of the details to RedTitan as above 24.

If you have an *earlier* version of EscapeE:

1. View pclviewer.com/escdownload.htm web-page in your internet browser.
2. Click **download a free evaluation now** *or* the **DOWNLOAD** image.
3. Click **EscapeE Previous Version** (OPTION 2) and select the appropriate version from the list.
4. You will be prompted to "open binary file", e.g. "EE0952.EXE": click **Save File** and follow the steps in Downloading EscapeE from the internet 20.
5. Then send an Email of the details to RedTitan as above 24.

Virtual PC/Server environment

Virtual servers should run EscapeE in the same way a physical server would.

Virtualization convinces an application that the PC is physically present when it is not. RedTitan has tested EscapeE on Windows 448 Virtual PC and VMware 449® virtual server without issues. If you do have problems running RedTitan software on a virtual platform please contact EscapeE by Emailing help@redtitan.com or telephone one of our offices: details can be found at pclviewer.com/about.html.

◆ Note

To run EscapeE on Vista 448, Windows 448 2008 or Windows 448 7 you must be running version 8.50 or later.

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Uninstalling EscapeE

To Uninstall EscapeE

1. Select **Start | Settings | Control Panel** from your desktop.
2. **Double**-click **Add/Remove Programs** icon
   or
   Right-click Add/Remove Programs icon then choose **Open**.
3. Select **RedTitan EscapeE** from the list of programs on the Install/Uninstall page of the dialog.
4. Click **Add/Remove**.
5. Click **OK**.

Alternatively there is a command-line option **/UNINSTALL**: see Command line syntax 410

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RedTitan software licence agreement

These are the terms on which you ("the Licensee") can obtain the software product known as EscapeE ("the Software") from RedTitan Limited of Aston Court, Kingsmead Business Park, Frederick Place, High Wycombe HP11 1JU United Kingdom

("RedTitan")

If you ("the Licensee") wish to order the Software on the terms set out below, please click "Accept licence" to acknowledge acceptance of these terms. These terms will then govern any order which you place for the Software.

WHEREBY IT IS AGREED as follows :-

1. Definitions

In this Agreement, the following expressions shall have the following meanings:-

"Intellectual Property Rights" all copyrights, patents, registered and unregistered design rights, topography rights, trademarks and service marks and applications for any of the foregoing, together with all trade secrets, know-how, rights to confidence and other intellectual and industrial property rights in all parts of the world.
"Licence Fee" the licence fee specified in the order form.
"Software" the Software identified in the order form.
"User Parameters" the specification of the hardware on which the Software may be used, the location at which the Licensee may use the Software, and any other parameters of use specified in the order form.

2. Licence

2.1 In consideration of the payment of the Licence Fee, RedTitan hereby grants to the Licensee a non-exclusive, non-transferable Licence in object code to use the Software only for its internal business purposes (which for the avoidance of doubt shall not include facilities management or bureau services) and strictly in accordance with the User Parameters and subject to any special conditions specified in the order form.

2.2 Any use of the Software otherwise than in accordance with Clause 2.1 shall be subject to RedTitan's prior written consent and any reasonable additional licence fee which RedTitan determines.

2.3 The Licensee shall not, except to the extent permitted by law, modify, reverse assemble, decompile or reverse engineer the Software nor shall it permit whether directly or indirectly any third party to do any of the foregoing.

2.4 The Licensee shall pay any invoice correctly raised by RedTitan within 30 days of the date of such invoice.

2.5 If the Licensee fails to pay any sum due under this Agreement when it is expressed to be due, RedTitan shall be entitled to charge interest on a daily basis on all overdue amounts and on outstanding interest from the date of such failure until payment (both before and after judgement) at an annual rate 4% above the base rate for the time being in force of Barclays Bank plc.

2.6 For the purposes of this Agreement, time of payment by the Licensee shall be of the essence.

3. Confidentiality, Copying and Intellectual Property Rights

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4.6 None of the clauses above shall apply so as to restrict liability for death or personal injury resulting from the negligence of RedTitan or its appointed agents.

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4.8 The Licensee hereby warrants that it has not been induced to enter into this Agreement by any prior representations whether oral or written except as expressly contained in this Agreement and the Licensee hereby waives any claim for breach of any such representations which are not so contained.

5. Termination

5.1 Either party may terminate this Agreement immediately by written notice to the other in the event that any of the following occur:-
5.1.1 the other fails to pay any amount due hereunder within 30 days of its due date or breaches any term of this Agreement and such breach is incapable of remedy or continues for a period of 30 days after notice requiring the same to be remedied has been given by the terminating party to the other party; or
5.1.2 an order is made or a resolution is passed for the winding up of the other party, or if a provisional liquidator is appointed in respect of the other party, or if an administration order is made in respect of the other, or if a receiver is appointed in respect of the other or all or any of its assets or if the other is unable to pay any of its debts within the meaning of Section 123 of the Insolvency Act 1986, or if any voluntary arrangement is proposed under Part 1 of the Insolvency Act 1986 in respect of the other.

5.2 RedTitan may terminate this Agreement forthwith if the Licensee purports to breach Clause 6.4 hereunder.

5.3 Termination of this Agreement shall be without prejudice to any other rights or remedies of the terminating party.

5.4 In the event of termination of this Agreement, the Licensee shall within 14 days destroy the Software and any documentation supplied by RedTitan together with any copies thereof and write to RedTitan certifying that this has been done.

6. General

6.1 Subject to Clause 6.2, this written Agreement together with the order form, constitutes the entire agreement between the parties hereto relating to the subject matter hereof and neither party has relied on any representation made by the other party unless such representation is expressly included herein. Nothing in this Clause 6.1 shall relieve either party of liability for fraudulent misrepresentations and neither party shall be entitled to any remedy for either any negligent or innocent misrepresentation except to the extent (if any) that a court or arbitrator may allow reliance on the same as being fair and reasonable.

6.2 No change, alteration or modification to this Agreement shall be valid unless in writing and signed by duly authorised representatives of both parties.

6.3 If any provision of this Agreement or part thereof shall be void for whatever reason, it shall be deemed deleted and the remaining provisions shall continue in full force and effect.

6.4 The rights and obligations of the Licensee under this Agreement are personal to the Licensee and the Licensee undertakes that it shall not, without the prior written consent of RedTitan, assign, lease, charge, sub-license, or otherwise transfer such rights and obligations in whole or in part.

6.5 RedTitan reserves the right to sub-contract any of the work required to fulfil its obligations hereunder.

6.6 Any notice given pursuant hereto may be served personally or sent by pre-paid registered letter or recorded delivery to the addresses given hereabove. Such notice shall be deemed to have been duly served upon and received by the addressee, when served personally, at the time of such service or, when posted, 48 hours after the same shall have been put into the post correctly addressed and pre-paid.

6.7 Neither party shall be liable for any loss suffered by the other party or be deemed to be in default for any delays or failures in performance hereunder (other than in relation to payment) resulting from acts or causes beyond its reasonable control or from any acts of God, acts or regulations of any governmental or supra-national authority.

6.8 Any delay or forbearance by either party in enforcing any provisions of this Agreement or any of its rights hereunder shall not be construed as a waiver of such provision or right thereafter to enforce the same.

6.9 Clause headings have been included in this Agreement for convenience only and shall not be considered part of, or be used in interpreting, this Agreement.

6.10 This Agreement shall be governed by the laws of England and the parties submit to the exclusive jurisdiction of the Courts of England and Wales.

Part II

Overview

Overview

This section provides new users with an outline of how *EscapeE* may be used handle print files. The topics include links to the detailed instructions found in subsequent sections.

- What you see when you open a document in EscapeE and how to change it; about the Console notebook for viewing document properties, PCL and IDF source code: see About viewing pages 32.
- Finding your way through a document; the page search, text search and bookmark tools: see Navigating to a page 32.
- General information on fonts, font packs and font libraries; symbolsets, character recognition and header files: see Handling fonts 33.
- General information on graphic images, vector graphics, shading and transparency; about masks and alpha channel images: see Handling graphics 34.
- Saving and copying documents, parts of documents, text and macros; stylesheet files: see Saving and copying pages 35.
- Printing options and the use of proofing printers, resources and plotters; trays and bins. About unprintable areas, image scaling and cropping: see About printing 35.
- General set-up for outputting pages in a different file-format and generating log files and macros. Manual and automatic operating; using TCP/IP: see About exporting pages 36.
- The Configuration dialog: setting general and format-specific options. Shading, compression, resolution and page numbering: see Configuring files for export 36.
- The Fields dialog: the relationship between data fields and tags. Composite fields and conditions; setting up actions: see About fields and tags 37.
- Outputting extracted data to CSV, XML and plain text log-files: see About exporting data 38.
- How to use parts of fields and pre-defined symbols; applying conditions: see Composite fields and conditions 38.
- About Composite documents and IDF 39: the sweep-and-click feature for assembling parts of existing pages into composite documents. Re-purposing documents and creating new documents with Intelligent Document Format.
- About User-friendly Mail merge and Composite document wizards; the dual-mode editor for creating new documents: see IDF wizard documents 39.
- About running EscapeE automatically from a Shortcut icon, directly from the command-line or through a program: see Batch job running 40.

All in all, EscapeE is a powerful print stream and data reprocessing tool with a comprehensive array of features. If you have a print data processing task you don't think EscapeE can handle, Email help@redtitan.com and we'll see if we can find you a solution.

About viewing pages

EscapeE is capable of reading files in a wide range of formats 45, including specialist files such as those with non-standard extensions, see Configuring the input format 46.
When a file is open 44 you may just view the layout and print sample pages or you can opt to export 36 all or part of a job to another format 118.
You can view the pages at a range of different sizes using the Zoom buttons 50 or the menu command, see Choosing the view of the page 49. You may customize the Viewing 57 options: for example, to use the current viewing scale each time you open a file. The filename is usually shown in the title-bar at the top of the window.
Details about the page are displayed in the status bar 55 at the foot of the window, though you can opt to turn this off. Normally, when the mouse is over the page window, its coordinates on the page are displayed (in the units 56 of your choice). To view details about a particular piece of text or a graphic on the page, right-click on the object then choose from the pop-up menu. See Viewing page information 55.

You may choose whether to show any images or shaded areas on-screen or not: see Handling graphics 34. If your PCL file contains macros 446 which you cannot see on screen, you can opt to view 56 the macros step by step.

Many PCL printers do not print exactly to the edge of the paper; EscapeE lets you see if any part of the page will not print: see Viewing the unprintable area 51. The maximum size of page that EscapeE will display is 32760 pixels wide by 32760 pixels high.

The Console notebook 61 brings together the document's technical information: click the Information icon on the Tool-bar 43 (below the title-bar). Each tabbed page focuses on a different aspect of the job: its Properties 62, Source code 65, PJL 64, Log 63 and Error 62 messages. Further tabs are added when Intelligent Document Format 68 files are being created and edited, see About Composite documents and IDF 39.

The demonstration edition of EscapeE uses Windows TrueType® fonts to emulate the resident printer fonts but the production editions can be supplied with outline fonts which are a better match, see Handling fonts 33.

Links
Viewing files 42
Console notebook 61

Navigating to a page

The 'Page number' button on the Tool-bar shows which page of the document is on view; to view a macro 56, select it from the drop-down list.
You may step through the pages of the job one by one, or move straight to the first or the last pages: see Scrolling the document 70. You may also jump directly to a specific page number: see Searching for a page 72.
The *EscapeE* text-search feature is not only fast but can be configured to search the text or the data-fields, in just part or all of the job: see Searching for text 71. The Bookmark feature enables you to annotate the page numbers with text to help you return to particular pages: see Using bookmarks 73.

A progress indicator is shown on the status bar 55 (at the foot of the page) to keep track of the location of the current page within the document.

Links
Navigating around a document 70

Handling fonts

Document files may contain all, some or none of the fonts that are needed to make the document. When a font required by the document on view 44 is not downloaded as part of the file, *EscapeE* will attempt to match it with one in its resident library 83. EscapeE is delivered with a set of definitions which make use of some of the standard Windows fonts. These are in a file called **WINFONTS.FIF**, but if you save fonts to the resident font library, a file is created which is specific to your system (called **RESIDENT.FIF** in the PCL Resident Font Library). If there is no exact match with any of the library fonts then the nearest one is chosen, which may result in a some variation in the appearance of the text, see Viewing font information 53.

The demonstration edition 21 of EscapeE is supplied with a set of fonts 430 that simulate the printer's Courier, Letter Gothic, Univers, Line-printer and HP-GL Stick fonts and also uses the standard Windows fonts Arial, Times New Roman, Symbol and Wingdings from your system. The standard Windows (19U) symbol set is provided, together with the PC symbol set for the standard fixed pitch fonts (10U). EscapeE can create most other symbol sets from the 19U set by remapping.

You may purchase a TrueType font pack 77 for matching the built-in fonts on printers such as the HP4 and later models and a font pack 76 for fixed pitch fonts: Email sales@redtitan.com. RedTitan can also supply customized fonts to order: please contact help@redtitan.com.

EscapeE '.SUB' files can be generated to organize the substitution of fonts, see Setting up a Font Substitute file 90. Different substitute fonts may be used for viewing on-screen and on paper: see Selecting substitute fonts 92.

A warning triangle 62 on the Tool-bar will alert you to any problems with font mismatching 376. You can see the text that uses any fonts that were not completely matched against available downloaded or library fonts by ticking the Show selected fonts in red 53 option. (If the text of a substitute font is actually red, this option defaults to blue instead!) You can view details of the font, and whether it is a substitute, by right-clicking the text.

If you have problems reading a file after export, it may be because the download fonts were created in a different symbolset when the PCL file was generated. For example, an IBM mainframe could create fonts with EBCDIC character encoding. You can try reading the file into EscapeE again and selecting a different symbolset from the 'Symbolset conversion' list, see About symbolsets 81. Download fonts are often protected by permuting the character codes (e.g. HP3 printer drivers) so that they make nonsense of the extracted text. EscapeE, however, can recognize characters either optically (see Using plugins 227) or by matching the character data in the downloaded font. Character recognition codes may be set up in a database (using *EEfonts*, accessible from 'Fonts' menu, see Character codes 82) or assigned individually, see Assigning character codes 82.

Some printer drivers specify inappropriate point sizes, which can cause problems if font substitution or character recognition are required. EscapeE has an option (Calculate download font characteristics 124) that enables more appropriate values for point size, weight and style to be applied instead.

As an alternative to including all the fonts for a PCL page with each page file, you may opt to export all the fonts for a multi-page job in a separate file 168. The fonts-file may be installed in the Resident font library, supplied as the first of a list of files, or specified as a header file 214. This reduces the size of each page file while ensuring that the printer has all the fonts it needs for the job right from the start.

TrueType fonts downloaded with PCL files may be embedded in PDF files on export, either whole or (to reduce file-sizes) in subsets 175.

Users may reset the font and image library 79 search paths.

Handling graphics

Graphics – any objects you see in a page which are not text – are stored in a number of different ways.

'Bitmapped graphics' are mosaics of monochrome (black-and-white) or colored pixels. Some formats consist entirely of such images e.g. BMP, JPEG, PCL3GUI while others, e.g. PDF files, can contain both text *and* graphics.

'Vector graphics' use a series of lines and shapes drawn on the page to form the image and were originally used by plotters e.g. HP-GL. Modern 'Tensor' graphics advance this concept to include complex colour-blends and axial shading.

The RedTitan Color Management System handles CMYK to RGB color conversion and there is no limit to the number of CMYK colors that it can implement.

The 'Force monochrome' option can be used to change colored images to 'gray-scale' or 'black-and-white' and supports a variety of conversion options. Several smoothing methods are provided to ensure good results when scaling color and monochrome images down for printing or viewing on-screen. See Image import/export options 143.

Images in AFP 119, PDF 118, TIFF 120 and PNG 120 files may contain transparent pixels, the transparency information being stored in an extra layer in the image (the "alpha" channel) much like a "soft mask". Each pixel in a soft mask assigns a degree of transparency to the base image. This is how the edges of an image can be made to fade into the background, or to allow an underlying image to show through it (e.g. in Windows title-bars).

Alpha channel transparency is readily propagated into PDF documents, so the exported PDF files are relatively compact. Images with transparency exported in other formats, however, may require the whole page to be imaged, which usually results in relatively large files.

Some formats also support 'shading': areas of black and white pixels arranged in a repeating pattern, see Shading options 135. These areas are often used as backgrounds for other elements, but they are liable to cause problems when layered on top of one another and exported in different format. (For example, the 'white' pixels in PCL shading patterns are transparent but the 'white' pixels in PDF patterns may be transparent or opaque.) These options may be configured to handle such situations: Transparent white 143, Keep original element order 175 and Ignore Shading 59.

You may opt to remove images and/or shading from documents, for example when you just need to read the text, or to keep file-sizes down. See Setting the 'Ignore' options 59.

You may choose to save 98 an individual graphic from a page or export or print each whole page (including all text, graphics etc.) as a single image: see Page Imaging, scaling and cropping 105.

Links
Image import export options 141
Optimizing the configuration 59

Saving and copying pages

EscapeE can export 36 pages and extract 37 text to a wide range of formats 118. In addition, the Save Subset... 96 option allows you to cut out a section of a print file and save it for reprinting, including any necessary fonts, macros and environment definitions. This is a useful option when part of a PCL print run has failed; only a sample of the file need be tested and analyzed for problems (e.g. missing fonts 376).

The layout of the contents of a page may be rearranged 97 at the sweep of a mouse. Clippings may be made and assembled to create new files, see About Composite documents and IDF 39.

The text on a page may be copied 98 to the Windows clipboard and pasted into other applications, see Extracted text options 99.

Macros can be extracted from pages and saved 100. Macros may also be created by outputting page(s) as a macro 168.

The files for making stylesheets may also be output, see Creating XML stylesheets 101.

Links
Save and copy 96

About printing

EscapeE can read files which have been prepared for printing on one printer and output 36 them as files suitable for another printer. You may need to set up details of the printer 108 or plotter 114 being emulated, the output printer 109 and their paper-trays 111 and bins 429.

If you just need a paper copy of a document (or selected pages 129 from the document) on view, you may use your regular printer (i.e. one set up under the Windows mechanism) to print 104 it. To change the default printer, see Printer Setup 107. You may also use PCL, PDF, PS and XPS printers directly 115, bypassing the printer's own printer-driver (printer-drivers are often the root of printing difficulties).

Printing may be scaled to accommodate printer differences such as unprintable areas 51: see Configuring the view 57. The page may be cropped to remove white margins. You may choose to print pages according to their instructions or as a simple image, see Page imaging, scaling and cropping 105. You can set up options 112 and overrides 112 to specify when one side of a sheet of paper is blank (duplex, simplex, simulated simplex, no plex, mixed plex). There are options to print two pages on one side of a sheet of paper: EscapeE rotates and scales the pages automatically and outputs them as a "Booklet" or "2-up", see Booklets and 2ups 106.

When printing a page as an image it will always look the same as EscapeE shows it on the screen. This allows you to see whether the resources are set up correctly or not (whereas proofing uses the printer's own "resources" e.g. fonts). EscapeE can generate a separate PCL fonts-file for printers requiring the fonts to be downloaded before the page content: see PCL export options 168.

Links
Printing pages 103

About exporting pages

EscapeE can export files (see File formats list 427) to a wide range of formats 118 for archiving pages and for printing jobs on other printers: see Choosing an export format 122. A comprehensive array of Configuration 36 options enable you to export files 140 which include features specific to the chosen format.

The whole file, just one page or a specified range 129 of pages may be exported. You can elect to ignore 59 some elements of a file – shading, images, fonts – to increase speed, reduce file-sizes etc. to suit your requirements (e.g. when archiving). An IDF control file may be used to combine several files (PCL, TIFF, PDF etc.), pages or clippings into one document. These IDF documents may be exported in the format that you choose. See About Composite documents and IDF 39.

You may set up data-fields 232 in the document which can be logged 236 in a separate file in addition to the original document, see Setting Log file options 237. The output file's name can be derived wholly or in part from the contents of a field; see Filenames and wild-cards 136. A Log file is particularly useful when dealing with large documents, e.g. for creating an index.

You may export the document only (in PDF 172, PostScript 182, TIFF 189, XPS 195, IMG 160, AFP 144, PCL 167 format and, if you have the option installed, IPDS 163), both the document and the Log file 236, or the Log file only (in CSV 233, XML 235 or Plain text 234 format). You may configure EscapeE to retain the current "plex" or switch to a different mode, see Simplex and duplex options 112. Finally, on export to PCL 167, PDF 172 and PostScript 182 formats, alternative Duplex overrides 113 may be selected.

EscapeE supports TCP/IP 129 input from a specified port and can send AFP, PCL, PDF and PostScript output via LPR 130. It can also send TIFF, IMG and PNG image files via LPR (this is especially useful for users of the RedTitan 'nPortal' spooler). It can be controlled remotely from a standard browser using the RedTitan *nQ* 449 server.

You can export pages manually 123 or you can set up the program to convert files automatically 127 whenever a new file arrives in a given folder.

Expert users may set options from the command line, e.g. for batch 40 operation.

Links
Export files 140

Configuring files for export

One multi-page dialog provides the export configuration set-up. Some of the settings apply to most formats, see Convert pages to other formats 117 section, but others may only be relevant to one particular format, see Export files 140 section. For example, PDF documents 176 may be digitally signed, encrypted and time-stamped.

You may open the Configuration dialog by pressing the 'F8' key; this displays the 'General 124' set-up page. Then select the format from the drop-down list; when there are format-specific options, buttons are shown so that you can display these options on subsidiary pages. Alternatively, these configuration pages may be accessed from the Export 123 dialog.

When exporting pages automatically 127 you can set various features such as the time interval to check for files, the input and output filenames and whether to use LPR output.

Image 141 options such as resolution 132, compression 133, borders and the image area can be specified. There are smoothing options for colored/screen and monochrome images. There are two grades of shading 135 patterns: one uses dots on a transparent background and the other uses opaque solid grays instead.

'Preambles' and 'PJL comments' may be exported, suppressed or removed on export to PCL 169, PostScript 186, PDF 175, PDF/A 180 formats, see Preamble and PJL options 170. The *EscapeE* 'prefix' feature enables fields to be created from PJL comments and job commands, see Setting the fields file options 214.

You may set up a page numbering scheme for a document on export in the Configuration dialog's Layout 239 page. For details of the 'Bates' numbering scheme, see About page numbers 240.

When you have set up options manually from the Configuration dialog you can save them in different ways:

- Click the **Save** button to retain these settings after you exit 43 the program.
- Click the **Save as** button to save these settings to a file (*.INI).
- Click **Shortcut** to create a Shortcut 367 icon on your desktop which applies all the options you have set.

Links
Convert pages to other formats 117

About fields and tags

EscapeE allows you to define data-fields and tags on the document's pages and then extract the content or add text. Text found at these field positions may be exported into one or more log-files, see about exporting data 38. Fields may also be defined to store data calculated from other fields or parts 251 of other fields: these are Composite fields 243. Data extraction can be automated 127.

Regular data-fields are defined 200 by their position on a page. Fields can also be defined as being located at some offset relative to a search tag 201 which is matched against items in a specified area of the page. A search tag can be a text string, a graphic or part of a graphic, or a font characteristic such as a particular style, point size, typeface, weight etc., see Setting search tag options 205.

If you rearrange 97 the contents of a page, any fields found in the areas moved are relocated along with the clip-areas. When a document is exported to IDF 158 or RTF 187 you may choose to extract everything on the pages or just those fields already defined. These features enable you to regain control of existing information and re-purpose documents.

Composite data-fields are not defined by a position on a page. They are composed of the values of other fields and are typically used to store the results of a condition 38. The hierarchy of fields and their related tags can be viewed as a tree 211 in the Field dialog 199. This makes it easy to reorganize fields, say to become 'children' of different tags. Note that a field will only be output on condition that all its 'parent' tags are recognized.
You may specify what action 208 is to be taken when a field is found, not found or changed. For example, you may choose to start a new log, set or file. You may force a new front or back page and specify which tray, bin or overlay to use.
The Tagged Text 202 feature enables automatic form-filling. Tags are set up to call on the AddText Plugin and insert new text where and when required.

A field may be set up to load a new a field definitions file 212 for the document dynamically. This allows each document, or even each page in a document, to invoke a different field definitions file. A tag can be linked to an overlay by specifying a macro 446 number, and whether that overlay is to be turned on or off when it recognizes the selected tag. See Setting advanced options in field definitions 210.

You may specify how fields are to be rendered in some formats: for example PDF 217 forms, DICOM 223 elements and XML 224 stylesheets.

About exporting data

The text extracted from data-fields can be exported to log-files in plain text 234 (extension .LOG), CSV 233 (with field names in the first record) or XML 235 (you may opt to create XSL and CSS stylesheets 101 too) formats. When exporting the document in an image format, all log-files are given the extension ".LOG 236". Pages and sheets may be logged, see Setting Log file options 237. Log-files can be imported into a database or fed to the RedTitan *Dynamic Document Formatter* 449.

Plugins 227 are available which add special features to *EscapeE*. For example, text may be extracted by optical character recognition, changed and repositioned; field-values may be used as barcodes or to handle dynamic images etc..

If you are exporting proportionally spaced text into fixed-pitch plain text, EscapeE can strip or add spaces and control the way text is aligned, see Setting advanced options in field definitions 210.

Note that in order to extract meaningful text you may need to reconfigure the symbolset 81. If the document was created by a driver which assigns arbitrary codes to the characters, then it will be necessary to match the downloaded characters to those in the character recognition database *EEfonts*.

When exporting to IDF 158 and RTF 187, you may choose to output everything on a page or just those areas which contain fields.

Links
Extract data 198
Export data 232

Composite fields and conditions

Composite fields 244 are fields designed to store data calculated from the values of other fields 37.

To create 244 a Composite field, you do not need to mark-out an area of a page: simply select "New" from the Fields menu and enter its definition directly into the Field dialog 199. There is a drop-down list of the fields already in the document and pre-defined symbols to speed the setting-up process.

Pre-defined symbols 247 are used to contain commonly-used data values related to documents such as the file and page details, dates and PJL commands. They can be recognized by their leading underscore character.

You may specify a constant value 246 for a Composite field or you may set up a condition 245. For example, they can check for the presence or absence of a string 257, whether a field value has changed 258, set up counters 254 and prompt the User to input data 258.

Composed fields are denoted by enclosing them in braces 253; arithmetic expressions 250 and logic expressions 250 may be used when calculating numerical values.

Links
Composite fields 243

About Composite documents and IDF

EscapeE is well known for its capability to take a file in a wide range of formats and directly output its equivalent in another format. EscapeE can, however, also output documents in an intermediate document description language, IDF 446. IDF files can be edited 268 then output in your chosen format. This spares you the bother and expense of installing specialist programs for every format which you may need to edit.

EscapeE includes a feature to create a "Composite document" – a single document composed from a collection of other "component" documents. The component documents are just regular files 427 such as PCL, PDF etc..

When the component documents are all entire files, a simple 'List Of Files' control file will suffice, see Creating a data control file 262. If you require just pages and/or parts of pages from any of the component documents, however, IDF control files provide the solution. Just open a new IDF file, sweep out the part of the page you want to use, then click **Copy & Add section to IDF**. You can add more clippings from this or other files to the same IDF document: just sweep and click. EscapeE does the coding to create the file for you: see Creating an IDF document 267. Composite IDF documents may be used as templates for new documents. Open the IDF file in EscapeE to view 266 the document and display its code in the Console: see Editing an IDF document 268.

The IDF syntax 274 section provides details on IDF code and notation but you don't need to be a programmer to edit a control file. The "plain English" nature of IDF elements and attributes make this a genuinely user-friendly format, see IDF editing tips 271.

See also IDF wizard documents 39

Links
Data control files 260
IDF Documents 266

IDF wizard documents

EscapeE "wizards" take composite documents 39 to a whole new level. They can also generate task-specific documents, such as mail-merge letters. The output is fully-fledged professional documents, but you are not limited to a one-size-fits-all solution. The underlying code is in IDF so if you want to add your own special touches, you can.

Mail-merge wizard 359 handles "mail shots" – customized letters to individuals whose details are provided by a data-file.

The Composite document wizard 344 gives you a choice of layouts for you to output content as lists, columns, booklets etc.. You may even separate a full music score into its individual parts! The wizard takes care of any scaling, rotation and splicing issues automatically.

To output non-standard documents, use the IDF dual-mode editor. In 'Tree' mode, the document is shown schematically: clicking on an element displays its properties, which you may alter by choosing from drop-down lists, dialogs or edit-boxes. You can see the code generated by EscapeE by switching to 'Text' mode. If you're familiar with xml 274 elements and attributes you may, of course, edit the code in this window from the keyboard. See Other documents 362.

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About composite documents and IDF 39
IDF wizards 342

Batch job running

(Applies to EscapeE Professional and Batch Automation editions 450 only)

EscapeE makes batch job Shortcuts 367 easy to set up and easy to use: just specify its location – desktop, Start menu or elsewhere on your system.

Advanced users can run 368 EscapeE directly from the command line. (IDF files 39 may also be run.) There are over a hundred command-line options 382 for export 384, printer-specific 387, composite document 391 and many other 392 configuration options. The configuration may be saved as an INI 417 file.
EscapeE may be called from an external program 371 using the /PIPE command. /X is used to exit.

Batch jobs often require that a large number of files are processed. These files may be accessed from LOF or CSV control files (see About Control files 260) which call on associated field definitions files: see About .EE files for control files 264. The field definitions files themselves can be grouped together to form a custom job LOF or JOB file for ease of use, see Run custom jobs 370.

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Run from the command line 368
Command line syntax: index 382
Error return codes 418

Part III

Viewing files

Viewing files

This section describes in detail what you see in the *EscapeE* window, and how to change it.

EscapeE normally displays a pop-up menu of options on *right*-clicking the page, indicated by a tick alongside the 'Autopopup' option. To turn this feature off for the duration of the session, click **Autopopup**.

Tip: to close a pop-up menu, press the **Esc** key.

- The EscapeE shortcut icon and how to open and size EscapeE; exiting EscapeE: see Running EscapeE 43.
- EscapeE works with many different file-formats automatically so viewing a file is easy: see Opening and closing a file 44.
- How EscapeE detects and recognizes the format of files for viewing: see File format recognition 45.
- How to set up the input file format for non-standard files: see Configuring the input format 46.
- Setting up format-dependent /INPUT options for experts: see Input options 47.
- How to rotate the page on view: see Rotating the page 48.
- Choosing how much of the page to show in the window: see Choosing the view of the page 49.
- Zooming in and out and setting a precise scale of view: see Changing the scale of view 50.
- Specifying the usable area of the page: see Setting the page extent 50.
- Choosing how EscapeE should show an unprintable area: see Viewing the unprintable area 51.
- How to enable/disable the display of tool hints: see Viewing 'Hints' 51.
- How to find and show data fields and tags in the document: see Viewing data fields and tags 52.
- How to display font tables and error messages, and view the properties of the fonts and text: see Viewing font information 53.
- How to view the page details; lines, graphics, images, shading, overlays, macros and mouse coordinates: see Viewing page information 55.
- How to customize the opening view and zoom options, shift the page contents, show or hide the unprintable area, change the units of measurement and suppress blank pages: see Configuring the view 57.
- How to treat unwanted page elements and reduce the output file size: see Optimizing the configuration 59

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Running EscapeE

To run EscapeE

choose **EscapeE** from the RedTitan programs in your 'Start' menu, or

double-click an EscapeE shortcut icon on your desktop.

To run EscapeE so that selected file(s) open automatically

- choose EscapeE as your preferred program for opening specific files/extensions. Clicking the file in Windows Explorer will run EscapeE with the selected file open: see Associated programs 136.
- choose **Run** from your 'start' menu enter the file path and options on the command-line; see Run from the command line 368
- drag and drop a file (or group of files) from Windows Explorer onto the EscapeE shortcut icon on your desktop. Note that if you have set up automatic file export with 'View' turned off, the file will simply be exported without coming up on screen; see Setting automatic export options. 127

EscapeE may also be run from a program; see Run from a program. 371

The EscapeE window will open at the size specified in the 'Configuration' dialog: see Configuring the view 57. You may change the size while it is running by clicking one of the buttons at the top-right of the Title-bar:

Maximize EscapeE fills the entire screen.

Minimize hides EscapeE but keeps it open. An EscapeE button is placed on your Start bar: click this to restore the EscapeE window.

Restore Down shows EscapeE at a size which you can adjust to fit your requirements: use the mouse to 'drag and drop' the window border.

The Tool-bar (located below the Title-bar) is split into two parts, one containing menus and the other with Tool buttons. You may use the mouse to pick up these parts by their side edges and drag them to another part of the Tool-bar (the height of the Tool-bar expands/contracts automatically to fit the height of the Tools). This is particularly useful when you run EscapeE with a narrow window; you may keep all the Tools on view in the window by placing the menus and buttons on two rows in a double-height Tool-bar.

To close EscapeE

- Choose **Exit** from the 'File' menu *or*
- Click the title-bar's button *or*
- Choose **Close** from the title-bar menu *or*
- Press **Alt F4** keys.

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Opening and closing a file

To view a file

1. Choose **Open...** from the 'File' menu *or*
   hold down the **Ctrl** key and press the **O** key.
2. Look in the appropriate folder to find the file to be opened.
   You may refine your search by only showing specific types of file...
   Either choose from the drop-down list:
   - **Print Files** such as .PRN, .LSH, .PCL, .PS, .EPS, .HP, AFP.
   - **TIFF images** shows files with extension .TIF and, for multi-page PCL jobs converted by *EscapeE*, extensions .001, .002, etc..
   - **Plotter** files, extension .PLT.
   - **PDF** files in Adobe Portable Document Formats.
   - **DCX** for fax files.
   - **Control files** such as .IDF, .EEC, .CSV, .LOF; see Viewing an IDF document 266 and Viewing a data control file 261.
   - **EscapeE files**: the default, this shows all files with extensions detected 45 by EscapeE.
   - **Job configurations** for custom .INI, .LOF and .JOB files, see Run custom jobs 370.
   - **All files** – shows even those files with non-standard extensions.

   or type in a file specification, e.g. `*.prt`.
3. Click on a file name.
4. Click **Open**.
   EscapeE opens the file at the first page in the print run.

Alternatively:

- Select the file in Windows Explorer, drag and drop it onto the EscapeE shortcut icon on your desktop: see Running EscapeE. 43 *Or*
- if the file has been opened recently, select it from the History list 446 at the foot of the 'File' menu.

See also Viewing an IDF document 266.

To close a file:

- Choose **Close** from the 'File' menu.
  See also To close EscapeE 43.

Notes

The file extensions .IDF, .LSH, .PRN, .PCL, .PLT and .RS2 are set up in your Windows Registry when EscapeE is installed (if they are not already associated with another program). You may change an associated program (for example, to make EscapeE your preferred TIFF image viewer) using Windows Explorer: see Associated programs.

Print files: these may rely on the default properties of the printer e.g. paper type, font or line spacing. You may need to set the printer defaults manually in order to display the file correctly, see Configuring the printer defaults.

AFP files: parameters such as default font and JPEG image DPI found within input AFP files are honored. If an AFP mask is used in conjunction with a CMYK image then the default ICC setting will be used to render the image as an RGBA (Red, Green, Blue, Alpha) image in order to apply the mask and maintain accurate output colors. See also Substitute fonts.

Tip: EscapeE employs standard Windows features: to see how to use these, consult your Microsoft® Windows User's guide. You can use the usual Windows mechanism for keystrokes: for example, keying-in **Alt FO** chooses from the 'File' menu and shows the 'Open' dialog.

Links
About viewing pages
Running EscapeE
PDF notes

File format recognition

Normally, *EscapeE* is configured to 'Auto format detection'. It recognizes the input file format based on the file extension being one of the following: AFP, BMP, DCM, DCX, DDF, EPS, ESCP, GIF, IDF, IMG, JPG, JPEG, PCC, PCL, PCL6, PCX, PDF, PNG, PPI, PPO, PRE, PS, RS2, RTF, TIF, TIFF, XL, XML, ZJS.
However, if the extension is not recognized then *auto-recognition* is attempted, based on the first few bytes. These formats are recognized in this way: AFP, BMP, DICOM, HP-GL, PDF, PostScript, Printrex, TIFF, Epson (EscP), RS/2, Zenographics©, PCL XL (PCL6), and DCX/PCX.

If the format is still not recognized as one of these, it is assumed to be PCL5.

When you know that the file to be viewed is in one of the standard formats but its extension or opening bytes are non-standard, you may configure EscapeE to treat an input file as a specific format.

Tip: you may open a file from the command line using /INPUT.

Links
Configuring the input format
File formats list

Configuring the input format

The *EscapeE* 'Auto format detection' feature enables it to open files in many standard formats automatically, see File format recognition 45. If you have a specialist file with, for example, an unusual extension, you may open it in EscapeE by configuring a specific format:

1. Choose **Configuration** from the 'Options' menu, *or*
   press function key **F8** to display the 'General' page of the Configuration dialog.
2. Select a 'Format' from the **Input** drop-down list:
   - **Auto format detection** (the default: see File format recognition 45).
   - **AFP** — IBM Advanced Function Printing format
   - **BMP** — Bitmap
   - **CANON** — Canon 448 BubbleJet & CAPSL 445
   - **DDF** — RedTitan Dynamic Document Formatter language
   - **DICOM** — DICOM medical image
   - **ESCP** — Epson printer language
     - Click **Options...** to display the Options 47 for ESCP 47 dialog.
   - **FORM** — Field generation for a form
     - Click **Options...** to display the Options 47 for FORM 47 dialog.
   - **GIF** — Graphic Interchange Format
   - **IDF** — Intelligent Document Format
     - Click **Options...** to display the Options 47 for IDF 48 dialog.
   - **JPEG** — JPEG photo format
   - **PCC** — Lineprinter control codes
     - Click **Options...** to display the Options 47 for PCC 48 dialog.
   - **PCC,ROW** — Lineprinter 'row number' format
     - Click **Options...** to display the Options 47 for PCC 48 dialog.
   - **PCL** — HP Printer Control Language
   - **PCX** — PC Paint format or DCX
   - **PDF** — Portable Document Format
   - **PNG** — Portable Network Graphic
   - **PS** — PostScript
   - **PTRX** — Printrex
   - **RS2** — RedTitan Scripting language
   - **RTF** — Rich Text Format
   - **STAR** — Star POS printer format
   - **TIFF** — Tag Image Format
   - **XIMG** — Xerox IMG
   - **XL** — HP PCL 6
   - **ZJS** — Zenographics format.
3. Click **OK**.

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Input options 47

Input options

Experts may configure *EscapeE* to apply specialist input options for reading files in some formats.
These are set up in dialogs accessed from the **Format** panel on the General 124 page of the Configuration dialog:

1. Select the format (e.g. **FORM**) from the drop-down **Input** list then click the **Options...** button alongside.
2. The Options... 47 dialog opens:
   - If the chosen format does not support any input options, an 'Information' dialog displays the message "No options available": click **OK**.
     otherwise
   - Enter the parameter string in the edit box.
     Click **OK** to use this setup for the current task only *or*
     Click **Save** to use and retain the setup.

Options... dialog

The Input format **Options...** dialog contains an edit-box in which experts may enter a string parameter for modifying the configuration used for viewing files in the selected format. The name of the input module being configured is shown in the title-bar (e.g. "Options for RTFORMIN") and if options have been specified on the command-line they will be shown too.

Specifying an input option parameter sets up a symbol in the [PCLVIEW] section of the RT.INI 417 file and is equivalent to appending the parameter to the /INPUT 399 command. A single option may be set up by simply typing it into the edit box: in PCC 48 format, for example, entering **ROW** sets up the symbol **RTPCCIN=ROW**, equivalent to the command line option

```
ESCAPEE /INPUT PCC,ROW
```

To set up more than one option in the edit-box, use a space character to separate them. In FORM 47 format, for example, enter

```
CHECKBOX=145 MINFIELD=100
```

to set up the symbol **RTFORMIN=CHECKBOX=145 MINFIELD=100**.
This is equivalent to

```
ESCAPEE /INPUT 'FORM,CHECKBOX=145 MINFIELD=100'
```

on the command line (note that quotes are necessary here to include a "space" separator in the command).

ESCP input module options

DPI n	Horizontal resolution, where **n** specifies the Dots Per Inch.
STEP n	Vertical step between graphic rows, where **n** is **1**, **2** or **3**.

FORM input module options

ALL	Apply the fields to all pages, not just the current page.
CHECKBOX n	Maximum size of a check-box, measured in units of 1/600 inch.
KEEP	Save the fields on exit from EscapeE.
MINFIELD n	Minimum size of a box to be recognized as a field, measured in 1/600 inch units.
PAD n	Thickness of padding within the box containing the field, measured in units of 1/600 inch.

IDF input module options

DEBUG tag, tag...	Set debug for specified tags
or	
DEBUG CONDITION, REPEAT, PARSE, COPY, CSV	Debug specified operations

PCC input module option

ROW	To interpret the characters in the first three columns as decimal numbers rather than Printer Control Channel 447 characters. The locations of the data-fields are given by the 3-digit line-number in columns 1,2,3 and, in column 4, the number of lines to skip before printing.

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File format recognition 45
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Rotating the page

To rotate the view of the page shown on-screen, select **Rotate pages** from the **View** menu and choose an option from the sub-menu ▸

- **Clockwise** (90 degrees right)
- **Anticlockwise** (90 degrees left)
- **Upsidedown** (180 degrees)
- **No rotation** (cancels all previous rotations)

The options are cumulative i.e. rotating the page Clockwise once then rotating Clockwise a second time is the equivalent of clicking once on Upsidedown.

This does not change the orientation of the page in the file. You may, however, export 123 the file in the orientation shown to any format other than Subset 96. If a PCL file is exported or saved as a Subset, the rotation is *not* preserved.

Note

If you would like documents to be opened in a rotated state, use the **Viewing** page of the 'Options | Configuration...' dialog. See Configuring the view 57.

Links
Plotter options 114
TIFF images file export 189

Choosing the view of the page

You may choose whether to show the whole of each page in the *EscapeE* window or just part of it:

- Click **View** on the menu-bar *or*
  hold down **Ctrl** and press **L**.
  - Choose **Whole Page** *or* press **Ctrl J** keys to display the page at a size which fits completely into the window.
  - Choose **Page Width** *or* press **Ctrl K** keys to display the page at a size which fits to the width of the window. Use the up/down arrow keys to scroll 70 the length of the page.
  - If the page contains a large amount of white space, choose **Printed Region** *or* press **Ctrl M** keys to view only the parts of the page with items for printing.
  - Choose **Printed Width** *or* press **Ctrl W** to display only the area of the page which contains items for printing, fitted to the width of the window. Use the up/down arrow keys to scroll 70 the length of the area. If the printing extends beyond the area of the page on which the printer is capable of printing, the unprintable parts may be marked by a dotted rectangle – see Viewing the unprintable area 51.

See also Configuring the view 57.

Links
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Scrolling the document 70
Viewing page information 53

Changing the scale of view

To enlarge or reduce the scale of view

Click the Zoom In button on the Tool-bar to magnify the size of the page on screen

Click the Zoom Out button on the Tool-bar to shrink the size of the page on screen

To set a precise scale of view

- Choose a size from the **View** menu's **Zoom** ▸ list *or*
  Click the 'Change magnification' button – shown as a 6 Factor or a 100% Percentage – and choose a size option from the drop-down list.
  (Scale **6** or **100%** displays the page at the best approximation to its actual printed size.)

You may change between Percentage and Factor view in the Configuration dialog. You may also set up the actual values of the scaling options that you would like to make available there too, see Configuring the view 57.

To zoom in on a specific area

Sweep out the area with the mouse. Select **Zoom In** from the pop-up menu or press the **F4** key.
To zoom out, press the **F5** key or select **Zoom Out** from the right-click pop-up menu.

◆ Tip: Click the **scroll bars** or use the **arrow keys** to scroll the page.

Links
Scrolling the document 70

Setting the page extent

There are several options for defining the extent of the page area to be regarded as valid. Select **Page extent** from the 'View' menu then choose one of these sub-options ▸

- **Printable area** The area available for printing on a standard HP 448 printer i.e. leaving an unprintable border, 1/6" wide, on all four edges of the paper.
- **Paper size** The full size of the specified paper.
- **Unlimited** Not restricted to a paper size.

Links
Standard paper and envelope sizes 432

Viewing the unprintable area

Most printers are unable to print right up to the edge of the paper. You can choose how this unprintable area is shown by *EscapeE*: select **Unprintable area** from the 'View' menu, then choose an option from the sub-menu ▸

- **Crop** Does not show anything that falls outside the printable area of the page – any items outside this are not shown, so the unprintable area is left blank.
- **Outline the valid region** *Always* shows the limits of the unprintable area, depicted by a dotted rectangle. If there are items in the unprintable area, these are also shown.
- **Outline if not blank** *Only* shows the limits of the unprintable area when there are items in it (these are also shown).

Viewing 'Hints'

A "Hint" is short message that appears on the screen when the mouse cursor is held over an item on the *EscapeE* screen. This message describes the function or content of the item and is particularly useful for new users. Users who are familiar with EscapeE however, may be distracted by the Hints, and prefer to turn off the Hints 51.

To view Hints

1. Choose **Show Hints** from the 'Help' menu.
2. Click **Quick** *or* **Slow** to set the duration for the hints to be displayed from the sub-menu. The selected items will be ticked.
3. Place the mouse cursor over objects on the screen to display a Hint for a few seconds.

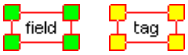
To turn off the Hints

1. Choose **Show Hints** from the 'Help' menu.
2. Click **None** from the sub-menu.

◆ Tip: Hovering the mouse over a field on the page shows the name of that field 52 as its Hint. An item placed by a Plugin 227 shows the fieldname and the Plugin name as its Hint.

Viewing data fields and tags

EscapeE may be used to extract data from PCL data-streams and documents; see About exporting data 38.
The fields and tags are depicted as rectangular boxes with "sizing handles" at the corners:



The default color for the sizing handles may be entered manually into the configuration file (RT.INI) or on the command line, see Command line syntax. 396

To view the position of data fields and tags

- Select **Show** from the 'Fields' menu. From the sub-menu, you may choose to view ▸
  - **All** of the fields and tags, *or*
  - only the fields and tags **If found** on the page.

  See also Defining fields and tags 201 for check-box options on the Definitions page of the Field dialog 199 (**Ctrl D**).
- To display field names and tag names along with their boxes on the page, select **Show** from the 'Fields' menu and click **Show names** from the sub-menu.
- To switch off field and tag viewing, select **Show** from the 'Fields' menu and choose **None**.

✓ A tick indicates the currently selected option.

◆ Tip: Select **Show field values** or **Show field details** (Fields menu) to add field information to the Console notebook's Log: see Logged messages 63.

To view field and tag definitions

1. Select **Edit...** from the 'Fields' menu. Field names are listed in the Fields list 211 pane (usually docked on the right of the Field information pane).
2. Tick the **Tree** box to set up and show the relationships between fields. The tree can be expanded/collapsed by clicking on the folder icons. To edit the tree structure, see Fields list/tree. 211
   To view a sorted list of names instead, **uncheck** 'Tree'. This makes field-names easier to find and rename.
3. Click on the field or tag name in the list to display the its definition.
   - While a field or tag definition is being displayed it is also depicted on the page with a red outline.
   - If the field is a 'child' (sub-field) of 'parent' field(s) then the parent field(s) are are indicated by cyan marker points on the page.

◆ Tip: Click the 'back' and 'forward' buttons at the foot of the dialog to show the previous page and next page of the document. Click the left, up, down or right buttons in the arrow set to scroll the page.

Viewing font information

The Font Properties 53 dialog details font and text information on a *specific* text string 54 in the page on view.

The Font Table 83 presents information on *all* fonts available to the document. The information can be broken into lists showing details of all fonts in a selected category.

1. Select one of these options from the 'Fonts' menu:
   - **Resident Fonts** to view 'Permanently Resident Fonts' table, i.e. fonts that are resident on the system in the RESIDENT.FIF file.
   - **Fonts in use** to view 'Fonts Used by Current Document' table.
   - **Downloaded fonts** to view 'Download Fonts Used by Current Document' table.
   - **Substitute fonts** to view 'Default font substitutes' table of any fonts for which there is a default font set up.
     - To display substitute fonts specifically set up for the current document, choose **Current font substitutes** from the drop-down list.

To view Font Properties

1. *Right*-click the mouse in the text string 54 that you would like to examine.
2. Select an option from the pop-up menu:
   - Choose **Font Properties** to display the dialog, *or*
   - **Text Details** to log 63 the details and display the dialog.
3. You may choose to **Show selected font in red** (see also To highlight a selected font 54); click this option again to switch back to normal rendering of the page.
4. Click **Substitute...** to display the 'Font substitutes' dialog: see Setting up a Font Substitute file 90.
5. Specialists note: if it is a downloaded bitmap font, there is also a button **Add font to character recognition database** which opens *EEfonts* directly.

The 'Font properties' dialog shows these details of the text string 54 (if they are specified in the document file):

Characteristic	Example
Typeface	16602
Family	Arial
Proportional	
ID	0
SymbolSet	19U
Size	10 point
Style	0
Weight	0

A description may also given, e.g. `Windows symblolset 10 point regular`. This particularly helpful when a Windows font is loaded and found to have the wrong weight, style etc.. When a downloaded TrueType font contains characters identified as belonging to an installed font, the description includes "`Recognized as font...`". Square brackets around a Family name indicate that the font is not available.

It also shows how *EscapeE* has rendered the Text[54]:

Font type	Bitmap 300dpi	
Name	AR10R	
Screen font	AR10R	Prescaled
PDF substitute	Helvetica	Size 10
Filename	I:\REDTITAN\FONTS\pcldload\13950.RFF	
Recognized as font	Arial~Regular	223 known chars

The details in 'Font properties' are those of the *text string* shown in the **Text** box (just above the dialog's buttons). If there are characters in the string coded as hexadecimal numbers, these are shown in red to minimize confusion with number characters in the text itself. For example in this text string, the "dollar" sign has been coded as $24: "$24100@5%"

To highlight a selected font on the screen

1. Select **Show selected font in red** from the 'Fonts' menu *or* tick the check-box at the top-right of the 'Font Tables' dialog (see above[53]).
2. Select the font to be highlighted on the screen view of the page from one of the font tables.

Red is normally used as the highlight color, but any red text in the document that uses the selected font will be shown in green on the screen instead.

When this option is active, a tick is placed beside it in the menu.

To highlight substituted fonts on the screen

- Tick **Show substituted fonts in red** from the 'Fonts' menu to color any text using a substituted font on the screen.

Red is normally used, but any red text using a substitute font will be colored blue instead.

Font problems

- Click the red triangle warning button on the Tool-bar to see details in the Error messages[62] window of the Console notebook.

See also Troubleshooting.[375]

Links
Font tables[83]
Setting up a Font Substitute file[90]
About symbol sets[81]
Changing font and image libraries[79]

Viewing page information

To view page details

The status bar at the foot of the window shows the information about pages such as simplex or duplex, page size, orientation, trays, bins – and for PostScript, even the color and type of paper 432. Letter(s) in the right-hand box of the status line indicate that action(s) which have been specified for fields are active on the current page: see Setting field actions 209.

It also shows the position of the mouse, and if an area has been swept out, its dimensions. The position is measured from the top-left corner of the page. (If you have scrolled the page, or chosen to view only a printed area 49 of the page, this might not be the top-left corner of the window!) For example:

X 1234: 300 Y 567: 400

This gives the current mouse position as 1234 units 56 from the left edge and 567 units from the top edge of the page; an area has been swept out that is 300 units wide and 400 units high. If you have set up and selected a custom unit rather than a standard unit, the diagonal distance swept out 500 is also shown. This feature is ideal for measuring distances between points on any scale in a convenient unit, be it a route map in miles or an engineering drawing in millimeters that is on view.

To turn off page details, choose **Status** from the 'View' menu. To turn the feature back on, select it again; a tick shows that it is selected.

To view graphic and line details

Right-click the mouse on the graphic then select **Graphic Details** or **Line Details** from the pop-up menu. The details will be displayed in the Log 63 and (briefly) in the status bar 55.

- Graphic "image" formats are composed of a mosaic of pixels. A 16-byte MD5 hash of the graphic (specified by a hexadecimal number) is used as an identifier when a field searches for a particular graphic. For example:
  95 dpi JPEG graphic, size 15 x 19, scaled to 94,119 24 bit
  C088D0D6CEB8F22BFED542DFEC9A08040F001300
  is a graphic image in JPEG format. The example below typical of other graphic formats such as BMP:
  100 dpi graphic, size 120 x 75, scaled to 720,450 24 bit
  605F2BA7214AF2182DB42B4EFE8978ED78004B00
  The "dpi" figure (e.g. 100 dpi) is the effective resolution of the image on the page (not the resolution of the original image before scaling).
  Graphic images – but *not* vector graphics 55 – may be omitted from the screen view and from exported files using the 'Ignore' **Images** 59 option.
- This is an example of "vector graphics" – a set of lines such as a plotter draws:
  $Path 1 #3
  Endpath
  $Path 2 #260
  $Path 1 #3
  $Path 2 #260
- This is an example a shaded block's details:
  Shade 2220 x 600 20%
  Shaded areas may be omitted from the screen view and from exported files using the 'Ignore' **Shading** 59 option.

See Optimizing the configuration 59 and Setting General export options 125.

To view overlays or macros

You may choose to view overlays 56 or macros 56 or neither.

- To show overlays choose **Overlays** from the 'View' menu. A tick will be placed alongside the option.
  - To turn off overlay viewing, click **Overlays** again: the tick will be removed.
  - To switch to viewing to Macros instead, select **Macros** from the 'View' menu: the 'Overlays' tick will disappear and the 'Macros' tick will appear.
- To show macros choose **Macros** from the 'View' menu. A tick will be placed alongside the option.
  - To turn off macros viewing, click **Macros** again: the tick will be removed.
  - To switch to viewing to Overlays instead, select **Overlays** from the 'View' menu: the 'Macros' tick will disappear and the 'Macros' tick will appear.

◆ Tip: if a file contains *only* macros and no normal print data then the **Macros** option is engaged automatically.

To switch mouse units

The units in which the mouse coordinates are normally shown is defined in the **Viewing** page of the 'Configuration' dialog. To switch to using different units just for the current session, choose **Mouse Coordinates** from the 'View' menu then select one of these sub-options ▸

1/300" (300 dpi)
1/600" (600 dpi)
1/720" (decipoints)
Inches
Cm
n/600" custom unit (see Configuring the view 58)

– just as you would if you had changed the units in the Configuration dialog then selected **OK** (rather than **Save**).

◆ Note

When printing extends beyond the edge of the page, an amber warning triangle appears on the Tool-bar. This may be clicked to access the Error messages 62 page of the Console notebook directly.

Links
Changing the scale of view 50
Choosing the view of the page 49
Viewing data fields and tags 52

Configuring the view

The way *EscapeE* looks and behaves when it is opened is specified in the 'Configuration' dialog, which is divided into several pages. Although you will probably change the view of the document while you are working on it (as outlined in Choosing the view of the page 49 for example), this will not change the configuration.

To set the viewing configuration

1. Choose **Configuration** from the 'Options' menu, *or* press function key **F8**.
2. Click the **Viewing** tab.
3. Set the **Initial window** option; choose from
   - **Minimized** to place a vestigial EscapeE on the desktop.
   - **Normal** to allow the window to be sized manually.
   - **Maximized** to fill the screen.
4. Choose the **Scale units** for specifying the Zoom 57 options:
   - **Factor** scales the page display in integer steps such that **2** is the biggest, **6** is the actual size etc., *or*
   - **Percent** to define the scale for the page as percentages of its true size.
5. Select a **Zoom** option from the drop-down list. You may choose a page 49 option:
   Whole page, **Page width**, **Printed width**, **Printed region**
   or a specific scale 50 option:
   In 'Factor' mode: **2**, **4**, **6**, **8**, **12**, **18**, **24**.
   In 'Percent' mode: **25**, **33**, **50**, **75**, **100**, **300**.
   - To *add* a customized 'Zoom' option to the list, type in a new percentage or scale factor then click **New**.
   - To *remove* a 'Zoom' option from the list, select it then click **Delete**.
6. Choose the **Rotation** to be applied to the pages before viewing or conversion. The angles are measured counter-clockwise:
   - **0°** No rotation
   - **90°** Rotate a quarter turn to the left.
   - **180°** Turn page up-side-down.
   - **270°** Equates to rotating the page a quarter turn to the right.
7. If using an HP-GL plotter, tick the **Override HP GL rotation** box if you need to swap the drawing direction.
8. Blank pages and pages containing only "space" characters are normally suppressed, but to show blank pages (to facilitate page counting for example) select **Show blank pages**. (This feature can also be configured from the Printing 109 page.)

9. To specify the unit to be used for showing the mouse coordinates and other measurements choose one of the **Dimensions** options:
   - **Cm** (**Ctrl** + **1** keys) *or*
   - **Inches** (**Ctrl** + **2** keys) *or*
   - **1/300"** (**Ctrl** + **3** keys) *or*
   - **1/600"** (**Ctrl** + **6** keys) *or*
   - **1/720"** (decipoints) *or*
   - a custom unit: enter a number 410 in the edit-box **/600"** to define your own unit. For example, entering `3.0` sets up the fraction 3/600 i.e. a unit of 1/200 of an inch. The number remains set up in the edit-box even when one of the other 'Dimensions' options is selected; it may be changed simply by entering a different value in the edit-box.
     This user-defined unit has an additional feature: when it is in use, sweeping out a rectangle also shows the *diagonal* distance swept-out in the status-bar 55.

10. To shift the contents of the page (measured in the units selected above):
    - Enter the distance **Right** to shift the page horizontally. Enter a negative distance to shift the page to the left.
    - Enter the distance **Down** to shift the page vertically. Negative distances shift the page upwards.

11. Define the limits of **Page extent** from the options in the drop-down list:
    - **Printable area** The area available for printing on a standard HP printer i.e. leaving an unprintable border, 1/6" wide, on all four edges of the paper.
    - **Paper size** The full size of the specified paper 432.
    - **Unlimited** Not restricted by size of paper.
12. To configure the way that the unprintable border is shown (many printers do not print "edge-to-edge"): select one of these options from the **Unprintable area** drop-down box:
    - **Crop** Does not show anything that falls outside the printable area.
    - **Outline the valid region** Shows the limits of the printable area using a dotted rectangle. Items falling outside the printable area are also shown.
    - **Outline if not blank** Shows the dotted rectangle only if the unprintable area is not blank.

13. Click **Save**.
    If you have a file open, you will be prompted to reload it. The full re-configuration will be used the next time that EscapeE is opened.

◆ Tip: to change the view just for the current session, for example to change the unit of measurement, click **OK** instead of 'Save' (then click **Yes** if prompted to reload an open file). See also Viewing page information 55.

Links
Changing the scale of view 50
Optimizing the configuration 59
Viewing data fields and tags 52

Optimizing the configuration

Documents often contain information which is not relevant to the job in hand but take time, memory and window/page area to display or print. *EscapeE* can streamline document viewing and export by excluding 59 specific types of information which you set up in the General 124 page of the Configuration dialog. This is, of course, likely to change the appearance of the document as shown on-screen and in the output file.

The order in which colored or shaded 135 areas are added to the page can be an issue when viewing and printing some documents. This is particularly problematical when shading has been converted to gray-scale. EscapeE overcomes these difficulties by means of Ignore 59 and Keep original element order 168 options.

Setting the 'Ignore' options

- Select **Configuration...** from the 'Options' menu (or press **f8**) to open the 'General' page of the 'Configuration options' dialog.
  In the **Ignore** panel:
  - **Images** When this option is selected, any images found in the input document are not displayed on-screen. (In the case of PDF 177 files, the images are skipped by the import module, further improving performance.) If the file is exported, no images are included in the output file. This speeds file processing and, if images are overlaid on the text, may make it easier to read.
    - Vector graphics are *not* ignored; see also To view graphic and line details 55.
    - Ticking ***Images*** may make big savings in file-sizes but also affects the view of the file significantly – the caption is italicized to draw attention to its selection!
  - **Null clips** A "null clip" is a clip region of zero width, typically used to contain information which the User is not meant to see.
    - When some scanners create PDFs they put OCR 446 text in the file as null clips. You may view this OCR text by ticking the 'Null clips' *and* 'Images' Ignore options (though it may not be rendered in the ideal font).
  - **Shading** If you can tolerate the absence of shading, selecting this option results in smaller file sizes on export (shading does not compress well). See also To view graphic and line details 55.
  - **White areas** If the first item(s) on the page are filled white path(s), these are always ignored as they are likely to have been used to aid the laying-out of the page rather than as "content". Ticking the 'White areas' option, however, removes all entirely white characters, lines, filled paths, rectangles and images from the screen view and the output, wherever they occur in the document. This usually reduces the size of the output file and ensures that 'hidden' features do not interfere with the rendering of the document.
  - It is usually best to configure EscapeE with the specialist **Kyocera !R!** option *deselected*. If, however, the data for printing actually contains the string "!R!", you may treat the characters simply as text by selecting this option. See also Kyocera Prescribe 378.
  - Selecting **PJL commands** suppresses the action of any PJL commands present in the original document on-screen and prevents their export. New PJL commands constructed from them by EscapeE, however, may be included in the exported file: see Preamble and PJL options 170.

Part IV

Console notebook

Console notebook

The Console notebook brings together technical information about the document on view and provides a work-space for coding IDF files.

- Click the Information icon on the Tool-bar.

This displays a window – titled with the full-path of the file on view – containing the Console notebook with a number of tabbed pages:

- Document Properties 62 Information about the document's size, format, graphic content etc.
- Error messages 62 How to view error messages and problem warnings.
- Logged messages 63 About viewing the logged messages; how to set up the information to be shown in the log window.
- PJL Comments 64 About viewing Printer Job Language comments in the document.
- Source code 65 View and search a PCL or IDF document's source text; modifying an IDF document's control file.
- IDF coding 68 An IDF tab appears when an Intelligent Document Format control file is being created/edited. If you have more than one IDF open, extra tabbed pages are provided and numbered.

◆ Tip: The Console notebook may be re-sized by dragging the window's border(s).

Links
IDF documents 266

Document Properties

- Select **Document properties...** from the 'View' menu *or* click the Console notebook button on the Tool-bar

The **Properties** page of the Notebook 61 shows the type of document – PCL, PDF etc. – and the file's size and update date. For some formats such as PDF or TIFF it will include information such as document creator (if present), for example:

```
COMMENT Creator: EscapeE Document Processor version 10.42E
```

It also includes the count of graphics, text strings and drawn paths on the current page. When a file is opened from the command-line 368, the options, file and path entered are also shown.

Error messages

The **Errors** page of the Console notebook 61 documents any errors, font problems and warnings.

When a potential problem is detected, the Errors page is displayed and warning buttons are placed on the Tool-bar. A red warning button indicates a problem such as a missing font 376 or unknown 379 PCL command; an amber button warns of a less serious error such as printing going beyond the page bounds 376.

- Click a warning triangle button to display the **Errors** page of the Console notebook.

If the problem is one that you can ignore, *uncheck* the **Show** check-box to hide the Errors display for your current session. Clicking a warning button re-displays the Errors page.

Tips

◇ If you are Running EscapeE 43 in a narrow window, pick up the side edge of the Tools panel and drag it down and across the Tool-bar so that it fits below the Menu panel. This will ensure that the buttons will be kept in view.

◇ When paging through a long document, move the Console notebook to the bottom right-hand corner of the window. Drag its borders to resize it to fit the unused space: the Console remains in view but does not obscure the view of the page.

The following topics give more detail on specific errors:

Printing beyond page bounds 376
Missing fonts 376
Ignored fonts or images 377
Poor text appearance 377
Unsupported download font format 377
HP-GL 377
PJL 378
PRESCRIBE 378
Unsupported printer language 378
PDF output file not created 379
Unknown/Ignored command 379

See also

Handling fonts, 33 Field problems, 215 Optimizing the configuration 59, Problem reporting 379

Technical notes

Errors found on the RT.INI file are logged in the `escapee.log`: see EscapeE configuration symbols 417.

A **#** character in the numeric part of a PCL command is ignored but a warning is given.

Logged messages

The **Log** page of the Console notebook 61 maintains a record of information requested by the user, such as print runs, graphics, text and field details and values.

- To display the Log select **Console Log Window** from the 'View' menu.

The information is added to the Log throughout the session, even if the file supplying the information is closed and another file opened. When an import module outputs messages to the Log page the amber warning button 62 is displayed.

The Log is cleared automatically on exit 43 from *EscapeE*.

- To clear the Log manually mid-session, *right*-click the Log window then select **Clear Log** from the editing and navigation pop-up menu. 63
- The Notebook window may be re-sized by dragging the window border(s). Scroll-bars are displayed when a page is too big to fit in the window.

Pop-up menu options

Copy (**Ctrl C**) selected text to the clipboard.
Select All (**Ctrl A**) selects all the text on the current page.
Save Log to prompt for a file name and save the whole log.
Clear Log to discard the contents of the log.
Hide the contents of the Log page.
Suppress Output to cause all output from the log to be suppressed until unchecked.

The log is paginated as it is often verbose, so the pop-up menu also contains navigation options:

Page Up (**Ctrl u**) **Go to Start of log**
Page Down (**Ctrl d**) **Go to End of log**

The **Abort** option to end the program is also a convenient method of terminating excessive output.

Fields information

There are two options from the **Fields** menu which add information to the Log page:

- **Show field values** field-name and value only, e.g.

```
Page 2
FIELD1:  non-TXT
FIELD2: 10
FIELD3: 2003/10/05
FIELD5: 03
FIELD6: 3
```

Tip: "not this page" is put against any fields where the search 205 criteria exclude the current page.

- **Show field details** field-name, field-value, Plugin 227 and some Actions, 209 e.g.

```
Fields:
   FIELD1 <none>:  non-TXT
F   FIELD2 <none>: 10
 O  FIELD3 <none>: 2003/10/05
  L FIELD5 <none> "{_Month}": 03
   FIELD6 tesseract: 3
F start a new file
O omit page
L write a log record
```

PJL Comments

The **PJL** page of the Console notebook 62 show Printer Job Language 447 Comments from the document. For example:

```
COMMENT Output written by RTPCLOUT version 7.85 at byte 140
COMMENT Creator: EscapeE PCL Converter version 10.15 at byte 199
```

These are normally the strings copied from Comments in the original PCL document's Preamble. Specialists may, however, construct Comments based on data-values found in the file's fields: see Setting the fields file options 214.

1. Click the Console notebook button on the Tool-bar *or* select **Document properties...** from the 'View' menu.
2. The Console notebook is displayed: select the **PJL** tab.

You may configure *EscapeE* to propagate PJL Comments through to a document on export to PCL 169, PostScript 186, PDF 175 and PDF/A 180 formats.

◆ Tip: You may remove unwanted PJL from the output by ticking **Do not use PJL commands**: see Preamble and PJL options 171.

Links
PCL document file export 167
Preamble and PJL options 170

Source code

- Click the Console notebook button on the Tool-bar and select the **Source** tab *or*

  select **Source...** from the 'View' menu *or*
  key-in **Ctrl S**.

The **Source** page of the Console notebook 61 displays a searchable listing of the source code for a PCL 65 or IDF 65 document shown in the EscapeE window – a boon for PCL specialists and IDF enthusiasts.

PCL tools

The Source files 447 for a PCL document are usually many pages long: options are provided so that only the information relevant to the task are shown.

1. Choose how much of the file you would like to be on **show**:
   - **This page** shows the current page only.
   - **Up to here** shows all the pages up to and including the current page.
   - **Whole file** shows all the pages in the file.
2. Check the information to be displayed from the **Options**:
   - **Omit graphics and character downloads**: the default, *or*
   - **Omit text and binary data**: to show just the commands, *or*
   - **Show all, including binary**: to show everything, including binary data such as graphics in hex.
     - Check **Show command usage statistics** as well to append a summary showing the number of times a command is used.
3. Aids to finding and copying source information may be accessed by *right*-clicking the code window to show the pop-up menu:
   - **Copy** (or press **Ctrl Ins**)
   - **Select all** (**Ctrl A**)
   - **Find** (**F3**) to display the Find dialog.
     You may search all of the code (the default) or just a selected (highlighted) segment of code for text 67 or by line number 67.
     Tip: clicking the **Top** button sets the current location of the cursor to the first character of the first line, deselecting any highlighted segment of code.

Modifying an IDF page layout

An existing IDF document may be modified using the 'Source' page's IDF tools 66 and also by using 'drag and drop':

1. Open 266 an existing IDF document in the *EscapeE* window.
2. Sweep out an area containing the item (or group of items) to be moved.
3. Hold down the **Ctrl** key, click-*down* and drag the item to its new position then *release* the mouse button (the item shown in red).
   Behind the scenes, EscapeE generates the control file needed to create the altered document.
4. Display 65 the **Source** page of the Console notebook to see the control file that generated the *original* document listed.
5. Click **Modified IDF**: the control file needed to generate the altered document is shown. This modified document may be saved with the original document's name or as a new document with a new name, see below 66.

IDF tools

An existing IDF file may be altered by editing the code shown in the Source page of the Console notebook. Existing source code may also be selected and copied to new IDF files.

You may select parts of the code by holding the mouse-button *down* while sweeping over the statements. In addition, there are some frequently-used short-cuts for finding and selecting statements:

- *Right*-click the Source code window to show the pop-up editing options:
  - **Select all** (*or* **Ctrl A**)
  - **Select current <FILE** (*or* **Ctrl F**)
    Use to highlight a file which is defined as a block of statements:
    <FILE> 282
    ...
    </FILE>
    (rather than as a single line **<FILE.../>** tag).
  - **Select current <PAGE** (*or* **Ctrl Enter** *or* **Ctrl J**)
    to highlight the block of statements
    <PAGE> 287
    ...
    </PAGE>
    for the page of the document on view in the EscapeE window.
  - **Select next page** (*or* **Ctrl Page down** *or* **Ctrl N**)
    to highlight the block of statements for the page that follows *after* the one on view.
  - **Find** (*or* **F3**)
    to display the 'Find' dialog.
    You may search all of the code (the default) or just a selected (highlighted) segment of code for text 67 or by line number 67.
    ◆Tip: clicking the **Top** button sets the current location of the cursor to the first character of the first line, deselecting any highlighted segment of code.
  - **Copy** (*or* press **Ctrl Ins**)
- **Modified IDF** displays the source code for the edited version of the document.
- **Original IDF** displays the source code for the original document, i.e. the existing saved document, before editing.
- Click **Save** to update the original file with the current modifications.
- Click **Save as...** to make a new IDF file.
- Click **Help** to display the Help file. If the mouse was last clicked in a tag 271, the Help file opens with the topic related to that element 271 on view.

See also Editing an IDF document 268.

◆Tip: clicking on an element tag in the window then clicking **Help** displays the Help topic for that element.

To find text

1. Display the 'Find' dialog: click the **Find...** button *or*
   choose **Find** from the *right*-click pop-up menu *or*
   press **F3** key.
2. Enter the string into the **Find** edit-box *or*,
   if you have made previous searches, choose one from the drop-down list.
3. These check-boxes may ticked to narrow the search:
   - **Case sensitive**
   - **Whole words only**
   - **Wildcards * and ?**
   - **Selected text only**
4. To replace the "found" string, enter the new replacement string in the **Replace with** box. *Clear* the box to delete the "found" string.
5. Click:
   - **Find** to highlight the first instance in the code window *or*
   - **Replace** *or* **Replace All**.
6. The 'Find' dialog closes to show the found string highlighted in the code window and a vestigial search panel added above the Source tools.
   - A warning note sounds and the dialog remains open when the string is *not* found.
     - Tip: hovering the mouse over the search panel shows a hint 51 containing the 'Find' string.
7. You may now choose to click:
   - **New Search** to display the 'Find' dialog again.
   - **Find next** to repeat the search.
   - **Replace** to change "found" string to the "new" string.
   - **& Next** to repeat the search and replace the string.
   - **All** to change all instances of the "found" string to the "new" string.

- Tip: you may undo "find and replace" action(s) by displaying the 'Find' dialog and clicking **Undo**.

To go to a line

1. Display the 'Find' dialog by clicking the **Find...** button *or*
   choosing **Find** from the *right*-click pop-up menu *or*
   pressing the **F3** key.
   The current location ('Line' and 'Column') of the cursor is shown above the edit box.
2. Enter the line-number into the **Find** edit-box *or*,
   if you have made previous searches, choose one from the drop-down list.
3. Click 'Go to' **Line** button.
   The code window adjusts its display to show the part of the code containing the specified line. The 'Find' dialog remains open.
   - To make it easy to return to this line again in future searches, you may annotate the line number:
     Click **Remember line** and enter a string into the 'Description' box, then click **OK**.

- Tip: **Ctrl G** may be used to call the Find Text 72 (Go to page...) dialog for selecting the appropriate block of IDF statements for a page instead.

Links
IDF coding 68
Editing an IDF document 268

IDF coding

An IDF page is added to the Console notebook 61 when an IDF control file is being created 267 or edited 268. Several IDF files may be worked on at the same time, so the page-tab's text includes a number, e.g. **IDF 1**, **IDF 2** etc.. 'IDF' appears on the EscapeE menu-bar whenever there are IDF page(s) open in the Console notebook.

- Select **New ▸ New IDF File** from the 'File' menu *or*
  Click **Ctrl I**.

When an IDF coding page is opened for a new IDF control file, *EscapeE* creates a vestigial file in it:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF ENCODING="UTF-8" UNITS="Inches" NAME="*" BOUNDS="PRINTABLE">
<PAGE>
</PAGE>
</IDF>
```

If there is an area selected on a document currently on view then it is put into the control file as a clip region 267. Further clips may be added from any document on view: simply open 44 the next document and select a clip, then click **IDF** on the menu-bar to display the Console notebook again. For details, see Creating an IDF document 267.

Code may be copied and pasted from other IDF pages in the Console notebook – see Editing an IDF document 268, or it may be entered directly from the keyboard – see IDF syntax 274 section. A number of special features are provided for commonly occurring tasks: see IDF editor options 270, pop-up menu 267 and IDF tools 68.

IDF tools

These tools are provided on the tool-bar (above the code window) of the **IDF** coding page of the Console notebook:

- **Save** to save the code to the current IDF file.
- **Save as...** to save the code as a new IDF file (see Editing an IDF document 268).
- **Options...** to see more IDF editor options 270.
- **New page** to start a new page at the cursor position (see also Creating an IDF document 267).
- **Find...** to display the Find dialog and search the code for a text string 67 or line number 67.
- **Close** to close the IDF file. If the code has been edited since the file was last saved, you will be prompted to choose whether to save it or not.
- To view the document generated by the code running in:
  - the current EscapeE window – click **Show** *or*
  - a separate EscapeE window – click **in new EscapeE**.
    (See also To edit an IDF document 268.)
- **Help** displays the Help file. Clicking on an element tag in the code *then* clicking 'Help' displays the topic related to that element.

See also Hot keys 269.

◆ Tip: clicking in the EscapeE window *outside* the Console notebook hides it. Clicking **IDF** on the EscapeE menu-bar re-displays that IDF coding page of the Console notebook again.

Links
IDF documents 266

Part V

Navigating around a document

Navigating around a document

This section details how to find your way around a document displayed in *EscapeE*, use bookmarks and make searches.

- How to display the next part/page of a document using the mouse and keyboard: see Scrolling the document 70.
- How to find and match text and search through pages and data fields: see Searching for text 71.
- How to find a particular numbered page: see Searching for a page 72.
- How to set up and find bookmarks: see Using bookmarks 73.

Scrolling the document

There are several ways of scrolling through the document:

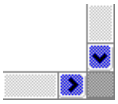
With the mouse

Click to move to the first page in the job.

Click to move to the previous page.

Click to move to the next page.

Click to move to the last page in the job. Note that this action can be stopped by clicking the Cancel button on the Tool-bar. (This button only appears while *EscapeE* is busy scrolling through to the end: you may not see it if the document is short.)


Click in the scroll bar to jump straight to the next part of the page or click the scroll buttons to step through the page incrementally.

On the keyboard

If you use the **PageDown** key on your keyboard, EscapeE brings the next piece of text into view. Thus, if you are viewing a whole page, it will show the next page, but, if you are viewing only part of a page, it will show the rest of the page until it reaches the bottom of the page. After this it will go on to the top of the next page. This is useful if you are using 'View Page Width' scale. Similarly, the **PageUp** key scrolls up.
If you use the **Arrow** keys on your keyboard, the page scrolls incrementally.
Pressing the **Ctrl** and **N** keys displays the next page (forwards); pressing **Ctrl B** displays the previous page (Backwards).

From the 'View' menu

Select **Next Page** to display the following page.
Select **Previous Page** to display the preceding page.

When the 'Fields' dialog is open

There are also buttons at the *foot* of the Field dialog 199 (**Ctrl D**):
Click the forward arrow to display the following page, click the backward arrow to display the previous page. These serve to page through the document without losing focus on the field definitions. Similarly, there are buttons to scroll the page to the left or right, up or down.

Searching for text

You may search the text and data fields in a document for specific strings:

1. Click the Find button on the Tool-bar 43 *or*
   choose **Find Text...** from the 'Edit' menu *or*
   hold down the **Ctrl** key and press the **F** key.
2. The 'Find text' dialog opens: type the text to be searched for into the **Text to find** edit-box.
   - If you have searched for the same string before in the current session, you will see it listed in the drop-down box: clicking on it enters the string into the edit-box.
3. Select **Match case** if you wish the search to match the case of the text exactly as you have typed it in. For example, if you type `Bank` and select 'Match case', the search will not find `bank` or `BANK`.
4. Select **Match whole words only** if you wish to ensure that sections of words are not found. For example, if you type `count` and leave this unselected, the search will locate `accountant` as well as `count`.
5. You may opt to search among specific data fields only: select
   - **Search defined fields only** *or*
   - **Search selected fields only**
     (See Defining fields and tags 200.)
6. You may choose to restrict the search to just part of the job: select
   - **Search single page only** i.e. the page currently on view *or*
   - **Stop at page number** and enter the number of the page at which the search task terminates.
7. Click **First** to find the first instance of the text in the document, no matter which page is currently on view.
   - If the text is found, EscapeE displays the page containing the string with a red box marking its first character and closes the dialog.
   - If the whole job is searched but the text cannot be found, the window displays the first page of the document and "String not found" appears briefly in the status bar 55.
8. To search for the next instance of the text, starting from the page on view:
   - press key **F3** *or*
   - select **Find next** from the *right*-click pop-up menu *or*
   - re-open 71 the 'Find text' dialog and click **Next**.
9. To continue searching from this point
   - for the same text again, repeat the step above. *Or*
   - open the 'Find text' dialog to enter a new **Text to Find** search string. Click **Next**.

   ◇ Tip: when no more instances of the text can be found, the last page of the task will be on view. To re-display the last instance of 'found' text instead, tick **Restore position if fail** check-box.

Notes

Pages "found" are listed in the drop-down box for the duration of the session so that you can return to them quickly. You may also annotate them as bookmarks which may be saved for the next session: see Using bookmarks 73.

The *EscapeE* text search is fast – the number of the page being searched changes so quickly that the current page number shown on the dialog may only be updated in increments of 50 pages! A red progress indicator on the status bar shows the current search position through the document.

Searching for a page

You may search the document for a specific numbered page and display it in the *EscapeE* window.

1. Choose **Go to Page...** from the 'Edit' menu *or*
   click on the page number/arrow 137 shown on the Tool-bar and select **Go to page...** *or*
   click the 'Find' button on the Tool-bar *or*
   press **Ctrl G** keys.
2. Type the page's number in the **Go to page/bookmark** edit-box.
   - If you only need to find one particular page, tick **Close after search** check-box. *Unchecked*, the dialog remains open for setting up further searches.
3. Press **Enter** (Return) key *or*
   click **Go to**.
4. The page is displayed in the EscapeE window and the its page-number is added to the drop-down list.
   - If you have *not* opted to 'Close after search', the 'Find Text' dialog remains open so that further searches for page numbers, bookmarks 73 or text 71 may be made.
     - When you're done, click **Cancel** *or*
       click to close the dialog.

Tip: if you have already searched for the page-number in the current session, you may return to it by selecting it from the drop-down list.

Note

EscapeE enables you to view and search the code which generated a PCL or IDF document as well as the document itself: see Source code 65.

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Scrolling the document 70
Searching for text 71
Using bookmarks 73

Using bookmarks

To assign a bookmark

1. Display the page you wish to bookmark and choose **Set Bookmark...** from the 'Edit' menu, *or*
   click on the page number/arrow 137 shown on the Tool-bar and select **Set Bookmark...**.
2. The 'New Bookmark' dialog opens, showing the number of the page on view in its edit-box. Type in the new **Bookmark name**.
   The name is added to the drop-down list for the current session.
3. If you wish to retain the Bookmark names for the next session, tick **Remember Bookmarks**. (These will be saved in the current field definitions file.)
4. Click **OK**.

To find a bookmark

1. Select **Find Text...** *or* **Go to Page...** from the 'Edit' menu. *Or*
   click the 'Find' button on the Tool-bar.
2. Scroll down the **Go to page/bookmark** drop-down list and select a bookmark.
3. The selected page is displayed in the *EscapeE* window.
   The dialog remains open so you may select other bookmarks or page numbers 72 to view or enter text 71 to find.
4. To close the dialog, click its **Cancel** *or* 'Exit' buttons.

Links
Searching for text 71
Searching for a page 72
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Part VI

Font set-up

Font set-up

This section covers font issues from installation, configuration and substitution to technical details of PCL syntax and font attributes.

- How to install soft fonts and font packs and download fonts; how to add/remove fonts from the library: see Installing fonts 76.
- How to install Windows OpenType fonts (.OTF and .TTF files) and change typeface: see Installing TrueType and OpenType fonts 77.
- How to change the Resident font library folder, Macro library folder and FDL library: see Changing font and image libraries 79.
- How to change the default font: see Configuring the default font 80.
- Setting up the source symbol set and how to output in a different symbol set: see About symbol sets 81.
- About character codes and using *EEfonts* 449 to set up a database of characters for exporting to plain text: see Character codes 82.
- How to assign character codes to unrecognized or wrongly coded selected characters: see Assigning character codes 82.
- How to view the attributes, identification numbers and substitutes for fonts: see Font tables 83.
- About 'font selection sequences' used to specify fonts for a printer: see PCL font selection sequences 86.
- About the use of typeface, weight, style and size characteristics of a document's fonts as search-tags for data-fields; see Using font attributes as tags 87.
- Description of how fonts may be substituted: see Substitute fonts 89.
  - Setting up a Font Substitute file 90.
  - Selecting Substitute fonts 92.
  - Syntax of a font substitute file 93.
  - Wildcards in font substitution 94.

Installing fonts

To print a document containing text (not just images of text), the printer must have access to the font file of every font used in it. These font files may be OpenType fonts 77 provided by Windows, individual fonts or font packs 76 from RedTitan 33 or downloaded with the document for installation in the Resident Font Library 76.

To install soft fonts and font packs

1. Select **Install Soft Fonts...** or **Install Font Pack...** from the 'File' *or* 'Fonts' menus.
2. Click **Browse** to locate the folder where the fonts are stored. A table 83 of 'Likely font files' (such as .RFF) or 'Font packs' (.FIF) are shown.
3. Click to select a font *or*
   sweep out to select a range of fonts *or*
   use **Select All** from the (*right*-click) pop-up menu.
   - To view the characteristics of a font, select it and click **Details**.
4. Click **Add**.

To install download fonts in the Resident Font Library

1. Open 44 the file containing the fonts in PCL download format. (See note 78 if adding download OpenType fonts.)
2. Select **Save downloaded fonts in the library** from the 'File' menu.
   - If there are no down-loadable fonts in the file, an information dialog with the message "No fonts saved" will be displayed: just click **OK** to end the installation process.
3. If a download font matches one that has been installed in the Resident font library already, a dialog will ask you to confirm that it is OK to overwrite it.
   - Click **Yes** *or*
   - **No**; this displays your regular 'Save As' dialog. Enter a File name e.g. `DF1.rff` then click **Save**.

   This step is repeated for each download font where an identical font is already installed.
   The **Same reply to all similar questions** check-box is provided to save time for those jobs containing many fonts which may be treated alike.
4. The 'Installing fonts' dialog will ask you whether to install all the fonts.
   - Click **Yes**: the ID is used as the stem of the file name. *Or*
   - **No** to display the 'Save As' dialog. Enter a File name then click **Save**.
5. The Fonts table 83 is shown: click **OK** close it.

To add fonts to font library

1. Select **Library folders...** from the 'Options' menu.
2. Click **Browse** to locate the folder where the fonts are stored.
3. Click **Show Fonts**.

4. Click to select a font *or*
   sweep out to select a range of fonts *or*
   click **Select All** from the right-click pop-up menu.
   - To view the characteristics of a font, select it and click **Details**.
5. Click **Add**.
   The selected RFF or HP soft fonts are added to the list of 'Resident fonts' in the RESIDENT.FIF file.

◆ Tip: click the **Remove** button to safely remove fonts from a list 85 without deleting them from your system.

Links
Viewing font information 53
Font tables 83
Changing font and image libraries 79
Setting up a Font Substitute file 90

Installing TrueType and OpenType fonts

OpenType fonts may be in 'Compact Font' format .OTF 446 or 'TrueType' format .TTF 448 (though they are all often referred to as TrueType fonts). They will be installed under Windows 448 only when needed and so to be available for future use, they must not be deleted.
There are two methods of installing TTF and OTF fonts:

From Windows

Installs any of the available Windows OpenType fonts under *EscapeE*.

1. Select **Install TrueType Fonts... ▸ From Windows** on the 'Fonts' menu.
2. Select a **Font** family from the list of names.
3. Select a font **Style** from the list.
4. Select/enter a point **Size** for the font: you will see a sample of text in the chosen font in the panel below. Note that the selected point size merely affects the size of the sample – the font will be scalable to any size.
5. If you would like to show a different piece of **Sample Text** in the font, choose one from the drop-down list.
6. You may try choosing different font family, style and/or size attributes until you find the font you require.
7. With the font that you would like to install selected, click **Add**.
8. If there is no default typeface (in the PCLT table) in the TrueType file, the typeface dialog will be displayed; enter the typeface number then click **OK**.
9. Repeat selection of family, style and size attributes steps for each font you would like to Add.
10. Click **Finished**.
    The Resident font details are displayed for you to see.

From File

To install OpenType fonts from TTF and OTF files not currently installed as Windows fonts.

1. Select **Install TrueType Fonts ▸ From File...** on the 'Fonts' menu.
2. You may need to click **Browse** to locate the folder where the fonts are stored before the appropriate font-table of 'Likely font files' (extension .TTF or .OTF) is shown.
3. Click to select a font *or*
   sweep out to select a range of fonts *or*
   choose **Select All** from the right-click pop-up menu.
4. To view the font characteristics, select a font and click **Details** from the menu-bar.
5. Click **Add**.
   ◇ Tip: you may click **Remove** to safely remove fonts from the list without deleting the files.

Adding downloaded TrueType and OpenType fonts to the Resident Font Library

Note that while downloaded OpenType TTF and OTF fonts can be added to the Resident Font Library, it is not usually appropriate.

This is because the TTF and OTF fonts downloaded with a document usually contain only those characters needed to output that document. Consequently a font downloaded from one document cannot be relied upon to provide all of the characters required for a different document.

1. Open the Font table for downloaded fonts by selecting **Downloaded Fonts** from the 'Fonts' menu.
2. Highlight the (first) font to be added.
   - To add a block of fonts, hold down the **Shift** key and click the last font in the block: this highlights all the fonts in the block.
3. Click **Add**.

Changing the typeface

In order to match the typeface that was requested in the PCL file, any OpenType fonts that you install must be assigned an appropriate typeface. You may change the typeface for any resident fonts by displaying the resident fonts 53, selecting them then:

- *right* clicking and choosing **Change typeface** from the pop-up menu: see Font tables 85.

Links
Font tables 83

Changing font and image libraries

Libraries for fonts, images etc. are set up in the 'Font Library Search List' dialog:

- Select **Library folders...** from the 'Options' menu.

Resident font library

- Enter a new path in the **Resident font library** edit-box, *or* click **Browse...** to select a new path.
  Example `C:\REDTITAN\PCLFONTS\HP4\`

The Resident font library folder stores:

- Any bitmapped fonts added to the library; these are converted to RedTitan Format Fonts (RFFs 447).
- A default font substitution 89 file `DEFAULT.SUB`.
- The `RESIDENT.FIF` file, containing the list of the resident fonts.
  To change to a different file name:
  1. Enter a **File name** in the edit-box.
  2. Tick the **Enable** check-box to use the named file *or* *deselect* the check-box to retain the 'File name' but disable its current use.

Resident macro library

The Resident macro library folder stores any saved macros 100.

- Enter a new path in the **Resident macro library** edit-box, *or* click **Browse...** to select a new path.
  Example `C:\REDTITAN\FONTS\MACROS`

Character recognition database

The Character recognition database folder specifies the location of a RedTitan database (see Character codes 82).

- Enter the new file and path in the **Character recognition database** edit-box, *or*
- Click **Setup** to run *EEfonts* and add a new font to the database.

The default file name `TTlib.rtk` is used if the file name is omitted, e.g.
`C:\REDTITAN\EEFONTS\TTlib.rtk`

Current FDL library

The **Current FDL library** box lists the folders which RedTitan *Page Designer* 449 scans to find the resources it needs to produce its FDL forms 118. On export 150 to FDL, a 'Download font folder' and a 'Download graphic folder' are specifically created for storing fonts and graphic images. To reset these folders:

- Enter a new path in the **Download font folder** edit-box, *or* click **Browse...** to select a new path.
  Example `C:\REDTITAN\FONTS\PCLDLOAD`
- Enter a new path in the **Download graphic folder** edit-box, *or* click **Browse...** to select a new path.
  Example `C:\REDTITAN\FONTS\IMAGES`

and ensure that they are located in the 'Current FDL library' search list.

Tip: click **Show Fonts** to view the Resident fonts 53 table.

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Handling fonts 33
Viewing font information 53
Installing fonts 76

Configuring the default font

To set up the default font

1. Select **Configuration...** from the Options menu (or press **f8**) then select the **Printer** tab.
2. Click the button (beside the 'Font select' edit box).
3. Select the font **Family** from the drop-down list.
   - If you need a bolder font but there is none available in your chosen font family, EscapeE can simulate a bolder font by thickening the pen strokes: tick **Bold**.
4. Enter, or use the spin-arrows to select, a **Point size** from the panel.
5. Click **Accept**, then **OK** to close the Configuration dialog.

Alternatively, specialists may set up an appropriate font selection sequence 86 for the default font on the command line using /SELECT 390.

About symbol sets

If you wish to extract readable text from a PCL file, it is essential that symbol sets are specified correctly. *EscapeE* interprets the characters in the original document using the symbol set defined on the General 124 page of the Configuration dialog. Note that changing the 'Source Type' will set up this symbol set automatically:

Source Type	Typical symbolset
Windows driver	HP3 – the character codes are adjusted by 3 so that a "D" in the file is translated to "A", etc.
RedTitan DDF (PrePrinter)	none – no translation is required.
RedTitan Datastream Converter	9700
Other	Custom PCL output usually requires no translation but a few drivers require symbol set HP-1(adds 1 to each code).

There are some printers which make the task of specifying the correct symbol set more onerous by creating their own ad hoc character codes. To resolve these issues, the RedTitan *EEfonts* program enables you to set up a custom character recognition database from EscapeE, see Character codes 82.

To change the symbolset

1. Choose **Configuration...** from the Options menu.
   The multi-page Configuration dialog opens with the **General** page on view.
2. Select a 'Source Type' from the drop-down list (see above 81).
3. Select/enter a suitable 'Symbol set' from the editable drop-down list.
4. Click **OK**; you will be prompted to reload the file.

When EscapeE extracts and outputs text, it can be set up to use a different symbolset. You may choose to use the standard Windows character codes (19U), Unicode, or leave it **Unchanged**.

To output text using a different symbolset

1. Choose **Configuration...** from the Options menu.
   The multi-page Configuration dialog opens with the **General** page on view.
2. Click **Text options...**.
3. Choose a suitable Symbol set.
4. Click **OK**; you will be prompted to reload the file.

Tip: You may change parameters on other pages of the Configuration dialog without closing the dialog. Just click **Apply** before you switch to another page, otherwise your changes on the Configuration page will be ignored.

Notes

Changing the symbol set may affect any data-fields and tags set up previously. See Field Problems 215.

EscapeE may be set to recognize the symbolset automatically by selecting **<Auto>** from the 'symbol set' list. This feature may be requested on the command line using the option **/SYMSET *** 409

Character codes

Character codes do not always map directly to a standard symbol set 81 and so plain text extracted from a document may not match the characters in the original document.
Sometimes this is because the font has been downloaded by the type of printer driver that generates arbitrary character codes. In this case, use the RedTitan *EEfonts* program to set up a character recognition database so that *EscapeE* can do the text conversion.

- Select **Set up database for character recognition** from the EscapeE 'Fonts' menu.

See also Code tables.
If there are just a few errant characters extracted from a document, it may be because the original document used some non-standard character codes that EscapeE has not recognized. In this situation you can assign appropriate character codes directly: see Assigning character codes 82.

Links
About symbol sets 81
Assigning character codes 82
TXT export options 193

Assigning character codes

The RedTitan *EEfonts* program is normally used to set up a character recognition database when an entire font is not recognized. When you just need to recode a few characters, however, you may do this directly in the *EscapeE* window:

1. Open 44 the original document and *right*-click on the first character to be assigned a new code.
2. Select **Character recognition...** (if all characters in the document *are* recognized this option is grayed-out).
3. You may enter a **Name for this font in the database** to be used for identifying converted codes in the database as belonging to a particular font then click **OK**. *Or* click **Ignore**.

4. The 'Character mapping' dialog opens, showing the code currently assigned as a hexadecimal number. (The name, **ID** number and **TTlib** number for the **Font** are also given.)
   - Type the new hex code to be assigned to the character in the left-hand **Translated code** box. The new character will be shown in the right-hand 'Translated code' box.
   - Click **Next Unknown** if there are unrecognized characters on the page: the dialog shows the current code of the *next unrecognized character* on the page. Type in the new code then press **Enter**.
     - Repeat until the dialog reports that there are "No more on the page".
   - Click **Next** if there are characters with codes to be reassigned on the page. The dialog shows the current code of the *next character* on the page.
     - If the code for this character is wrong, type in the new code then press **Enter**. Click **Next** to step on to the next character on the page.
     - If the code for this character is correct, click **Next** to step on to the next character on the page.

     Repeat as appropriate until all characters on the page are coded correctly.
5. When you have finished assigning characters you may
   - click **OK** to close the dialog and accept all the assignments made while it was open *or*
   - click **Cancel** to close the dialog; any assignments made while it was open will be ignored.

A new character code must be assigned to one instance of each unrecognized character in each font used by any text that you would like to extract.
Suppose, for example, that you to need change a dollar sign to a euro sign in an invoice. If the 'prices' were listed using 10pt Courier but 'totals' in 14pt Arial bold, a dollar character must be assigned in both fonts to extract 'prices' and 'totals' data in plain text.

Font tables

Comprehensive lists of fonts and information about them may be viewed. The fonts may be shown all together in one table or split into separate several tables, grouped into categories83.

To open a table

- Select **Fonts in use**, **Downloaded Fonts**, **Resident fonts** or **Substitute fonts** from the 'Fonts' menu.

Once a table is open you may switch to viewing other font tables by choosing from the drop-down list of categories. Each row in these tables contains the details84 of one font:

Resident fonts
Fonts in use
Downloaded fonts
Current font substitutes
Default font substitutes

These table categories show lists of filenames:

Likely font files
Font packs
All files

Select a filename then click **Details** to fill in that font's details84.

Font details

Name e.g. `Courier New`, `Arial`, `EETMP5614225.TTF`. When a TrueType font is downloaded, this field will be set to the TrueType font file name (maximum name length of 63 characters).

Symbol**S**et e.g. `19U`: see About symbol sets 81.

Size e.g. `12cpi` for a fixed-pitch bitmap font, `10pt` for a proportional bitmap font or `scaleable` for TrueType and OpenType 446® fonts.

Spacing e.g. `Proportional`.

Weight e.g. `bold`.

Style e.g. `italic`.

Type**face** e.g. `3`: see Using font attributes as tags 88.

ID e.g. `2`. When present in your input file, these identification numbers are allocated to downloaded fonts by some documents so that the font can be identified using a single unique number rather than by specifying all the font attributes.

Selection sequence e.g. `(s0p0s0b3T`: see Syntax of a font substitute file 93.

Substitution e.g. `9.5pt`.

PDF Substitute font e.g. `Helvetica-Oblique`. A double quote `"` indicates that it is the same as the screen font.

Screen font e.g. `Arial`.

Conversion symbolset e.g. `HP3`: see Syntax of a font substitute file 93.

Comments e.g. `EETMP5614225.TTF font Verdana Regular`.
An `*` denotes that it is a Substitute font 89; you can change the substitute font by clicking **Substitute**. Note that the Portable Document Format has its own preferences for font-matching, e.g. PDF uses 'Helvetica' in place of 'Arial'.
When an oblique (rather than italic) font style is used, the angle of slant applied is given.

e.g. `26`. The number of elements currently using this font on the current and previous page (if any).

Header e.g. `21503179515`.

Start e.g. `0`.

End e.g. `-1`.

Note that the 'Default font substitutes' and 'Current font substitutes' font tables show attributes that match the original font in green and those that do not match in red, e.g.:

Weight	Style
regular	oblique

To edit font details

1. **Click** on any item in the list to select it.
   - Hold down the **Shift** key and **click** another item in the list to select a group of items.
   - To select all items, click **Select All** button *or* right-click and choose **Select all fonts**.
2. Selected items are highlighted on a light blue background: *right*-click to open the pop-up menu, then choose from these options:
   - **Show font details** when viewing 'Likely font files', 'Font packs' and 'All files' tables: see Viewing font information 53.
   - **Add to resident library**: see also Installing fonts 76.
   - **Remove from resident library** without deleting file from the system: see also Installing fonts 76.
   - **Change Style**: enter the new style value, e.g. `1` (Italic). See also see Using font attributes as tags 87.
   - **Change substitute font** to open 'Font substitutes' dialog: see Setting up a Font Substitute file 90.
   - **Change Symbolset**: enter the new symbolset ID, e.g. `10U` then click **Save font**. See also About symbolsets 81.
   - **Change typeface**: enter the new typeface number, e.g. `3` (Courier) then click **Save font**. See also Using font attributes as tags 88.
   - **Change weight**: enter the new weight number, e.g. `-3` (light) then click **Save font**. See also Using font attributes as tags 87.
   - **Save list** to open the 'Save As' dialog and copy the table text to a new file: enter a 'File name' for the new file e.g. `MyFonts.txt` then click **Save**.
   - **Show font sample:** any bitmap samples are shown by *EscapeE* but scalable fonts are sampled by the *FONTEDIT* 449 program if it is found in the EscapeE software folder (rather than by a font viewing program in your Windows system).
   - **Add font to character recognition database:** this is an option to enable experts to include fonts that they know to be sound in the TTLIB database – see *EEfonts*.
3. Highlighted font(s) in the Resident, Default font substitute, Current font substitute or Font pack lists can be deleted from the list (but not your system) by clicking the **Remove** button.

◆ Tip: To allow fonts to be substituted, tick **Enable substitutions** box; see also Setting General export options 124.

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Viewing font information 53
Installing fonts 76
Changing font and image libraries 79
Handling fonts 33

PCL font selection sequences

Printers use "font selection sequences" to set up their fonts. In *EscapeE*, Users select appropriate fonts from font tables 83 and dialogs 92 – the sequences are constructed automatically.

Technical notes

In the PCL language, a font is selected either by its characteristics 86 or, if it is a downloaded font, by a numeric ID 86 that was assigned when it was downloaded. Many documents, however, specify their fonts by name. RedTitan products (e.g. DDF 449, DSC 449) manage 'named' fonts using the alphanumeric ID command:

Escape &n#WFontstring

where *string* is the name and # is the byte count of **Fontstring**. For example

Esc &n9WFontArial

This is particularly useful when a document uses library fonts *only*, see PCL export options 168. Using this mechanism, EscapeE can uniquely identify matching fonts in its library, independent of the printer (printers ignore the command).

Where standard character names occur in AFP input, Unicode values are assigned automatically.

Selection by ID

The command is

Escape (<id>X

where **<id>** is a number in the range 0 to 32767.

Selection by characteristics

The command is of the form

Escape (s<prop>**p**<pointsize>**v**<pitch>**h**<style>**s**<weight>**b**<typeface>**T**

where:

<prop> is 1 if proportional, 0 if fixed pitch;

<pointsize> can have up to two decimal places and specifies the height in points;

<pitch> can have up to two decimal places and specifies the pitch in characters per inch (CPI);

<style> integers, e.g. is 1 for italic, where 0 is a regular upright style: see list 87;

<weight> is in the range -7 to +7, where 0 = normal: see list 87;

<typeface> is the name of any RFF 76 or TrueType 77 font currently installed or your system *or*
a 12-bit value with a manufacturer code in the higher bits. For example, Courier would be '3'; when the code for Compugraphic (the supplier of the resident fonts on an HP printer) is added, the resulting code would be 4099. See list 88.

It is not compulsory to specify all the above characteristics, in which case the sequence should be terminated on an UPPER CASE letter. The sequence is shown in the font list 83, with any unmatched characteristics shown in red. For example:

(s0p0s0b3T

The sequences above are described in terms of the primary font, and the secondary font uses similar syntax – but with right bracket instead of left bracket e.g.

Escape)10U

The 'shift out' (hex 0E) character then selects the secondary font, and 'shift in' (hex 0F) the primary.

Links
Fonts used by EscapeE 430

Using font attributes as tags

You may set up search tags 206 so that data-fields may be recognized by particular characteristics of a font, see Characteristic matching 87, below. For example, you might locate a field for a "product number" by searching for tag text with a barcode symbolset, or a "cost" field which is in a bold font.
Specialists will recognize these characteristics as PCL-style font attributes.

Characteristic matching

PCL fonts are selected by matching the requested characteristic with the same characteristic in the available fonts. Characteristics are selected using the order below:

1. Symbol set 87.
2. Spacing: 0 = fixed, 1 = proportional
3. Pitch: size in 'characters per inch'.
4. Height: size in 'points' (1/72 inch).
5. Style 87.
6. Stroke weight 87.
7. Typeface 88.

For more information please see https://www.pclviewer.com/resources/font_selection.html.

Symbol set

For example:

0E	Roman Extension code page 1050
0Y	3 of 9 barcode
4U	Roman-9
8M	Math-8
10U	PC-8 code page 437
12N	Latin/Greek code page 28597
14G	PC-8 Greek Alternate code page 437-G

Style

0	upright (normal)	**2**	oblique (slanted).
1	italic	**5**	compressed italic
4	condensed	**24**	expanded
32	outline	**64**	inline
128	shadowed	**160**	outline shadowed

Weight

0	standard (normal)		
3	bold	**-3**	light
7	maximum (black)	**-7**	minimum

Typeface

0	Lineprinter
3	Courier 4099
4	Helvetica 24580
5	Times 4101
52	Univers 4148

Links
Commonly used fonts 431

Substitute fonts

Setting up your own 'substitute' fonts to replace those supplied in the original document is normally a job for experts, but you may avoid much of the technical detail using an *EscapeE* ".SUB" Font Substitute file.

- Matching font attributes to set up a Font Substitute file; renaming substitute fonts: see Setting up a Font Substitute file 90.
- Choosing the substitute fonts for viewing on-screen and printing in PDF and PS formats: see Selecting substitute fonts 92.
- Syntax of a font substitute file 93 describes .SUB files and their keywords.
- About Wildcards in font substitution 94 with examples of /SUBST and /SUBSTDEF options.

Using the original PCL fonts in a PDF, for example, may not be desirable since incorporating the font in the PDF may make it quite large, particularly in the case of bitmap fonts. You may use standard Adobe 448 fonts or any of your Windows 448 fonts for substitution, but note that Windows fonts will only work on systems that also have these fonts. These substitutions will be used when exporting to Postscript or PCL 89 as well as PDF.

PCL note

When a PCL file is opened, EscapeE searches for its substitution file using the following order of priority:

i. the file specified 445 by the /SUBST 408 option. If the SUBST symbol has not been set, then:

ii. a file with the same name as the input file but with extension .SUB. If the .SUB file cannot be found:

iii. the file specified 445 by the SUBSTDEF symbol in the PCLVIEW section of the INI file. If this symbol has not been set, then

iv. a file called DEFAULT.SUB in the same folder as the input file is used.

For example, if the calling line was

```
escapee /SUBST *.sub /SUBSTDEF c:\escapee\default.sub
```

or the equivalent definitions had been configured previously then if a file `xxx.pcl` is opened, EscapeE will try for a file `xxx.sub` and if that does not exist, use file `c:\escapee\default.sub`. Note that if the path is omitted from either specification then EscapeE will look in the folder of the PCL file. Hence the command

```
escapee /SUBST default.sub /SUBSTDEF c:\escapee\default.sub
```

would look for a file called `default.sub` in the folder of the PCL file, and failing that revert to the one in folder `c:\escapee`.

More complex possibilities include partial wild cards e.g.

```
/SUBST ??def.sub
```

which would use the first two characters of the PCL file name to construct a font substitute file name, so a file `xxx.pcl` would use `xxdef.sub`

AFP note

If fonts are not included in an AFP datastream, you may set up substitute TrueType fonts to be used in place of any given original coded font name. Create a file named **afpsubstitutefonts.txt** in the same directory as the RT.INI 417 file using the syntax:

CodedFontName,SubstituteTruetypeName,size

where **size** is specified in units of **1/100** point.
Optionally, this may be followed by:
,B for Bold *or*
,I for Italic.
Comments must be preceded by a semicolon.
For example:

```
X1H210AC,Arial,1000
X1H2106C,Arial,600 ;6 point
X1H410BC,Arial,1100,B ;11 point bold
C0HE09I0.T1HEL500,Arial,900,I ;9 point Italic
```

Links
Viewing font information 53

Setting up a Font Substitute file

1. Open the 'Font substitutes' dialog by:
   - *Right*-clicking the mouse on the piece of text and selecting **Font Properties** from the pop-up menu; click **Substitute...**. *Or*
   - Select **Substitute Fonts...** from the Fonts menu. Select a font 85 from the list then click **Edit**. *Or*
   - If you have any other Font table 83 open already:
     - select a font then click **Substitute**, *or*
     - *right*-click a font then select **Change substitute font** from the pop-up menu 85.
2. Set up the **Match** criterion: tick the attribute(s) of the font(s) in the input document that identify which font(s) are to be substituted, see Select attributes 91
3. The current substitute **Screen font** along with its **Style** and **Weight** are shown in the 'Substitute' panel. To change these, click the arrow button: see Selecting substitute fonts 92.
   A sample of the chosen font is shown in the panel below: see Sample text 91.
4. If a substitute **PDF font** for printing PDF or PostScript output has been set up already, it's name is shown in the edit box.
   - To set up a new font or choose a different font, click the arrow button to display the 'Fonts' dialog: see Selecting substitute fonts 92.
     On closing the 'Fonts' dialog, the 'Font substitutes' dialog shows the name of the chosen font with a tick to indicate that it is selected.
   - You may assign a different name to the chosen font by editing the 'PDF font' box. This is the name that the document will use to call the font; it does not change the name of the source font shown in the Fonts 92 dialog and Font tables 83.

5. Choose whether to make the updates to:
   - a custom **Specific** Font Substitute file *or*
   - a **Default** Font Substitute file.
6. Click **OK** to save the setup to the **Current** Font Substitute file *or* click **Save as...** and set up a new .SUB file then click **Save**.

Select attributes

The 'Match' panel shows the attributes supplied for the selected font, e.g.

Attribute	Value
Typeface	16901
Name	Times New Roman
SymbolSet	19U
Size	16 point
Style	1
Weight	0

If you would like to set up a substitute for a *range* of fonts, deselect the check-box(es) of corresponding attribute(s). The **Number of matched fonts** shows how many of the fonts in the current document will be affected by the substitution. You may notice that this number increases as more of the fonts in the document conform to the criterion. For example, if just a `size` of `8 point` were specified, then the substitute font would be used for any 8-point font in the document.

Sample text

A window shows a sample of text in the selected 92 substitute screen font. You may change:

- the **Scale** at which the sample text is shown in the window: use the spin arrows to adjust the apparent size.
- the **Sample text** shown in the window: select a string from the drop-down list.
- If the characters shown in the sample text are not the same as those you have chosen to be displayed, you may have an inappropriate symbol set selected: try choosing another from the **Conversion** drop-down list.
  - It is sometimes necessary to change the 'Source Type' to set up the correct symbol set: try **Windows driver** or **other** from the General 124 page of the Configuration dialog (**F8**): see About symbol sets 81.

If you need further help, contact the RedTitan support team: help@redtitan.com.

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Font tables 83
Selecting substitute fonts 92
Syntax of a font substitute file 93

Selecting substitute fonts

The 'Fonts' dialog is used to choose font(s) for use in place of any font matching the criterion 91 set up in the Font Substitutes 90 dialog. You may set up the different fonts for printing 92 and on-screen 92 or the same 92 font.

To set up a substitute screen font

1. Click the 'Screen font' button on the Font substitutes 90 dialog to display the 'Fonts' dialog.
2. Choose **TrueType** to use outline fonts 447 installed in the Windows library or **Other**.
3. Select the **Font** family and **Style** for the new substitute screen font.
4. Enter/Select a point **Size**.
5. You can check the appearance of the selected font in the Sample window at the foot of the dialog.
   - to change the characters on view, choose from the drop-down list of **Sample text** strings.
6. Click **OK** to close the 'Fonts' dialog.
   The Font substitutes 90 dialog will show the name of the font with a tick to indicate that it is selected.

To set up PDF and PS substitute fonts

To set up the same substitute font for both screen and PDF/PS use, set up the substitute screen font 92 then tick **Same as screen font**. *Otherwise*:

1. Click the 'PDF font' button to display the 'Fonts' dialog.
2. Choose **TrueType** to use outline fonts 447 installed in the Windows library or **Acrobat Standard** to use the core PDF fonts, located elsewhere on your system.
3. Select the **Font** family and **Style** for the new substitute screen font.
4. Enter/Select a point **Size**.
5. Check the appearance of the selected font in the Sample window.
   - To change the characters on view, select from the drop-down list of **Sample text** strings.
6. Click **OK** to close the 'Fonts' dialog.
7. The selected font's name is entered into the **PDF font** box on the Font substitutes 90 dialog. For convenience, you may edit the name shown in this box without changing the actual font name selected in the 'Fonts' dialog.

PCL note

The **PCL** box allows characteristics to be specified which are *only* relevant to PCL. These are by given in the form of a PCL selection string 86 or part of a PCL selection string. For example, a symbol set such as `(8U` or a non-standard style or weight like `(s4B`. The selection sequence is used when trying to match against the *EscapeE* library fonts 79 (and is also used if exporting to PCL 167).

◆ Tip: if Fonts 92 dialog is displayed overlapping the Font substitute 90 dialog, you can drag the Fonts dialog away by its title-bar. You may then be able to view the Font substitutes sample window 91 at the same time, for ease of comparison.

Links
Syntax of a font substitute file 93

Syntax of a font substitute file

A Font Substitute file 90 (.SUB) consists of a number of sections, each section specifying the criteria for matching requested fonts to substitute fonts.

Each section starts with the keyword **RTFONTSUBST**. Any text following **RTFONTSUBST** on this line is treated as a comment.

This line is followed by a number of lines each consisting of a keyword 93 and a string. The string must be enclosed in quotes if it contains any spaces. You may use wildcard font names in this string, e.g. `*bold` would select all fonts with names ending in 'bold' and *new* in the font name would select all fonts with names such as 'Times New Roman', 'Courier New' etc.. See Wildcards in font substitution 94.

Keywords

MATCH 'fontname' where fontname may be wild-carded with `*` or `?` for matching against the name of a downloaded font.

SELECT 'sel' where `sel` is a selection sequence defining the characteristics to be matched. The syntax is as for the PCL font selection but with no escape character e.g. `(10U (s1p0s0B`. The `10U` in this example is the symbol set; for a description of the other parameters see PCL Font Selection Sequences 86.

NAME 'fontname' specified the substitute font name to be used in a PDF (or in PostScript output).

SUBST 'sel' specifies the selection sequence to be used for PCL output.

TTNAME 'fontname' specifies the TrueType font to be used on the screen.

CONV 'symbolset' specifies the symbol set 81 to be used for character code conversion when extracting text. This could be null (no conversion), **HP3** for a Windows driver or perhaps **EBCDIC** or **-29** in some cases.

HEAD 'MD5string' specifies the MD5 signature of the font

This is an example of a typical section in a font substitute file (labelled with the comment `Arial`):

```
RTFONTSUBST Arial
MATCH: 'Arial'
SELECT (s1p0s0B
SUBST (s16602T
NAME: 'Helvetica'
TTNAME: 'Arial'
```

Wildcards in font substitution

There are two command-line options which allow the name of a file containing font substitutions to be given: **/SUBST** 408 specifies the file to be used in the current run, whilst **/SUBSTDEF** 408 allows a default file to be specified for use when no /SUBST is given. These commands can contain wildcards; for example the command

```
ESCAPEE /SUBSTDEF *.sub
```

would look for files with the same stem as the data file but extension .sub and in the same directory as the data file.

Simple substitute lists can be set up from the Font Substitutes 90 dialog or from the 'Font tables' 83.

Example

A typical substitution file for use with Datastream Converter (which preserves the Xerox font names in the PCL file) might contain

```
RTFONTSUBST Kosmos
MATCH: 'RK1*'
NAME: 'Helvetica'
RTFONTSUBST Kosmos Bold
MATCH: 'RK2*'
NAME: 'Helvetica-Bold'
RTFONTSUBST Titan
MATCH: 'R??TI?'
NAME: 'Courier'
RTFONTSUBST Titan Bold
MATCH: 'R??TB?'
NAME: 'Courier-Bold'
```

The above file specifies that fonts with names beginning with **RK1** will be substituted by Helvetica in any PDF or PostScript output. Names such as **R01TIP**, **R10TIL** etc. will be substituted by Courier and **R01TBP**, **R10TBL** etc. will be substituted by Courier Bold. Substitutions are saved in a file with extension **.SUB**.

Instead of (or as well as) the **NAME** parameter, one can specify a selection sequence that must be matched e.g.

```
RTFONTSUBST
SELECT: esc '(19U' esc '(s0p3T' NAME: 'Courier'
```

Any fixed-pitch typeface 3 (Courier) font in 19U symbol set will be matched by this specification.

Comments (i.e. anything after **RTFONTSUBST** on the first line of a section) are optional.

N.B. the wildcard tests are applied sequentially, so the order may be important.

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Substitute fonts 89
Wildcards and filenames 136

Part VII

Save and copy

Save and copy

In addition to viewing and transforming files, *EscapeE* can generate new ancillary files, see topics below, and create composite documents using its **Copy & Add selection to IDF** feature, see IDF documents 266 section.

- How to create a fresh PCL file using parts of an original file: see Saving pages to a PCL file. 96
- How to change the layout of a page: see Rearranging page contents. 97
- How to save an image found on the page; how to copy all or part of the text on a page to clipboard: see Copying page contents. 98
- Specifying measurements for extracted text copied to clipboard: see Extracted text options. 99
- How to save macros and create new macros, to use macros from the command line: see Saving macros. 100
- How to generate XSL, CSS and HTM style sheets for XML data: see Creating XML stylesheets. 101

Saving pages to a PCL file

The **Save subset...** command may be used instead of the **Export...** command with the Format set to **Subset**; the options are the same in either case.

To save pages to a PCL file

1. From the File menu, choose
   - **Save Subset...** or
   - **Export...** then select **Subset** as the Format.
2. Set up the **Page number range** of the pages in the job which you want to export, see Selecting page ranges. 129
3. If **Do not overwrite files** is ticked, *EscapeE* adds a number to the new output file name if there is an existing file of the same name already present – see Overwriting files. 129
4. With Subset already set as the Format, a wild-carded 136 filename (with extension .PCL) and folder are supplied. To specify a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button.
5. Tick the **Force monochrome** check-box if required.
6. Tick **Run the associated program after creating the file** if you would like EscapeE to open the file immediately using your preferred program (EscapeE is the obvious program of choice). See also Associated programs 136.
7. Choose the **Fonts to be downloaded**:
   - **fonts from the input file**, or
   - **Any used library fonts** to include any library fonts required by the document.
8. Click **OK**.

Notes

You can adjust the font download options when saving/exporting a subset. Normally EscapeE assumes that all download fonts are needed and so 'fonts from the input file' is selected. You may wish to deselect this, for example, when you are in the middle of a print run and the fonts have already been downloaded to the printer. This will save download time.
If the file is shown in a rotated state, the rotation 48 is ignored when it is saved or exported as a Subset.

Tip: PCL files that have been repeatedly edited and updated often accumulate redundant code and unnecessary font downloads. By running such a PCL source file through HP 448 PCL Export 167 instead you can reprocess the file and produce tidy, efficient code again.

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Saving macros 100

Rearranging page contents

The layout of a page may be changed by sweeping-out 'clip-area' fields then using the mouse to drag-and-drop them to a new part of the page.

1. Define an area on the page containing the text, images, drawn paths etc. to be moved: hold the *left* mouse button down, drag out the area then release the mouse button.
2. The swept area is shown outlined in red. Hold down the **Ctrl** key and click *down* in the area: the outline changes to blue.

   Tip: you may rearrange the page contents without changing the original document by holding-down the **Shift** key as well as the **Ctrl** key.
3. Drag the area to its new position on the page and *release* the mouse button; any features recognized by *EscapeE* within the area are dragged along by the same distances.
4. Normally the area is defined as a field in the page on view *only*; to define the same area as fields in *every* page of the document instead:

   4.1. Open the 'Field' dialog and display the area's field definition 212.

   4.2. *Deselect* **This page only** option.

Notes

Behind the scenes, EscapeE uses the MoveText 227 plugin to relocate the clip-areas. If you have enabled the plugin then the new layout will be preserved; if it is disabled, the change will be temporary until the page is reloaded.

Tip: In addition to rearranging the areas on the current page, you may add areas copied from other pages – see Creating an IDF document 267.

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Copying page contents 98
Using plugins 227
Moving and sizing fields and tags 205
Composite document wizard 344

Copying page contents

You may copy an entire page as a single image, see Printing pages as images 105, or individual images found on a page, see below 98. You may copy all 98 of the text on a page, or just a part 98 of the text. The text is placed in the clipboard ready for pasting elsewhere; see also Extracted text options 99.

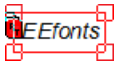
To save an image

An image on a page can be simply saved as a TIFF or PNG file:

1. *Right* click on the graphic and select **Save graphic** from the pop-up menu.
2. A standard file setup dialog opens, headed 'Graphic' along with the 'width x height' of the image in pixels. Enter a **File name** for the new image.
3. Choose **TIFF** *or* **PNG** as the image format.
4. Click **Save**.

To copy some of the text on a page

First you must select the piece of text to be copied: selected text is shown in a rectangular box with transparent sizing handles, for example



- Use the mouse to sweep over the piece of text for copying. Then:
  - Choose **Copy** from the pop-up menu *or*
  - Choose **Copy** from the 'Edit' menu.

Similarly, you may copy the whole page by choosing **Select all** from the 'Edit' menu instead of sweeping-out an area, but there are more efficient ways: see To copy all of the text on a page 98 below.

To copy all of the text on a page

When there is no text selected, all the text on the page may be copied to the clipboard, even if only part of the page is on view in the *EscapeE* window.

- Choose **Copy Page** from the 'Edit' menu *or*
- key-in **Ctrl Alt C** *or*
- *right* click on the page and choose **Copy Page** from the pop-up menu.

◆ Tip: to create a new document from parts selected from existing documents, try using the IDF 39 **Copy & Add selection to IDF** feature: see Creating an IDF document 267.

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Saving pages to a PCL file 96

Extracted text options

There are some specialist options which you may configure for text extracted and copied 98 to clipboard.

1. Select **Configuration...** from the Options menu *or*
   Press **F8**.
2. The Configuration dialog appears with the General page displayed: click **Text options...**.
3. In the 'Text extraction' section, you may choose to:
   - Define the inter-line spacing to be used when outputting the extracted text.
     Enter a number in the **Line height** box: units are set up on the 'Viewing' page – see Configuring the view 57. If the box is left blank then the vertical spacing is taken from the font of the text found in the original document.
   - Define the minimum vertical difference between the baselines of two words for them to be deemed on different lines.
     Enter a value in the **Minimum line height** box.
   - Define the top of the character cell as the vertical reference point rather than the baseline.
     Tick **Align using top of cell**. This may be advisable when the baseline reference changes mid-string, e.g. for superscript characters.
   - Define the minimum horizontal distance between two characters for it to be deemed a word break.
     Enter a value in the **Minimum space width** box. If the gap is more than this value then one or more spaces will be inserted in the extracted text. The default size is 33% of the 'Space width'.
   - To ignore downloaded space character's width and use the cell width instead, tick **Space width = cell width**.
   - To ignore downloaded character widths and use widths calculated to fit the raster instead, select **Calculate character widths**.
4. Click **OK**.

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Saving pages to a PCL file 98

Saving macros

EscapeE not only enables you to save 100 any macros 446 which have been downloaded with a PCL document, but also to create 100 new macros from a page of the document. These are placed directly into the Resident macros library, emulating a printer's filestore. Page(s) may also be exported 100 as .MCR or .PCL files to other locations.

Saving existing macros

To save any macros found in a file:

- select **Save downloaded macros in the library** from the 'File' menu.

Message(s) will be logged 63 will confirm that the macro has been created. EscapeE stores the macro in the Resident macro library as a file named **xxx.MCR** where **xxx** is the macro number 446 – no conventional output stream will be produced.

Creating macros

In most cases the best way to create a new macro is to export the page(s) to be saved in .PCL 167 format: see PCL export options 169. The resulting output will be completely rewritten in a style that uses mainly HPGL. For cases where the original PCL is straightforward and does not rely on previously downloaded fonts, palettes etc. there is another mechanism which merely copies the original PCL of the page with the appropriate start macro command at the beginning and an end macro command at the end. There are two ways to invoke this – *either*

- Select **Save page as macro...** from the 'File' menu. Enter a number 446 for the macro in the **File name** box then click **Save**.
  The Console window will confirm that the macro has been created, e.g.
  ```
  Saving page as macro 123
  Creating C:\REDTITAN\FONTS\MACROS\123.mcr
  1 page
  ```

Or, to save a single page as a .MCR 446 file:

1. Select **Export...** from the 'File' menu.
2. Select **As a macro** format.
3. Enter a **File name** and its path.
4. Enter a **Macro** identification number.
5. Click **Save**.

Notes

If you attempt to **Save page as macro** when the source file already contains a macro, you will be prompted to export 167 in PCL format and define the macro number in the PCL options 169 dialog.

The command line option /MACRO 384 exports the macro and sets the PCL 169 macro option to **Permanent**. E.g.

```
escapee test.prn /macro 123
```

A batch file may be used to create a PCL macro from a non-PCL file by specifying a subsequent /HP 384 option.

Technical notes

When the macro is opened in EscapeE, its identification number is shown on the Toolbar 32. It may be invoked in a command such as

```
{escape}&f123Y{escape}&f3X
```

To include it in the Resident macro library it would need to be copied to the appropriate folder with the name `123.mcr`.

This is the search order used for finding the folder in which Macros are stored:

1. A `/MACROS` 384 option on the command line or in the `[PCLVIEW]` 417 section of the RT.INI file.
2. The `RTPCLMACROS` 417 environment symbol in the `[REDTITAN]` 417 section.
3. A folder named MACROS in the 'library root folder'.
   The 'library root folder' is determined as follows:
   a. From the `RTLIBROOT` 417 symbol. If it does not exist, then
   b. if an "RTFDL" symbol specifying a folder with subfolder `\*` is found then that folder would be used. For example:
   `RTFDLLIB=D:\REDTITAN\PRINTERS';D:\REDTITAN\FONTS\*\`
   yields folder `D:\REDTITAN`.
   c. Failing that the folder given by `INSTALLROOTDIR` 417 with sub-folder MACROS is used.

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Export formats 118

Creating XML stylesheets

When *EscapeE* is used to Export data fields to XML 235, you may opt to output the stylesheets which organize the data as well.

- In the Export 235 dialog (**Ctrl E**, Format **XML data fields**), tick **Create XSL, CSS and HTM files** option. Three extra files are generated: for example, if the stem of the output filename is `OUTPUT`, then:
  - `OUTPUT.XSL` is an XSL stylesheet defining the fields;
  - `OUTPUT.CSS` is a cascading stylesheet defining the positions of the fields on the page, based on the top-left corner of the area being searched for the original field;
  - `OUTPUT.HTM` is an HTML file which ties these files together with the XML file and uses a navigation-bar supplied by `EENAVBAR.HTM`. Both of these HTML files are independent of the data and are copied from `EEDATA.HTM` and `EENAVBAR.HTM` in the RedTitan Software folder if they do not exist already.

Links
Exporting data fields to XML 235

Part VIII

Printing pages

Printing pages

EscapeE can output documents suitable for printing on a wide range of printers, from small desktop models to large, network-connected production printers.

- How to send pages to a printer or a file: see Printing 104.
- Converting pages to images for printing; scaling and cropping pages for printing: see Page imaging, scaling and cropping 105.
- EscapeE can rotate, scale and order pages automatically to create Booklets and 2-ups 106.
- How to change the default printer; notes on printer-drivers and printer configuration instructions: see Printer Setup 107.
- How to set up EscapeE to print the output you want on the printer that you will actually use: see Configuring the printer defaults 108.
- Associating paper tray numbers and descriptions: see Media definitions 111.
- How to configure Simplex and duplex printing options 112.
- Setting up pens and rotated graphics to configure EscapeE to emulate a plotter: see Plotter options 114.
- Using EscapeE instead of the Windows printer-drivers for PCL, PDF, PS and XPS: see Direct printing 115.

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Export files 140

Printing

You may send output to a file or a printer from the *EscapeE* 'Printing' dialog using the Windows driver, see below 104. Alternatively you may output directly to a printer without using the Windows driver: see Direct printing 115.
To set up the printer to be used by default, see Printer Setup 107. To set up the default configuration for printers, see Configuring the output printer's defaults 109.

1. To show the 'Printing' dialog:
   - Choose **Print...** from the 'File' menu *or*
   - hold down the **Ctrl** key and press **P**.
2. The preview panel displays a scaled image of the 'side' of paper it is configured to print. This is usually one 'page' but when a '2-up' or 'Booklet' option is selected 104 , a pair of pages is shown.
   - If the file uses more than one side of paper you may display their previews using the spin-box at its top-left corner.
3. Select the **Page number range** that defines which pages are to be printed (see also Selecting page ranges 129).
4. Enter the number of **Copies** of each selected page to be printed.
   - Tick **Collate** to print one copy of each page in sequence then repeat, instead of printing all copies of the first sheet then all copies of the second sheet etc. (if the printer allows).

   See also Configuring the printer defaults 110.
5. If you choose to **Print to file** instead of a printer, a new edit box is shown containing a default **File name**. You may key-in a new name or use the **Browse...** button to set up a path in the usual way.
6. Tick **Print as an image** if appropriate: see Printing pages as images 105.
7. If the content is too big to fit on the page you may tick **Scale to fit** and/or **Crop** as required: see Page imaging, scaling and cropping 105.
8. Instead of printing one page per side of paper, you may opt to print the file **2-up** or as a folded-page **Booklet**; see Booklets and 2-ups 106. You must also set up a paper-size:
   - When A3 paper is to be used for printing two pages per side, tick the **A3** check-box; *otherwise*
   - click **Setup...** and select a paper-size 432 from your standard Printer Setup 107 list.
9. Select a **Printer** from the drop-down list. This should be the printer that will be used unless you have ticked Print to file 104 – in which case, select a type of printer that would set up appropriate format parameters for the output file.
   - To change the default printer 107 and its settings, click **Setup...**.

10. The source **PCL tray** number specified for the document is shown in the spin-box with its designated output **Printer tray** described alongside: see also Media definitions 111.
    - To use a different combination of trays, click the spin-box arrows and/or choose another printer tray from the drop-down box.
      - Tick **Override PCL tray** to feed all media from that tray.
      - To keep this combination for next time, click **Save**.
    - Alternatively, you may print the document using different media and also switch between trays during the print-run, see Setting field actions 208. Choose **Automatically select** for the 'Printer Tray' and clear the **Override PCL tray** check-box.
11. You may tick **Use printer parameters for paper and orientation** to allow the paper size, orientation and simplex/duplexing specified in the input file to be overridden by the Printer configuration 109.
12. The **Duplex override** box is normally blank but if an override is in force the plex is shown in maroon. *It is important to check that an appropriate option is set up here, this is the last plex instruction to be applied before the document is printed.* See Simplex and Duplex options 112.
13. Click **OK**.
    If you have chosen to 'Print to file', the Log 63 will show the number of pages sent and the file name, when the file is complete.

◆ Tip: To see the part of the page on which some printers cannot print, select one of the Unprintable area 51 options from the 'View' menu.

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Configuring the printer defaults 108
Direct printing 115

Page imaging, scaling and cropping

Printing pages as images

If you do not need to 'proof-print' the pages, but just want to print what is shown on the screen, then it may be appropriate to print the pages as images even when they contain text. It enables prints to be made on printers which have unhelpful font-handling characteristics. Color artifacts created when ClearType 445 text is used are eliminated, ensuring consistency of output, whatever printer and resolution are used.

This usually results in larger files, but if the pages use many different fonts or bulky fonts (e.g. Chinese), the resulting files may actually be smaller.

- Tick **Print as an image** when Printing 104.

Scaled printing

Most printers cannot print over an entire page, so always leave the edges of the pages blank. The size of this "unprintable area" varies from printer to printer, so that a page which prints perfectly on one printer may be cropped on another. To cope with this, *EscapeE* has a scaling feature to ensure that the printing fits in the "printable area" of your printer.

- Tick **Scale to fit** when Printing 104.

To scale and rotate pages for side-by-side page printing see Booklets and 2-ups 106 features.

Cropping images

Cropping removes the plain white margins from the image before it is printed.

If Scale to fit 105 option is also selected, the unprintable area of the page effectively forms a margin – thus allowing the non-white part of the image to occupy as much of the printable area as possible.

- Tick **Crop** when Printing 104.

To **Print to file**, see Printing 104.

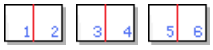
Link
Changing the scale of view 50
Booklets and 2-ups 106
Copying page contents 98

Booklets and 2-ups

The Booklet 106 and 2-up 106 features enable you to print a pair of pages on each side of a sheet of paper rather than one. *EscapeE* rotates each page and scales it down to fit half of the sheet automatically; the order in which the pages are arranged on the sheet depends on the feature selected (see Printing 104).

2-up

In a 2-up simplex job, odd-numbered pages are printed on the left-hand side of the sheet and even-numbered pages are printed on the right-hand side. The pairs of pages are in numerical order, as in this 6-page example:



Sheets may be cut in half to produce single page half-size sheets or left whole to show, for example, a double-page spread of a table too wide for a single page.

Booklet

In a Booklet, pages are usually printed in duplex with a pair of pages on each side. If the paper size selected for the destination printer were A4, for example, then up to four 'pages' re-sized to A5 (portrait) could be printed on each (landscape) sheet. The pages are paired in an order such that you just need to gather the printed sheets together and fold the sheaf of paper in half. For example, these 12-pages may be folded together like a newspaper:

In the special case of a two-page booklet, both pages would be printed beside each other on one side of a single sheet (in effect, 'simplex').

See also On the back 209 option ('Action' page of the Field dialog).

Links
Printing 104
Printer Setup 107
Configuring the printer defaults 108
Standard paper and envelope sizes 432

Printer Setup

To print pages, the printer to be used is selected from a drop-down list on the *EscapeE* Printing 104 dialog. When the Printing dialog opens, the Printer initially displays the name of the default 107 printer.

To change the default printer

1. Choose **Printer Setup...** from the 'File' menu
   or
   if you are about to print and have the Printing 104 dialog open already, click **Setup...** button.
2. The standard Windows 'Print Setup' dialog opens. Select the printer to be used by default: you may *either*
   - Choose a **Name** from the drop-down list of printers which may be attached to your computer *or*
   - Click the **Network...** button then navigate to a printer on your network.
3. The other parameters and options presented in the dialog (for example, paper size, source and orientation) depend on the printer chosen. Set these up as appropriate.
4. Click **OK**.

Further options may be set up in the 'Printer' page of the 'Configuration' dialog: see Configuring the printer defaults 108.

Notes

Some of the parameters which a printer is to use on a print-run can be set up in more than one place. They may occur, for example, in the original input (e.g. PCL, PS 447) file, in the 'Printing' and 'Print Setup' dialogs and the 'Printer' Configuration.

◇ Most (well-behaved) printer-drivers take in-file printer instructions in their stride. Consequently, the following printing parameters are normally taken from the input-files, not the 'Print Setup' dialog:

Paper
Orientation
Input tray
Output bin
Simplex/Duplex

You may, however, override these input-file specified parameters in the Printer configuration 109:

Input tray
Output bin
Simplex/Duplex

In addition, these input-file specified parameters:

Paper
Orientation
Simplex/Duplex

may be overridden in the Printing 104 dialog (tick 'Use printer parameters for paper and orientation').

These parameters are also taken from the Printing dialog:
From/To page numbers
Copies
Collation

(The number of 'Copies' may be specified on the command line instead, using the /COPIES 387 option).

When the following parameters are not specified in the input file, they are supplied with the default values set up in the Printer configuration 108:
Paper type
Orientation

◇ Some printer-drivers, however, are not so well-behaved. Consequently the paper type, duplexing and bin selection that you have applied in the Printer Setup dialog will be used throughout the print-run. If the original input file redefines these parameters during the print-run then the printer-driver ignores them. The command-line option for this is /DRIVERDEFAULTS 394.
If your printer supports PCL, PDF, Postscript or XPS formats you may avoid such printer-driver problems by using the EscapeE Direct printing 115 option.

Configuring the printer defaults

N.B. This applies to viewing and all formats.

Your original source document was intended to be sent to a particular type of printer (such as HP 448-PCL 447 or Adobe PS 447); *EscapeE* interprets the instructions in this document and represents it on your screen instead. The document file usually contains all the instructions necessary for the pages to be printed, but if they are absent, e.g. in a raw text file, the printer resorts to using 'default' parameters, and EscapeE is configured to cope with this. Experts using specialist systems may, however, have altered these defaults; in this case EscapeE must also be reconfigured to match:

Configuring the emulation

1. Choose **Configuration...** from the 'Options' menu (*or* press **F8**) then select the **Printer** tab.
2. Specify how page-breaks in the document are determined:
   - If emulating a *printer*, select a **Paper** size from the drop-down list. You may choose:
     - a standard paper size 432: the measurements will be entered in the width and height boxes automatically (select inches or centimeters as you prefer). *Or*
     - **CUSTOM** and enter the 'width **x** height' (in inches or centimeters) alongside. To retain 109 the CUSTOM set-up for future use, remember to click **Save** instead of 'OK' on closing the dialog. *Or*
     - **AUTO** to use the paper-size specified in the document.
   - For a PCL or Epson file to emulate a *line-printer*:
     - set the **page length** as the number of lines per page *and*
     - select the **line ending symbols** from the drop-down list. (Try looking in the printer's menus, or print its 'test page' for this information.)
   - When emulating a *plotter*, each file defines a single 'page' and so these page-break defaults are ignored – see note 109 below.

3. If the printer is required to start in HP-GL mode, i.e. to emulate a plotter rather than a printer, tick the **Plotter** check-box.
   - Click **Plotter options...** to configure plotter-specific options: see Plotter options 114.
4. If you are emulating an **Epson** dot matrix printer, select its resolution from one of these "dots-per-inch" values:
   - **60** (default)
   - **72**
   - **80**
   - **200**
5. If you are emulating a **spot color** printer, choose an ink color from the drop-down list (Red, Green, Blue, Cyan, Magenta, Yellow). A sample of the selected color is shown alongside.
   Otherwise select **<None>** to set the color sample to black. (The default is to leave the box blank).
6. If the emulated printer is capable of printing to the edge of the paper, tick the **Edge to edge printing**.
7. Set up a default font selection sequence, e.g.
   `^(19U^(s0p12vsb3T`
   - enter the string in the **Font select** edit-box *or*
   - click the button to display the **Font** panel: see Configuring the default font 80.
8. Click the **Save** button to retain these settings after you close the program. Alternatively, click **OK** to use them for the current session only.

Emulation notes

If the file is known to be from a plotter then there is no need to set up a default paper size – the page is made big enough (maximum coordinate value is 8,388,607) to encompass the whole area of the plot. (The file is deemed to be from a plotter if the file extension is .PLT 447 or .HPG 377 or it starts with a plotter command rather than PCL 447 or if the 'Plotter 108' box has been checked.)

For images, you may **override print file setting** for paper size so that, for example, a series of TIFFs read via a Control file 260 can be forced to fit a particular paper size.
The document invokes custom paper size using `{escape}&l101A`.

Configuring the output printer's defaults

The printer which you use to print your document may not be the same as the original document was created to use, so you may need to set up some default parameters relating to your chosen output printer:

1. Choose **Configuration...** from the 'Options' menu (*or* **F8**) then select the **Printer** tab.
2. If your printer allows an alphanumeric ID to be associated with a specific tray, click the **Add media** button. You will be repeatedly prompted first for the name and then for the tray number to be assigned to it, see Media definitions 111.

3. Select the orientation of the document: **Portrait** *or* **Landscape**.
   - To use the default orientation even if a default was specified in the original document, tick **Override print file setting**.
   - A page may contain text in portrait or landscape orientations. EscapeE has an automatic orientation feature to determine whether the text is in the same orientation as the page. If the text would be in the "wrong" orientation, it uses rotated characters instead so that the text is oriented appropriately. If the page contains some text in portrait and some text in landscape orientations, this feature determines which orientation most of the text is in and matches this to the orientation of the page.
     Tick **Auto** to engage this feature.
4. Enter the number of the 'Input tray' that the printer should use by default, in case the tray number was not specified in the original document.
   - To use the default input tray even if a default was specified in the original document, tick **Override print file setting**. If the input paper tray box is left blank, the Windows printer driver's configuration setting will be used: see Printer Setup 107.
5. Enter the number of the Output bin 429 that the printer should use by default, in case the bin number was not specified in the original document.
   - Tick **Override print file setting** if you would like the default output bin to be used even if a default was specified in the original document. If the output bin box is left blank, the Windows printer driver's configuration setting will be used: see Printer Setup 107.
6. The **Duplex override** box is displayed when exporting in PCL 168, PDF 174 and PostScript 183 formats. The box is normally blank but if an override is in force then the plex option is shown (in maroon) – see Simplex and duplex options 112.
7. In duplex 112 printing, you need to keep track of whether a page is on the 'front' or the 'back' of a sheet. A tick in **Show blank pages** check-box ensures that all pages – even blank pages – are taken into account rather than suppressed. See also Configuring the view 57.
8. Click the **Save** button to retain these settings after you close the program. Alternatively, click **OK** to use them for the current session.

Multiple copies

When printing a document, you may edit the number of copies and switch collation option for that run on the Printing 104 dialog.

When exporting PCL 167 or PostScript 182 output or printing directly 115, you can specify that multiple copies be made in a single run by default:

1. Choose **Configuration...** from the 'Options' menu (*or* press **F8**) then select the **Printer** tab.
2. Enter the number of copies of each page to be printed in the **Copies** edit-box.
   - Tick **Collated** check-box to print one of each page in a multi-page document before starting the next copy (e.g. for duplex printing). Collating copies may result in file which is many times bigger than an uncollated file.
   - When one side of each sheet in the document is blank, you may save print-time by *de-selecting* 'Collated': all copies of the first page are printed before starting to print the copies of the next page and so on to the end of the document.

◆ Tip: Some defaults, e.g. Spot color, Special media, Copies can also be specified on the command line: see Command line syntax Printer configuration options 387 table.

Media definitions

Media trays may be identified by number, name or attribute, depending on the printer's language and sophistication. See PCL export options 168, AFP export options 145, PS export options 183 for detail on configuring for specific formats. See Setting field actions 208 if the print-run requires different trays and/or bins to be selected during the run.

A PCL file will specify the media that it expects the whole document to be printed on as a type number (see PCL tray numbers 429). Selecting **Print...** from the File menu runs the Windows printer-driver; this needs to engage a tray on whichever output **Printer** has been selected. This is specified using a different type number (see Windows driver numbers 429). A PostScript file, on the other hand, will provide a list of paper attributes and expect to find a matching tray; it can all get very complicated. Configuring a media definition 111 creates an association between human-readable tray-descriptions and tray-numbers, simplifying the printing set-up.

Adding Media definitions

1. Choose **Configuration...** from the 'Options' menu (*or* press **F8**) then select the **Printer** tab.
2. Click **Add media**: the 'PCL media' dialog is displayed.
3. Enter a **Media name** for one of the input trays in the edit-box then click **OK**. (The name may be made up of letters, numbers or combination of letters and numbers, depending on the printer.)
   The dialog now shows an edit-box captioned **Tray number for** the named tray: enter the number to be assigned to the specified tray name then click **OK**.
   The 'PCL media' dialog switches back to showing an edit-box for a new 'Media name' to be defined. *Either*:
   - Define a name for another tray and assign it a number as before, *or*
   - Click **Cancel** to terminate media set-up.

Editing a tray definition

If a tray has been defined already, its number will be entered in the Tray number for... 111 edit-box automatically. You may:

- Click **OK** to retain the definition *or*
- To change it, edit the number then click **OK** *or*
- Clear the edit-box then click **OK** to delete the definition.

See also Direct printing 115.

Links
Tray and bin numbers 429
Standard paper and envelope sizes 432

Simplex and duplex options

Some printers can only print on one side of the paper while others can print on both sides and may even be capable of switching from one 'plex' mode to the other in the same print-run. *EscapeE* provides a comprehensive range of options and overrides so that you may configure the best print setup for outputting your document.

When a document does *not* specify whether a page is to be printed in simplex or duplex mode, EscapeE applies the mode set up in the Configuration dialog:

1. Choose **Configuration...** from the 'Options' menu (*or* press **F8**) then select the **Printer** tab.
2. Select an option from 'Duplex output' panel: your choice may depend on the capabilities/limitations of your printer.
   - **Simplex**
     The page is printed on one side of a sheet of paper; the other side is not used by the printer. See also Simulated simplex 112 below.
   - **Duplex - short edge binding**
     Can print on both sides of the paper, flipping on the short edge.
   - **Duplex - long edge binding**
     Can print on both sides of the paper, flipping on the long edge
   - **Default**
     No plex is specified. In practice this undefined state is capable of printing in duplex; the mode actually used is set at the printer.

Overrides are provided so that you may also control those pages where the plex mode *is* specified but you would like to change their set up:

- To ignore the original document's print-mode, tick **Override print file setting**.
- Use Simulated simplex 112 options when printing a mixed-mode document on a printer that cannot switch mode efficiently:
  - Tick **Simulate simplex using duplex (long)** to flip on the long edge *or*
  - Tick **Simulate simplex using duplex (short)** to flip on the short edge.

Simulated simplex

Some jobs contain simplex pages *and* duplex pages – for example, a duplex manual with a simplex title (banner) page. These jobs must be printed on a duplex printer in a duplex 112 mode. If your selected printer cannot switch quickly between simplex and duplex during a print run, EscapeE may be configured to *simulate* the switch by inserting a blank page on the reverse of any page specified as simplex. There are separate options for documents bound on the long-edge (i.e. portrait or tumble landscape) and short-edge (i.e. landscape or tumble portrait).

There is an additional EscapeE override feature that enables further plex options to be set before the document is output. This feature only applies when Printing 104 or exporting to PCL 168, PDF 174 and PostScript 183 formats: *it has the last word on the plex state of each page, overriding any other settings configured*.

The override may be set up from the command-line or from an output dialog: see Duplex override 113 below.

Duplex override

The drop-down list of **Duplex override** options may be seen on the Printing 104 dialog and on the Configuration 126 and Export 123 dialogs when exporting in PCL 169, PDF 175 and PostScript 184 formats. This box is normally blank: this indicates that there are no duplex-overrides in force so that the plex mode specified in the source file is applied. When a duplex-override *is* in force then the option is shown in the box and colored maroon to remind you of the alteration to the plex mode.

Simplex	Prints on one side of the paper only. Equivalent to **Simplex** with **Override print file setting** ticked or /OUTPLEX N 390 on the command-line.
All –> Long edge	All pages in a long-edge binding document are duplex with simulated simplex pages. /OUTPLEX L
All –> Short edge	All pages in a short-edge binding document are duplex, with simulated simplex pages. /OUTPLEX S
Duplex –> long edge	Document contains duplex and simplex pages: blank back pages are added to the simplex pages to simulate a fully duplex document; long-edge binding is used. /OUTPLEX DL
Duplex –> short edge	Document contains duplex and simplex pages: blank back pages are added to simplex pages to simulate a fully duplex document; short-edge binding is used. /OUTPLEX DS
No plex	Any plex specification that may have been supplied by the source file is removed from the output file, enabling you to print it in the plex mode that you set at the printer. /OUTPLEX U
As in the file	Use this to reset to the normal state, i.e. with the box blank, so no duplex overrides in force and the plex mode specified in the source file applied. /OUTPLEX

Links
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Configuring the printer defaults 108

Plotter options

There are some configuration options that only apply when a plotter (rather than a PCL printer) is emulated.

Emulating a plotter

1. Select the **Printer** page of the Configuration dialog (press **f8** or click **Configuration...** from the Options menu).
2. Click **Plotter options...**.
3. Tick **Rotate graphics** if embedded graphics for the document are to be rotated.
4. Tick **Exchange width & height** if necessary: see Note 114 below.
5. Specify the color palette: *either*
   - Tick **Monochrome** (2 pen) palette, *or*
   - Set up the configuration of each of the **Pens**: enter – or use the spin arrows to select – the number of a pen to be defined, then:
     - To change the pen's color (shown in a square alongside the pen-number), click **Color**. Choose a new-pen color from the standard color selector dialog.
     - Enter the **Width** of the pen, in mm.
       (You can click **Reset** to clear all pen set-up alterations.)
6. Pen-drawn colored lines are normally opaque. To treat colored lines as transparent instead, tick **Merge colors when drawing**: the colors will merge together where lines cross.
7. If the pen-drawn elements of a document are only simple horizontal or vertical lines, you may tick **Use rectangles for orthogonal lines**. This feature draws lines using rectangles rather than a pen of a defined width, which is more efficient as pen shape and line-join characteristics can be ignored.
8. Click **Apply** to accept the changes and return to the Printer page of the Configuration dialog.

Tip: If you need to cancel the dialog and have made changes to the set-up of pens, remember to **Reset** the pens *then* click **Cancel**.

Note

Some plotters were not designed to take sheets of paper like office printers and these may use "rotated" coordinate systems (i.e. the width and height of the paper are interchanged) instead.

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Printing 104

Direct printing

In some cases there are options such as tray selection which cannot be done when outputting using the Windows driver. The *EscapeE* 'Direct print' facility overcomes this problem by generating the printer commands as if it were exporting to the requisite format. In this mode, it is essential that the correct format has been previously selected in the Configuration dialog. If the 'Direct print' option is grayed-out, the wrong output format has been selected – see notes 115 below.

Direct printing in PCL, PDF, PS or XPS

1. Choose **Direct print...** from the 'File' menu.
2. In the 'Select page number range' panel, specify whether to print:
   - **This page** – just the page on view *or*
   - the **Whole file** *or*
   - a range of pages from **Start** to **End**: see Selecting page ranges 129.
3. Select the **Format** for the document from the drop-down list; click the format-specific **options** button to configure further options.
4. Choose a **Printer** from the drop-down list; click **Setup...** to configure 107 its parameters.
5. If the document contains color and the printer can only print in black and white, tick the **Force monochrome** check-box.
6. Select a **PCL tray** number 429 from the spin-box.
   - For PS, enter/select the name 111 of the **Printer tray** to be associated with the numbered tray.
7. Check whether a **Duplex override** is in force - see Simplex and duplex options 112
8. To save the setup for later use, click **Save**.
9. Click **OK**.
   The document is processed and sent directly to the printer. See also To change the default printer 107.

Configuration notes

The Configuration dialog may be viewed by selecting **Configuration...** from the 'Options' menu or pressing the **f8** key.

- On the **General** page of the Configuration 124 dialog, choose **PCL document**, **PDF document**, **Postscript level2**, **Postscript level3** or **XPS document** as the 'Output Format'.
  - For **PCL** format, click the **Options** button. Depending on the printer, it may be necessary to:
    - clear the **Printer supports scalable image** check-box
    - tick the **LIDIL (graphics only) printer** check-box.

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Part IX

Convert pages to other formats

Convert pages to other formats

EscapeE is not only a "PCL to PDF" and "PDF to PCL" file converter. This section briefly describes all the formats which EscapeE can manage and gives an overview of the general features of file conversion. (For detailed export instructions, see Export files 140 section.)

- The format-by-format guide to the features of the formats in which EscapeE can export files: see Export formats 118
- Matching the format to the task: see Choosing an export format 118
- The general procedure for exporting files: see Exporting files manually 123
- The set up and use of configuration options for export (source, driver, symbol set etc.): see Setting General export options 124
- How to engage – and how to turn off – automatic file export; the 'clock' icon: see Exporting files automatically 127
- How to set up automatic export options; renaming or deleting input files, naming output files; using 'drag and drop', 'shortcut' icons and LPR output: see Setting automatic export options 127.
- How to set up which page(s) from a file to export: see Selecting page ranges 129
- Generating unique output file names to avoid overwriting existing files: see Overwriting files 129
- About Port names and numbers for TCP/IP input; Host names and IP addresses for LPR output: see Setting TCP/IP options 129
- About options for treating text as graphics and combining strings to improve text-searching: see Text options 131.
- For information on screen, printed and fax image issues, see: Image resolution 132
- Description of compression options for exporting documents: Image compression 133
- Options for converting colored images into 'black and white' or 'gray scale': Monochrome conversion 134
- Smoothing options 135 for scaling-down images to best effect
- About the use of dot shading patterns and solid gray-scale in EscapeE: see Shading options 135
- How to associate a file format with a program so that EscapeE can open files directly on export: see Associated programs 136
- The use of 'wild-cards' when naming files: see Filenames and wildcards 136

Export formats

EscapeE can export your original documents in many different formats:

FDL form

Converting a PCL job to '**F**orms **D**escription **L**anguage' means that you can open pages in RedTitan *Page Designer*[449], edit them and output them for virtually any printer.

FDL export >[150]

PostScript file

Output is generated in Adobe[448] '**P**ost**S**cript' printer language without using any Windows[448] printer driver and is suitable for level 2 and level 3[428] printers.

PostScript export >[182]

PDF file

Output is generated in Adobe[448] '**P**ortable **D**ocument **F**ormat'. Pages can be viewed directly with a browser, creating documents that can be searched for text strings. Iteractive "AcroForms" may be created. For security, passwords may be specified or the files may be signed and/or encrypted.

PDF export >[172]

PDF/A file

This is Adobe[448] Portable Document Format for **A**rchiving documents. Its documents can be viewed with a browser and text strings searched for, like regular PDFs. The feature that sets it apart from PDFs is that it is self-contained; any fonts used in the document are included in the file. PDF/A files may be secured with a digital signature.

PDF/A export >[179]

HTML files

The document can be output as a file written in HyperText Mark-up Language[446], suitable for display by a web browser.

HTML export >[152]

HTML files may be created as a single file that contains all the resources packaged as a Multipart/Related MIME[446] document, extension MHT[446].

MHT export >[153]

HTML files may also be output in HTML5[446] format suitable for reading by the RedTitan *UberEd*[449] program, where they may be edited and new documents created.

HTML5 export >[156]

HP PCL file

Using the HP PCL format for exporting a file will reprocess the file, even though it was imported as a **P**rinter **C**ontrol **L**anguage file. This is useful for consolidating files that have been heavily modified.

PCL export >[167]

Using the Subset[96] export format enables you to extract part of a PCL print job without reprocessing. This is useful, for example, when you have a paper wreck in the middle of a PCL print run and wish to reprint just part of the job.

IDF

Exports RedTitan **I**ntelligent **D**ocument **F**ormat documents. The coding for this format is readily intelligible to English speakers, ideal for editing and creating new documents from existing documents and resources.

IDF export > 158

IPDS

Exports an **I**ntelligent **P**rinter **D**ata **S**tream suitable for IBM 448 IPDS printers. Pages may be rendered as exact images or as text/image composites for speed.
Note: the module to export in IPDS protocol must be specially installed; contact help@redtitan.com for more information.

IPDS export > 163

XPS

Exports in Microsoft open architecture XML Paper Specification – a zipped file of XML pages, fonts, images in native format etc. for printing or viewing on screen.

XPS export 195 > 195

AFP image

Exports an AFP datastream rendering each page as an image for printing on IBM 448 systems that support **A**dvanced **F**unction **P**rinting. Note that this does not allow you to edit the file or use the text search facility.

AFP export > 144

DCX/PCX images

DCX fax file format is supported for both input and output. This format is used by some fax systems – it uses the PCX format for the images. EscapeE can handle up to 1023 pages.

DCX/PCX export > 146

DICOM images

Exports one-file-per-page in **D**igital **I**maging and **Co**mmunications in **M**edicine format used for medical imaging. Each DICOM 448 file contains an image and a data-set of information related to the image. The group/element values may be extracted to set up the DICOM Element Tags 223 that make up the data-set.

DICOM export > 147

EMF images

An **E**nhanced **M**eta**F**ile object stores a vector image as a list of settings and drawing commands. It may be used to provide images for printing or viewing on-screen.

EMF export > 149

IMG image

IMG export produces a datastream in Variable blocked format for feeding directly to a channel-attached Xerox 449 centralized DJDE/Metacode printer. The Xerox IMG (Barr) 161 format is used where the printer has a Barr 448 spooler interface attached. These formats enable documents from standard word processing software to be output as a PCL file and then converted by EscapeE for printing identically on a Metacode printer. Both formats make use of PP.JSL supplied.

IMG export > 160

JPEG image

JPEG images use a "lossy" compression method developed by the **J**oint **P**hotographic **E**xperts **G**roup: it is well-suited to reproduce real-world photographs. It is not recommended for graphic art, however, as JPEG compression losses result in poorer image quality: for example, straight lines typically lose their crispness.

JPEG export > 165

PNG image

Portable **N**etwork **G**raphic: a useful web-compatible image format that can be displayed in browsers and avoids the royalty issue associated with GIF format.

PNG export > 141

TIFF image(s)

Tagged **I**mage **F**ile **F**ormat is principally used as an archive format for viewing in EscapeE and in COLD (**C**omputer **O**utput on **L**aser **D**isc) systems. It creates an exact image of a page. A single file may contain more than one image.

TIFF export > 189

Windows BMP

This is a bulky format typically used by painting-type programs representing MS 448 Windows 448 bitmap files.

BMP export > 141

Rich text RTF

Extracts selected contents of a document to Microsoft Rich Text Format 447. Editable in word-processors.

RTF export > 187

Plain text TXT

Exports pages from the document to plain text 448, allowing you to create documents which can be easily edited with any text editor. You may also export just the Data fields to Plain Text 234 and paste them into any other application.

TXT export > 192

CSV fields

Data fields can be exported in CSV 445 format. You may choose to export all the fields in the document or just selected fields.

CSV export > 233

XML fields

Data fields can be exported in XML 448. You may choose to export all the fields in the document or just selected fields. The extra files necessary to create style sheets can also be generated.

XML export > 235

Macros

Macros 446 in the document itself may be extracted and exported. The macros created can be used to overlay on selected pages using the Field mechanism – see PCL export options 168 and Setting field actions. 209

A range of pages may be saved as a macro 100.

'No output' note

On major print jobs, specialists sometimes find it useful to process the job prior to printing. This produces **no output**, but does call on Plugins etc. and gather statistics (e.g. on paper use, for accounting purposes).

See Exporting files manually 124 and command-line option /PROCESS 385.

Links
Exporting files automatically 127
Export files 140

Choosing an export format

Choosing the format in which to output a specific file depends on how the file is to be used. For example, JPEG is good for photographs and TXT for text, but if you need to output a medical file (which may contain images and text) then only DICOM will do.

The following table matches function to format:

Task	Suitable Formats
Exporting to images	AFP 144 BMP, PNG 141 DCX/PCX 146 IMG 160, IMG Barr format 161 JPEG 165 PDF 172, PDF/A 179 TIFF 189
Exporting medical file	DICOM 147
Exporting to Page Designer	FDL 150
Exporting the document	EMF 149 HTML 152, HTML5 156, MIME-encoded HTML 153 IDF 158 IPDS 163* PCL 167 PDF 172, PDF/A 179 PS level2, PS level3 182 RTF 187 XPS 195
Exporting data fields	CSV 233, TXT 234, XML 235 IDF 158, RTF 187
Extracting text	IDF 158, RTF 187, TXT 192
Extracting part of original document	IDF 158 Macro 100 RTF 187 Subset 96
Archiving	DICOM 141 PDF 172, PDF/A 179 TIFF 189 TXT 234 XPS 195
Printing (MS Windows)	Print 104
Production printing	AFP 144 PCL 167 PS level2, PS level3 182 IPDS 163* IMG 160
Web publishing	HTML 152, HTML5 156, MIME-encoded HTML 153 PDF 172, PDF/A 179 PNG 141

**if you have the IPDS option installed*

Exporting files manually

You can convert files from one format to another simply by exporting 123 them.

To export files

1. Open the file 44 containing the pages that you wish to export, then:
   - choose **Export...** from the 'File' menu, *or*
   - Hold down the **Ctrl** key and press the **E** key.
2. Specify the pages to be exported in the **Page number range** panel: see Selecting page ranges 129.
   If page numbering has been configured, **Page 1 number** will be shown: see Creating page numbers 239.
3. Tick **Do not overwrite files** to add a number to the new output file name if there is an existing file of the same name already present. *Deselect* if you want same-named files to be overwritten, for example when re-exporting a file with changed options. See also Overwriting files 129.
4. If the default **Format** shown is inappropriate, select the format you need to use from the drop-down list (see also Choosing an export format 122).
   - A new button – **Save format** – will be placed on the dialog. You may make the newly selected format the default by clicking it.
5. A **File name** (with suitable extension) and folder are supplied. To set up a different name or extension, type in the new name (wild-cards 136 may be used). To select a different folder to store the file, click the **Browse** button.
   - *Alternatively*, some formats are suitable for **LPR output**: tick to switch the file-name's edit-box to 'LPR output via TCP/IP'.
     See Setting TCP/IP options 129.
6. Many formats enable you to set up further options: click the **options...** button to display the appropriate 'Options' page of the Configuration dialog. You may see some configuration options represented on the Export dialog too, such as:
   - **Force monochrome**: tick the check-box if required, see Image import/ export options. 143
   - When exporting to TIFF file 189 format, ticking **Multi-page TIFFs** creates one file containing all the images rather than several files each containing a single page image.
   - When exporting to EMF image 149 format, select your preferred 'Resolution' from the drop-down box: **Screen**, **Printer** or **Image defaults**.
   - When exporting to Zerox IMG 160 format, the **Dept** edit-box enables you to specify the accounting department.
   - If an LOF composite file is on show in the *EscapeE* window, you may tick **Treat as a single file** to export the files as a single unit rather than as separate files, see About control files 260.
7. For some selected formats, EscapeE can open the new file in the program that you normally use as soon as the export process is completed: tick **Run the associated program after creating the file** (see Associated programs 136).

8. If you have defined data fields on the pages, you may choose to extract **Selected fields**, **None** *or* **All defined fields** simultaneously into **Comma Separated**, **XML** *or* **Plain text** format. This outputs a log file with the extension .LOG (rather than .CSV etc.), see Log file export 236.
   - You may also set up **Page Numbers**, **Bates Page Numbers** and/or **Message** options: see Setting Log file options 237.
9. When exporting to PCL 168, PDF 174 and PostScript 183 formats, the **Duplex override** box is displayed. This is normally blank, see Simplex and duplex options 113 for details.
10. Click **OK** to close the Export dialog.
   - IDF, RTF and HTML5 UberEd export formats only: if the **Show fields form** on the 'Options' dialog has been checked, the Fields dialog opens, see IDF export options 158, RTF export options 187.

   EscapeE outputs the new document.

Other export formats, such as Windows Metafile, are available. RedTitan also specializes in customized solutions for database publishing. Contact RedTitan for more information.

◆ Tip: You can do a "dummy run" by choosing **No output** as the Format 121. No document is created but any messages produced by the job run are logged 63 in the Console notebook and you may export field contents in a Log file, see Setting Log file options 237. This is useful for checking the validity of the input documents, number of pages in the output document etc..

Links
About exporting pages 36
Setting General export options 124
Exporting files automatically 127

Setting General export options

The 'General' page of the Configuration dialog defines the options which apply to documents whatever their format: see below 124.

Format-specific configuration 'Options' pages may be displayed by clicking the button alongside the 'Output' Format box on the General page, or from the Export dialog; see Exporting files manually 123.

◆ Tip: when a format-specific 'Options' page is on view, clicking any other tab resets the 'Options' page to 'General'.

To set General Configuration options

1. Choose **Configuration...** from the 'Options' menu (*or* press **f8**) to open the **General** page of the 'Configuration options' dialog.
2. In the INI file 124 section:
   - Select **RT.INI** to use the default configuration *or*
   - Select ***.INI** to use a per-file one with the same name as the data file but with extension `.INI`.

3. Under 'Source Type', specify the origin of the PCL file. If you used the **Windows Driver**, the RedTitan **Dynamic Document Formatter (the PrePrinter)** or the **DataStream Converter** to create it, *EscapeE* can optimize other configuration settings, e.g. symbolset.
4. Rarely, you may wish EscapeE to convert the character set in the fonts (see Handling fonts 33). Scroll the **Symbol set** list to select a suitable option. See also Notes 126, below.
5. The 'Ignore' panel contains a number of features for removing unnecessary components from pages and minimizing file-sizes. See Optimizing the configuration 59 for more details:
   - Select 59 **Images**.
   - Select 59 **Shading**.
   - Select 59 **White areas**.
   - Select 59 **Null clips**.
   - Select 59 **PJL commands**. See also Preamble and PJL options 170.
   - **Kyocera !R!** is a specialist option 59, normally *deselected*. See also Kyocera Prescribe 378.
6. Similarly, in the 'Ignore download fonts' panel:
   - You may choose to ignore **All** fonts which have been downloaded with the file *or*
   - **If substituted**: just those for which substitutes have been given. (Ignored fonts are not stored.) *Or*
   - **If same header**. Any downloaded font which has the same ID 83 and an identical header to a previously loaded font will be ignored. This avoids multiple copies of a font being included in the output.

   You must also specify which one of the Standard Adobe fonts is to be used: see PDF export options 174.
7. In the Fonts 83 panel:
   - If the font characteristics specified by the printer driver are inappropriate, tick the **Calculate download font characteristics** box and let EscapeE provide more fitting values for point size, weight etc..
   - To see the details of the fonts in the 'Font substitutes' file, click **View...**; see also Font tables 84.
   - To use the fonts in the named 'Font substitutes' file, check **Enable**.
8. The location of the EE file 212 containing the field definitions 200 is shown. It may be changed by clicking **Edit...** to open the Field dialog.
   - When the *default* fields file is in use then the location is labeled **Default field definition file**, see Setting fields file options 213.
   - When a *specific* fields file is in use then the location is labeled **Field definition file**, see Field definitions file 212 and Setting fields file options 213.
9. Select the 'Input' format: this is normally set to **Auto format detection** but you may choose a specific format from the drop-down list 46 instead: see also File format recognition 45.

10. Select the **Output** 'Format'.
    - Further options may be configured for AFP 145, DICOM 148, FDL 151, HTML 154, IDF 158, IMG 162, IPDS 164, JPEG 165, PCL 168, PDF 174, PostScript 183, RTF 187, TIFF 190, TXT 193 and XPS 196 formats: click **Options...**.
    - When exporting to TIFF image 120 format, a check-box allows you to specify whether a **Multi-page TIFF** file or individual single image files are to be output.
    - When **No output** is selected for making a "dummy run" you may export a Log file containing its processing data: click **Options...** to set up the Log file options 237.
11. The **Duplex override** box is only displayed when exporting in PCL 168, PDF 174 and PostScript 183 formats. The box is normally blank but if an override is in force then the plex option is shown (in maroon) – see Simplex and duplex options 112.
12. The current command-line print-option status is set up from the 'Option format' panel, see Print option flags 413. Experts may choose whether they prefer to use:
    - **Numeric** (default) *or*
    - **Mnemonic** parameters.
13. Click the **Save** button to retain these settings after you close the program. Alternatively, click **OK** to use them for the current session.
14. To create a Shortcut icon which uses all the options you have set, click **Shortcut...**: see Shortcuts - the easy way to construct a command line. 367 Alternatively, expert users can click the **Save as** button to save these settings to a file.

Notes

It is essential that the correct **Symbol set** is specified. EscapeE translates characters from the specified symbol set into the standard Windows set **19U**. See About symbol sets 81.

Changing the symbolset, either directly or by changing the "source" set up, may affect any data-fields and tags set up previously. See Field Problems 215.

If the symbolset is negative and **Calculate download font characteristics** is selected then the widths are calculated from the bounding box of the characters. Professional users may obtain this effect on the command line; for example:

```
ESCAPEE /SYMSET -29 /CALC Y
```

There is a shorthand for use on the command line for using the configuration 'filename.ini' (if it exists) and data file 'filename.pcl':

```
^^* filename.pcl
```

To ask for a specific INI file on the command line, use a command such as:

```
escapee ^^c:\temp\newdefs.ini
```

Links
About exporting pages 36
Exporting files manually 123
Optimizing the configuration 59

Exporting files automatically

To engage automatic file export

1. Select **Configuration...** from the 'Options' menu.
2. Select the **Automatic** tab.
3. Tick the **check every** box and enter the checking interval in seconds. See Setting automatic export options 127 for more options.
4. Click **OK**.
   The automatic timer clock is displayed on the Tool-bar to show that automatic export is enabled.

To turn off automatic file export

1. Click the timer clock button on the Tool-bar.
2. A dialog asks if you want to "Continue to scan for more files"; click **No**.
   Automatic file export is turned off and the clock removed from the Tool-bar.

Links
Exporting files manually 123
Shortcuts - the easy way to construct a command line 367
Run from the command line 368

Setting automatic export options

The automatic export options are set up from the **Automatic** page of 'Configuration' dialog; see also Exporting files automatically 127.

Input files specification

1. Fill in the **Input files specification** edit box (see Filenames and wildcards 136 for more information and examples) or leave this box blank if you want all files to be converted.
2. To engage automatic file export, 127 tick the **Check every** box and set the time interval. A clock icon will be placed on the Tool-bar to show that file conversion is operating automatically.
   If you would like to see the PCL pages on screen while files are automatically being created, select **View**. If you do not turn this on, the status panel will still show the progress of the conversion.
3. Files are usually processed in order of their update date but you may opt to process them in the order of their *creation* date instead by ticking **Process oldest first**. (See command line option /FIFO 396.)
4. After the input files have been processed you may choose to:
   - **Rename** them *or*
   - **Delete** them instead: see Notes 128 below.
5. Set up a 'Drag and Drop' action: when a file or group of files is dropped onto the *EscapeE* shortcut icon you may choose to **View** the file(s) or **Export** them.

Output files specification

1. Specify the output filename or folder in the **Output file specification** edit box: see Filenames and wildcards 136 for more information and examples. The output file will be named automatically and stored in the program folder.
2. Some formats allow LPR output to be selected at this stage; to use TCP/IP input or LPR output, see Setting TCP/IP options 129 – the **LPR output** box will then be checked.
3. Select **Create new folder if necessary** if you have specified a folder that does not yet exist.
4. Check **Rename output when complete** to defer the naming of the output files until all processing is finished. This avoids the possibility of creating incomplete temporary files with the specified output names.
5. If the **Do not overwrite files** box is checked, a suffix of "#1", "#2" etc. is added to the filenames.

Setting other automatic options

1. **Run the associated program after creating the file** to open the file immediately using the **Program** specified in the box below, e.g. `C:\REDTITAN\ESCAPEE.EXE`
2. RedTitan customers may tick the **Check the RedTitan website each month for updates to EscapeE** box to automate updating EscapeE 23 regularly. See Note 128 below.
3. To close the dialog, you may choose to:
   Click **OK** to use them for the current session.
   Click the **Save** button to retain these settings after you close EscapeE.
   Click the **Save as** button to save these settings to a file.
   Click **Shortcut...** to create a Shortcut icon which uses all the options you have set: see Shortcuts - the easy way to construct a command line. 367

Notes

In timed mode, once EscapeE has used an input file, the default action is to **Rename** it by changing the extension to ".BAK". (To change this extension, use the command line option /RENAME 406.)
Alternatively, you may choose to **Delete** processed input files instead. For timed mode, this is set up in the ERASE 394 Configuration symbol 417: only input files that have been processed *automatically* are erased. (Using /ERASE on the command line supersedes the ERASE configuration symbol.)

To avoid conflict on the INI 417 file when running in automatic mode (e.g. processing from a command line scanning a folder), the file history 446 is not updated.

When EscapeE is part of a system sourced from another manufacturer (rather than as a stand-alone product from RedTitan 19) an OEM 446 statement in RT.INI suppresses automatic update checking.

Links
Setting General export options 124
Exporting files manually 123
Run from the command line 368

Selecting page ranges

When exporting pages from a file, you must specify which pages are to be output. In the 'Page number range' panel of the Export 140 dialog:

- To print the page on current view, select **This page**.
- To print all pages in the file, select **Whole file**.
- To print a particular range of pages, *deselect* 'This page' and 'Whole file' and enter the **Start** page number (the number of the page on view is already entered) and **End** page number.
  - If you leave 'Start' empty the program prints from the start of the file
  - If you leave 'End' empty it prints to the end of the file.

EscapeE may be configured to add page numbers to the exported pages (see Creating page numbers 239). The number of the first page to be exported will then be shown in **Page 1 number** box: edit this number as required.

Overwriting files

EscapeE provides two mechanisms for avoiding output files overwriting existing files on Export 140.

- with **Do not overwrite files** check-box ticked
  If a subsequent file is created which would have the same name as a file in the list, EscapeE appends "#1", "#2" etc. to the new file's name automatically. This ensures that each file name is unique and that no existing files are overwritten.
- with the box *unchecked*
  EscapeE maintains a list of output files that have been created from the most recently opened file. It appends "1", "2" etc. to the name if it would be the same as one created earlier in the run (but not considering any pre-existing files). The file list is cleared when a input new file is opened.

Setting TCP/IP options

EscapeE Professional 450 editions only

To use TCP/IP input

1. Choose **Configuration** from the 'Options' menu.
2. Select the **TCP/IP** page of the 'Configuration' dialog.
3. Check the **Enable TCP/IP input** box.
4. Click **Port number** and supply the number (e.g. `6000`)
   or
   click **Port name** and type in a port name (e.g. `ESCAPEE` or `myport` which will be looked up in the Windows 448 Services file to find the port number).
5. To create a Shortcut icon which uses all the options you have set, click **Shortcut...** (see Shortcuts - the easy way to construct a command line 367).
6. Click **OK**.

To use LPR output

1. Choose **Configuration** from the 'Options' menu.
2. Select the **TCP/IP** page of the 'Configuration' dialog.
3. Select **Enable LPR** 446 **output** (this is mirrored on the 'Automatic' tab).
4. In the **To host** box, define the host name or the IP address to which the output is to be sent e.g. `\\mainserver\ourprinter`.
5. On large systems, set up the **Queue name** (e.g. `HeadedPaper`); a **Job name** (e.g. `MonthEnd`) may be specified too if required.
6. To create a Shortcut icon which uses all the options you have set, click **Shortcut...** (see Shortcuts - the easy way to construct a command line). 367

Notes

The 'class' of the file will be the same as the file extension (PDF, XML, etc.).

Specifying the 'host' sets up a symbol (so `HOST=xx.xx.xx.xx` in the `INI` file would define the default host IP address); this would enable LPR output from the command line e.g.:

```
ESCAPEE filename /PS /LPR
```

The `/LP_DATASIZE` 402 symbol can be used to tell a printer that the file size is unknown by setting the value of `n` to `0`, `-1` or `-2`, depending on the printer. (nQ 449 accepts the default setting for `LP_DATASIZE` of `0`.)

While the file is being processed the output is stored in a buffer. The LPR connection is made when the processing is complete (or in the case of a large file, the buffer is full). This means that the transmission may not start immediately and the line is not kept waiting.

Links
Exporting files automatically 127
Exporting files manually 123

Text options

The pages of files in some formats may contain text, images and drawn objects, while other formats may contain only an image. *EscapeE* has a number of features for handling the text so that you can configure it to suit the required task.

The choice of option also affects the size of the exported file. A bitmapped image of a page of text, for example, is likely to be larger than a file which contains the "real" text in a font resident on the printer.

Render as a graphic

This produces an accurate image of each page in the file, including its text. The 'text', while readable by people, is merely ink marks to a computer. The content is not preserved as characters in the file and cannot be searched or processed directly, but it does eliminate possible font problems.

Checking the Include text as well as the graphic 131 option available in some formats (PCL, PDF, PDF/A, PS) does, however, add the textual data to the document in a computer-usable form. This data, though unseen by the User viewing the page image, may be searched by the computer.

◆ Tip: Optical character recognition techniques may allow characters to be matched to their shapes in an image of text: see Other plugins 229.

Render all but text as a graphic

This outputs the page as an accurate image of all the non-text items on the page with the textual content written on top (see also Keep original element order 131 below). The text can be read by people and processed by computers.

Include text as well as the graphic

When rendering as graphics 131 to some formats you may also choose to **Include text as well as the graphic**. The textual data is sent along with the page image so that the computer can search it, but you cannot edit the text directly.

See also Render all but text as graphic 131.

Keep original element order

EscapeE normally places text (and drawn lines) on top of images to avoid opaque elements (such as shaded areas) in the images covering the text. You may override this by selecting the **Keep original element order** option.

Combine text strings together

When you opt to **Combine text strings together**, EscapeE assesses the positioning of the words and attempts to concatenate those likely to be part of a continuous string.

While this can improve search performance in documents with normal formatting, the results may sometimes be unsatisfactory in others. (For example, where each character has been dragged into position manually for visual effect rather than readability.)

◆ Tip: double-byte fonts (e.g. Chinese characters, currency symbols, box-drawing characters) are rendered as *graphics*, not text.

Image resolution

- The default input and output resolution of images is set up on the **Images** page of the 'Configuration' dialog (**F8** key), see Image import/export options 141.

An **Override** option enables the initial input resolution to be used throughout a job.

Both the default image resolution and resolution-override apply to images added by plugins 227 as well as to those read from the data-stream.

When you are exporting an image which is expected to be viewed on-screen only, a resolution of 100x100 will usually suffice, whereas if a laser printer-quality image may be required, it would be better to select a resolution of 300x300. For archiving purposes choosing "200" or "150" will allow rough paper copies to be produced at much reduced file sizes.

You may export your image file at a custom resolution by filling in the 'X-resolution' and 'Y-resolution' boxes. Values can be from 25 to 600. Note that if the Y-resolution is left blank, *EscapeE* will use the same value specified for the X-resolution.

To export a TIFF file intended for faxing, select the appropriate **Fax** output resolution:

	X	Y
Standard	204	98
Fine	204	196
Super Fine	204	392

Selecting one of these fax options automatically ticks the **Force monochrome** image option and shows "Force monochrome set" message in the status bar for a few seconds.

Links
Image import/export options 141
TIFF images file export 189

Image compression

When you export an image, you can choose whether or not to compress it (see Image import/export options 141). *EscapeE* is able to use many compression methods 133 and there are often several methods available from the drop-down list in the Configuration dialog (F8) that are appropriate to your chosen export format.

JPEG note

When exporting JPEG images, the compression method set up here is irrelevant. JPEG files use their own compression method, specially designed for photographs. EscapeE can apply this to images within PDF 177 files too: see JPEG compression options. 165

Fax note

The **CCITT group 3 fax** and **CCITT group 4** compression methods are suitable for faxing. When either of these options are selected, the **Force monochrome** option is ticked automatically.

Compression methods

CCITT group 3	A simple 1-dimensional (horizontal) compression for black and white images.
CCITT group 3 fax	For faxing. See also TIFF export options 191.
CCITT group 4	A 2-dimensional scheme which usually gives more compact files than CCITT3. It is used for black and white images and is suitable for faxing.
DocuPrint CCITT Group 4	Encoded as a single monolithic piece of data as required for Xerox DocuPrint.
LZW	For color images.
Packbits	For a quicker compression which is not as compact as LZW or CCITT4.
Run-length	Compression option for DICOM image files.
RL4	For compressing AFP color output.
Default	To let EscapeE select the most suitable compression method for the image.
Uncompressed	To turn off compression.

Monochrome conversion

When you export an image you may also choose to convert its colors to 'black and white' or 'gray scale' in the output document.

1. Select **Configuration** from the 'Options' menu (function key **f8**) and click the **Images** tab *or*
   select **Export** from the 'File' menu (**Ctrl E**) – see Image format file export 141.
   Select an image format such as BMP or PNG then click the **Image options...** button.
2. Tick **Force monochrome**.
3. Choose a conversion method from the drop-down list of options:
   - **Halftone** (Default option)
     The image is treated as if it were composed of blocks of pixels (block size 4x4 pixels). The average luminosity of each block is matched to a shade of gray with similar luminosity. Gray shades are actually blocks of black dots on white – the number and pattern of the dots within each block determining its overall luminosity.
   - **Threshold**
     This assigns black pixels to colors with a luminosity below the threshold value, and white to the remainder. Enter a value in the range 1 to 254 (default value is 127, i.e. 50%).
   - **Adaptive**
     The density in each quadrant of the image is computed and the image adjusted by interpolating between these values. The image is then converted to a 1-bit image using the specified threshold value 134.
   - **Dither** A method of error diffusion that takes into account the discrepancy between the original luminosity of a pixel and the monochrome value that the default threshold value 134 of 50% would assign to it. The difference is propagated to adjacent pixels, resulting in a more randomized scatter of black and white pixels than basic thresholding.
   - **Gray**
     Converts image to solid gray-scale shades 135 rather than black-and-white dot patterns; select also **4-bit** *or* **8-bit** Smoothing for output to Monochrome images 135.

Links
Image import/export options 141

Smoothing options

EscapeE provides a number of smoothing options for scaling monochrome and colored images down in size.

- Select **Configuration** from the 'Options' menu (function key **f8**) and click the **Images** tab *or*
  select **Export** from the 'File' menu (**Ctrl E**) – see Image format file export 141.
  Select an image format such as BMP or PNG then click the **Image options...** button.

The 'Smoothing for output to' section contains a pair of panels: one for 'colored images and the screen' and another for 'monochrome images'. Choose from these options to set up the most appropriate method for smoothing the output image:

- **Gray-scale** gives the best effect if the output format supports it, but if converting to 1-bit monochrome it may be preferable to use Simple 135 or Two-bit 135.
  4-bit gives better results than **8-bit**, which is only suitable when images are to be heavily scaled-down.
- **Simple** scaling is probably somewhat quicker but for images which are scaled down considerably or have pale areas, it may result in parts of the image vanishing altogether.
- **Two-bit** scaling guarantees that if a pixel in the resulting scaled image contains any black then it or its neighbor will be black – and similarly for white.

Links
Image import/export options 141

Shading options

Shading options affect the way shaded areas in a PCL file are displayed and output to *all* formats.

Originally, the PCL defined several levels of shading which were implemented as dot patterns on a monochrome PCL printer. Modern color printers can render shading as true, solid gray color which often gives better results than dot patterns, particularly when scaled. You may configure *EscapeE* to use dot-patterns or solid gray shades.

EscapeE Shading options

1. Select the **Images** page of the Configuration dialog (function key **f8**): see Image import/export options. 141
2. In the 'Shading' panel, choose from:
   - **Standard**: a fairly coarse pattern of dots. This is useful when exporting at lower resolutions.
   - **Fine**: a fine pattern of dots.
   - **Gray-scale**: solid gray; unlike the dot patterns, this will *not* be transparent. Not suitable for simple 135 (1-bit) monochrome images, it is good for some types of PDF: see PDF export options 175 for notes on **Keep original element order**

You may opt to 'Ignore' shading: see Optimizing the configuration 59.

Associated programs

Many file extensions have a program associated with them: for example **.HTM** will be associated with an Internet browser.

It is possible to change the programs 'associated' with a particular file extension. For example, you may wish to open CSV files with the RedTitan *Database Manager* 449 program. To do this from Windows Explorer:

1. *Right*-click a file with the extension **.csv**.
2. Select **Properties** from the pop-up menu.
3. Click **Change...** from the 'General' page of the dialog.
4. Scroll down the list of programs. Select **RTDB** (usually located in the 'RedTitan \Software' folder) then click **OK**.
5. Click **OK**.

If the **Run the associated program after creating the file** box is ticked when a file is exported 123, *EscapeE* will create and export the file then call the associated program to view or process it. If the option is ticked but there is no associated program set up for that export format, then if EscapeE can handle the format, it defaults to opening another copy of EscapeE and showing the file there.

Link
Associated files 425

Filenames and wildcards

EscapeE Professional 450 *editions only*

When selecting files to export you can use 'wildcards' to specify the Input 136 and Output 136 file names and/or folder. If you have defined 200 data fields on the pages you can use these in the file name, see Setting advanced options in field definitions 210.

Input

Specify the folder to be monitored on the Automatic 127 page of the Configuration dialog: e.g.

***.PRN**

processes all PRN files instead of LSH.

H:\REPORTS*.*

processes all files arriving in the 'REPORTS' folder of the H drive.

In automatic mode the input file is either renamed or deleted – see Setting automatic export options. 127 The default is to rename as ***.BAK**; see /RENAME 406.

- **N.B.** if you use a wild-card such as ***.*** you must opt to have the files deleted, otherwise if they are merely renamed, they will be processed repeatedly!

Output

When you select an export format, output files are automatically created with a suitable extension and stored in the specified folder unless you a specify different extension and folder: e.g.

E:\ARCHIVE*.DOC

creates files with the 'DOC' extension and places them in the ARCHIVE folder of the E drive.

- If the output file name would be the same as the input file then the default suffix of '_out' is added to the output name (except if the /NQ 403 option is used).
- If 'Multi-page TIFFs' has been selected, there may be more than one page image in each output file; see TIFF images file export. 189 Normally, EscapeE creates a file for every page image (data record) in a TIFF job, appending a number to the file name to distinguish the page images from one another. The default is **TEST1.TIF**, **TEST2.TIF** etc..
  Similarly, when creating multiple FDL 150 pages they are named using the file stem, e.g. **FILE1.FDL**, **FILE2.FDL**.
  - To change these file names, use one or more consecutive **"** characters to indicate how to construct output file names for the numbering the page image files, e.g.
    ***.PRN /TIFF /TO *"".TIF**
    converts an input file called **TEST.PRN** into
    TEST01.TIF, TEST02.TIF ... TEST99.TIF, TEST100.TIF etc.
    The position of the string of **"** characters specifies the position of the page number in the name and the length of the string determines minimum number of digits for the page number. If the number requires fewer digits then leading zeros are inserted but digits are never discarded – they will always be inserted at the specified point. If there are no **"** characters, or no output specification is given, then a multi-page TIFF file is created.
    For example, if the command:
    ESCAPEE *.PRN /TIFF 5 /TO *"".TIF
    found an input file called **TEST.PRN** it would create files with names **TEST01.TIF**, **TEST02.TIF** ... **TEST99.TIF**, **TEST100.TIF** etc. whereas the command:
    ESCAPEE *.""" /TIFF 5
    would create files with names **TEST.001**, **TEST.002** ... **TEST.999**, **TEST.1000** etc..
- A "plus" sign is a valid character for use in file names, but:
  - When Page numbering 239 has been engaged, a **+** will be replaced by the page number in the output file name, see About page numbers 241. For example, if the output file specification is ***+.PDF**, the 'Page 1 Number' is **3**, the 'Template' is **p"**, and the input file name is **FILE1**, an output file named **FILE1p3.PDF** is exported.
  - When exporting in TXT 192 format, an initial **+** in the output name appends the output to an existing file if it exists or creates a new file if not. Thus a single TXT file may be built up from a series of pages exported from a number of files. For example, in the export dialog enter the File name:
    +summary.TXT
    or on the command line use the /TO 410 option to define the output name for /TEXT 386 file export:
    escapee *.lsh /text /to +summary.txt
- EscapeE can be set up to start a new output file whenever a specified field (or tag) is encountered or when a field changes. The output file name can be derived wholly or in part from the contents of a field – see Setting advanced options in field definitions. 210
- If a field has been set up to be used in the output file name you will notice that an **=** wildcard has been specified as the Export dialog's File name. This indicates that the field value will be substituted instead of the first equals sign in the output file name.
  For example, if the file is called **TEST.PCL**, the field contains **ABCD** and the export file name specification is ***=.PDF** then the output file name will be
  TESTABCD.PDF
  See also Run from the command line 368 to specify this on the command line.

- An output file specification can also incorporate parts of fields or special symbols, see Special fields in composed strings 247. This is an alternative to the use of special symbols such as *, + and =, though " is still permitted.
  For example, the special field **_NAME** is the stem of the file name (minus any path or extension) so you can use parts of the original file name in the output specification e.g.
  C:\OUTPUT\{_NAME:1-8}\{_NAME:9}
  This would use the first 8 characters of the input file name as the output folder, and the rest of the name as the file name. The special field **_PATH** is the original folder name and **_EXT** the original file extension, should they be needed.
  A file name containing fields and/or composite fields is usually evaluated when the file is created. If, however, the specified field(s) cannot be found because they are undefined at the start, EscapeE waits till the end of the processing before looking for the field value(s) again so that the final output file's name can be constructed.

◆ **Note:** The output file may also be created using a temporary extension and then renamed when complete. The temporary extension defaults to **.TMP** but can be changed using the **/TEMP** option – see Command line syntax. 409

Links
Wildcards in font substitution 94
Overwriting files 129

Part X

Export files

Export files

The first pair of topics in this section covers common issues for exporting to image formats. The topics that follow detail how to export files in each specific format, along with topics on how to set up the configuration for any special features that they support. These are set up in auxiliary 'Options' pages, usually accessed via the 'General' page of the Configuration 124 dialog or an options button on the Export 140 dialog.

◆Tip: When a format-specific 'Options' Configuration page is on view, clicking any other tab resets the 'Options' page to 'General'.

Export	Export options
▪ Image format file export 141 such as PNG, BMP	▪ Image import/export options 141
▪ AFP image file export 144	▪ AFP export options 145
▪ DCX/PCX fax image file export 146	
▪ DICOM medical image export 147	▪ DICOM export options 148
▪ EMF format file export 149	
▪ FDL forms file export 150	▪ FDL export options 151
▪ HTML file export 152 ▪ HTML MIME encoded file export 153	▪ HTML export options 154
▪ HTML5 UberEd format export 156	▪ HTML5 UberEd export options 156
▪ IDF file export 158	▪ IDF export options 158
▪ Xerox IMG image file export 160 ▪ Xerox IMG in Barr format file export 161	▪ IMG export options 162
▪ IPDS file export 163	▪ IPDS export options 164
▪ JPEG image file export 165	▪ JPEG compression options 165
▪ PCL document file export 167	▪ PCL export options 168 ▪ Preamble and PJL options 170
▪ PDF file export 172 ▪ PDF/A file export 179	▪ PDF export options 174 ▪ Security options for PDF export 176 ▪ More options for PDF export 177 ▪ PDF/A export options 180
▪ PostScript file export 182	▪ PostScript export options 183 ▪ More options for PS export 185
▪ RTF file export 187	▪ RTF export options 187
▪ TIFF images file export 189	▪ TIFF export options 190
▪ Plain TXT file export 192	▪ TXT export options 193
▪ XPS file export 195	▪ XPS export options 196

Links
Save and Copy 96

Image format file export

To export files to image formats such as PNG, BMP

1. Choose **Export...** from the 'File' menu *or*
   press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose the appropriate image format, e.g. **PNG images**.
   A filename (with an appropriate extension, e.g. `.PNG`) and folder are supplied. To create a different filename or extension, type in the new name or use wildcards. 136
   To select a different folder to store the file, use the **Browse** button.

   To make the selected image format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if 'black and white' or 'gray scale' output is required. Some compression and resolution options tick this box automatically: click **Image options...** to configure these and other Image import/export options. 141
6. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program, e.g. Windows Picture and fax viewer 448. See Associated programs. 136
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
8. Click **OK** to export the pages.

Links
Image import/export options 141
Handling graphics 34

Image import/export options

Use the **Images** page of the 'Configuration' dialog to set up options common to image formats.

- Choose **Configuration** from the 'Options' menu (function key **f8**) and click the **Images** tab
  or
  choose **Export** from the 'File' menu (**Ctrl E**) – see Image format file export 141.
  Select an image format such as BMP or PNG then click the **Image options...** button.

To set options for image import/export

1. Select an appropriate **Output resolution**; you may choose from several options optimized for archiving images, faxing etc. or enter a custom resolution. See Image resolution. 132
2. In certain cases when importing images for which the resolution is unspecified, it may be necessary to change the **Input resolution** from the default initial value of 300dpi (*EscapeE* accepts resolutions as low as 25 dpi).
   - You may force the initial input resolution to be used throughout the job by ticking **Override**. This is generally inadvisable unless the resolution of the images is known to be wrong.
3. Select a compression format 133 from the drop-down list.
   - More compression parameters may be configured when exporting to JPEG format. They may also be applied to images within IDF, PDF, PDF/A, PostScript format files. See JPEG compression options 165.
   - In addition to compression, when exporting to TIFF image format, further options 190 may be configured: click **TIFF options...**.
4. To reduce the bulk of the document, you may opt to **Omit blank pages**. (Normally the viewing of blank pages on-screen is merely suppressed, see Show blank pages 57 option.)
5. Select the 'Image' area of the page to be exported. Choose from:
   - **Full** Outputs entire page(s): this is the default (equivalent to **Select all** option on the 'Edit' menu or pressing **Alt A**).
   - **Paper size only** Outputs an area of each page the size of the sheet of paper.
   - **Printable region only** Only the area of the page(s) which the printer is actually able to print on is shown; on many printers this may be several cm smaller than the full size of the paper.
   - **Printed region only** Only the area of each page that is actually printed on.
   - **Selected area only** You can export just part of a page by sweeping out the area for outputting then choosing this option.
6. A **border** may be added to the Image by entering the widths of the left, top, right, and bottom borders in the editable box, in order one after the other, separated by commas.
   If only one width is specified, EscapeE automatically sets all four borders to that width. If two widths are specified EscapeE automatically sets the left and right borders to the first width, and the top and bottom borders to the second width. (Borders are normally set to 0 dots.)
   - Select the units as **cm**, **inches** or **pixels**.
7. Set up the **Final size** for the image:
   - Check **Scale to** to shape the final image to an exact size; enter the width and height in the boxes.
   - Check **Trim to** to crop the final image to an exact size; enter the width and height in the boxes.

   You may choose to use **cm**, **inches** or **pixels** as the unit of measurement.

8. A default image **Cache** size of **10**Mb will usually suffice, but this value may be edited if necessary.
9. When the **Use ICC profiles** box is checked, any colors expressed in CMYK 445 will be converted to RGB 447 by the RedTitan *Color Management System* using an ICC color profile: see the RTcms Help file.
   Click the **ICC configure...** button to display the configuration dialog for RTcms; select a **CMYK profile** and the required rendering intent.
   - If no profiles are available click the **Browse...** button to select a profile from the Windows location
     `C:\windows\system32\spool\drivers\color`.
     If no profiles are in this location you can download them from the internet, search for 'ICC Profiles'.
10. Some formats (e.g. PNG, TIFF) allow the white parts of an image to be treated as transparent instead of opaque. Select **Transparent white** check-box for 'transparent' treatment; *deselect* for 'opaque' treatment. See also Handling graphics 34.
11. You may tick the **Force monochrome** box to convert colors to 'black and white' or 'gray scale' images (see also Fax note 133).
    Select a conversion method 134 from the drop-down list of options:
    - **Halftone**
    - **Threshold**
    - **Adaptive**
    - **Dither**
    - **Gray**
12. Select the smoothing options 135 for 'colored images and the screen' and 'monochrome images' that you would like EscapeE to use when images need to be scaled down in size:
    - **Simple**
    - **Two-bit**
    - **4-bit Gray-scale**
    - **8-bit Gray-scale**
13. Select a 'Shading' option as appropriate: **Standard**, **Fine** or **Gray-scale**. See Shading options 135.
14. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Links
Image format file export 141
More options for PDF export 177

AFP image file export

To export files to IBM AFP images

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **AFP images** as the 'Format';
   - a wild-carded 136 filename (with extension .AFP) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. *Or*
   - check the **LPR output** 446 box: the filename will be supplied automatically.

   To make 'AFP images' format the default, click **Save format**.
5. Click **AFP options...** button to display the Configuration dialog: see AFP export options. 145
6. Tick the **Force monochrome** check-box if required. See also Image import/ export options. 141
7. Tick **Run the associated program after creating the file** if you want *EscapeE* to open the file immediately using your preferred program: see Associated programs. 136 The default associated program is EscapeE.
8. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
9. Click **OK** to export the pages.

◆ Tip: It is recommended that you trim the image by sweeping out an area of the page with the mouse and choosing **Selected area** from the Images 142 page of the Configuration dialog.

Links
AFP export options 145

AFP export options

- Choose **AFP images** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **AFP images** format from the File|Export dialog (**Ctrl E**) – see AFP image file export 144 – then click **AFP options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for AFP export

1. Set up the FormDef (see Notes 145 below) by:
   - typing in the 'AFP Medium Map' name corresponding to the PCL **Simplex** and **Duplex** trays, *or*
   - tick **Generate formdefs automatically**, then enter the number of the tray that you would like the AFP printer to use alongside each corresponding PCL tray number cited in the document. (The entry for tray 0 applies in the case where no PCL tray has been selected.)
2. To set more Image import/export options 141 select the **Image options...** button.
3. To set up the default tray names for your output select the **Printer** tab from the Configuration dialog – see Configuring the output printer's defaults 109.
4. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

AFP systems use a "FormDef" resource to process the datastream which EscapeE can generate automatically. The default set-up is a one-to-one mapping from the PCL tray number to the AFP tray number. Alternatively, Users may choose to construct the FormDef manually using Medium Map names and correlating them with the appropriate trays and 'plexing'. Note that medium maps have names of up to eight characters.

It is recommended that you use compression option CCITT group 4 133.

Links
AFP image file export 144

DCX/PCX fax image file export

To export files to DCX/PCX fax images

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129 Maximum number of pages is 1023.
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **DCX fax images** as the 'Format';
   - a wild-carded 136 filename (with extension .DCX) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. *Or*
   - check the **LPR output** 446 box: the filename will be supplied automatically.

   To make 'DCX fax images' format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **Image options...** to configure more Image import/export options. 141
6. If you have defined data fields on the pages, *EscapeE* can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
7. Click **OK** to export the pages.

◆ Tip: For optimum viewing of PCX images with resolutions other than 300 dpi, users may wish to create pre-scaled fonts at the correct resolution using RedTitan *Font Rasteriser*.

Links
Image import/export options 141

DICOM medical image export

To export files to DICOM format

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **DICOM images** as the 'Format'.
   A **File name** and path are supplied.
   - A \ terminates the filename if 'Build a DICOM directory' option has been selected.
   - If 'Build a DICOM directory' option has *not* been selected, the file name will be given extension `.DCM`.
     - You may use the **Browse** button to set up a new path.

   To make 'DICOM images' format the default, click **Save format**.
5. Click **DICOM options...** to set up DICOM-specific configuration options: see DICOM export options. 148
6. Tick the **Force monochrome** check-box if required, see also Image import/ export options 141.
7. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program: see Associated programs. 136 The default associated program is EscapeE.
8. Click **OK**.

Notes

A DCM 'image' file not only contains an image but also data pertaining to the image, see DICOM Element Tags. 223

Sets of DICOM files are commonly shipped together in a self-contained 'directory': see DICOM export options 148.

Links
DICOM export options 148
DICOM element tags 223

DICOM export options

- Choose **DICOM images** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the General page, *or*
  Choose **DICOM images** format from the File|Export dialog (**Ctrl E**) – see DICOM medical image export 147 – then click **DICOM options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for DICOM export

1. DICOM medical files are usually output as a "directory" folder to facilitate their distribution via external media (CD ROMs, USB memory sticks, ZIP files etc.). This is the location of the "directory" file (note the "DIR" appended to the file name) and the images folder "RTIMAGES". The 'DIR' file contains details of each of the pages of the original file; the images file(s) are placed in the RTIMAGES folder.
   - When **Build a DICOM directory** is ticked, the 'File name' path specified in the Export dialog defines the location of the directory folder containing the directory file and its RTIMAGES folder.
   - **De-selecting** 'Build a DICOM directory' outputs a basic DCM file, suitable for use with a DICOM viewer (such as *EscapeE*) on your own local system.
     - Select **Compressed** to request run-length data compression of DCM images. (Not all viewing software supports this, and it is deprecated if a directory is being created.)
2. Some viewers are unable display the '1-bit' (black-and-white) images typically produced by older equipment. If your original image was '1-bit', select **Convert 1-bit images to 8-bit** and EscapeE will do the transformation for you. This does, however, increase the file size.
3. To accept this set-up of options:
   - click **Apply**. *Or,*
   - click **Image options...** and configure further options: see Image import/ export options 141.

◆ Tip: blank pages may be ignored by *deselecting* **Show blank pages** option in the Printer 109 or Viewing 57 pages of the Configuration dialog.

Links
DICOM medical image export 147
DICOM element tags 223

EMF format file export

To export files to Enhanced MetaFile format

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **EMF Enhanced Metafile** as the 'Format'.
   A filename (with extension `.EMF`) and folder are supplied.
   - To create a different filename or extension, type in the new name (wild-cards 136 may be used).
   - To select a different folder to store the file, use the **Browse** button.

   To make 'EMF Enhanced MetaFile format' the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **Image options...** to configure more Image import/export options. 141
6. Choose the appropriate 'Resolution' from the drop-down box: **Screen**, **Printer** or **Image defaults**.
7. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program, e.g. Windows Picture and fax viewer. See Associated programs. 136
8. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
9. Click **OK** to export the pages.

Links
Image import/export options 141

FDL form file export

To export files to FDL forms

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **FDL forms** as the 'Format'.
   A filename (with extension .FDL) and folder are supplied.
   - To create a different filename or extension, type in the new name or use wild-cards 136.
   - To select a different folder to store the file, use the **Browse** button.

   To make 'FDL forms' format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **FDL options...** to configure FDL export options. 151
6. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program, e.g. RedTitan *Page Designer* 449. See Associated programs. 136
7. Click **OK** to export the pages.

Notes

When generating FDL forms it may be necessary to save fonts and images. A folder is created to contain any download fonts saved during FDL form generation (usually \RedTitan\FONTS\PCLDLOAD). For fonts a name is made based on the font name, point size etc, and a check is made to see if it is the same as a previously encountered font to avoid duplicates. Because some drivers only download the characters they need, the downloaded characters may be merged into an existing font if it has the same characteristics and shares some characters with the new font and there are no discrepancies. Images are given names based on hashing the image data and stored in the IMAGES sub-directory of the library root directory (usually \RedTitan\FONTS \IMAGES). Each image is only saved once, so before saving the image a check is also made to see if it exists already. To save fonts and images in specific library paths see Changing font and image libraries 79.

To avoid problems when you are reusing the form, you can set EscapeE to recalculate the characteristics of download fonts. See Setting General export options 124.

Links
FDL export options 151

FDL export options

- Choose **FDL forms** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **FDL forms** format from the File|Export dialog (**Ctrl E**) – see FDL form file export 150 – then click **Options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for FDL export

1. Select **Render as graphic** or select **Render all but text as graphic:** see notes 151 below.
2. Set the resolution for line drawing and images and for text positioning: **600**dpi *or* **300**dpi.
3. Select the format for any image(s) needed to output the document: **RIF** 447, **TIFF** 120 or **PNG** 120 (the default).
4. Select **Generate flowed text in FDL forms** if you wish to make changes to the form later.
5. To import data tags, select from the 'Data tagging' options:
   - **MS Word** 448 suitable 'Field delimiter' characters for the **Start** and **End** of fields will be entered automatically.
   - **Other** enter the Field delimiter characters **Start** and **End** edit boxes.
   - Select **None** to clear any previous settings.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

If you are going to edit an FDL form using *Page Designer* 449 you can combine the text into flowed paragraphs with spaces in between: choose **Generate flowed text in FDL forms** above 151.

If your PCL file contains tagged data, for example as created by Microsoft Word, you can import the data names into the FDL form: see Data tagging 151 above.

Links
FDL form file export 150

HTML document file export

Files can be exported in standard HTML[446] format to create a WEB page for the Internet – see below[152] – as MIME[446]-encoded HTML to include resources (see HTML MIME encoded file export[153]) and HTML5 (see HTML5 UberEd format export[156]).

To export files to HyperText Mark-up Language

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges.[129]
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files.[129]
4. Choose **HTML document - WEB page** as the 'Format'
   - a wild-carded[136] filename (with extension .HTM) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button.
     Note that if you enter the location of a folder on your web server here, the file will be directly available to the Internet.
     Or
   - check the **LPR output**[446] box: the filename will be supplied automatically.

   To make the HTML document format the default, click **Save format**.
5. Tick the **Force monochrome** checkbox if required. Click **HTML options...** to configure more HTML export options.[154]
6. Tick **Run the associated program after creating the file** if you want *EscapeE* to open the file immediately using your preferred program, e.g. *Internet Explorer*[448]. See Associated programs.[136]
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export.[236]
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
8. Click **OK** to export the pages.

Notes

The document is output as a file written in HyperText Mark-up Language, suitable for display by a web browser. There is an option[154] to output the document as XHTML i.e. the HTML is written using XML[448], so all elements start and end in a standardized way. Documents typically require other resources e.g. images; these must be stored in separate files, potentially in a different folder. See also HTML MIME encoded file export[153]

To print HTML documents created by EscapeE and containing vertical lines, ensure that "Print background colors and images" from the "Printing" section of the Internet Explorer "Tools|Internet options...|Advanced" dialog is selected.

HTML MIME encoded file export

As with 'HTML document - WEB page 152' export, 'HTML MIME-encoded' creates files that can be opened by web browsers. In this MHT 446 format, however, a single file is created that contains all the resources packaged as a Multipart/Related MIME 446 document.

To export files to MIME-encoded HTML

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages which you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **HTML MIME-encoded** as the 'Format';
   - a wild-carded 136 filename (with extension .MHT) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. Or
   - check the **LPR output** 446 box; the filename will be supplied automatically.

   To make 'HTML MIME-encoded' format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **HTML options...** to configure more HTML export options. 154
6. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program, e.g. *Internet Explorer* 448. See Associated programs. 136
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
8. Click **OK** to export the pages.

Notes

If a local file path is specified then this will be used as a place to store the results temporarily during the construction of the output. The addition of an appropriate header giving sender and recipients would make the output suitable for Emailing.

Links
HTML export options 154
HTML document file export 152

HTML export options

The configuration options for 'HTML document – WEB page 152' and 'HTML MIME encoded file export 153' are common to both formats, see below 154. (If exporting to HTML5 UberEd format 156, see HTML5 UberEd export options 156 instead.)

- Choose an **HTML** output format from the Options|Configuration dialog (**f8**) then click the **HTML options...** button on the 'General' page, *or*
  Choose an **HTML** format from the File|Export dialog (**Ctrl E**) then click **HTML options...**.
- Click **Apply** to accept the 'options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for HTML export

1. Select **save in XML format** for XHTML *only* if normal HTML is inappropriate.
2. To export the document in HTML containing a single graphic image per page, choose **render as graphic;** element options (see below) do not apply.
3. Set up the file prefix 439 to be used for creating the resource files. (If left blank the output filename will be used as the prefix.) Numbers will be appended to the names so that each resource file is uniquely identified.
4. Set up the local file path 439 to be used for storing the resource files. If left blank the resources will stored in the same location as the output file.
5. Set up the URI path 443 for use when the page is referenced via the Internet.
6. Click **Apply** to set up these options and return to the 'General' page.
7. Select **Printer** page of the 'Configuration' dialog to set the printer defaults. 108

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or Click the **Save** button to retain these settings after you close the program.

Element options

- To store text as longer phrases (to improve searching) select **combine text strings together**.
- To combine the non-text (graphic) elements into a single graphic image of each page while retaining the text elements, choose **render all but text as graphic**.
- Selecting **always use standard fonts** ensures that fonts are never rendered as bitmaps. De-select this option if the document contains non-standard fonts, for example to allow logos coded as characters to be rendered as bitmaps.
- Select **keep original element order** if the document has ordered opaque elements (e.g. shading) to overwrite text or lines.

Notes

An HTML document consists of a sequence of elements: text, lines, shading, images etc. *EscapeE* enables you to choose whether to output the pages as individual elements or as a single PNG image or as a combination of text and a single PNG image.

The elements in the document are placed at absolute positions and will be ordered so that 'solid' elements (e.g. graphics) occur before 'open' elements (e.g. text). This ensures that text cannot be obscured by opaque elements. You may override this feature by selecting the **Keep original element order** option.

If the fonts defined in the original PCL document are not also in the browser's resources, substitute fonts will be used. If this noticeably affects the appearance of the document, you may opt to output an image of the document instead.

The Local file prefix can be set up as a prefix to the resource files being created. The actual filenames used will be made by concatenating this prefix with the resource name. File locations may be specified as 'relative' or 'absolute'. The URI prefix should be the corresponding web URI for the directory path of the filename.

Links
HTML document file export 152
HTML MIME encoded file export 153

HTML5 UberEd format export

Files exported in this HTML5 446 format are readable by the *UberEd* 449 program for creating and editing multi-page documents.

To export files to HTML5

1. Choose **Export...** from the 'File' menu *or*
   press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **HTML5 UberEd format** from the drop-down list.
   - a wild-carded 136 filename (with extension .HTML) and folder are supplied.
     To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button.
     Note that if you enter the location of a folder on your web server here, the file will be directly available to the Internet.
     Or
   - check the **LPR output** 446 box: the filename will be supplied automatically.

   To make 'HTML5 UberEd format' the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **Options...** to configure more HTM5 UberEdL export options. 156
6. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program e.g. *UberEd* 449. See Associated programs. 136
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
8. Click **OK** to export the pages.

HTML5 UberEd export options

- Choose **HTML5 UberEd format** as the 'Output' format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **HTML5 UberEd format** from the File|Export dialog (**Ctrl E**) – see HTML5 UberEd format export 156 – then click **Options...**
- Click **OK** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for HTML5 UberEd export

1. Set up the fields in 'Field definitions' panel:
   - **Use existing fields** Tick to extract items based on the existing fields and their Type 225 e.g. 'Text aligned right'.
   - **Delete existing fields** Click to remove all existing field definitions (e.g. when enabling EscapeE to define the fields automatically 159). Confirmation is required before this action is carried out.
   - **Define fields automatically** Tick to create new fields encompassing the items found on the current page. These field 'Types' may be recognized and set up automatically:
     'Text aligned right',
     'Text justified'
     'Text centered'
     'Graphic'.
     If the Type of a field area is unspecified, anything in the area will be rendered as a 'Graphic' for export.
   - **Use same fields on each page** Tick this if the document contains many similar pages which need to be treated alike.
     The default is for this option to be *deselected*, so any fields generated automatically are defined for the current page only.
   - **Show Fields form** When this option is ticked The Field dialog 199 is opened to show the definitions of the fields created on each page. This enables you to edit 211 any definitions before the page is output.
     Click **OK** to step to the next page's field definitions. When the fields for the last page are displayed, clicking **OK** closes the Field dialog.
2. In the 'Options' panel:
   - **Show lines** Tick to include fields for representing any lines or drawn paths on the page.
   - **Show graphics** Tick to include fields for representing any graphics on the page.
   - **Use same options for each page** Tick this if the document contains many similar pages which need to be treated alike: this dialog will not be shown for subsequent pages.
3. Set up distances, measured in 1/600 inch units, in the 'Alignment and spacing' panel:
   - **X difference to be vertically aligned**
     Lines which end within this distance may be treated as 'Text aligned right'. It is the maximum difference between x coordinates for two lines, e.g. 3.
   - **Flowed text**
     Line breaks will not be preserved.
4. Click **OK** to complete the export *or*
   click **Cancel** to abort the export and return to the document on display in the EscapeE window.

◆ Note

Any JPEG-compressed images will be saved as JPEGs on export to HTML5. See also JPEG compression options 165.

IDF file export

A file for export to Intelligent Document Format 119 may comprise whole-page impositions of an existing document and/or a number of clipped areas and/or a series of IDF statements 266 entered manually. This is an invaluable feature when re-purposing existing documents.

To export files to IDF

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **IDF Intelligent Document Format** from the drop-down list of formats;
   - a wild-carded 136 filename (with extension .IDF) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. *Or*
   - check the **LPR output** 446 box; the filename will be supplied automatically.
5. To make the IDF format the default, click **Save format**.
6. Click **Options...** to set up IDF-specific configuration options: see IDF export options 158.
7. Tick the **Force monochrome** checkbox if required.
8. If you have defined data fields on the pages, *EscapeE* can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
9. To open the new file immediately in *EscapeE*, tick **Run the associated program after creating the file**.
10. Click **OK**; if 'Show Fields form' has been configured, the Field dialog opens: see IDF export options 159.

IDF export options

Choose **IDF Intelligent Document Format** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or* Choose **IDF Intelligent Document Format** from the File|Export dialog (**Ctrl E**) – see IDF file export 158 – then click **Options...**

- Click **OK** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or* the Export dialog.

To set options for IDF export

1. Set up the fields in 'Field definitions' panel:
   - **Use existing fields** Tick to extract items based on the existing fields and their Type 225 e.g. 'Text aligned right'.
   - **Delete existing fields** Click to remove all existing field definitions (e.g. when enabling *EscapeE* to define the fields automatically 159). Confirmation is required before this action is carried out.
   - **Define fields automatically** Tick to create new fields encompassing the items found on the current page. These field 'Types' may be recognized and set up automatically:
     'Text aligned right',
     'Text justified'
     'Text centered'
     'Graphic'.
     If the Type of a field area is unspecified, anything in the area will be rendered as a 'Graphic' for export.
   - **Use same fields on each page** Tick this if the document contains many similar pages which need to be treated alike.
     The default is for this option to be *deselected*, so any fields generated automatically are defined for the current page only.
   - **Show Fields form** When this option is ticked The Field dialog 199 is opened to show the definitions of the fields created on each page. This enables you to edit 211 any definitions before the page is output.
     Click **OK** to step to the next page's field definitions. When the fields for the last page are displayed, clicking **OK** closes the Field dialog.
     See also Editing an IDF document 268.
2. In the 'Options' panel:
   - **Show lines** Tick to include fields for representing any lines or drawn paths on the page.
   - **Show graphics** Tick to include fields for representing any graphics on the page.
   - **Use same options for each page** Tick this if the document contains many similar pages which need to be treated alike: this dialog will not be shown for subsequent pages.
3. Set up distances, measured in 1/600 inch units, in the 'Alignment and spacing' panel:
   - **X difference to be vertically aligned**
     Lines which end within this distance may be treated as 'Text aligned right'. It is the maximum difference between x coordinates for two lines, e.g. 3.
   - **Flowed text**
     Line breaks will not be preserved.
4. Click **OK** to complete the export *or*
   click **Cancel** to abort the export and return to the document on display in the EscapeE window.

◆ Note

Any JPEG-compressed images will be saved as JPEGs on export to IDF. See also JPEG compression options 165.

IMG image file export

To export files to Xerox IMG images

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **IMG images (Xerox)** as the 'Format'.
   A filename (with extension .MET) and folder are supplied.
   - To create a different filename or extension, type in the new name or use wildcards 136.
   - To select a different folder to store the file, use the **Browse** button.

   To make 'IMG images (Xerox)' format the default, click **Save format**.
5. To set up input tray options, click **Xerox options...**: see IMG export options. 162
6. Tick the **Force monochrome** checkbox if required. See also Image import/ export options 141.
7. Enter the accounting department in the **Dept** box if required.
8. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program: see Associated programs 136.
9. If you have defined data fields on the pages, *EscapeE* can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
10. Click **OK** to export the pages.

Notes

IMG export produces a datastream in Variable blocked format for feeding directly to a channel-attached Xerox centralized DJDE/Metacode printer. (The Xerox IMG in Barr format 161 is used where the printer has a Barr 448 spooler interface attached.) These formats enable documents from standard word processing software to be output as a PCL file and then converted by EscapeE for printing identically on a Metacode printer. Both formats make use of PP.JSL supplied.

Input trays can be configured to correspond to the PCL input tray numbers. It is then possible to set up a field definition which forces a particular type of page to feed from the desired tray. See IMG export options. 162

The **Dept** option allows you to specify the accounting department to use. Contact RedTitan if you require more help with using this option.

Creating an image does not allow you to edit the file or use the text search facility. Use the FDL export 150 if you wish to create an editable version.

IMG in Barr format file export

To export files to Xerox IMG images in Barr format

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **IMG (Xerox, Barr)** as the 'Format'.
   A filename (with extension .MET) and folder are supplied. To create a different filename or extension, type in the new name or use wildcards. 136 To select a different folder to store the file, use the **Browse** button.
   To make 'IMG (Xerox, Barr)' format the default, click **Save format**.
5. To set up input-tray options, click **Xerox options...**: see IMG export options. 162
6. Enter the accounting department in the **Dept** box if required.
7. Tick the **Force monochrome** checkbox if required. See also Image import/ export options. 141
8. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program: see Associated programs 136.
9. If you have defined data fields on the pages, *EscapeE* can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
10. Click **OK** to export the pages.

Notes

IMG export produces a datastream in Variable blocked format for feeding directly to a channel-attached Xerox centralized DJDE/Metacode printer. This Xerox IMG (Barr) format is used where the printer has a Barr 448 spooler interface attached. These formats enable documents from standard word processing software to be output as a PCL file and then converted by EscapeE for printing identically on a Metacode printer. Both formats make use of PP.JSL supplied.
Input trays can be configured to correspond to the PCL input tray numbers. It is then possible to set up a field definition which forces a particular type of page to feed from the desired tray. See IMG export options. 162
The **Dept** option allows you to specify the accounting department to use. Contact RedTitan if you require more help with using this option.
Creating an image does not allow you to edit the file or use the text search facility. Use FDL form file export 150 if you wish to create an editable version.

IMG export options

The configuration options for 'IMG images (Xerox)' and 'IMG images (Xerox, Barr)' are common to both formats.

- Choose an **IMG images** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose an **IMG images** format from the File|Export dialog (**Ctrl E**) – see Exporting files to IMG images 160, IMG in Barr format file export. 161 Then click **Xerox options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for Xerox IMG export

1. Configure the input trays to correspond to the PCL input tray numbers, e.g:
   Tray 1 **MAIN**
   Tray 2 **AUX**
   The entry for tray 0 applies in the case where no PCL tray has been selected.
2. Click **Apply**
   or
   to set further options (resolution, size etc.) click **Image options...** (see Image import/export options 141).
3. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Tip: You may set up a field definition to force a particular type of page to feed from the desired tray – see Setting field actions 208.

Links
IMG image file export 160
Exporting files to IMG in Barr format 161

IPDS file export

Only installed on specialist systems.

To export files to IBM IPDS

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **IPDS** as the 'Format'.
   Enter a filename (with extension .IPD) or use wildcards. 136 To select a different folder to store the file, use the **Browse** button.
5. Tick the **Force monochrome** checkbox if required.
   Click **IPDS options...** to configure more IPDS export options. 164
6. If you have defined data fields on the pages, *EscapeE* can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
7. Click **OK**.

Links
IPDS export options 164

IPDS export options

- Choose **IPDS** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **IPDS options** format from the File|Export dialog (**Ctrl E**) – see IPDS file export 163 – then click **Options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for IPDS export

1. If you would like to reduce the document size select **use data compression**.
2. If you would like to store text as longer phrases (to improve searching) select **combine text strings together**.
3. Select **render as graphic** *or* select **render all but text as graphic** *or* **neither** of these options: see notes below.
4. Select **keep original element order** if the document has ordered elements which may overwrite text or lines.
5. Enter the number of the **input tray** on the PCL printer (or use the spin-box) and the number of the input tray to be used by the IPDS printer instead. Do this for each tray used in the document.
6. Enter the number of the **output bin** on the PCL printer (or use the spin-box) and the number of the output bin to be used by the IPDS printer instead. Do this for each bin used in the document.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

The module to export in IBM 448 IPDS protocol must be specially installed; contact help@redtitan.com for more information.

IPDS printers can use their own built-in mechanisms to generate the text, drawing and image elements of a document from a relatively small file of IPDS instructions. Different printers, however, may render the document differently from the original. *EscapeE* copes with this by offering three options. If it is imperative that the document is reproduced exactly, ticking the 'Render as graphic' box will remove any uncertainty in the faithfulness of the output, at the expense of a much bigger file. Ticking the 'Render all but text as graphic' option will ensure that only the graphic elements are reproduced exactly, so the output file is of intermediate size. If the file is essentially a simple text document rather than a piece of artwork, you may leave both of these options blank and rely on the IPDS printer's mechanisms.

Links
IPDS file export 163

JPEG image file export

To export files to JPEG image format

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **JPEG images** as the 'Format'.
   A filename (with extension .JPG) and folder are supplied. To create a different filename or extension, type in the new name or use wildcards. 136 To select a different folder to store the file, use the **Browse** button.
   To make 'JPEG images' the default format, click **Save format**.
5. To set up resolution and size options, click **Image options...**: see Image import/ export options 141.
6. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program, e.g. Photo Gallery. See Associated programs. 136
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Click **Log file...** to set up configuration options: see Log File export. 236
8. Click **OK** to export the pages.

◆ Tip: To output the smallest file for the quality of image required, edit the JPEG compression parameters: see JPEG compression options 166.

◆ **Note**

JPEG is designed for real-world pictures for which it gives good results, but for line-art or solid color, TIFF 189 or PNG 141 format may be preferable: see Export formats 118.

JPEG compression options

The JPEG compression method was devised for storing real-world photographs as digital images. It reduces file-sizes considerably but information on color and luminance may be lost. Consequently, JPEG compression may not be the best choice for detailed images with sharp lines.

To configure *EscapeE* to get the best JPEG image at the smallest file-size, see Compression parameters 166 below.

You may choose to apply JPEG compression to image(s) found in PDF, PDF/A 177, PostScript 183, IDF 158 and HTML5 156 documents, while applying a different compression method to the rest of the document: see JPEG images in other documents 166 below.

Compression parameters

Experts may customize the values of the parameters used for applying JPEG compression to an image (see also command line option /JPEGOPTS 400). Note that this set-up is also used when exporting to PDF, PDF/A 177, PostScript 183 and IDF 158.

1. Choose **Configuration...** from the 'Options' menu (*or* press **f8**) to open the General 124 page of the 'Configuration options' dialog.
2. Select **JPEG images** Output Format then click the **Options...** button alongside to show the JPEG Options page.
3. Tick the **Low resolution color** check-box to effectively average the color (rather than the luminance) of a number of pixels, yielding a smaller number of "bigger" color pixels. This results in smaller images with some loss of quality – sharp edges may appear fuzzy and colors smeared out, but this is usually acceptable for photographs.
4. Enter/select a value for image **Quantisation quality**:
   `100` for minimal degradation, but bigger files than
   `0` for heavily quantized (i.e. highly compressed but low quality) images.
   Intermediate values may be used to vary the degree of quantization; the default value used is 50.
5. Tick the **Coarse color quantisation** check-box to allow the color to be rounded to fewer levels (fewer than the luminance values), again yielding smaller images with some loss of quality. This may be acceptable for graphic art using limited palettes.
6. Click **Apply**.

JPEG images in other documents

1. Choose **Configuration...** from the 'Options' menu (*or* press **f8**) to open the General 124 page of the 'Configuration options' dialog.
2. Select **PDF images** Output Format then click the **Options...** button alongside to show the PDF Options page.
3. Click **More...**.
   - To apply JPEG compression to any JPEG images found in the document, tick **if it was a JPEG**. *Alternatively*,
   - set up a benchmark to determine whether JPEG compression is to be used or not. Enter/select a value for **Use JPEG for images** from the drop-down box:
     - **Always** always use JPEG compression for all images (`100`)
     - **Never** never use JPEG compression for any image (`0`)
     - **If appropriate** and set up an intermediate value to bias the set-up towards or against choosing JPEG compression; EscapeE defaults to using a value of `50`.

◆ Tip: you can check whether an image in the document on view was sourced from a file in JPEG format by looking for "JPEG" in the image's Graphic details 55.

Links
JPEG image file export 165

PCL document file export

To export files to HP PCL

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **PCL document** as the 'Format';
   - a wild-carded 136 filename (with extension .PCL) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. *Or*
   - check the **LPR output** 446 box; the filename will be supplied automatically.

   To make 'PCL document' format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **PCL options...** to configure PCL export options 168.
6. The **Duplex override** box is normally blank but if an override is already in force then the plex option is shown (in maroon as a warning). You may choose an option from the drop-down list, see Simplex and duplex options 113.
7. Tick **Run the associated program after creating the file** if you would like to open the file immediately, using your preferred program (*EscapeE* is an obvious choice). See Associated programs 136 for instructions.
8. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
9. Click **OK**.

Tip: If you have opted to create macro(s) 100 from the page(s), a **Macro** box is shown on the dialog: enter the number 446 for the (first) macro, see PCL export options 169. To revert to exporting PCL rather than macros (and remove the 'Macro' box from the dialog), clear the **Permanent** and **Temporary** 'Save as a macro' boxes, see PCL export options 169.

Notes

PCL files that have been repeatedly edited and updated often accumulate redundant code and unnecessary font downloads. By running such a PCL source file through PCL 'Export' you can reprocess the file and produce tidy, efficient code again. If you need to copy the PCL code without reprocessing, choose **Subset** as the export format – see Saving pages to a PCL file 96.

EscapeE output always orders the elements in the document so that 'solid' elements (e.g. graphics) occur before 'open' elements (e.g. text). This ensures that modern color printers (which use patterns of colored and white dots to render shaded areas), always place text and drawn lines on top of any opaque elements. You may override this feature by selecting the **Keep original element order** option.

As with PS and PDF export, compression, string combination and **graphic**/**graphic with text** options are available.

Each page in a document may be used to create a new macro 446 using the Export 'PCL document' format. See To set options for PCL export 168.

Links
Saving pages to a PCL file 96
PCL export options 168

PCL export options

- Choose **PCL document** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **PCL document** format from the File|Export dialog (**Ctrl E**) – see PCL document file export 167 – then click **PCL options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for PCL export

1. Select **Use data compression** when exporting to modern printers; adaptive compression methods reduce the size of files containing images.
2. You may reduce the size of the file by choosing:
   - to **Render all but text as graphic**, which retains the 'text' features (e.g. search).
   - You may reduce the size of the file further by choosing to **Render as graphic** instead.
     - In addition, you may now choose to **Include text as well as the graphic**; this would use least memory of all.

   See Notes 170 below.
3. If you would like to store text as longer phrases (to improve searching) select **Combine text strings together**.
4. It is usually best to select **Include TrueType fonts** unless you are using a printer that does not support TrueType fonts. If this is not selected then bitmapped fonts will be used, which in some cases may result in a smaller output file depending on the point sizes used.

5. If you have set up substitute fonts in the 'Fonts | Substitute Fonts...' dialog, you may **Use standard fonts if substitute font given.**
   - Select **Always** to always use standard fonts i.e. so that *only* fonts from the library are used and *no* fonts are downloaded.
6. Select **Save fonts separately in file** if required (see Notes 170 below). You may enter a filename in the edit-box below *or* simply use the `*.hp` default.
7. Select **LIDIL (graphics only) printer** if exporting to a host-based 446 printer.
8. Tick the **Omit blank pages** option if appropriate – for example when exporting a document which is to be viewed on screen (not printed) from a duplex original.
9. Select **Keep original element order** if the document has ordered opaque elements (e.g. shading) to overwrite text or lines.
10. Select **Printer supports scalable images** unless you are using an old printer that cannot handle scaled graphics.
11. These PJL options are provided for PCL specialists:
    - **Export PJL comments** check-box: see PJL Comments 64.
    - The **Do not use PJL commands** check-box to remove unwanted PJL from the output if the printer is not strictly PCL compatible. See also Preamble and PJL options: Notes 171.
    - Edit-boxes to set up a **PJL prefix** and **PJL separator**: see PCL field prefix 214.
    - An editing window for entering a **Preamble**: see Preamble 170.
12. Set the resolution for line drawing and images and for text positioning: **600**dpi *or* **300**dpi.
13. To enable macro(s) to be created from the PCL, enter the macro **number** (EscapeE initially defaults to 100) then choose:
    - **Permanent** – macro retained from one job to the next, *or*
    - **Temporary** – macro deleted from printer at the end of the current job.

    Setting either of these options causes the LIDIL (graphics-only) printer 169 box to be checked, thus ensuring that the macro is exported as a graphic. The macro number 446 is also displayed on the PCL export 167 dialog.
14. To use a different **Input tray** from that specified in the original document, use the spin box to set up the original tray number and enter the new tray number in the box alongside.
15. To use a different **Output bin** from that specified in the original document, use the spin box to set up the original bin number and enter the new bin number in the box alongside.
16. The **Duplex override** box is normally blank but if an override is already in force then the plex option is shown (in maroon as a warning). You may choose an option from the drop-down list, see Simplex and duplex options 113.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

A PCL file may be rendered as a **graphic only** or as a **graphic with text**. The 'graphic only' option will produce an accurate image from the file, including an image of the text, but cannot be used for extracting text for further processing. Exporting the file as 'graphic with text' retains the text features and consumes less memory.

Creating macros using PCL export outputs a totally new PCL file using mainly HP-GL commands. Ticking **render as graphic** eliminates possible font problems.

On large production printers, it may be more efficient to download all the fonts needed for a complex task at the start of a run, rather than loading them one page at a time. It then does not matter if the output pages are re-ordered e.g. if the pages are sorted by postal address instead of by surname. Ticking **Save fonts separately in file** creates such a file and assigns each font in it a unique "ID". This reduces the size of the page files while ensuring that each page can access the fonts it needs when the task is sent to the printer. See also Handling fonts 33, /FONTFILE 384.

Links
PCL document file export 167
Saving pages to a PCL file 96

Preamble and PJL options

One or more lines of information at the start of a file are usually sent to a printer before it starts to print a page. These prepare the printer so that it is set up ready to print the page. For HP-compatible printers, this code is in "PJL 447" and known as the 'Preamble'. For Xerox printers, the code uses "XRX" commands. *EscapeE* can propagate PJL and XRX code as a Preamble 170 when exporting to PCL 169, PostScript 186, PDF 175 and PDF/A 180 formats.
Most users need not know about these technicalities, but EscapeE enables experts to create specialist data-fields from these lines of code. See PJL prefix 214 and Special fields in composed strings 249.

Preamble

The Preamble is made up of lines of code which may be commands for the printer to execute and/or Comments 171. Comments are there to aid the Operator and are ignored by the printer. You may view a document's comments on the PJL 64 page of the Console notebook.
The total number of characters in each line of the preamble must not exceed 255 but the Composite field 244 syntax can be used to build up longer strings or to copy information from the input.
If a PCL file's preamble strings do not begin with an 'Escape' character it is assumed to be PJL. EscapeE outputs an "enter PJL" sequence and begins each preamble line with:

```
@PJL
```

ending the preamble with:

```
@PJL ENTER LANGUAGE=PCL.
```

See also the two corresponding command-line options:
/PCLPREAMBLE 403 and /PSPREAMBLE 405.

PJL Comments

Any PJL Comments 64 found in the input document's Preamble 170 can be passed to a document on export to some formats:

- PCL 169: Choose **PCL document** output format from the General page of the Configuration dialog (**f8**) then click the **Options...** button.
  - Tick **Export PJL comments**.
- PDF 175, PDF/A 180: Choose **PDF document** or **PDF/A document** as the output format (from the General page of the Configuration dialog) then click the **Options...** button.
  - Tick **Export PJL comments**.
- PostScript: Choose a **Postscript** output format from the General page of the Configuration dialog (**f8**) then click the **Options...** button.
  - Click **More...** button and select an 'Include PJL comments' format option: **XML** *or* **Plain text**. See More options for PS export 186.

Up to 26 of these Comments (and also the JOB and JOBATTR commands) from the original file may be associated with each page. They are output as Plain text or as XML-style strings, labeled alphabetically. A typical line in a PDF might be:

```
% <RT A='COMMENT &34;HEADER PCL&34;' B='COMMENT &34;Driver version
02.03&34;'/>
```

(Note that the UNICODE hex code **34** is used to output the double quote character.)
Or in Plain text:

```
% COMMENT "HEADER PCL" % COMMENT "Driver version : 02.03"
```

Comments may be specified on the command line using **/COMMENTS** 393 option.

◆ Tip: a PJL command of the form

```
@PJL COMMENT REDTITAN DIR xxxx
```

will cause the special field 248 **{_RT}** to have the value **xxxx**.

◆ Notes

When the 'Ignore' **PJL commands** option (on the General 125 page of the Configuration dialog) is ticked, any PJL commands found in the input file are *stored* but cannot be exported. They may, however, be used to provide values for fields using the prefix 214 mechanism. In general usage, this specialist feature can be safely ignored.
If the Ignore PJL commands check-box is cleared, PJL commands found in the input file are stored and will be *included* in the exported file. PJL commands constructed using the prefix 214 mechanism may also be exported.

There is an option to *remove* unwanted PJL from the output file – for example, when outputting to a printer which is not strictly PCL compatible. Display the Configuration dialog's 'PCL document' options page (see PCL export options 169) and tick **Do not use PJL commands**.

Links
PJL Comments 64
Special fields in composed strings 249

PDF document file export

To export files to PDF

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **PDF document** as the 'Format';
   - a wild-carded 136 filename (with extension .PDF) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. Or
   - check the **LPR output** 446 box; the filename will be supplied automatically.

   To make 'PDF document' format the default, click **Save format**.
5. Click **PDF options...** to display the Configuration dialog and set up PDF export options. 174
6. Tick the **Force monochrome** check-box if required.
7. The **Duplex override** box is normally blank but if an override is in force then the plex option is shown (in maroon) – see Simplex and duplex options 112.
8. Tick **Run the associated program after creating the file** if you want *EscapeE* to open the file immediately using your preferred program, e.g. Adobe Acrobat 448 or EscapeE. See Associated programs. 136
9. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
10. Click **OK** to export the pages.

◆ Tip: When viewing the PDF output in Adobe Acrobat, you may need to turn off the smoothing options. These may be found on the 'Preferences' dialog in the Acrobat 'Edit' menu.

Notes

Documents exported as PDFs can be viewed directly with a browser and may be searched for text strings. The fonts required to display the document are often included with the PDF file, but this can make the file very large. To reduce the file-size, PDF files may include references to external fonts instead – unlike PDF/A document files. 179 This is helpful when the referenced fonts are installed on users' systems already: see PDF export options. 174 If you are not happy with the appearance of fonts in the output file, please contact RedTitan for more help with fonts.

If you are using EscapeE to view a PDF file which includes referenced fonts that are not available on your system, EscapeE uses the fonts which best match the requested fonts' properties from the fonts which are available. Thus, while the major attributes of a font's style will be honored, minor features may differ and so the display will not be an exact image of the original document. For example, if an italic font with a custom underline has been requested, the font used will be italic but the default plain solid underscore will be used for the underline. A message detailing the attributes of the fonts requested and used will be placed on the Error messages 62 page of the Console notebook when this happens. See also Setting up a Font Substitute file 90.

By default, EscapeE will use substitute fonts for any printer-resident fonts (e.g. Courier, CG Times and Univers) and any downloaded fonts will be converted to bitmap fonts and included in the PDF. These defaults can be changed – see PDF export options. 174 You can opt to create a 'Table of Contents' from selected fields, or from tags: for example, special font definitions.

Fields may be defined to enable the export of unfilled PDF forms using a number of special options: buttons, borders, check-boxes, editable boxes, lists. See Special fields for PDF export. 217

There are two methods of generating PDF files with security restrictions. The original method used two passwords: one to allow full ownership access including changing the security options, the other for general users: see PDF export options 174. The alternative method uses "public" and "private" keys to digitally sign and/or encrypt the document: see Security options for PDF export 176.

There are command line options which enable the PDF document summary elements Title, Description, Author, and Keywords to be defined: see PDF document summary. 219

There are command line options for setting up preferences regarding the display of a PDF document: see PDF viewer preferences. 221

Links
PDF export options 174
PDF/A document file export 179

PDF export options

- Choose **PDF document** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **PDF document** format from the File|Export dialog **Ctrl E**) – see PDF document file export 172 – then click **PDF options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for PDF export

1. In the 'PDF options' panel:
   - By default **Use data compression** is ticked so that output files are compressed. To export files uncompressed instead, clear the box. See also More options for PDF export. 177
   - Select **Combine text strings together** to store text as longer phrases to improve searching, see Text options 131.
   - **Include TrueType fonts** is usually selected to embed any TrueType font, downloaded in the original PCL file, in the exported PDF file. See Notes 175 below.
   - The **Omit blank pages** option may be ticked as required – for example when exporting a document which is to be viewed on screen (not printed) from a duplex original.
   - Normally, each element on the original page (text, image, shades, drawn lines etc.) is placed individually on the PDF page.
     Alternatively, you may choose to consolidate some or all of the elements:
     - **Render all but text as graphic** *or*
     - **Render as graphic**. You may also opt to **Include text as well as the graphic**: see Text options 131.
2. To reduce the size of the exported PDF file, you may choose to substitute fonts in the original document and 'Use standard Adobe fonts' instead. (See also General Ignore download font options 125.)
   - If you choose to replace **bitmap fonts**, **TrueType fonts** or **always**, ensure that such fonts in the document are using the Windows character set, otherwise characters may be wrongly attributed. See also About symbol sets 81.
   - Selecting **if substitute font given** option will only omit the download font if it is recognized as having a known substitute, so is more reliable: see also Substitute fonts. 89
3. To restrict the capabilities for general users select one of the 'Do not allow' options:
   - **Printing**
   - **Changing the document**
   - **Adding or changing notes and form fields**
   - **Selecting text and graphics**.

4. To generate PDFs with restricted access you may *either*:
   - Enter one password **to Open the document** and enter another password to enable administrators **to change Security options**.
     Warning: curly brackets, `{` and `}`, will be interpreted as introducing a field name (see Special fields in composed strings 247), so to incorporate these characters in the password you must substitute the two character sequences `_{` and `_}` respectively.
     Or:
   - Click **Security options** button and set up a signing certificate profile and/or recipient list: see Security options for PDF export 176.
5. Set the 'Resolution' for line drawing and images and for text positioning: **300**dpi *or* **600**dpi (default).
6. **Keep original element order** is selected by default. Depending on the way opaque and transparent elements (e.g. shading) have been layered in a document, however, it may be advisable to select **graphic elements first**: see Text options 131.
7. Tick **Export PJL comments** to include any PJL comments 171 and JOB commands in the output.
8. If the document contains embedded TrueType fonts, you may opt to **Subset TrueType fonts**, see Notes 175 below.
9. To assemble a list of fields to be used as a 'Table of Contents' for the document, click the **Contents...** button: see PDF Table of Contents 220.
10. Click the **More...** button to set further PDF options; see More options for PDF export. 177
11. The **Duplex override** box is normally blank but if an override option is in force it is shown in maroon, see Simplex and duplex options 113.
12. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

Double-byte fonts, such as currency symbols, Chinese characters and box-drawing characters, are rendered as graphics.

When exporting to PDF, Include TrueType fonts 174 that have been downloaded in the original PCL file is selected by default. If this box is *not* checked then such fonts are converted to bitmap fonts. Using TrueType (i.e. scalable outline) fonts usually results in better appearance than bitmapped fonts, but may have adverse effects on the file size if only a few characters from a font are used. Checking Subset TrueType fonts 175 may reduce file-sizes considerably in such cases: only the characters actually used in the document are embedded, rather than all of them. For example, a document in English containing an ☐ character would not need to export the entire Greek alphabet. The corresponding command line option is **/TTSUBSET** 410.

There is a command-line option to specify the password for PDF input independent of the one for output: see **/PDFREADPASS** 404.

Links
Special fields for PDF export 217
PDF document file export 172
More options for PDF export 177

Security options for PDF export

For greater security than the standard password protection measures can provide for keeping PDF files safe, you may set up a Signing certificate and/or an Encryption certificate. You may also sign PDF/A documents. Digitally signed documents may be Time-stamped and given authorization protection too, if required.

To access the digital security options

1. Select **PDF document** or **PDF/A document** format from the File|Export dialog (**Ctrl E**) – see PDF or PDF/A document file export.
2. Click **PDF options...** to open the PDF configuration dialog.
3. Click **Security options** to display the digital security page.

Signing a document

When a document has been digitally 'signed', recipients trying to open a PDF or PDF/A file may check whether it has been altered since it was signed and also how trustworthy the signature is.

> The signature consists of a 'digest' of the document and a 'Signing certificate' file or profile. The signing certificate requires an associated 'Private key' and the authority of the signature.
>
> Private keys (.PFX files) are installed on the PC and Windows keeps them safe for you in its own certificate-store.
>
> A trustworthy signature is a chain of referees linking back to a 'Root Signature': self-signed documents must be treated with caution!
>
> See also your Email Tools Options Security settings.
>
> ◆ Font note: When exporting to PDF format, there are options to use Adobe fonts rather than downloading the original fonts used when the document was created (as PDF/A does). These are useful for reducing the size of a PDF file, but if your document contains uncommon characters it may be best to deselect them. This forces the document to include your original font, so you can be sure that the characters in the exported document are always the same as those in the original. (For example, currency and maths symbols – if present at all – may not conform to a standard symbolset.)

1. Display the digital security options page as above.
2. **Select** a Signing certificate profile from the drop-down list.
   Alternatively, to cancel a previously selected certificate, select **<None>** instead.
3. Click **OK** to close the 'Configuration' dialog *or*
   click **Apply** to return to 'PDF options' page.

The digest will be created and the resulting signature applied to the whole PDF document when it is exported.

Encrypting a document

PDF (but *not* PDF/A) files may be 'encrypted' so that only specified recipients may view the document.

> To encrypt a PDF document you use a .CER, .P7B or Security profile 'Encrypting certificate'. Encrypting certificates employ the 'Public keys' of one or more recipients.

1. Display the digital security options page as above 176.
2. Select a suitable 'Encryption' option:
   - **40-bit** (RC4 encryption, used before 1999)
   - **128-bit** (RC4 encryption, superseding '40-bit')
   - **128-bit AES** (more secure than RC4 encryption but not as fast).
3. Specify the Recipient list 177 {public keys}:
   - **Browse** to *or*
   - **Select** from the drop-down list.
4. Click **OK** to close the 'Configuration' dialog *or*
   click **Apply** to return to 'PDF options' page.

About Security profiles

Certificates are organized very securely by your PC and it is usually inconvenient to enter simply a filename and full path. This is often the case when encrypting a document containing many Public keys so that the same PDF may be exported to a number of recipients. User-friendly RedTitan 'Security Profiles', however, may be constructed to contain all the certificate information and keys necessary – just select one from the drop-down list.

- To set up a Signing certificate profile or Recipient list, click **Manage certificates** on the digital security 176 page. The RedTitan *EEcerts* 449 Certificate management program will open. See EEcerts Help for more details.

About Time-stamping

"Time-stamps" are used to pin-down documents and their contents to a precise and verifiable moment. A digest of the time-stamped document is created for you by a 'Time Stamping Authority' via a 'Trusted Third Party'.

- To Time-stamp a document, click **Manage certificates** on the digital security 176 page. The RedTitan *EEcerts* 449 Certificate management program will open. See EEcerts Help for more details.

More options for PDF export

- Click the **More...** button on the PDF options page of 'Configuration' dialog (see PDF export options 174, PDF/A export options 180).

If a file is to be compressed, standard data compression methods which reduce the file's size without losing information are usually applied to the entire document (see PDF export options 174, PDF/A export options 180). When exporting to PDF formats, however, you may choose to treat the *images* in the document differently, see JPEG compression options 165. JPEG is good for compressing color images, but unsuitable for monochrome images.

Gray-scale 178 is best for scaling-down 1-bit images.

PDF documents have no need of "finishing" information (such as which media trays to use) because they are intended for use on-screen. Finishing information may, nonetheless, be included in a PDF document: see Solimar 449® finishing, below 178.

Gray-scale options

Converting to gray-scale is of most benefit for scaling down 1-bit real-world images, see Monochrome conversion 134. Though "lossy", it can reproduce something close to an original gray-scaled image, compressed by half-toning or dithering.

- **by 4 to 4-bit gray** generally gives the best appearance. However, if the image is to be scaled down heavily, then:
- **by 8 to 8-bit gray** resolution produces a smaller file but a coarser appearance.

Image trimming

1. Select an **Image** option:
   Paper size only The image is trimmed to the size of the selected paper.
   Printed region only White space is removed to leave the smallest rectangle which will contain all the printing.
   Printable region only The image is trimmed to the area of the page which a PCL printer would print on.
   Selected area only Outputs the area that has been swept out. If an area has not been swept out, the first field found is used to define the area. If neither an area nor a field can be found, the default ("Full", see below) is used.
   Full The default. The whole page is output, including any items which fall outside the area of the page.
2. If you would like to add a **Border** around the trimmed image, key-in the width of the Left, Top, Right, Bottom borders and select the appropriate units: **Cm**, **Inches** or **Pixels**. For example, `1,3,1,3` adds 1 unit to the sides and 3 units to the top and bottom of the image.
3. Click **Apply**.

Override options

- If the document needs to be printed a specific size using Adobe Acrobat 448, tick **Unscaled printing**. This ensures that the document will not be "scaled to fit" by default and so the dimensional accuracy of the printed document will be maintained.
- If you have set up a Table of Contents 220 it will be generated when the document is exported to PDF or PDF/A. To override this, tick **Do not make a Table of Contents** check-box.
- The preferred compression mode for monochrome document export is usually CCITT4 133 and so the **Permit CCITT4 compression** check-box is ticked by default. You may disallow CCITT4 compression by *de-selecting* this option (although it is unusual for PDF readers not to cope with CCITT4 compression).

Solimar finishing

On Solimar systems, finishing instructions are carried on the "front" (i.e. odd-numbered) page of each sheet of paper. To set up the media instructions for Solimar finishing, select an option from the drop-down list:

- **Use tray numbers** as specified in the original file.
- **Use PCL trays** Specify a PCL tray number by clicking the **View trays** button then editing the spin box value.
- **Use Postscript trays** To view/edit tray set-ups, click **View trays** button; see PostScript export options 184.
- **Use trays appropriate to input format** To view/edit tray set-ups, click **View trays** button.

◆ Tip: You can avoid processing images in a PDF document by ticking the 'Ignore' Images 59 option on the 'General' page of the Configuration dialog. No images will be shown when the file is viewed or included in files exported to PDF.

PDF/A document file export

To export files to PDF/A

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **PDF/A document** as the 'Format';
   - a wild-carded 136 filename (with extension .PDF) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. Or
   - check the **LPR output** 446 box; the filename will be supplied automatically.

   To make 'PDF/A document' format the default, click **Save format**.
5. Click **PDF options...** to display the Configuration dialog and set up PDF/A export options. 180
6. Tick the **Force monochrome** check-box if required.
7. You may choose a Duplex override 113 option from the drop-down list:
   - **Simplex** force simplex
   - **Long edge** force duplex, long edge binding
   - **Short edge** force duplex, short edge binding
   - **No plex** do not specify any plex in the output file
   - **As in the file** use the option specified in the input file.
8. Tick **Run the associated program after creating the file** if you want *EscapeE* to open the file immediately using your preferred program, e.g. Adobe Acrobat 448 or EscapeE. See Associated programs. 136
9. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
10. Click **OK** to export the pages.

◆ Tip: When viewing the PDF output in Adobe Acrobat, you may need to turn off the smoothing options. These may be found on the 'Preferences' dialog in the Acrobat 'Edit' menu.

◆ Notes

PDF/A is an *unencrypted* archive format that can be viewed with a browser and creates documents which can be searched for text strings. The fonts required to display the documents are *always* included with PDF/A files, and this can make the files very large. See PDF/A export options. 180

PDF/A export options

- Choose **PDF/A document** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose **PDF/A document** format from the File|Export dialog (**Ctrl E**) – see PDF/A document file export 179 – then click **PDF options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for PDF/A export

1. In 'PDF options' panel:
   - Tick **Use data compression** to compress output files, or clear the box to export files uncompressed. See also JPEG compression options 165.
   - Select **Combine text strings together** to store text as longer phrases to improve searching, see Text options 131.
   - You may choose to **Render all but text as graphic** or **Render as graphic**, (and optionally, **Include text as well as the graphic** too): see Text options 131.
   - Select **include TrueType fonts** to include any TrueType font, downloaded in the original PCL file, in the exported PDF file. Using TrueType (i.e. scalable outline) fonts usually results in better appearance than bitmapped fonts, but may have adverse effects on the file size if only a few characters from a font are used. If this box is not checked then by default such fonts are converted to bitmap fonts.
   - The **omit blank pages** option may be ticked as required, for example when exporting a document which is to be viewed on screen (not printed) from a duplex original.
2. To restrict the capabilities for general users select one of the 'Do not allow' options:
   - **Printing**
   - **Changing the document**
   - **Adding or changing notes and form fields**
   - **Selecting text and graphics**.
3. Set the 'Resolution' for line drawing and images and for text positioning: **300**dpi *or* **600**dpi.
4. To digitally sign a PDF/A document, click **Security options...**: see Security options for PDF export 176.
5. Depending on the way opaque and transparent elements have been layered in a document (e.g. shading), it may be advisable to select **graphic elements first** or **keep original element order**; see also Text options 131.
6. Tick **Export PJL comments** to include any PJL comments 171 and JOB commands in the output.
7. To assemble a list of fields to be used as a 'Table of Contents' for the document, click the **Contents...** button: see PDF Table of Contents 220.

8. Click the **More...** button to set further PDF/A options; see More options for PDF export 177.
9. The **Duplex override** box is normally blank but if an override option is in force it is shown in maroon, see Simplex and duplex options 113.
10. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

Double-byte fonts, such as currency symbols, Chinese characters and box-drawing characters, are rendered as graphics.

Security options enable PDF/A documents to be digitally signed using Certificates 176 but not or encrypted or password protected (unlike PDF documents).

PostScript file export

To export files to PostScript

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **PostScript level 2** *or* **PostScript level 3** as the 'Format'.
   - A wild-carded 136 filename (with extension .PS) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button or
   - Check the **LPR output** 446 box; the filename will be supplied automatically.

   To make the selected PostScript format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required. Click **PostScript options...** to configure more options for export. 183
6. The **Duplex override** box is normally blank but if an override option is in force it is shown in maroon, see Simplex and duplex options 113.
7. Tick **Run the associated program after creating the file** if you want *EscapeE* to open the file immediately using your preferred program: see Associated programs. 136 The default associated program is EscapeE.
8. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
9. Click **OK** to export the pages.

Notes

EscapeE directly generates output for PostScript level 2 or 3 printers 428 without using any Windows printer driver.

There is an option to use data compression 177: this usually reduces the size of the output files, though it makes them slower to generate. See also JPEG compression options 165.

The tray/bin selection specified in the PCL data can be overridden on the command line: see options **/TRAY** 391 and **/BIN** 387.

PostScript export options

The configuration options for 'Postscript level 2' or 'Postscript level 3' are common to both formats.

- Choose a **Postscript** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  Choose a **Postscript** format from the File|Export dialog (**Ctrl E**) – see PostScript file export 182 – then click **Postscript options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for PostScript export

1. If you would like to reduce the document size, select **Use data compression**. EscapeE applies a suitable compression method (e.g. Flate) to the document. You may also opt to apply JPEG compression to any images in the document, see JPEG compression options 165.
2. If you would like to store text as longer phrases (to improve searching) select **Combine text strings together**, see Text options 131.
3. You may choose to:
   - **Render as graphic**
   - **Render all but text as graphic**, and also
     - **Include text as well as graphic**

   See Text options 131.
4. Select **Include TrueType fonts** to include any TrueType font downloaded in the original PCL file in the exported PDF file. Using TrueType (i.e. scalable outline) fonts usually results in better appearance than bitmapped fonts, but may have adverse effects on the file size if only a few characters from a font are used. If this box is *not* checked then by default such fonts are converted to bitmap fonts.
   Very big documents and forms often use a large proportion of the characters in a font; in these cases, efficiency may be improved by selecting **Load fonts first**, particularly if your driver builds up the font incrementally page by page (e.g. MS Windows). It is best to de-select this option for short documents or those with large fonts (e.g. Chinese) which take a long time to load.
5. To reduce the size of the exported PostScript file, you may specify when to substitute fonts in the original document with Standard Adobe 448 fonts.
   - If you choose to use substitute fonts **Instead of bitmap fonts**, **Instead of downloaded TrueType fonts** or **Always**, ensure that such fonts in the document are using the Windows character set 126, otherwise characters may be wrongly attributed.
   - The **If substitute font given** option will only omit the download font if it is recognized as having a known substitute, so is more reliable: see also Substitute fonts. 89
6. Set the **Resolution** for line drawing and images and for text positioning: **600**dpi *or* **300**dpi.

7. Assign each of the numbered PCL **Output Bins** used by the document a PostScript name. PostScript bin names may be letters, numbers or a mixture of both.
8. Assign each of the numbered PCL **Input Trays** used by the document a PostScript **Name** or number. (The entry for tray `0` applies in the case where no PCL tray has been selected.) You may select a standard paper 432 **Size** from the drop-down box *or* leave this blank and fill in the paper **Height** and **Width** (in inches) yourself.
   When exporting to a 'production' printer, it is useful to specify the **Weight** (in grams), **Color** and Media-**Type** attributes as well.
   If exporting to a smaller printer which uses numbered trays, just give the tray a number instead of a name (and leave the other attributes blank).
   See also Notes 184 below.
   - To remove a tray definition from the list, click **Delete**.
   - To remove all the tray definitions from the list, click **Delete all**.
9. Select **Keep original element order** if the document has ordered opaque elements (e.g. shading) to overwrite text or lines.
10. The **Omit blank pages** option may be ticked as required – for example when exporting a document which is to be viewed on screen (not printed) from a duplex original.
11. Further options may be set up from other pages of the Configuration dialog:
    - Click **More...** to set up Jog offsetting, stapling and PJL comments options: see More options for PS export 185.
    - There is a specialist option for setting-up a "Preamble" (see Preamble and PJL options 170). Click **Preamble...** to open an edit pane and enter the code required.
    - Select **Printer** tab to set the printer defaults 104; see also Technical notes 185 below.
12. The **Duplex override** box is normally blank but if an override option is in force it is shown in maroon, see Simplex and duplex options 113.
13. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Notes

PostScript files include a DSC (Document Structuring Convention) header which specifies the input trays and output bins to be used when the document is printed. The trays may be identified by index number or by attributes (media size, color, type, weight). When EscapeE reads a PS file, it uses the information in the DSC header to assign existing PCL tray names to the specified trays (see step 7 above). If no match can be found for a specified tray, EscapeE creates a new one automatically. For example, a tray identified by attributes might be named `PSTRAY12`, whereas a tray identified by index number might be named `12`. The numbers may not correspond to the physical layout of trays so check the printer's .PPD file (or use 'TRAYS.PS', obtainable from RedTitan) to ensure that the correct tray is selected in the 'Configuration' dialog.

The output is sent to a bin that has a number and a name. Note that the names may be longer than eight characters, may contain spaces and are case-sensitive. For production printers the output document must be created with a PostScript DSC header. This must specify the attributes of the paper stock – the size, weight, color and type of the paper associated with each named tray. A document will not normally be printed until all its specified media requirements are met – be careful not to set up a long list of trays that result in a media list that cannot be actually configured on the printer. If different documents require different tray configurations then you should save each separately and only apply them to the appropriate one.

Technical notes

The tray/bin selection specified in the PCL data can be overridden using **/TRAY** 391 and **/BIN** 387. Note that this is still the PCL tray/bin number so it may be necessary to define the equivalent Postscript tray/bin using the 'Configuration' dialog. Select the 'Printer' tab to set up the default tray and bin – see Configuring the printer defaults 108.

Xerox 449-made PostScript printer files begin with several lines of "XRX" commands, in addition to the DSC header. When EscapeE reads such files, any lines which start with %XRX commands are stored in a field named **RT_XRX**. (These commands are used to define job characteristics such as accounting, stapling, trays, duplexing etc.)

Links
PostScript file export 182

More options for PS export

- Click **More...** on the PostScript options page of the Configurations dialog (**f8**): see PostScript export options. 183
- Click **Apply** to return to the PostScript options page of the Configuration dialog.

Jog offsetting and stapling

Print runs of large documents are often broken down into 'sets'. A set is assumed to start at the next front page following the end of a set or when explicitly specified by a field:

- Define a field with the Action 'start a new set' (see Setting field actions 208) to break the document into sets.

Sets may be 'jog offset', i.e. sets of pages are stacked alternately a finger-width to the left or right in a printer's output bin. This makes it easier to pick up each set separately from a bin.

- To engage jog offset action, select **Jog offsetting**.

Some printers can also staple a set of pages together.

- To engage stapling, just select **Stapling**.
  The **Staple command** and **Staple details** edit boxes are normally left blank, but custom settings (typically printer-specific) may be entered by specialists.

Include PJL comments

PJL Comments 64 found in a document which is to be output in PostScript format may be included in either one of two forms:

- **XML**, e.g.
  ```
  % <RT A='COMMENT &34;HEADER PCL&34;' B='COMMENT &34;Driver version 02.03&34;'/>
  ```

or

- **Plain text**, e.g.
  ```
  % COMMENT "HEADER PCL" % COMMENT "Driver version : 02.03"
  ```

See also Preamble and PJL options 170, command line option /COMMENTS 393 and specialist feature Setting the fields file options 214.

RTF file export

A series of whole pages or parts of pages from one or more files may be exported to create a new document in Rich Text Format 121.

To export files to Rich Text Format

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **RTF Rich Text Format** from the drop-down list of formats;
   - a wild-carded 136 filename (with extension .RTF) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. *Or*
   - check the **LPR output** 446 box; the filename will be supplied automatically.

   To make RTF format the default, click **Save format**.
5. Tick the **Force monochrome** check-box if required.
6. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program, e.g. WordPad 448®: see Associated programs 136.
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
8. Click **OK**; if 'Show Fields form' has been configured, the Field dialog opens: see RTF export options 187.

Links
RTF export options 187
IDF file export 158
TXT file export 192

RTF export options

When converting to Rich Text Format, you may choose whether to export everything *EscapeE* recognizes on the page or just selected parts. The items for export are clip-area fields 200: these may be fields already set up in the original document or new fields. You may opt to let EscapeE define fields for extraction automatically for each item it finds on the page.

To set options for RTF export

1. Set up the fields in 'Field definitions' panel:
   - **Use existing fields** Tick to extract items based on the existing fields and their type e.g. 'Text aligned right'.
   - **Delete existing fields** Click to remove all existing field definitions (e.g. when enabling *EscapeE* to define the fields automatically 187). Confirmation is required before this action is carried out.
   - **Define fields automatically** Tick to create new fields encompassing the items found on the current page. These field 'Types' may be recognized and set up automatically:
     'Text aligned right',
     'Text justified'
     'Text centered'
     'Graphic'.
     If the Type of a field area is unspecified, anything in the area will be rendered as a 'Graphic' for export.
   - **Use same fields on each page** Tick this if the document contains many similar pages which need to be treated alike.
     The default is for this option to be *deselected*, so any fields generated automatically are defined for the current page only.
   - **Show Fields form** When this option is ticked The Field dialog 199 is opened to show the definitions of the fields created on each page. This enables you to edit 211 any definitions before the page is output.
     Click **OK** to step to the next page's field definitions. When the fields for the last page are displayed, clicking **OK** closes the Field dialog.
2. In the 'Options' panel:
   - **Show lines** Tick to include fields for representing any lines or drawn paths on the page.
   - **Show graphics** Tick to include fields for representing any graphics on the page.
   - **Use same options for each page** Tick this if the document contains many similar pages which need to be treated alike: this dialog will not be shown for subsequent pages.
3. Enter distances, measured in 1/600 inch units, in the 'Alignment and spacing' panel. This "fine-tuning" aids the elimination of rounding-errors etc. and ensures crisp and accurate rendering of the document.
   - **X difference to be vertically aligned**
     Lines which end within this distance may be treated as 'Text aligned right'. It is the maximum difference between x coordinates for two lines, e.g. 3.
   - **Flowed text**
     Line breaks will not be preserved.
4. Click **OK** to complete the export *or*
   Cancel to return to the document on display in the EscapeE window.

Links
RTF file export 187
Defining fields and tags 200

TIFF images file export

To export files to TIFF images

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **TIFF images** as the 'Format'.
   - A wild-carded 136 filename (with extension .TIF) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button *or*
   - Check the **LPR output** 446 box; the filename will be supplied automatically.

   To make 'TIFF images' format the default, click **Save format**.
5. Select **Multi-page TIFFs** to create a single file containing multiple pages. *Deselect* to generate one single-page file for each page in the job. See also Setting advanced options in field definitions 210 for how to use field names as the page names.
6. Tick the **Force monochrome** check-box if required.
7. Click **Image options...** to configure more Image import/export options 141.
8. Tick **Run the associated program after creating the file** if you would like *EscapeE* to open the file immediately using your preferred program e.g. *RTIMAGE* 449. See Associated programs. 136
9. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
10. Click **OK** to export the pages.

◆ Tip: For optimum viewing of TIFF files with resolutions other than 300 dpi users may wish to create pre-scaled fonts at the correct resolution using RedTitan *Font Rasteriser.*

Notes

A special feature of TIFF images is that the format allows more than one image to be stored in a single file, see above 189.

You may set up 'bit reversal', 'end of line' markers etc. to satisfy fax protocol. The orientation and rotation of the output images can be configured. An image may sent as a single strip of data, e.g. for PostScript printers. See TIFF export options 190.

You may export just part of the printed region by sweeping out an area of the page with the cursor and choosing **Selected area** from the **Images** page of the Configuration dialog. If you choose 'Selected area' and no area has been marked out (e.g. when converting in batch mode) then the area where data fields are marked is exported. See Image import/export options 142.

A title for the document may be defined on the command-line: see /TITLE 409.

Links
TIFF export options 190
Image import/export options 141

TIFF export options

In addition to the image options set up on the **Images** page of the **Configuration** dialog – see Image import/export options 141 – there are some TIFF format-specific options.

- Display the **General** page of the Configuration dialog (from the 'Options' menu or press **f8**).
  Choose output format **TIFF images** then click the **Options...** button.
  Or
  Display the **Export** dialog ('File' menu or **ctrl E**).
  Choose format **TIFF images** and click the **Options...** button to display the **Images** page of the Configuration dialog.
  Then click **TIFF options...** button.
- Click **Apply** to resume display of the 'General' page *or* 'Images' page of the Configuration dialog.

To set options for TIFF images

1. Set up the 'TIFF Rotation on export' as:
   either rotated through **0**, **90**, **180**, **270** degrees counter-clockwise,
   or force **Portrait** or **Landscape** orientation.
   - You may tick **Set rotation to zero in output file** to store the rotated TIFF as the normal non-rotated image.

   See Notes 191 below.
2. Select a **Compression format**: see Image compression 133.
3. Choose fax options as required:
   Bit reversed the data bits are sent least significant bit first.
   EOLs 'End Of Line' markers are added at the start of each line.
   Byte-aligned any partial bytes at the end of a line are filled with zeros.
4. Choose **Single strip** if you wish to output the image as a contiguous chunk of data.
5. Click **Apply** to accept the changes and return to the General options page.

Notes

You may rotate 190 images so that they match page orientation and look the right way up.
The time taken to print an image increases if the printer needs to rotate it. *EscapeE* can speed up printing by rotating the image and resetting its rotation parameter *before* sending it to the printer.

It can be useful to load TIFFs directly on a Xerox DocuPrint 449 and then call them up in PostScript. For example, for a portrait page use the 270 190 degree option. For faxing you should choose Portrait 190 to rotate all pages to Portrait orientation regardless of their original orientation.

The original TIFF specification recommended that the data be divided into strips but you may configure EscapeE to output the image as a single 190 contiguous chunk of data instead. This is useful for simplistic programs or for direct access via PostScript on a printer such as a Xerox DocuPrint™.

EscapeE can cope with reading CCITT3 Fax TIFFs even when the byte-aligned EOLs mode is wrongly specified but when exporting with CCITT group 3 fax 133 compression the default setup is recommended: tick the EOLs, Byte-aligned 190 and Single-strip 190 check-boxes.

Links
Image import/export options 141
TIFF images file export 189

TXT file export

'Plain text' TXT files are convenient to edit and readily exported to another format. The primary use for TXT export is, however, for outputting data extracted from the file when the document itself is being exported to a different format, see Exporting plain TeXT data fields. You may export an entire document or page(s) from a document as a file in plain text format. Pages from a number of documents can be assembled into the same TXT file, see Filenames and wildcards.

To export files to plain text

1. Choose **Export...** from the 'File' menu *or*
   press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges.
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files.
4. Choose **Plain Text** as the 'Format'.
   - o A wild-carded filename (with extension .TXT) and folder are supplied. To create a different filename or extension, type in the new name. The **Browse** button may be used to select a different folder in which to store the file.
     To assemble pages from a number of documents into the same TXT use the + notation: see Filenames and wildcards.
     or
   - o Check the **LPR output** box; the filename will be supplied automatically.

   To make 'Plain text' format the default, click **Save format**.
5. Click **Options...** to configure more TXT export options.
6. Tick **Run the associated program after creating the file** if you want *EscapeE* to open the file immediately using your preferred program, e.g. Microsoft *Notepad*. See Associated programs.
7. Select **All text** in the 'Fields to be output' panel.
8. Tick **Page Numbers** to add page numbers to the output file: see Creating page numbers to set up the page numbering Template.
9. Click **OK** to export the pages.

Links
TXT export options
RTF file export

TXT export options

- Choose **Plain text** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or*
  choose **Plain text** format from the File|Export dialog **Ctrl E**) – see TXT file export 192. Then click **Options...**
- Click **Apply** to accept the 'Options' page configuration.
  EscapeE resumes displaying the 'General' page *or*
  the Export dialog.

To set options for plain text export/extraction

1. In the 'Space Fill for Text Export' section, to fill fixed pitch text with spaces you may set up the options:
   - **Left align** *or* **Right align**
   - **Space width**: type in the width (in current units) of the column to be filled.
2. In the 'Text extraction' section, you may choose to:
   - Define the inter-line spacing to be used when outputting the extracted text. Enter a number in the **Line height** box (units are set up on the 'Viewing' page – see Configuring the view 57). If this box left blank then the vertical spacing is taken from the font of the text found in the original document.
   - Define the maximum vertical difference between the baselines of two words for them to be deemed on the same line: enter a value in the **Maximum same line Y difference** box.
   - To define the minimum horizontal distance between two characters for it to be deemed a word break: enter a value in the **Minimum space width** box. If the gap is more than this value then one or more spaces will be inserted in the extracted text. The default size is 70% of the 'Space width'.
   - To ignore downloaded space character's width and use the cell width instead, tick **Space width = cell width**.
   - To ignore downloaded character widths and use widths calculated to fit the raster instead, select **Calculate character widths**.
   - To use the top of the character cell as the vertical reference point rather than the baseline, check **Align using top of cell**. This may be advisable when the baseline reference changes mid-string, as is sometimes the case, for example, with superscript characters.
   - When sweeping out areas for fields and clips, if any part of a character's shape is included in the area then that text is normally selected too. Ticking **Criterion is text baseline rather than text extent when selecting** changes this to only include text when the baseline of a character is in the swept area.
3. Ensure a suitable **Symbol set** is chosen to output the text; choose from **Windows (19U)**, **16-bit Unicode**, **UTF8 Unicode**, or **Unchanged** (i.e. same as input file). See also About Symbol sets. 81

4. To use the character recognition database to convert the text back to a readable form from files where arbitrary character encodings have been used, select **Assign character codes using the TTLIB database**: see *EEfonts* Help.
   - **Use converted codes when exporting**. Using the character codes 82 as translated by EEfonts means that the text in such a file, exported to PDF or PCL, is searchable. See also Note 194 below.
   - Select **Use glyph number if character is unrecognized** to perform character code assignment using the glyph IDs in a download TrueType font.
   - Tick **Manually review pages with unconverted codes** to find any character codes which have not been assigned because the characters were not in the database.

     Page through the file by clicking on the 'Next page' button on the toolbar. *Or*

     for PCL or Postscript files, click the 'Last page' button on the toolbar. When a page is encountered that has unconverted code, the Character conversion dialog is invoked to allow them to be assigned the correct code.
5. Pure TXT format documents consist only of lines of text, so if you export a multi-page document as plain text, the pagination is normally lost. You may opt to retain the page structure instead by selecting **Insert a Form Feed for each page**.
6. The underlining of text may be ignored by ticking **Ignore underlining**. This is the default; clear check-box to retain underlining instead.
7. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Note

Some printer drivers use arbitrary character codes when downloading fonts, so that any text extracted directly from the PCL file would not be readable. By using EEfonts to set up a character recognition database, *EscapeE* is able to convert the characters back into usable text, see Assign character codes using TTLIB database 194. On export to PCL or PDF, ticking Use converted codes when exporting 194 enables such files to be read and their text searched. Problems could arise if there are any character codes in these files which are not present in the database. Ticking Use glyph number if character is unrecognized 194 assigns the IDs of the glyphs in downloaded TrueType fonts to such characters.

Links
Exporting files to plain TeXT 192

XPS document file export

The **X**ML **P**aper **S**pecification – XPS 448 – is the default output format for Windows Vista.

To export files to XPS

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the **Page number range** of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**: see Overwriting files. 129
4. Choose **XPS document** as the 'Format'.
   - A wildcarded 136 filename (with extension .XPS) and folder are supplied. To create a different filename or extension, type in the new name. To select a different folder to store the file, use the **Browse** button. *Or*
   - Check the **LPR output** 446 box; the filename will be supplied automatically.

   To make 'XPS document' format the default, click **Save format**.
5. Tick the **Force monochrome** checkbox if required. Click **XPS options...** to configure more XPS export options. 196
6. Choose a Duplexing option from the drop-down list:
   - **Simplex** force simplex
   - **Long edge** force duplex, long edge binding
   - **Short edge** force duplex, short edge binding
   - **No plex** do not specify any plex in the output file
   - **As in the file** use the option specified in the input file.
7. If you have defined data fields on the pages, EscapeE can create a `.LOG` file automatically:
   - select the **Fields to be logged**: see Log file export. 236
   - Set the **Log format**:
     - **Comma separated** (default)
     - **XML**
     - **Plain text**
   - Further Log file options may be set up from the 'Log File' page of the Configuration dialog: click **Log file...**.
8. Click **OK** to export the pages.

Links
XPS export options 196

XPS export options

- Choose **XPS document** output format from the Options|Configuration dialog (**f8**) then click the **Options...** button on the 'General' page, *or* choose **XPS document** format from the File|Export dialog (**Ctrl E**) – see XPS document file export 195. Then click **XPS options...**
- Click **Apply** to accept the 'Options' page configuration. *EscapeE* resumes displaying the 'General' page *or* the Export dialog.

To set options for XPS export

1. Select **Use data compression** to use Flate 445 compression to reduce the document size.
2. Select **Combine text strings together** to store text as longer phrases to improve searching, see Text options 131.
3. There are options to **render as graphic** and **render all but text as graphic**, see Text options 131.
4. The **Omit blank pages** option may be ticked as required, for example when exporting a document which is to be viewed on screen (not printed) from a duplex original.
5. Select **Keep original element order** if the document has ordered opaque elements (e.g. shading) to overwrite text or lines, see also Text options 131.
6. Click **OK**.

In addition, when you have finished setting up the options, you may also choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) or click the **Save** button to retain these settings after you close the program.

Links
XPS document file export 195

Part XI

Extract data

Extract data

This section describes how to extract and manipulate data from documents and data-streams.

- Notes on using The Field dialog 199
- How to set up data fields and tags, adding tagged text and tips on viewing: see Defining fields and tags 200
- How to select, enable/disable and delete existing fields and tags; using the Field Definitions dialog to change the location and content of data fields and tags: see Editing fields and tags 203
- How to move and resize existing data fields and tags using the mouse and keyboard: see Moving and sizing fields and tags 205
- How to set up text or graphics search tags, search criteria and field-end options: see Setting search tag options 205
- Specifying when and how a field may be used, forcing 'front' and 'back' pages, overlays, trays and resetting the sheet count; new files, log-files, fields-files and sets: see Setting field actions 208
- How to include field names in file or page names, specify when a field may be used, printer options and fixed-pitch export options: see Setting advanced options in field definitions 210
- Defining a hierarchy of fields and tags so that some are dependent on the processing of others; combining fields: see Fields list/tree 211
- About ".EE" files; setting up and changing EE files: see Field definitions files 212
- How to make field values persistent, select an EE file for reuse and set up a banner page; the specialist PJL field prefix feature: see Setting fields file options 213
- Troubleshooting common data extraction problems – tags not found, inappropriate symbol sets, unexpected box characters: see Field problems 215
- How to make buttons and boxes on PDF forms: see Special fields for PDF export 217
- Using command-line options to set up Author, Title, Subject and Keywords for a PDF document: see PDF document summary 219
- How to create and edit a TOC for a PDF document: see PDF Table Of Contents 220
- Defining the screen view of PDF documents using the command-line: see PDF Viewer preferences 221
- Setting up DICOM field names for exporting data to DICOM Element Tags 223
- How to include information on the presentation of the data output to XML, e.g. fonts, images and style-sheets: see Outputting to XML 224
- About types of field for export to AFP, PDF and XML: see Field TYPE attribute 225.
- About *EscapeE* plugins for document editing: see Using plugins 227
  - How to attach a plugin to a field: see Calling plugins 227
  - Editing plugin configuration: see Reconfiguring plugins 228
  - Using *AddText* plugin to add or delete text: see AddText plugin 228
  - About *MoveText*, *AddImage*, *AddFile*, *Blankout*, *BarCodes*, *BC39Reader*, *QRCodeReader*, *DMatrix*, *Tesseract*, *Rocr*, *OCRust*, *Evaluate* and *Script* plugins: see Other plugins 229

The Field dialog

To display the 'Field' dialog:

- Select **Edit...** from the Fields menu *or*
  Hold down **Ctrl** and press the **D** key.

The Field dialog is used to set up fields and tags for the data. It consists of a Control panel 199, the Fields list/tree 211 window and seven tabbed pages 199.

Tabbed pages

Click the tab left/right buttons at the top of the window to scroll the tabs to the left or right.	
Definitions	Defining fields and tags 200
Searching	Setting search tag options 205
Action	Setting field actions 208
Advanced	Setting advanced options in field definitions 210
File	Setting fields file options 213
PDF	Special fields for PDF export 217
XML	Outputting to XML 224

Control panel

The panel below the tabbed pages contains several controls beside the standard **OK**, **Cancel** and **Help** buttons. These enable you to control the view of the document in the main window, without closing the Field dialog.

	Click the back/forward buttons to show the previous/next page of the document.
	Click the left, up, down or right buttons in the arrow set to scroll the page.
Tree	Click to switch between 'list' and 'tree' views: see Fields list/tree 211.
Refresh	When you have edited fields 203, click to re-evaluate the fields and update the document.
Delete	To remove the selected field from the document.

Links
About fields and tags 37
Defining fields and tags 200
Editing fields and tags 203

Defining fields and tags

A field's position may be defined relative to the top-left corner of the page (see To define a field 200, below) or in relation to another field – known as a "tag" – instead (see To set up tags 201, below).

Alternatively, it is possible to set up a field definition manually by selecting **New...** from the 'Fields' menu and keying in the details on the **Definitions** page of the Field dialog 199. It is also possible to convert the field into a tag by filling in the **Searching** page of the 'Field' dialog as well: see Setting search tag options 205

An AddText 228 field may be attached to a tag 202 and used, for example, to fill in a form.

The field name definitions are saved in a file with the extension **.EE** and the same stem name as the input file. You can rename this file in the **File** page: see Setting fields file options 213.

To define a field

1. Display the Field dialog 199 and with the 'Definitions' page on view:
   - *Right*-click on the page and select **New Field...** from the pop-up menu.
     - Enter the new field's **From left** and **From top** coordinates, and its **Height** and **Width** dimensions in the edit boxes.
   - *Or* sweep over a piece of text on a page to mark-out the new field's area, then *right*-click and select **New Field...** from the pop-up menu.
     - The selected area's coordinates and dimensions are entered in the dialog automatically.
2. Use the default **Field** name (FIELD1, FIELD2, etc.)
   or click **DICOM name...** and set up a DICOM tag – see DICOM Element Tags 223
   or type in a new name.
   The field names are listed either on the right of the field definition page or below it. If the **Tree** option is selected, this list shows the hierarchy of fields and their related tags, otherwise it is an alphabetical list of fields: see Fields list/tree. 211
3. Non-specialists are advised to select **Any content** for the field TYPE 225 from the drop-down list.
   EscapeE is often able to detect when field values do not correspond to the selected type: if this happens the caption "Type" will be shown in red and an 'invalid data' warning given.
4. To make a field relative to a tag, select the appropriate field from the **Reference Field** drop-down list.
   Alternatively, you can drag the field name in the 'tree view' and place it under the name of its parent field.
5. If you need to set up a 'composite 201' field, tick **Composite** to access the set-up panel: see Defining a composite field 244.
6. The field is enabled by default, but you may "switch off" the field by *de-selecting* the **Enabled** check-box: see To disable a field or tag 204.

7. Further options may be defined for the field on the set-up window's other pages:
   - **Searching** see Setting search tag options 205 and To set up tags 201 below.
   - **Action** see Setting field actions 208.
   - **Advanced** see Setting advanced options in field definitions 210.
   - **File** see Setting fields file options 213.
   - **PDF** see Special fields for PDF export 217.
   - **XML** see Outputting to XML 224.
8. Click **OK**.

You may also use EscapeE to define composite fields 244: these can comprise a combination of other fields' values, simple text or access pre-defined special fields 247.

A composite field is treated just like any other field, so may be included in a CSV or XML file or used as a file name. It can be manipulated by a plugin 227 such as Barcode or displayed using AddText 228 by leaving the added text field blank.

- To depict all fields and tags on the page displayed in the *EscapeE* window, tick **Show fields**. To depict only the fields and tags that have been found on the current page, tick **If found** instead.
  - To show the field-names and tag-names along with their areas, tick **Show names** as well.
  - Click **Remember** to keep this set-up.

  See also Viewing data fields and tags 52.
- If an Action for the field has been set up and found true, the **Found** circle is colored cyan ● to indicate that the action will occur: see Setting field actions 208.

To set up tags

1. *Right*-click on the piece of text or graphic or sweep out an area of a graphic to select just part of it.
2. Select **New Tag...** ▸ from the pop-up menu then choose from the following sub-options:
   - **Any graphic...** To search for any kind of graphic, line, drawn path or shade in this area.
   - **This size graphic...** To find a graphic, line, drawn path or shade with matching width and height.
   - **Graphic of this width** To find a graphic, line (typically vertical), drawn path or shade with matching width.
   - **Graphic of this height** To find a graphic, line (typically horizontal), drawn path or shade with matching height.
   - **Part of a graphic** To find a graphic, line, drawn path or shade with matching elements.
   - **Any text...** Any text in the area of the field.
   - **This text...** The text under the mouse or within the selected area (the default).
   - **Tagged text...** To use the selected text as a tag for defining a new AddText 228 field: see Adding Tagged text 202 below.
   - **Any mark** To find any kind of mark, graphic or text occurring in the field.

3. The **Definitions** page of the Field dialog 199 is displayed, showing details of the new tag. Use the default name (TAG1, TAG2, etc.) *or* type in a new name for the tag in the **Field** box. See also Editing fields and tags 203.
4. Select **Searching** tab; here you can define how to find a field and how to find the end of the field: see Setting search tag options. 205
5. Click **OK**.
   Repeat 201 these steps to set up more tags. For convenience, the chosen sub-option 201 is moved to the top of the pop-up menu, e.g. "**New Tag This size graphic...**".

◆ Note

If there is more than item on the page at the chosen position, a dialog will prompt you to 'Choose which item' from a list, e.g.

```
Graphic 1750 x 1175
Graphic 1745 x 1170
```

Adding Tagged text

Tags may be used to add text to a document if/when a tag's Search options 205 are met.

1. *Right*-click on the piece of text or graphic or sweep out an area of a graphic to select just part of it.
2. Select **New Tag...** ▸ and choose the **Tagged text...** sub-option.
3. The Fields dialog opens with the **Searching** page on view: edit this as appropriate to set up the tag, see Setting search tag options 205.
4. Click **OK**: the AddText 228 configuration dialog is displayed.
5. Enter the text string to be added to the document. Set up the font, position and rotation for the string. See To add new text in the Plugins Help.
6. Click **OK**.

◆ Tips

◇ Configure the symbolset before defining data fields and tags, see About symbolsets 81.

◇ Choose appropriate units from 'View' menu's **Mouse coordinates** sub-options, see To switch mouse units 56.

◇ A field's size and position may be redefined using the Field dialog, see Editing fields and tags 203, or by dragging it's box/sizing handles on the page, see Viewing data fields and tags 52.

◇ Fields can be reordered by dragging the names in the 'tree view' window, see Fields list/tree. 211

Links
About fields and tags 37
About exporting data 38
Editing fields and tags 203

Editing fields and tags

Existing fields and tags may be selected 203 and edited 203; to create new fields and tags from scratch, see Defining fields and tags 200 instead.

To select a field for editing

With the document open 44:

- press **Ctrl D** to open the Field dialog 199 then select it from the list/tree 211 window *or*
- *Right*-click on the field and use the options from the menu which pops up automatically *or*
- Left-click on the field, then use options from the **Fields** menu.

To step from the currently selected field to another:

Hold down: then click:	
Alt down arrow *or* **Tab**	Selects next field
Alt up arrow *or* **Shift Tab**	Selects previous field
Alt left arrow	Selects parent field
Alt right arrow	Selects first child field

To redefine field and tag properties

1. *Right*-click on a field on the page and select **Edit Field...**
   or
   Select **Edit...** from the 'Fields' menu
   or
   Press **Ctrl D** keys.
2. The Field dialog 199 is displayed: select the **Definitions** tab. (The Definitions tab is the first on the left – if it is not visible, scroll left to bring the tab into view.) To rename the field, type the new name in the **Field** edit box.
3. To edit the coordinates of the top-left corner of the field, its width or height, click in the appropriate edit box and enter the new values. **Double**-click an edit box to select and redefine that value for all selected fields.
4. Use the Fields list/tree window to change the field's relationships to other fields and tags and to add a child field. See Tree view 211.

5. Further options may be redefined for the field on the set-up window's other pages:
   - **Searching** see Setting search tag options 205.
   - **Action** see Setting field actions 208.
   - **Advanced** see Setting advanced options in field definitions 210.
   - **File** see Setting fields file options 213.
   - **PDF** see Special fields for PDF export 217.
   - **XML** see Outputting to XML 224.
6. Click **OK**.

In the event that a job changes and a field is no longer required, you may disable 204 the field until you need it again or delete 204 it altogether.

To disable a field or tag

- *Right*-click on it and select **Disable field...** *or*
- Display the 'Field Definitions' dialog (**Ctrl D**) then *de-select* the **Enabled** check-box for that field.

If the job changes back, the field can be reinstated simply by:

- *Right*-clicking on it and selecting **Enable field...**

To delete a field or tag

1. *Right*-click on the field or tag on the document page and select **Edit Field...**
   or
   Select **Edit...** from the 'Fields' menu
   or
   Press **Ctrl D** keys.
2. Click the **Delete** button at the foot of the Field dialog 199.
3. Click **OK**.

Tips

◇ Select **Show>All** from the 'Fields' menu to view the position of fields and tags on the page, see Viewing data fields and tags 52.

◇ When you are editing fields in the 'Field' dialog, clicking the **Refresh** button will re-evaluate the fields and update the page view without closing the dialog.

◇ You can set up a font (family, size, style, effects, color and language group) for displaying the tags' search strings by clicking **Font...** (Field Definitions 201 page). This may be useful when you are searching for text in an unfamiliar symbolset.

◇ When the dialog has been edited, the **OK** button is highlighted: this indicates that a press on the **Enter** key is equivalent to a click on the **OK** button.

Links
Viewing data fields and tags 52
The Field dialog 199
Defining fields and tags 200

Moving and sizing fields and tags

The exact size and position of a data field or tag may be redefined using the 'Field Definitions' dialog (see Editing fields and tags 203) but it is often more convenient to adjust the coordinates by eye using the mouse and keyboard.

To redefine coordinates

This is a quick and easy way of changing the size and position of existing fields and tags.

1. Place the mouse pointer over the sizing handle 52 at the corner of the field or tag to be redefined; it will change to a double-headed arrow.
2. Hold the left mouse button down and drag the sizing-handle: the edge(s) of the field/tag will move to track the motion. When the corner looks to be in the right place, release the button to set the new coordinates.
3. Repeat with other corners as necessary.

Moving fields or tags

This method is good for making fine adjustments to the position of existing fields and tags.

1. Select **Show ▸ none** from the Fields menu.
2. Select **Fields|Edit...** *or*
   press **Ctrl D** keys to display the Definitions 200 page of the Field dialog.
3. Select the field to be moved from the Fields list, 211 then click **OK**. The Field Definitions dialog closes to show the document with the chosen field outlined in red.
4. Hold down the **ctrl** key and press the arrow keys to shift the field in the direction of the arrow. The field will move one pixel at a time – you may need to zoom in 50 (press **F4**) to see the effect.

Links
Editing fields and tags 203
Fields list 211

Setting Search tag options

To set tag options

1. Select **Edit...** from the 'Fields' menu (**Ctrl D**) and click on the field you wish to edit in the Fields list. 211
   or
   Right-click on a field on the page and select **Edit Field...**
2. Click the **Searching** tab.
3. Ensure that the appropriate **Tag string** is selected from the drop down list (see Notes 207 below). The corresponding Tag type (**Text**, **Graphic** or **Part of a graphic**) is set automatically.
   This is only used when its **Match** box is checked.

4. Select from the options:
   - **Multiple occurrences allowed**
     A field may occur more than once per page.
   - **Subfields may precede the tag**
     Sub-fields may occur earlier on the page than the tag itself e.g. on the preceding line.
   - **Tag entirely in the field**
     Tick if the *whole* of the tag must be found within the field; clear this box if the string must *start* within the field but can extend beyond it.
   - **Front page only**
     Only searches for the field on the 'front' sides of the paper, usually odd-numbered (right-hand) pages.
   - **Back page only**
     Only searches for the field on the 'back' sides of the of paper, usually even-numbered (left-hand) pages.
5. Specialists may use font characteristic(s) to recognize fields. In the **Required font characteristics** section, enter any of these values for matching: Symbol set 87, Size 87, Style 87, Weight 87, Typeface 88, and tick the **Match** box(es) alongside.

To set field end options

1. Select **Edit...** from the 'Fields' menu (**Ctrl D**) and click on the field you wish to edit in the Fields list. 211
   or
   Right-click on a field on the page and select **Edit Field...**
2. Click the **Searching** tab.
3. To define how the end of a field is detected, select from the options in the **Field Ends at** section:
   - **New tag**
     Field ends when another tag found.
   - **End of page**
     Field terminated by end of page.
   - **Blank line**
     Field ends when a blank line is encountered.
4. Type in the values for:
   - **After Columns**
     Maximum width of the field in characters.
   - **After Rows**
     Maximum height of fields in rows.
5. **Starting page**: enter the number of the page on which to start the search.
6. **Repeat every**: enter the number of pages to be counted till the next search is started. Note: if you enter a number that is bigger than the number of pages (after the starting page) in the document, only one multi-page set will be created.
7. Repeat for other fields.
8. Click **OK**.

Notes

When **text** is used as a search tag, the whole of the text block (as defined by the PCL file) is displayed in the 'Tag string' box. (If you are setting up a tag manually, you must enter the text here yourself – see Defining fields and tags 200.) If there is variable data in the text block, click in the **Tag string** box and edit the text to remove it.
If 'Match' is checked but the string is null then a match will occur if any text whatever is found in the designated area (subject to any font characteristics that are being checked).

Vector graphic 34 paths and bitmapped graphics 34 may be used as search tags. When a "whole" **graphic** is used, a unique 40 character hex string is assigned to it (this includes any white borders that are part of an image) and displayed here; it should not be edited.
If you are setting up the tag manually, you can *right*-click on a graphic and choose **Graphic details** to see the 40 character string that you need to enter in the **Tag string** box.
When searching for **This size of graphic**, the string takes the form of "width X height", e.g. 200X100 for a graphic that is 200 pixels wide by 100 high.
When searching for **Any graphic**, the 'Tag string' box must be cleared but the 'Match' check-box beside it must be ticked.

When only **part of a graphic** is used as a search tag, white edges within the swept rectangle are trimmed off before its hex string is calculated. Only one graphic in the area can be recognized and any text in the area is also ignored. When searching for **Any mark**, 'Part of a graphic' is specified with a null 'Tag string' and 'Match' checked.

See Examples|Search tags. 442

Tips

- Select **Show** from the 'Fields' menu to view the position of fields and tags on the page, see Viewing data fields and tags 52.
- If a barcode is used as a tag, the tag type may be text *or* graphic: it depends on the system which created it.
- You can set up a font (family, size, style, effects, color and language group) for displaying the tags' search strings by clicking **Font...** (Field Definitions 201 page). This may be useful when you are searching for text in an unfamiliar symbolset.

Links
Defining fields and tags 200
About exporting data 38
Field Problems 215

Setting field Actions

1. Select **Edit...** from the 'Fields' menu (**Ctrl D**) and click on the field you wish to edit in the Fields list. 211
   or
   Right-click on a field on the page and select **Edit Field...**
2. Click the **Action** tab and set up the 'Action' condition:
   - **Each time field found** The Action occurs every time the field is found, *or*
   - **When field changes** The Action occurs only when the *contents* of the field change (not meaningful for tags, as they are set up to search for occurrences of the same text string). The sub-fields of Composite fields 244 will only be exported if the contents of their parent field have changed, *or*
   - **When field absent** The Action occurs only when the field is *not* detected. This is only useful if a search criterion such as a tag or font characteristic is specified, or the field is a sub-field of a field with such a criterion.
3. When a field is found, specify the page on which the Action should occur:
   - **This page**
   - **Next page**
   - **Next sheet**
4. Tick the boxes to:
   - **Start a new file** Creates a new output file each time an Action condition is met. See also Filenames and wildcards. 136
   - **Start a new log file** each time an Action condition is met (instead of accumulating all log entries in a single log file).
   - **Start a new set** used when jog offsetting or stapling has been requested for a PS printer. A new set is started, automatically ending the current set (if there is one). See More options for PS export 185.
   - **End set** Ends a jog offsetting or stapling set on a PS printer. (This does not need to be specified if there are no sheets between this set and the next – 'Start a new set' ends the current set automatically). See More options for PS export 185.
   - **Use another fields file** When an Action condition is met, the value of the field supplies the name of a field definitions file (the default extension is .EE and the default folder is that of the current field definitions file). The "new" field definitions file is loaded and applied immediately, up to once per page.
   - **Reset sheet count** Set the sheets of paper count back to zero; see Special fields in composed strings 247.
   - **Reset page count** Set the page count back to zero.
   - **Force front page** Feeds a new sheet ready to print on the 'front' side if the Action condition is met, for example when switching to a different paper tray, see below 209.
   - **Force back page** Feeds a new sheet ready to print on the 'back' side if the Action condition is met, for example when switching to a different paper tray, see below 209.
   - **New back page** moves print position to the next 'back' page if the Action condition is met. If the current print position is already on a 'back' page a new sheet will be fed even though its 'front' page will be left blank. The new back page will be blank unless this field (or another on the 'front' page) adds something with a Plugin 227 using the 'On the back' option, see below 209.
   - **Omit page** Omits the current page from the output.

5. When requested by Log file options 237, a log record can be written for any page on which the field is found: tick **Write log record**.
6. When the Action condition is met, you may force the printer to use:
   - **Tray** Enter an input tray number. This is useful for cases where colored paper is required for a header or trailer page.
   - **Bin** Enter an output bin number.
   - **Overlay number** A tag can be linked to an overlay. Type the macro number 446 in the box and select whether that overlay is to be turned 'on' or 'off' when it recognizes the selected tag.
7. You may call a 'plugin' when the Action condition is met, for example, to add a Bar-code to the sheet. Select one of the **Call Plugin** options from the drop-down list (a brief description of the selected plugin will be shown in the status bar for a few seconds). This list will depend on which plugins are installed on your system, see Using plugins 227.
   - An image or text may be added to the back of the target page: tick the **On the back** check-box. This forces duplex printing even on simplex jobs (long-edge binding if portrait and short-edge binding if landscape).
     Note that the Booklet 104 option on the 'Printing' dialog reorders the pages, so should not be used when using 'On the back' option.
8. Click **OK**.

◆ Tips

◇ When an Action condition has been met, the **Found** circle on the Definitions 200 page for that field turns cyan.

◇ A number of Actions specified by fields on the current page are indicated by these letters at the right-hand end of the status bar 55 and in the Log 63 when **Show field details** is selected.

B new Back page
F start a new File
L write Log record
O Omit page
R Reset sheet count
S start a new Set

Links
Defining fields and tags 200
Setting advanced options in field definitions 210

Setting Advanced options in field definitions

To set advanced options

1. Select **Edit...** from the 'Fields' menu (**Ctrl D**) and click on the field you wish to edit in the Fields list/tree.[211] *Or*
   Right-click on a field on the page and select **Edit field...**
2. Click the **Advanced** tab.
3. Tick the boxes to:
   - **Omit from output** The data for this field will be omitted from the output. Any other actions (such as processing sub-field or causing a new file to be started) will still occur.
   - **This field starts a new XML level** If this tag is the parent of any sub-fields then these sub-fields are contained within this field in the resultant XML, otherwise they are on the same level as their parent.
4. Use this field
   - **in the file name** If you opt to split the file into sections, the field name is used as part of the file name. For example, if the file is called `TEST.PCL` the field contains `ABCD` and the output specification is `*=.PDF` then the output file name will be `TESTABCD.PDF`. See also Filenames and wildcards[136].
   - **in the page name** To use the field name when creating multi-page TIFF image files (i.e. when 'Multi-page TIFFs' is selected in the Export options, see TIFF images file export[189]).
5. Click **OK**.

To set fixed-pitch text export options

1. Select **Edit...** from the 'Fields' menu (**Ctrl D**) and click on the field you wish to edit in the Fields list.[211]
   or
   Right-click on a field on the page and select **Edit field...**
2. Click the **Advanced** tab.
3. Set up a space-filling option:
   - **Trim** Removes leading or trailing spaces from the extracted field data.
   - Align – **Left** Uses spaces to fill out the extracted field data to the column width so that the text is aligned to the left.
   - Align – **Right** Uses spaces to fill out the extracted field data to the column width so that the text is aligned to the right.
   - **Spacing** Type in the width of the column to be filled by aligned text, measured in the units set up in the Configuration dialog (default unit is 1/300 inch).
4. Click **OK**.

◆ Tip: Select **Show** from the 'Fields' menu to view the position of fields and tags on the page, see Viewing data fields and tags[52].

Fields list/tree

Fields are listed in a window of the Field dialog 199, usually on the right-hand side of the window containing the tabbed field set-up pages (see also docking, below 212). The field-names can be shown as a simple list in alphabetical order (convenient for finding and editing 203) or in Tree 211 view.

Tree view

Tree view not only shows the order in which fields are output (for example, for CSV export) but also *how* the fields relate to each other. When a field or tag depends on another field or tag it is regarded as a "child" of its "parent" field or tag. Parent field and tags are denoted by a folder icon which may be "opened" to display its children or "closed" to conceal them. Clicking a field, tag or parent name selects it; *right*-clicking opens a pop-up menu 211.

- To show the contents of a parent folder, *double*-click its folder icon *or* select **Expand** from the pop-up menu.
- To hide the contents of a parent folder, *double*-click its folder icon *or* select **Collapse** from the pop-up menu.
- To make a field or tag dependent on another (parent) field or tag, click down on the (child's) name and drag it onto the parent name. The parent folder icon replaces the field or tag icon when the mouse button is released.
- To 'promote' an existing field or tag out of a parent folder, click down on the field or tag icon and drag it onto the icon of the field or tag that it should follow. (If all the child fields/tags have been promoted out of a parent folder, the parent icon reverts to its native field or tag icon.)
- To delete a field, tag, or parent folder and its sub-fields, press **Delete** key *or* select **Delete** from the pop-up menu.
  A warning dialog appears when deleting parent folders: click
  - **Yes** to delete the folder and its sub-fields *or*
  - **No** to cancel the command. To delete the parent field or tag but not its sub-fields, move the sub-fields out of the folder first.

Pop-up menu options

Right-clicking a field or tag selects it and displays the pop-up menu:

- **Move up** *or* **Ctrl U**: steps the selected field or tag up the list.
- **Move down** *or* **Ctrl D**: steps the selected field or tag down the list.
- **New field** *or* **Ctrl N**: creates a new field as a child of the clicked field; see also To define a field 200.
- **Combine with next field** *or* **Ctrl C**: expands the selected field, tag or parent to encompass and override the next field, tag or parent in the list at the same level or lower.
- **Combine selected fields**: all selected fields are combined into the selected field which is highest in the list/tree.
  - To select a group of fields, click in the highest field to be selected then hold down the **Shift** key and click the lowest field to be selected.
  - To add a field to the current selected file(s), hold down the **Ctrl** key and click the field to be added.

To move the list/tree window

The list/tree window may be docked on the right of the tabbed-pages window or below it.

1. Use the mouse to drag the border of the dialog so that it is big enough to hold the list/tree window in its new position.
2. Click the mouse button down in the list/tree window (without selecting a field or tag), drag the window to the new location then release the mouse button.
3. Adjust the dialog border(s) for best fit.

Links
The Field dialog 199

Field definitions files

When you mark up text on pages, the field definitions are saved in a file with the same name as the input file and the extension **.EE**. This can be imported into another print file and used to extract the text at the same positions on the page.

The previous version of any .EE field definition file is saved as **.~EE** for backup purposes.

Locating .EE files

When a file is opened, *EscapeE* searches for the field definitions file specified by:

- the /FIELDS 396 option.
  If the FIELDS symbol has not been set (and the Always use these definitions 213 option has not been ticked either), then EscapeE continues to search for:
  i. a field definitions file with the same name as the input file but with extension ".EE".
     If this .EE file cannot be found it then searches for:
  ii. the field definitions file specified 445 by the /FIELDDEF 396 symbol in the PCLVIEW 417 section of the INI file.
     If this symbol has not been set, then:
  iii. a field definitions file called DEFAULT.EE 213 in the same folder as the input file is used.

◆ Tip: The field definitions file can be specified explicitly on the command line, e.g. **ESCAPEE DATA.PCL/FIELDS MYFIELDS.EE**

To save the field definitions file

1. Select **Edit...** from the Fields menu *or*
   hold down **Ctrl** and press **D** key.
2. The Field dialog 199 opens: click the **File** tab.
3. If you wish to change the name under which the definitions are saved, you can type a new name in the **Field Definition File** box.
4. Click **Save**.

◆ Tip: You can save changes automatically when you exit from EscapeE or close the data file or load a new set of definitions. Tick **Always** *or* **Ask** to **Save definitions on close or exit**.

Setting fields File options

The .EE file containing the field name definitions are usually saved in a file with the same stem name as the input file, see Field definitions files 212. To apply an existing .EE file instead:

1. Select **Edit...** from the Fields menu *or* press **Ctrl D** keys.
2. The Field dialog 199 opens: click the **File** tab.
3. Type the full path of the .EE field definition file in the **Field Definition File** edit-box then press **Enter**. *Or*
   click **Browse** and select an .EE file (you may need to change drive/folder).
   - If you wish to view the fields 200 and their coordinates, click the **Definitions** tab.
4. You may save the field definitions file under a new name: click **Save as...** to display the standard 'Save As' dialog. Enter a new name then click **Save**.
5. You may opt to **Always use these definitions** by ticking the check-box.
6. Click **OK**.

Default field definitions file

1. Select **Edit...** from the Fields menu *or* press **Ctrl D** keys.
2. The Field dialog 199 opens: click the **File** tab.
3. Type the full path of the .EE field definition file in the 'Default Field Definition File' edit-box then press **Enter**. *Or*
   click **Browse** and select an .EE file (you may need to change drive/folder).
   - If you wish to view the fields 200 and their coordinates, click the **Definitions** tab.
4. You may use this default field definition file rather than a specific field definition (see above 213): click **Apply**.
5. Click **OK**.

Persistence of fields

By default, composite 243 and regular fields lose their existing values when the field is not present 253 on subsequent pages. To change this so that composite fields maintain their values until they are next encountered:

1. Select **Edit...** from the Fields menu, *or*
   click **Ctrl D**.
2. Click the **File** tab.
3. Tick **Persistent composite fields** check-box.

The change will be saved in the field definitions file 212.

To set up a header file

A 'header' file will be processed before the main file. It may contain font and macro definitions used by the main file, or a printable page (e.g. banner page) to be output ahead of the main file. It may be overridden by /HEADER 397.

1. Select **Edit...** from the Fields menu *or* press **Ctrl D** keys.
2. The Field dialog 199 opens: click the **File** tab.
3. Type the name in the **File name of header page** box *or*
   Click **Browse** and select the header file.
4. Tick **Retain PCL state for subsequent pages** if the file is to be reused – for example, when it contains a set of fonts common to numerous other pages. See also Handling fonts 33.
5. Click **OK**.

Fields from comments

This panel is used for a specialist Prefix feature only: in general usage, its edit boxes can be left blank and safely ignored.

Specialists may make use of PJL Comments 171, PJL JOB and PJL JOBATTR commands in a document to create fields and their values.
A field-name is created using a 'prefix' and the string to the left of the separator's (first) occurrence in the comment. The string from the right of the separator to the end of the line ('CRLF') provides the field's value.

1. Select **Edit...** from the Fields menu, *or*
   click **Ctrl D**.
2. Click the **File** tab.
3. In the 'Fields from comments' panel, enter a suitable prefix in:
   - the **PJL field prefix** edit box *or*
   - in case of HP-GL comments in XML format, the **XML field prefix** edit box.
     - To save the XML field prefix in the RT.INI 417 file, click **Save**.
4. Enter the separator character in the **PJL separator** edit-box.
   If the separator is *not* specified then a default separator is assumed and the command searched to find it.
   The first default separator is "colon"; if it is not found then the command is searched again for the second default separator, "equals". The third default separator is a "space" character.
5. Click **OK**.
6. Select **PCL document** format on the 'General' page of the Configuration dialog (**F8**), then click **Options...**.
7. Tick **Export PJL comments**.
   The **PJL field separator** and **PJL field prefix** characters are reflected on this dialog and you may re-set them here if necessary. See also Preamble and PJL options 170.

The total length of these prefixed field-names must be no more than 63 characters. Only alphanumeric characters and underscore may be used in the prefix string. The field-values may contain any characters which can be represented in the "UTF8" symbolset. To ensure that these field-names are unique, a number is appended to any new name that duplicates an existing one.

Examples

Setting a prefix of `PJL_` would mean that a PJL command such as:

```
@PJL COMMENT NAME=John Smith
```

would result in a field named `PJL_NAME` with value `John Smith`.

For HP-GL comments in XML format, a field is constructed whose name is the XML tag name prefixed by the XML field prefix and whose value is the attributes. e.g.

```
<TAGNAME> ATTRIBUTE1="..." .... </TAGNAME>
```

(To set up a prefix on the command-line, use `/PJLPREFIX`405, to set up a separator, use `/PJLSEPARATOR`405.)

Notes

If you load a new fields definitions file when the existing fields have been changed, you will be prompted to 'Save field definitions' – **Yes** or **No**.

The previous version of any .EE field definitions file is saved as .~EE for backup purposes. The 'Edit' menu has an entry **Undo Field Changes** which will reload the .EE file or, if no changes have been made to the current file, it will reload from .~EE file.

Fields may be used in the compilation of a PDF Table of Contents220.

The area defined for a field may be reused as a clip-region in an IDF document268.

See also `/FIELDS`396 and `/FIELDDEF`396 Command line options.

Tip: Select **Show** from the 'Fields' menu to view the position of fields and tags on the page, see Viewing data fields and tags52.

Field problems

If you define a field but no data is extracted or the associated action is never carried out then there are several possible explanations:

Tag not found

- Check that the tag (or at least the start of the search string) is located in the designated area.
- An inappropriate page range may have been specified in the **Searching** page of the Field dialog199 (select **Fields**|**Edit**... *or* press **Ctrl D** keys).
- Incorrect set of font characteristics specified in the **Searching** page of the Field dialog.
- The field may be a sub-field of a field that was not found. Note that sub-fields are assumed to be in a fixed position relative to their parent field.

Inappropriate symbolset

- Check that the source has not been reconfigured since the field was defined; there is a drop-down list of source types on the **General** page of the Configuration 124 (press **f8** key) dialog:

Source Type	Typical symbolset
Windows driver	HP3 – the character codes are adjusted by 3 so that a "D" in the file is translated to "A", etc.
RedTitan DDF (PrePrinter)	none – no translation is required.
RedTitan Datastream Converter	9700
Other	(none)

- Test the symbolset: define a tagged field by **right**-clicking on a piece of text and choosing **New tag...**; if the symbolset is correct the identical text will appear **Tag string** box on in the 'Searching' page.
If it is incorrect, choose a different symbolset in the **General** page of the 'Configuration' (**f8**) dialog and try again. For example, custom PCL output (Source Type set to 'Other') usually requires no translation but a few drivers require symbol set HP-1 (adds 1 to each code).
You may need to use a character recognition database in some cases: see *EEfonts* Help.

Extracted data is mistranslated

- Inappropriate symbolset – see About symbolsets 81.

Tag names appear as box characters

- Some drivers assign arbitrary codes to the characters as they occur in the document, so there is no way of calculating the appropriate translation. In these cases it is worthwhile changing the font used in the original document to be one of the printer-resident fonts (e.g. CG Times), so that the normal codes will be used.

Links
About fields and tags 37
Defining fields and tags 200
Setting advanced options in field definitions 210

Special fields for PDF export

EscapeE can be used to create unfilled PDF forms (AcroForms 445) from any file it can read in (see File formats list 427). You can set up data fields in your document which will be rendered as various special "interactive" elements in your final output when viewed in *Acrobat Reader* 448:

1. **Right**-click on a field on the page and select **Edit Field...**
   or
   Select **Edit...** from the 'Fields' menu
   or
   Press **Ctrl D** keys.
2. Select the **PDF** tab; you may need to scroll the tabs to the right to bring this tab into view. The currently selected field will be highlighted in the Fields list/tree 211.
3. Choose which type of element the field should be:

Type	Options	Purpose
Submit button	Draw button 218 Draw border 218	Makes the field area into a region which, when clicked, sends the completed form to the specified URL. 1. Select a 'Type of Submit response' format. Choose from: ○ **HTML response**. ○ **Adobe FDF response**. ○ **XML response**. 2. Enter a **URL**.
Reset button	Draw button 218 Draw border 218	Makes the field area into a region which, when clicked, clears any data that has been entered into the form.
Radio button	Checked 218 Draw border 218	A round button for selecting one option from several. Specify where the image of the radio button is to be placed: • **Left** of the field area *or* • **Right** of the field area, *or* • **Center** on the field area, starting at the top-left.
Check box	Checked 218 Draw border 218	A box for switching an option on and off, independent of other options. Specify where the image of the check box is to be placed: • **Left** of the field area *or* • **Right** of the field area, *or* • **Center** on the field area, starting at the top-left.
Editable text field Kingsmead	Draw border 218	For typing text onto the form.

List box Berlin High Wycombe Marietta Verneuil	Drop down 218 Editable 218 Draw border 218	For selecting one item from a panel of many items. 1. In the 'Choices' section, click **Edit...** to display an editable window. 2. Type in the list then click **OK**. 3. Select the item to be highlighted in the 'Choices' drop-down list when the form is opened.
Hyperlink readme.htm Click here	Draw border 218	Makes the field area into a region which, when clicked, opens another file – the 'target' file. • Enter the **URL** of the target file. If the target is a file name with any of these extensions: **EPS**, **IDF**, **LSH**, **PCL**, **PDF**, **PLT**, **PRN**, **PS** or **XML** then EscapeE itself opens the file. If the target URL starts with: **escapee://** then EscapeE will be used regardless of the file extension; otherwise the associated program will be used to open the file. E.g. for **xxx.htm** your default browser would be used.

4. Tick **Include field in PDF Table of Contents** if required. See PDF Table of Contents 220.
5. Click **OK**.

Repeat for all fields to be rendered as special elements; note that untreated fields will be displayed as **Normal** on the 'PDF' page of the dialog.

Options

Checked	'Tick' to show this field 'selected' when the form is opened or reset.
Draw border	Draws a border around the area of the form swept out to define the field. A border may be added to any special field, but is particularly useful to surround Combo boxes.
Draw button	Places an image of a button on the form. The top-left corner of the button coincides with the top-left corner of the field.
Drop down Berlin	Tick to convert a List box 218 into a Drop-down box.
Editable Berlin Marietta Penn Verneuil	Tick to convert Drop-down 218 List box into a Combo box, enabling Users to enter text as well as select from the list.

◆ **Tips**:

◇ When an exported form containing a hyperlink 218 is opened, you may *right*-click and select the **open the file in a new window** option from a pop-up menu (or press **F9** key). For PDFs this will call Acrobat 448.

◇ When a radio button 217 on the form is clicked it becomes ◉selected and all other radio buttons on the form become ◯deselected.

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PDF document file export 172
Setting advanced options in field definitions 210
Defining fields and tags 200

PDF document summary

EscapeE defines these symbols 247 to contain summary information from the *input* PDF file:

_DocAuthor the name of the document's author.

_DocKeywords the document's keywords.

_DocSubject the document's subject.

_DocTitle the document's title.

_DocProducer the program that output the document.

_DocCreator the program that created the original document.

_DocCreationDate the creation date of document.

_DocUpdateDate the last update date of document.

These command-line options may be used to *construct* PDF document summaries:

/PDF-A 404 the author of the document.

/PDF-K 404 the list of keywords associated with the document.

/PDF-S 404 the subject of the document.

/TITLE 409 or, for backward compatibility, **/PDF-T** 404 the title for the document.

The parameters following these commands are terminated by a space, so when a parameter itself contains spaces it is necessary to enclose the parameter within quote characters.

Examples

```
ESCAPEE c:\nsci\paper1.pcl /PDF/PDF-A 'I. Newton'
ESCAPEE c:\nsci\paper1.pcl /PDF/PDF-K 'force motion mass velocity'
ESCAPEE c:\nsci\paper1.pcl /PDF/PDF-S 'An exact quantitative description
of the motions of bodies'
ESCAPEE c:\nsci\paper1.pcl /PDF/PDF-T "Philosophiae Naturalis Principia
Mathematica"
```

In the absence of any such options then, if there is a field with the appropriate name, it is used for that item. For example a field called **TITLE** could be used to extract the first line of the document and use it as the title. Any such field will only be used at the start of each PDF, so must either be a literal field or occur on the first page of the input file (or of the section if multiple PDFs are created).

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Run from the command line 368
PDF export options 174
PDF Viewer preferences 221

PDF Table Of Contents

A 'Table of Contents' (TOC) may be created when exporting a file to PDF 172 or PDF/A 179 . The strings to be listed in the TOC are supplied by fields selected on the PDF page of the Fields dialog, see To set up a TOC 220 below.

Once set up, you may choose whether to include a 'Table of Contents' when the document is exported, or not: see Switching a TOC on and off 220 below.

To set up a TOC

1. Select **Edit...** from the 'Fields' menu *or*
   press **Ctrl D**.
2. Select the **PDF** tab of the Field dialog 199 (you may need to scroll the tabs to the right to bring the tab into view).
3. Click a field in the tree 211 that you want to put in the TOC then tick **Include field in PDF table of contents**.
   Repeat for each field that is to be listed in the TOC.
4. Click **OK**.
   See also Switching a TOC on and off 220, below.

◆ Tip: You may also set up a TOC via the Configuration dialog (either directly or on Export 172) by means of the **Contents...** button: see PDF export options 175.

To edit a TOC

1. In the Field dialog 199 (**Ctrl D**), click the **PDF** tab (you may need to scroll the tabs to the right to bring the tab into view).
2. Click a field in the tree 211 which you want to edit.
3. Select **Include field in PDF table of contents** to add the field to the TOC
   or
   Deselect 'Include field in PDF table of contents' to remove it.
4. Click **OK**.

Switching a TOC on and off

When you export a document in PDF or PDF/A format which has a Table of Contents already set up 220, the default is to export the TOC too. To export the document *without* the TOC:

1. Select **Configuration...** from the 'Options' menu *or*
   press **F8**.
2. Select **PDF document** *or* **PDF/A document** as the Output Format.
3. Click **Options...** then **More...**.
4. Select **Do not make a Table of Contents**.
   The TOC set-up is retained but not exported on this occasion.

To revert to exporting the TOC with the PDF (or PDF/A) file:

1. Select **Configuration...** from the 'Options' menu *or*
   press **F8**.
2. Select **PDF document** *or* **PDF/A document** as the Output Format.
3. Click **Options...** then **More...**.

4. *Deselect* 'Do not make a Table of Contents'.
5. Click **OK**.

Alternatively you may switch 'Do not make a Table of Contents' on and off via the Export 172 dialog: click **PDF options...** to bring up the Configuration dialog then click the **More...** button.

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Special fields for PDF export 217

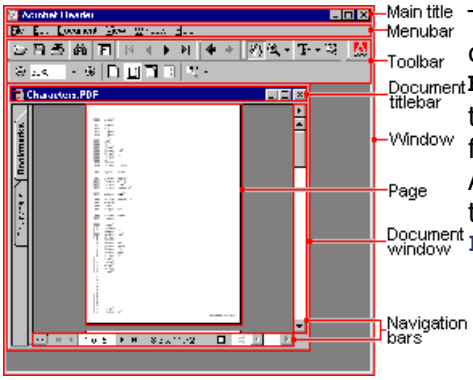
PDF Viewer Preferences

The command-line option /PDFPREF 404 enables users to specify which features of a PDF reader are to be displayed on the screen.
The Menu-bar, Tool-bars, Navigation-bars, Title-bar and Window may be individually controlled by setting the /PDFPREF flag bits 221.

Flag bits

Flagbit value	Action	Notes
1 440	Tool-bar hidden.	CTRL key shortcuts may still be used.
2 440	Menu-bar hidden.	ALT key shortcuts no longer exist.
4 440	Navigation-bars hidden; only the document's contents are displayed in the document window.	Ensure that the page is set to an appropriate scale otherwise the user may not be able to view the contents properly.
8 440	Window sized to fit the document's first page.	It would be better to override the default page magnification with this option because otherwise it will use the user's default which could be inappropriate.
16 441	Window centered on the screen.	
32 441	Document title is displayed rather than the filename in the title-bar.	A document title must be specified for this option to be valid. See PDF document summary 219
64 441	Full-screen mode: the entire screen displays document content only.	Tool-bars, menus etc. become inaccessible. The user can escape this state using the ESC key; the program then adopts the configuration that would have been used if this option had not been given.
128 441	Scale width of the page to fit the document window.	To "fit page to window", use 128 and 256, i.e. 384 442.
256 442	Scale height of the page to fit the document window.	To "fit page to window", use 256 and 128, i.e. 384 442.

To control several features, add up the appropriate numbers to get the PDFPREF flagbit value.
Here is an example of the normal appearance of Adobe Acrobat Reader 448 (shown at reduced scale):



To hide the tool-bars(1), hide the menu-bar(2) and center the window(16) you would use:
ESCAPEE /PDFPREF 19
then open 44 the file and export 172 it in PDF format for viewing in Acrobat Reader.
Alternatively, it can be stored in the RT.INI file in the PCLVIEW section as for example
PDFPREF=19

◆ **Note:**
Care should be exercised as you are overriding user-set preferences. You should consider unexpected consequences since a user who has chosen rather unusual or extreme defaults may find he cannot view a document at all if the wrong combination of these settings is used.

◆ Tip: If you want to inhibit the user from activities like printing or editing the document, then you should consider requesting an encrypted PDF but with no password specified rather than turning off menus etc. with the above options, as the encrypted option flags are enforced with more certainty.

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PDF document file export 172
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DICOM Element Tags

DICOM medical image files usually contain textual data as well as images. The data values are attributes of "DICOM Element Tags". A DICOM Element tag combines two hexadecimal codes, each four characters long. The first is the "group" code, the second is the "element" code. For example, `00100020` is the Patient's ID, and `00100030` is the Patient's Birth Date.

EscapeE enables you to define data-fields to extract data values from files and map them to the appropriate Element Tags when the file is exported in DICOM format. 147 Most 'date' or 'time' values will be converted to DICOM format automatically using the options set in your system's Control Panel. If alphabetic month names (e.g. `23rd June 2016` or `Jun/23/2016`) have been used rather than numbers (e.g. `23/6/16`) they will be converted provided they are in English, French, German, Portuguese or Spanish and EscapeE's language option 445 has been set to match.

To set up a DICOM Tag

1. Click and drag the mouse over the data to be extracted.
2. Select **New...** from the 'Fields' menu,
   or
   right-click and select **New Field...**.
3. Click the **DICOM name...** button on the Definitions 200 page to display the DICOM fields dialog.
4. Set up the element **Tag**: select a **Group** from the drop-down list (e.g. `0010` concerns general information about the Patient) and a **Tag name** from the drop-down list (e.g. the Patient's Address is `1040`). EscapeE has some features to help set up these pairings:
   - If you are defining a required element tag, 423 you will find these listed in the **Missing tags** panel. Simply choose a name from this list and EscapeE will construct the Tag.
   - If you are defining a frequently used element tag, choose to show only **Common tags** in the 'Tag names' drop-down list instead of the **All tags** comprehensive (but tediously long) list.
5. Click **OK**.
   EscapeE names the new field, e.g. `DICOM_00101040`.
6. Click **OK**.
   EscapeE uses the named field to enter data into the matching field in the DICOM output.

Links
DICOM medical image export 147
DICOM export options 148
Required DICOM tags 423

Outputting to XML

When outputting to XML, *EscapeE* enables you to export more than just the data content of the fields. For example, you may specify a style sheet so that you control the way that the data is presented and set up a path to run the XML using the program of your choice.
Set up the data fields as usual (see Defining fields and tags 200) then:

1. Select **Edit...** from the Fields menu *or* press **Ctrl** and **D** keys.
2. The Field dialog 199 opens: click the **XML** tab. You may need to scroll the tabs to the right to bring the tab into view.
3. Tick **Include XY coordinates** to output the locations of the top-left corner of the fields.
4. Tick **Include graphic field data** to output any fields of TYPE 225 "Graphic"; they will be encoded 226 as PNG images.
5. Tick **Include font information** to use font attributes defined in the current document in the output XML.
6. Tick **Include width and height** to output the size of the field; see notes 224 below.
7. To create a margin around text within a field area, enter the size (measured in 1/300 inch) in the **Padding** edit-box.
8. You may set up a command-line to run the XML to an application program:
   - Enter a top-level **tag name**. If omitted, the default is the stem of the field definitions file name. E.g.: `MYxmlDATA`.
   - Specify, or **Browse...** to, the **XSL Stylesheet** to be used for the output XML. E.g.: `MyStyleSheet.XSL`.
   - Nominate an associated **Program to process XML output**. The default is normally the default browser. E.g. `IEXPLORE.EXE`.
   - Enter any other **Program parameters** that you require: see Command line syntax 383 for descriptions of the options.
9. Click **OK**.

Notes

If the field is of TYPE 225 "Graphic", the width and height of the image is given in pixels; if the image's resolution does not match that of EscapeE (normally 600dpi), the SCALE factor that EscapeE has applied to the image is also given. For example, a 1inch square PNG image with a resolution of 100dpi might produce this fragment of XML:

```
<FIELD... TYPE="GRA" FILETYPE="PNG" WIDTH="100" HEIGHT="100" SCALE="6">.
```

In the case of images with no intrinsic resolution (e.g. JPEG), the default resolution is stored in the image when it is exported to XML.

Links
Exporting data fields to XML 235
Setting Log file options 237
Log file export 236

Field TYPE attribute

When Defining fields and tags, 200 the field's 'Type' attribute defaults to **Any content**. Other options, used for special purposes, may be chosen from the drop-down List of field data types 225.

List of field data types

Option	TYPE attribute
Any content	ANY
Alphabetic	ALPH
Alphanumeric	ALNUM
Numeric	NUM
Decimal	DEC
Currency	CUR
DateDMY	DMY
DateMDY	MDY
DateYMD	YMD
Phone	TEL
Email	EML
URL	URL
Graphic 226	GRA
Text	TEXT
Text aligned right	TEXTR
Text centered	TEXTC
Text justified	TEXTF
Meta data 226	META

'Meta data' note

Fields of type Meta data 446 do not contain data to be printed on the page like most fields, but information *about* the page. The information does not affect the printed appearance but may be used by a post-processor, e.g. for indexing.

- Select **Meta data** from the drop-down List of field data types 225.

In PDF and AFP documents, *EscapeE* uses the Meta data field type to specify that the field is to be included as a 'name, value' pair. AFP 445 treats the field as a "TLE" (Tag Logical Element) which will be added as a tag to the start of any page on which it is found.
In an HTML document, it may supply information such as the document title and keywords relating to the document content.

'Graphic' note

When exporting a field of type 225 'Graphic' to XML, you may choose to output the field as an image in PNG format, see Outputting to XML 224. The attributes for such a field are:

```
TYPE="GRA" ENCODING="BASE64" FILETYPE="PNG" X="x coordinate" Y="y coordinate"
BITS="color depth" WIDTH="image width" HEIGHT="image height"
```

◆ Tip: Click the buttons at the top of the window to scroll the tabs to the left (e.g. to show 'Definitions' page tab) or right (e.g. to show 'XML' page tab).

Using plugins

Plugins give *EscapeE* the ability to modify the appearance and content of documents. These plugins are included as standard in EscapeE:

AddFile 229	MoveText 229	Barcode 229
AddImage 229	Evaluate 229	BC39Reader 229
AddText 228	Script 229	QRCodeReader 229

Additional plugins are available for purchase – contact sales@redtitan.com:

Tesseract 229	DMatrix 229	BlankOut 229
OCRust 230		
Rocr 230		

In this section:

- Calling plugins 227
- Reconfiguring plugins 228
- AddText plugin 228
- Other plugins 229

See *Plugins Help* for further details.

Links
Calling plugins 227

Calling plugins

1. Open the document 44 and set up a field for the plugin to act on, see Defining field and tags. 200
2. Select **Edit...** from the 'Fields' menu (**Ctrl D**) and click on the field in the Fields list/tree 211.
   or
   Right-click on the field and select **Edit field...**
3. Click the **Action** tab; select the plugin 227 from the **Call plugin** drop-down list.
4. Click **Configure**.
   - Some plugins require further information so a plugin-specific configuration dialog is displayed, e.g. movetext 229, addtext 228, addimage 229, addfile 229, barcode 229, tesseract 229, rocr 230, evaluate 229.
   - Some plugins use the just the data contained in the field so require no further configuration e.g. BC39Reader 229, QRCodeReader 229.
5. Click **OK** to close the Fields dialog.
   EscapeE enables the plugin: the **Enable plugin** check-box on the 'Layout' page of the Field dialog 199 is ticked and the 'Plugins enabled' button shown on the Tool-bar.

Links
Setting field actions 209
Reconfiguring plugins 228

Reconfiguring plugins

Once a field has been configured, you may re-open and edit the plugin's Configuration dialog:

- Select **Configure field** from the *right*-click pop-up menu *or*
- with the Field dialog 199 open, *right*-click the field in Tree 211 and select **Configure field...** from the pop-up menu.

To enable/disable plugins:

- Tick/clear the **Enable plugin** check-box on the 'Layout' page of the Field dialog *or*
- Click the Plugins button on the Tool-bar: indicates 'enabled' and 'disabled'.
- Select **Enable field** or **Disable field** from the *right*-click pop-up menu.

Note

If a plugin attempts to modify a PDF document that is marked as not editable 174 then the corresponding field is disabled and a warning given.

AddText plugin

The *addtext* plugin allows new text to be added 228 to a page in a choice of fonts, colors and alignments. It may also be used to remove 228 existing text from a page.

Addtext is the primary *EscapeE* plugin, and may be accessed directly from the EscapeE window's pop-up menu:

Add text

1. Open the document 44 and display the page for the added text. To add text to an existing field, select it.
2. *Right*-click on the page then choose **Add text** (or press **Ins**ert key) from the pop-up menu.
   - If an existing field has been selected the addtext dialog opens. If *not* then:
   - If a field on the page has been configured to utilize the addtext plugin, the addtext dialog is opened showing the field's setup. *Otherwise*,
   - A new field to contain the new text is created automatically and the addtext dialog is opened.
3. Set up the text string, font, position and rotation: see also To add new text [Plugins Help].

To disable the addtext field, sweep out the text *or* click on the field; then select **Delete text** from the pop-up menu. See also Delete text 228 below.

To reinstate the addtext field, click on the field then select **Enable field...** from the pop-up menu, *or* open the Field dialog 204 (**Ctrl D**) and tick the **Enabled** check-box.

Delete text

If the original page contains text that you would simply like to remove:

1. Sweep out the text for removal.
2. *Right*-click and choose **Delete text**.
3. You can make adjustments to the field set-up as necessary – see To define a field 200.

Note that only "real" text strings in a 'Delete text' field can be removed, not *images* of text.

Other plugins

In addition to addtext 228 plugin, these plugins are available as standard:

MoveText

allows existing text to be moved about and/or have its font or color changed
Also facilitates Rearranging page contents 97 feature.

See movetext [Plugins Help]

AddImage

allows an image (BMP, TIFF, RIF or PCX) to be added to the document. Dynamic images may be selected using names (or parts of names) extracted from the data

See addimage [Plugins Help]

AddFile

allows a page of a PCL, PDF or PostScript file to be added as an overlay

See addfile [Plugins Help]

Barcodes

allows text to be converted into any of the common barcode formats including 2-D types

See barcode [Plugins Help]

BC39Reader

Reads a Code 3 of 9 barcode, converts it into text and uses it as the value of the field. (No further configuration is required.)

See bc39reader [Plugins Help]

QRCodeReader

QRCodeReader extracts the data from a QR Code 2D barcode and uses this text as the value of the field. (Typically an internet URL 448; no further configuration is required.)

See qrcodereader [Plugins Help]

Evaluate

allows field values to be calculated and pages to be set up dependent on field content using RS/2 447 programs or expressions

See evaluate [Plugins Help]

Script

enables you to embed Javascript configuration string expressions

See script [Plugins Help]

Appropriate permission codes must be installed for the plugins listed below. They may be purchased from sales@redtitan.com.

BlankOut

covers the field's area on the page with a rectangular patch of white or black. You may choose whether any text this may cover is retained or discarded

See blankout [Plugins Help]

DMatrix

Reads a Data Matrix 2D barcode, converts it into text and uses it as the value of the field.

See dmatrix [Plugins Help]

Tesseract

An Optical Character Recognition plugin which converts images of characters into true text using Tesseract open source routines

See tesseract [Plugins Help]

OCRust

Enables the optical character recognition of dot matrix printer characters

See ocrust [Plugins Help]

Rocr

Use to set up your own database of recognizable character glyphs

See rocr [Plugins Help]

New plugins are regularly being developed and RedTitan can provide custom plugins to perform specific tasks: contact RedTitan for more information.

Links
Using plugins 227
Calling plugins 227

Part XII

Export data

Export data

EscapeE can extract data fields for export to CSV, XML or plain text data-files. Fields may also be extracted when a document is exported to other formats to output a log file.

- See Exporting data fields 232 for information about the formats and files for exporting data; how to select fields for export; exporting PJL comments.
- How to export fields to Comma Separated format, and how to extract CSV data fields when exporting to other formats – log files: see Exporting CSV data fields 233
- How to export fields to plain text, and how to extract text data fields when exporting to other formats, with notes on symbol sets and character recognition codes: see Exporting Plain Text data fields 234
- How to export fields to XML and how to extract XML data fields when exporting to other formats – log files: see Exporting XML data fields 235
- How to export a document with a log file: see Log file export 236
- Configuring for log file export – choosing fields to be logged, log format, number options etc. – log naming notes: see Setting Log file options 237
- How to set up page numbering schemes for the document: see Creating page numbers 239.
- The features of the Bates numbering system as implemented by EscapeE: see About page numbers 240.

Exporting data fields

When you have marked up data fields on the pages, you can export the data fields into a CSV 445 file or into an XML 448 file which may be imported into a database or fed to the RedTitan *Dynamic Document Formatter*. You may also opt to export the fields as Plain text 448. In addition, you may export the fields as a LOG file when exporting a document, see Log file export 236.

When outputting XML, you can opt to create XSL and CSS stylesheets too: see Creating XML stylesheets 101.

When exporting a document to PCL, PDF, PDF/A or PostScript formats you may also choose whether to include PJL comments or not. These may be comments present in the original file or those created by *EscapeE* using its 'Prefix' mechanism: see Setting the fields file options 214.

To select fields for export

1. Select **Edit...** from the 'Fields' menu, *or*
   hold down **Ctrl** and press **D** key.
2. In Fields list 211 view, hold down **Ctrl** and click the field name *or*
   In Tree 211 view, *right*-click a field name then choose **Select for export**. This will select any sub-fields too.
   Repeat this step to select all the fields you wish to export.
3. Click **OK** to close the 'Fields' dialog.

◆ Tip: To *deselect* a field for export *right* click and choose **Unselect for export**.

Exporting CSV data fields

To export fields to CSV

1. If there are fields defined on the page (see Defining fields and tags 200):
   - choose **Export...** from the 'File' menu *or*
   - press **Ctrl E** keys.
2. Set up the 'Page number range' of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files** (see Overwriting files 129).
4. Choose **Comma separated fields** as the 'Format'.
   - A default file name (with extension .CSV) is provided. To create a different filename or extension, type in the new name or use wild-cards. 136 To select a different folder to store the file, use the **Browse...** button. Or
   - Check the **LPR output** 446 box; the filename will be supplied automatically.
5. Choose whether to **Run the associated program after creating the file** or not. See also Associated programs. 136
6. You may choose to export:
   - *all* the data fields defined in the job: click **All defined fields**, or
   - only *some* of the data fields:
     - To set up a *new* selection of fields, click **Select...** to display the 'Field Definitions' window. *Right* click on a field name in the Fields list 211 and choose **Select for Export**. Repeat for other fields you wish to export; you may select **Unselect for export** if you decide not to export a selected field. Click **OK** to return to the 'Export' window; the **Selected fields only** option is selected automatically.
     - To export an *existing* selection of fields, choose **Selected fields only** option.
7. Tick **Filenames** to include the name of the originating *input* file to the data in the log file. It will be placed first in the log, in a field named "FILENAME".
8. Tick **Page Numbers** to include the page number for each record in the log file. It will be placed in a field named "PAGE". The PAGE field will be inserted immediately after FILENAME field if the 'Filenames' option is also selected (see above 233), otherwise it will become the first field.
9. Further options may be set up on the Log File 237 page of the Configuration dialog: click **Log file...**.
10. Click **OK** to export the fields.

To extract CSV data fields when exporting to other formats

If you are exporting to an image or other format, the fields can be extracted simultaneously into CSV format. In this case the file is not given the extension CSV, but a .LOG file is created instead. This will contain the filename of the *output* image if the Filenames option has been selected.

- Choose the export Format and set any options required – see Exporting files manually 123 – then select the field logging options: see Log file export 236.

Exporting plain TeXT data fields

To export data fields to plain text

1. If there are fields defined on the page (see Defining fields and tags 200):
   - choose **Export...** from the 'File' menu *or*
   - press **Ctrl E** keys.
2. Set up the 'Page number range' of the pages you want to export, see Selecting page ranges. 129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**. See Overwriting files. 129
4. Choose **Plain text** as the 'Format'.
   - A default file name (with extension .TXT) is provided. To create a different filename or extension, type in the new name or use wild-cards. 136 To select a different folder to store the file, use the **Browse...** button. Or
   - Check the **LPR output** 446 box; the filename will be supplied automatically.
5. Choose whether to **Run the associated program after creating the file** or not. See also Associated programs 136.
6. You may choose to export:
   - *all* the data fields defined in the job: click **All defined fields**, or
   - only *some* of the data fields:
     - To set up a *new* selection of fields, click **Select...** to display the 'Field Definitions' window. *Right* click on a field name in the Fields list 211 and choose **Select for Export**. Repeat for other fields you wish to export; you may select **Unselect for export** if you decide not to export a selected field. Click **OK** to return to the 'Export' window; the **Selected fields only** option is selected automatically.
     - To export an *existing* selection of fields, choose **Selected fields only** option.
7. Further options may be set up on the Log File 237 page of the Configuration dialog: click **Log file...**.
8. Click **OK** to export the fields.

Remember that *EscapeE* must be configured to use the appropriate driver/ symbolset to translate the character codes 82 correctly: see About Symbol sets 81. Character recognition codes may be set up using *EEfonts*, choose **Set up database for character recognition** from the 'Fonts' menu.

To extract text data fields when exporting to other formats

If you are exporting to an image or other format, the fields can be extracted simultaneously into text format. In this case the file is not given the extension TXT, but a .LOG file is created instead.

- Choose the image or other export Format and set any options required (see Exporting files manually 123), then select the field logging options – see Log file export. 236

Exporting XML data fields

There must be some fields defined in order to export XML, since only the contents of fields found on each page will be exported. See Defining fields and tags.200

To export data fields to XML

1. Choose **Export...** from the 'File' menu *or* press **Ctrl E** keys.
2. Set up the 'Page number range' of the pages you want to export, see Selecting page ranges.129
3. To avoid a new file overwriting an existing file with the same name, tick **Do not overwrite files**. See Overwriting files.129
4. Choose **XML data fields** as the 'Format'. To set further options click **XML field options...**: see Outputting to XML.224
   - A default file name (with extension .XML) is provided. To create a different filename or extension, type in the new name or use wild-cards.136 To select a different folder to store the file, use the **Browse...** button. Or
   - Check the **LPR output**446 box; the filename will be supplied automatically.
5. Choose whether or not to **Create XSL, CSS and HTM files**: see Creating XML stylesheets.101
6. Choose whether to **Run the associated program after creating the file** or not. See also Associated programs.136
7. You may choose to export:
   - *all* the data fields defined in the job: click **All defined fields**, or
   - only *some* of the data fields:
     - To set up a *new* selection of fields, click **Select...** to display the 'Field Definitions' window. *Right* click on a field name in the Fields list211 and choose **Select for Export**. Repeat for other fields you wish to export; you may select **Unselect for export** if you decide not to export a selected field. Click **OK** to return to the 'Export' window; the **Selected fields only** option is selected automatically.
     - To export an *existing* selection of fields, choose **Selected fields only** option.
8. Further options may be set up on the Log File237 page of the Configuration dialog: click **Log file...**.
9. Click **OK** to export the fields.

To extract XML data fields when exporting to other formats

If you are exporting to an image or other format, the fields can be extracted simultaneously into XML. In this case the file is not given the extension XML, but a .LOG file is created instead.

- Choose the image or other export Format and set any options required (see Exporting files manually123) then select the field logging options – see Log file export.236

Log file export

Instead of exporting a document 123 and its data 232 separately, you may generate a log of a document's fields when exporting the document. The options for exporting a log are set up on the 'Log file' page of the 'Configuration' dialog, see Setting Log file options 237. Some of these settings, however, are reflected in the 'Export' dialog and you may reset them there:

1. Display the Export dialog and set up the details for document export as usual – see Exporting files manually 123.
2. In the 'Fields to be logged' panel, choose:
   - **All defined fields**, *or*
   - **Selected fields only**. To edit your selection:
     - Click the ... button to open the Field dialog 199, *right* click on a field name in the list and choose **Select for export**. (If you need to cancel a selection, right-click and choose **Unselect for export**.)
       Repeat for all the fields you wish to export.
       Click **OK** to return to the 'Export' window.
3. Choose a 'Log format' (see also Setting Log file options 237):
   - **Comma Separated** *or*
   - **Plain text** *or*
   - **XML**. You may opt to create an XML stylesheet by ticking:
     - **Create XSL, CSS and HTM files**.
4. Tick to add these options as required:
   - **Sheet Numbers** see Setting Log file options 237.
   - **Page Numbers** see Creating page numbers 239.
   - **Bates Numbers** to the document's pages and the log file. See About page numbering 240.
   - **Filenames** includes the file-names of the data-files used in the document, see Setting Log file options 237.
   - **Message** if one has been set up, see Setting Log file options 237.

To switch off log file export:

- In the 'Fields to be logged panel' of the Export dialog (see above 236), select **None**.

Links
Exporting data fields 232
Exporting files manually 123
Setting Log file options 237

Setting Log file options

The names/contents of data-fields can be exported, generating a log file. Options for the log file are set up in the Log File page of the 'Configuration' dialog, see below 237. (Some of these settings are reflected in the 'Export' dialog – see Log file export 236.)

To set options for the Log file

1. Click the **Log File** tab of the 'Options|Configuration' dialog (**f8**).
2. Select the 'Log File Format':
   - **XML**
     - You may click **XML field options...** to refine the choice of XML data-field options to be logged, see Outputting to XML 224.
   - **Plain text**; you may also add a:
     - **Text log file message**. Type in a string to be output to the log file; it may contain Special fields in composed strings 247. Tick **Enabled** to use the message. *Unselect* 'Enabled' to de-select the option without erasing the message. See also Examples: Command lines 436.
   - **Comma separated**. By default, the field names are used to create the first line of a CSV log file. The alternative is to tick the option to:
     - **Omit field names** and suppress the output of the first line.
3. In the 'Logged Fields' panel, choose which data fields are to be included:
   - all the data-fields defined in the job: click **All defined fields**, *or*
   - just some of the data-fields. Click **Select...** to display the 'Field Definitions' window.
     - *Right* click on a field name in the Fields list/tree 211 and choose **Select for export**.
     - To cancel a selection, *right* click and choose **Unselect for export**.

     Repeat for all the fields you wish to export.
     Click **OK** to return to the 'Log File' window; the **Selected fields** option is selected automatically. See also Viewing data fields and tags 52.
     Alternatively:
   - Select **None** of the data-fields: this switches off log-file export.
4. To show the file-names of the data-files which supply the data for the data-fields in the document (as well as the actual field-values) in the console log, tick **Filenames**.
5. **Page numbers**, **Bates Page Numbers** and/or **Sheet numbers** may be logged. If the format chosen for the log file is:
   - CSV 237 then the number for each page/sheet exported is recorded in the log file;
   - XML 237 then a number for each page/sheet exported is recorded in the log file. This is default option.
   - Plain text 237 then the count (number of pages/sheets exported from this document in this export) is added to the end of the log file.

6. Set up 'When to output' items for the Log – *either* output log entries for:
   Every page (the default) *or*
   When a field specifies it.
   - You may opt to output log entries only:
     At end of file *or*
     At end of file + 1 too: see Note 238 below.
7. Set further options as required:
   - **Rename log file when finished**. See Note 238 below.
   - **Create a new log file for each output file**. See Note 238 below.
   - **Make one new log file entry for each output file**; left unchecked, a new log file entry will be made for each *page* output instead.
8. Some jobs require a count of the pages in each of a number of repeated sets within a document: click **Count pages** (see below 238) then click **OK**.
9. If any errors occur an **Error log file** may be created along with the file. Setting up a path and filename in the edit box automatically ticks **Enable** (default is ERROR.LOG). See Note 238 below.
10. Click **OK**.
    Alternatively, you may choose to create a Shortcut icon that uses all the options you have set by clicking **Shortcut...** (see Shortcuts - the easy way to construct a command line 367) *or* click the **Save** button to retain these settings after you close the program.

Notes

The output files are constructed using the specified output file name 123; numbers appended so that the default output file-stems are **xxxx1**, **xxxx2** etc.. The log files take the corresponding file-stems plus the extension **.CSV**, **.XML** or **.LOG**, depending on the log format 237 that you have selected.

Rename log file when finished: during processing, the log file bears a temporary name and is not given its final name until the log file is complete. The temporary name is given an extension of **.CS~**, **.XM~** or **.LO~**, indicating that it is still being created.

Create a new log file for each output file: the output file is split whenever a specified field (or tag) is encountered or when a field changes. Each log file has a name corresponding to its output file and field content (even if only one file is created), unless the input was from TCP/IP 129, in which case it has a name based on the first output file name.
For example if the file is called **TEST.PCL**, the field contains **ABCD** and the output specification is ***=.PDF** then the output file name will be **TESTABCD.PDF** and the Log file will be **TESTABCD** followed by the appropriate extension.

At end of file writes the log entries at the end of the file. **At end of file + 1** writes the log entries as if on a page after the end of file, to simplify page counting. See also /LOG 401 command-line option.

The **Count pages** dialog constructs a prototype RUN command set up with the options that you have selected, e.g.
EscapeE {ofilename},FILENAME,PAGE /INPUT CSV

An **Error log file** is only created when there are errors to log. When **Enable** is ticked the value of ERRORLOG symbol in the [PCLVIEW] section of RT.INI is set to the specified file. When 'Enable' is *deselected* the ERRORLOG value is set to **N**. See also /ERRORLOG 395.

Creating page numbers

Page numbers, in the position and font of your choice, may be added to pages when they are exported. They may be simple digits or a combination of text and digits. The Bates 240 numbering feature enables several different files to be output with consecutive numbers so that they form a set, e.g. for legal documents.

To create page numbers

1. Choose **Configuration...** from the 'Options' menu *or* press **F8** key.
2. Select the **Layout** tab.
3. In the 'Page numbers' panel:
   - In the **Template** box, *either*:
     - Type in the text for the page-number's prefix. If the prefix text includes an * character then *EscapeE* will replace the asterisk with the filename stem. *Or*
     - Leave it blank for no prefix.
   - Enter, or use the spin-buttons to set, the minimum 240 **Number of digits** a page-number may display. EscapeE adds one " character to the Template for each digit required.
     The default value is zero, which switches page-numbering off.

   For more on setting up a Bates-style number template see About Page numbers 240
4. Set the **Horizontal position** of the page-number as a distance 240, *either*
   - **From left** edge of page to the left side of the field *or*
   - **From right** edge of page to the right side of the field.

   If left blank, page numbering is suppressed.
5. Set the **Vertical position** similarly: *either*
   - **From top** edge of page to the top of the character cells *or*
   - **From bottom** edge of page to bottom the of the character cells.

   If left blank, page numbering is suppressed.
6. Set the **Point size** and Font **Family** for the page-number. If either of these boxes are left blank, page numbering is suppressed.
7. If **Bates page numbering** is required:
   - Tick **Remember number for next time** so that the current 'Number for next page' is used for the next document. This ensures that the pages of successive documents are consecutive.
   - You may click **Save number now** to reset the stored page number to the value in the 'Number for next page' box. Note that otherwise the last-used page-number is only saved if greater than the highest previously used.
8. Click **OK** to use these setting for the current session. O*r*
   Click **Save** to retain these settings after you close the program. O*r*
   Click **Save as** to save these settings to a file. O*r*
   Click **Shortcut...** to create a Shortcut icon which uses all the options you have set (see Shortcuts - the easy way to construct a command line 367).

To switch off page numbering

Page numbering is suppressed when any of these boxes are left blank:

- **Number of digits** *and/or*
- **Point size** *and/or*
- **Family** *and/or*
- **Horizontal position** ('From left' and 'From right') *and/or*
- **Vertical position** ('From top' and 'From bottom')

Notes

When there are *more* digits in an actual page-number than 'double-quote' characters in the template, then the length of the page number field on that page is extended to accommodate the extra digits: the numbers are never truncated. When there are *fewer* digits in the page-number than 'double-quote' characters in the template, then one or more 'zero' characters are added to the page number field to fill out the field to the required length. See example in About page numbers 240.
The vertical offsets are distances from the physical page edge to the edge of the nominal character cell for the font specified, not the font's baseline. This ensures that there is sufficient space for ascenders and descenders.
If using a Windows printer driver there is an unprintable region of about 0.3" at the edge of the page: any text which extends even partly into this region is omitted by the driver.

Tip: To change the units in which distances are specified, see Configuring the view 58.

Links
About page numbers 240
Setting Log file options 237

About page numbers

Page numbers can be added to each page of a document when exporting 129.
EscapeE creates 239 "Bates" numbers, designed to be unique over a complete set of documents. They may include a prefix and/or file-name stem in addition to the serial number.
The syntax for specifying the format of the number is similar to that for file-names 136:

" represents one digit of the serial number
***** represents the original file stem

The maximum length of the page number template is 150 characters.

Examples

For a PCL file called 'SALES.PRN':

Template	Creates numbers
`""`	01, 02, 03, etc.
`Page "`	Page 1, Page 2,.. Page 10 etc.
`APRIL*"""`	APRILSALES001, APRILSALES002, etc.

You can also specify a starting page number; that is, the number that would be assigned to page 1 of the document. If, for example, it is `12345` then if you start output at page 10 that page will be numbered `12354`, so that the numbering is consistent for any subset. If you select **Remember number for next time** from the Layout 239 page of the Configuration dialog, then on closing the file the page number is saved (if it is larger than the previous highest number).

If you want to have two different projects each with its own range of page numbers then you will need to use different configuration files. The configuration file name can be specified on the command line 368 or in a shortcut 367. Use the **Save As** button on the Configuration dialog to create such a file, and a shortcut to it.
To specify the starting page number on the command line use the /NEXTPAGE 402 option e.g.

```
ESCAPEE myfile.pcl /TIFF /NEXTPAGE 12345
```

You may opt to **Save number now** so that the stored page number is reset to the value in the Number for next page 239 box next to it. Note that otherwise the last-used page number is only saved if greater than the highest previously used.
On the command line, a negative value of /NEXTPAGE ensures that the page number is not saved for the next document and that the number is adjusted by any offset in the /PAGE 403 option. For example the command:

```
escapee myfile.pcl /print /page 4-5 /nextpage -1 /pnum 'Page " of subset'
```

would print pages 4 to 5, numbering page 4 of the document as "Page 1 of subset" and page 5 as "Page 2 of subset".
Page numbers can be incorporated into the output file's name. When a "plus" sign is included in the output file name specified in the Export 123 dialog, it is converted to the page number in the output filename. For example, the set-up:

Output file specification: `*+.PDF`
Page1 number: `3`
Number template: `p"`
Input filename: `FILE1`

This set-up creates an output file named `FILE1p3.PDF` with pages numbered and starting at `3`. To output the file without printing the number on each page, select a null font or clear the font point size or the horizontal or vertical position fields in the Configuration dialog's Layout 239 page.

Links
Creating page numbers 239
Setting Log file options 237

Part XIII

Composite fields

Composite fields

This section describes how to build composite fields for particular functions. The first four topics detail how to set up composite fields using *EscapeE* dialogs. These are followed by topics which document the syntax used in composite fields (see also Composite fields syntax summary 421 in the Reference 381 section).

- How to build a composite field, with example: see Defining a composite field 244
- See More on defining composite fields 245 to set up composite fields using the Field dialog's Composite field wizard.
- Embedding fields in composed strings and pre-defined 'symbols': see Special fields in composed strings 247
- Use of arithmetic and logic operators when assigning field-values: see Composite field expressions 250
- About field attributes **bottom**, **height**, **left**, **length**, **right**, **top**, **width**, **x** and **y**; extracting sub-strings from fields: see Partial fields 251
- Using := to set up numeric and string field-values: see Defining field values 253
- Using + prefix to set up Counters: see Numerical conditions 254
- Using + prefix to define values dependent on whether a string is found or not: see String conditions 257
- Using = prefix and += prefix to define page-dependent field values: see Page conditions 258
- Eliciting data from the User: see User input data fields 258

Defining a composite field

Usually, fields are used to insert the whole field value by enclosing the field name in curly brackets e.g. `Dear {name}`. Sometimes, however, you may need to insert just part of a field's value or to use a particular value in certain circumstances. The composite field feature enables you to set up new fields based on modifications of other fields and/or conditions.

To define a composite field

1. Select **New...** from the 'Fields' menu to display the Definitions 201 page of the 'Fields' dialog.
2. Enter a name for the field in the **Field** box then click **Refresh**.
3. Click the **Composite** check box to display the "Value" edit box.
4. Enter the composite field definition in the **Value** box using one of these methods:
   - Select a string from the drop-down list of ready-made 'Components'. The list contains the names of all the fields currently in the document plus many commonly used composite symbols such as `_day`, `_side`: see Special fields in composed strings 247. *Or*
   - Click the **More...** button to open the Composite field wizard 245 and let *EscapeE* generate the syntax for a more complicated definition from its setup.
   - edit the Value box directly from the keyboard – see Composite field syntax summary 421 for an overview of the syntax.

   Value strings are enclosed in curly brackets to mark them as symbols rather than pieces of text.
5. Select the **Action** tab to specify what EscapeE is to do (start a new set, force a back page etc.): see Setting field actions 208. When an action criterion is met, the "Action" box is shown ticked.
6. Click **OK**.

Example

The value:

```
File {_name} page {_page} Inv: {invnum}
```

would result in a composite field such as:

```
File TEST page 2 Inv: 073102
```

Note

A leading underscore character is used to distinguish predefined fields 247 from any defined by the user, but may be omitted if there are no user-defined fields with conflicting names.

Links
More on defining composite fields 245
Special fields in composed strings 247

More on defining composite fields

A complicated composite field can be set up in the **Value** box on the 'Definitions' page of Field dialog, see Defining a composite field 244. You may key-in the definition directly (see Composite field syntax summary 421) or click **More...** to display the Composite field wizard. *EscapeE* will construct the definition from details set up in the wizard, see below 245

Composite field wizard

A complex composite field may comprise several conditions. These conditions can be set up, one at a time, in the Composite field wizard then coded and concatenated by EscapeE when the **Add** button is clicked.

1. Open the wizard by clicking **More...** on the Definitions 244 page of the Field dialog.
2. Choose one of the **Components** from the drop-down list of fields already present in the document and Special composite symbols 247.
3. Set the 'Condition' for the field to be output; choose from:
   - **Always**
   - **If field found** – On selection, additional edit boxes are displayed for setting up a String condition 257.
     Either enter a string **Value** for:
     - when field is **Found**, *and/or*
     - when field is **Not found**.

     Or set up a Counter 246, see below.
   - **If field changed** – On selection, additional edit boxes are displayed for setting up a Page condition 258.
     Either enter a string **Value** for:
     - when field is **Unchanged**, *and/or*
     - when field is **Changed**.

     Or set up a Counter 246, see below.
4. You may extract just part 251 of the Component field's value, rather than the whole field's value. In the 'Extract sub-field' panel:
   - specify the column position of the first character to be extracted in the **Starting column** box.
     - Click **From start** to count columns from the left *or*
     - click **From end** to count columns from the right.
   - Set up the place at which to stop extracting characters:
     - You may specify an **Ending column** if counting from left, *or*
     - Specify width as a **Number of columns** *or*
     - Specify **Terminators** – any character that may indicate the end of the piece of data, e.g. comma.
   - A sub-string may be found within a field: specify the `[number]` of the **Word**.
   - A line may be found within a multi-line field: specify the `[number]` of the **Line**.

5. Click **Add** then repeat steps above 245 to build up the entire composed field definition.
   - Arithmetic expressions may be inserted in **Value** as necessary directly from the keyboard: see Composite field expressions. 250
6. When the composed field definition (shown in 'Value' box) is complete, click **Done**.

Counter setup

When Field found 245 or Field changed 245 conditions have been selected, the wizard displays a panel of options. Ticking a **Counter** check-box on this panel sets up a count of the number of occurrences of the condition.

1. Set up the type of counter by ticking the **Counter** check-box alongside the appropriate option:
   - Search for the field and increment the count if the field is
     - **Found** *or*
     - **Not found** *or*
   - Check the field and increment the count if the field value is
     - **Changed** *or*
     - **Unchanged**.
2. Enter, or use the arrows on the spin-box to set up, the "width" of the counter:
   - specify the minimum number of digits to be used for the counter *or*
   - tick **0** check-box to create a fixed-length counter. Specify the number of digits to be used: it will be filled-out using leading zeroes.
3. Enter the number at which the count is to **Start**.
4. Enter the number at which the count ends and resets in the **Limit** box.
5. In the **Reset** box, enter the number at which the count is to restart when the Limit 246 has been reached.

See also Numerical conditions 254.

To assign a value

To simply assign a constant known value to a new composite field:

1. Select the field name from the drop-down list of **Components**.
2. Enter the value that the field is to take in the **Value** box.
3. Click **Assignment**.
4. Click **Done** then **OK**.

See also Defining field values 253.

◆ Tip: If you re-open the Field dialog 199 to show the Definitions 200 page for a composite field, its code is shown in the 'Value' box and its evaluated result is shown below its 'Field' name.

Links
Numerical conditions 254
String conditions 257
Page conditions 258

Special fields in composed strings

A composed string (such as used in a composite field, 251 an output file specification or a PDF password 180) can contain embedded field names enclosed in curly brackets e.g. `Dear {name}`. The value of the field is substituted at the time of invoking the string e.g. when constructing an output file name. As well as the user-defined fields there are certain special ones:

Special composite symbols

_{	An opening curly bracket.
_}	A closing curly bracket.
_back	Value is **BACK** if on a back page or null if not a back page. Related item: _front 247.
_bates	The 'bates' page number as defined in the Layout 239 page of the 'Configuration' dialog. Related item: _page 248.
_bin	The current output bin number. Related item: _tray 249.
_CR	Carriage Return (character 13 decimal, 0D hex). Related items: _CRLF 247 _LF 248.
_CRLF	Carriage Return & Line Feed (0D0A hex). Related items: _CR 247, _LF 248.
_day	Today's day number (1-31). Related item: _month 248.
_DocAuthor	The name of person who created the document, extracted from a PDF 219 input file.
_DocCreationDate	The date that the document was created, extracted from the PDF input file.
_DocCreator	The name of the program that created the original document extracted from the PDF input file.
_DocKeywords	Keywords for the document, extracted from the PDF input file.
_DocProducer	The name of the program which output the document, extracted from the PDF input file.
_DocSubject	The subject of the document, extracted from the PDF input file.
_DocTitle	The document title, extracted from the PDF input file.
_DocUpdateDate	The most recent update date of document, extracted from the PDF input file.
_ext	Same as _Iext 248, see below.
_filename	Same as _Ifilename 248, see below.
_filenum	The current file number within a list of files being processed.
_filepages	The number of pages in a current input file. Valid only for input formats 45 such as PDF 174, TIFF 190 or DCX 146 where the number of pages can be easily determined.
_FirstPageInSet	The page number of the first page in the current set. It is updated when a field defines the start or end of a set. Related items: _numSetPages 248, _page 248, _SetPages 249.
_front	Value is **FRONT** if on a front page, otherwise null. Related item: _back 247.
_GMT	Same as _UTC 249, see below.
_hour	Time in hours. Related items: _minute 248, _second 249.
_id	Unique numeric ID; used to construct the default output file name: {_title}{id}

_Iext The original (Input) file extension, including the 'dot'. Related item: _Oext 248.

_Ifilename The full Input file name. Related item: _Ofilename 248.

_IgnoredImages A count of the number of images that were ignored by ticking the General Configuration 124 option 'Ignore images' 59.

_Iname The file name stem of the original (Input) file. Related items: _Oname 248, _Mname 248.

_Ipath The full path of the original (Input) file. Related items: _Opath 248, _Mpath 248.

_LF Line Feed (character 10 decimal, 0D hex). Related items: _CR 247, _CRLF 247.

_local Subsequent times are 'local'; the default time is specified in Universal Coordinated Time 249.

_media The media 111 *type* of the current page. Related item: _paper 248.

_Mext The Main file extension. Related items: _Mname 248, _Mpath 248.

_minute Time in minutes. Related items: _hour 247, _second 249.

_Mname For a List Of Files 260 this is the Main (LOF) file name; note that _Iname 248 is the current Input file name, see above. Related items: _Mext 248, _Mpath 248.

_month Today's month number (1-12). Related item: _day 247.

_Mpath For a List Of Files 260 this is the full path of the Main (LOF) file; note that _Ipath 248 is the current Input file's full path, see above. Related items: _Mext 248, _Mname 248.

_name Same as _Iname 248, see above.

_numPages When using /FROM 391 to read a CSV Control file, 260 **_numPages** obtains the number of pages in the current file segment. Related items: _numSetPages 248, _page 248.

_numSetPages Calculates the number of pages in the current set (i.e. from the field marking the start 208 of the current set to the field marking the end 208 of the current set). Related items: _FirstPageInSet 247 _numPages 248, _numSetSheets 248.

_numSetSheets Number of sheets in the current set. Related items: _numSetPages 248, _sheets 249.

_Oext The Output file extension, including the 'dot'. Related item: _Iext 248.

_Ofilename The full Output file name. Related item: _Ifilename 248.

_Oname The file name stem of the Output file. Related item: _Iname 248.

_Opath The full path of the Output file. Related item: _Ipath 248.

_orient The orientation of the page.

_page The current page number. Related items: _bates 247, _numSetPages 248, _sheets 249, _sides 249.

_paper The *name* of the paper used for the page e.g. **LETTER**. Related items: _media 248, _sheets 249.

_path Same as _Ipath 248, see above.

_plugins The folder containing the plugins 227.

_RT This is defined by the value from the @PJL COMMENT REDTITAN DIR value. See also Preamble and PJL options 170.

_RTid Returns the RedTitan PC ID 21.

_RTini The full path (including the file name) of the RT.INI 417 file.

_second	Time in seconds. Related items: _minute 248, _hour 247.
_SetPages	The number of pages in the current set 208. Related items: _FirstPageInSet 247.
_sheets	The number of pieces of paper that have been output. Related items: _page 248, _side 249.
_side *or* **_sides**	The current side number starting at 1. Related items: _page 248, _sheets 249.
_TempDir	The Windows® temporary folder (terminated by backslash) e.g. `C:\Users\<username>\AppData\Local\Temp\`
_title	The job title; used to construct the default output file name: {_title}{_id}
_tray	The current input tray number. Related item: _bin 247.
_UTC	Subsequent times are in Universal Coordinated Time. Related item: _local 248.
_year	Today's year number. Related item: _month 248.

All these special 'symbols' start with the "underscore" character, followed by characters that may be in upper, lower or mixed case. The underscore characters are to distinguish predefined fields from those defined by the user, but may be omitted if there are no user-defined fields with conflicting names.

PJL note

Special fields beginning `{PJL_` can be used to extract data from PJL commands. For example,
`{PJL_OUTPAPER}`
could be used to search for a command such as
`@PJL SET OUTPAPER LETTER`
and extract the OUTPAPER parameter (`LETTER` in this case).
Similarly, the composite field `{PJL_JOB}` will yield the name of the job.
See also PJL Comments 64 and Preambles and PJL options 170.

Examples

- `{_GMT}{_day}/{_month}/{_year}` is a Greenwich Mean Time date in European format.
- `{_Local}{_Month}/{_Day}/{_Year}` is a local date in U.S.A. format.
- `{_local}{_hour}:{_minute}:{_second}` is a local time.

See also Examples: Command lines 436.

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Filenames and wildcards 136

Composite field expressions

Numeric expressions

In a composed string, if the field can contain a numeric field-value then you may use an arithmetic expression in place of a field-name. These operators may be used:

- **+** to add
- **–** to subtract
- ***** to multiply
- **/** to divide (rounding towards zero)
- **** to provide the remainder after division (the mod function)

and use round brackets **()** to contain intermediate calculations.

Examples:

- **{pagenum\2}**

to check whether the current page number supplied by a field named **pagenum** is odd (when remainder is 1) or even (remainder is 0).

- **{field1*(field2–field3)+1}**

where **field1**, **field2** and **field3** all supply numeric values.

Logic expressions

Fields yielding integer values may use these bit-wise logical operators421:

- **&** AND
- **|** OR
- **¬** NOT

Any composite field that contains only Boolean expressions such as field.found253 and field.valid253, or such expressions combined using Boolean logical operators, is considered to be a Boolean field. If they have no search tag then such boolean fields are considered to be found when their value is "True" (**–1**) and any specified actions will occur accordingly. The field type is shown as Boolean in the Fields properties.

Examples:

- **{field1.found&field2.found}**

The result is True if both **field1** *and* **field2** are found, in which case the value of the composite field would be **–1**.
If only one of the fields or neither are found the result would be False (**0**).

- **{field1.found|field2.found}**

The result is True if either **field1** *or* **field2** *or* both fields are found, in which case the value of the composite field would be **–1**.
It would be False (**0**) if neither **field1** nor **field2** is found.

- **{field1.found&¬field2.found}**

The result is True if **field1** is found *and* **field2** is *not* found, in which case the value of the composite field would be **–1**.

- **{field1&7}**

ANDing **field1** with binary **111** gives the bottom three bits of the value and so acts as a 3-bit "mask".
Note that **field1** must have a *integer* value, otherwise an error will be given.

Links
Defining a composite field 244
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Bit-wise logic 42

Partial fields

{fieldname.size}
Extracts an attribute of a field's position and size, or length in characters.

The field and tag parameters (as set up in the Fields dialog – see Defining fields and tags 200) may be used in composite field expressions. These **size** attributes (in units defined in the Viewing 57 page of the Configuration dialog) are:

left, right, top, bottom	position of field's boundaries.
width, height	size of field
x, y	coordinates at which tag is found.
length	the number of characters found.

For example, if the value of the field named **title** is "Miss", then the composite field
{title.length}
gives the number of characters in **title**, i.e. "4". Arithmetic operators 250 may be used in composite field definitions, for example
{fielda:fieldy.length+2:3}
extracts 3 characters from fielda starting at the column position given by the number of characters in **fieldy** plus two characters.

{fieldname:range}

Extracts a range of character(s) from a named field. There are several ways of specifying the **range**

- **{fieldx:n}**
  {fieldx:-n}
  The name of the field may be followed by a colon and a number specifying the position of the first character to be extracted from the field. If a positive number is given, the first character is found by counting from the left. For example, if the field value is **ABCD,EFGH** then:
  {field:6}
  extracts the field value from character 6 onwards, omitting the first 5 characters: **EFGH**.
  If a negative number is given, the first character is found by counting from the right. For example:
  {field:-4}
  extracts only the last 4 characters of the field: **EFGH**.

- **{fieldx:n:r}**
  {fieldx:-n:r}
  The syntax may be followed by a further colon and the number of characters to be extracted, for example
  {field:4:3}
  extracts 3 characters starting at the 4th character from the left: **D,E** and
  {field:-4:3}
  extracts 3 characters starting at the 4th character from the right: **EFG**.
- **{fieldx:n-m}**
  Alternatively, the range may be given by a hyphen and an end character position number. Use positive position numbers to counting from the left and negative numbers to count from the right, e.g.
  {field:4-6}
  extracts 3 characters ranging from the 4th to the 6th characters from the left: **D,E**.

- **{fieldx:n:'separator_characters'}**
  Another option is to specify the range using a further colon and separator character(s) as a quoted string (i.e. between a pair of single or double quotes). For example
  {field:1:',;'}
  extracts from character 1 up to the first comma or semi-colon: **ABCD**.

{field[n]}

Extracts the "**n**th" sub-string from a field.

The sub-strings must be separated by space character(s). To extract a sub-string which itself includes space character(s), the sub-string must be enclosed in a pair of single or double quotes. For example, if a field named **PERSON** contained the value
Mr "John Smith" 1234
then
{person[1]} would be **Mr**
{person[2]} would be **John Smith**
{person[3]} would be **1234**

- **{field[#n]}**
  Extracts the "nth" line from a multi-line field.

  For example, if ADDRESS were a 4-line field generated by the OCR plugin then
  {ADDRESS[#2]}
  would be the second line of the address.

See also More on defining composite fields 245.

Boolean field properties

- **{field.found}**
  Yields -1 (True) if the field was found on the current page; otherwise it yields 0 (False).
- **{field.valid}**
  Yields -1 (True) if the field value is valid according to its specified type 225 (numeric, dateDMY etc.); otherwise it yields 0 (False).

See also Composite field expressions 250.

Note

A composite field (i.e. one defined in terms of other fields) retains its value even if it uses a sub-field of a tag which does not occur on the current page. See also Setting fields file options 213.

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Composite field expressions 250
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Defining field values

- **{fieldname:=value}**

Assigns a value to the named field; see also More on defining composite fields 246.

If the named field does not exist, it will be created. The value can include fields and expressions, see Special fields in composed strings 247 and Composite field expressions. 250

Examples

```
{newfield:=0}
{delta:={field1-field2}}
{next:={_page+1}}
```

Note that the last example assigns the *numeric* value of {_page} 248 plus 1, i.e if _page is 23, next field value is set to 24. This example, however, assigns a *string* value:

```
{sum:={_page}+1}
```

i.e. if _page is 23, next field value is set to the string "23+1".

Numerical conditions

The + syntax should be used in preference to the obsolete ? form.

- **{+fieldname=['found'],['not_found'] [[,initial_value],limit[,reset_value]]}**

The + condition field syntax, when given numerical values, may be used to set up a number of counting functions. Full nesting of conditional field expressions is supported, e.g.

```
{field1*field2}
{field1*2-field2}
{field1}{field2}
```

etc. as long as they resolve to a number.

{+fieldname=found,,[initial_value][,limit[,reset_value]]}

A counter that is incremented when a named field is found.

found,	An integer specifying the number of characters to be used for a counter. If **found** value starts with a zero then leading zeros are inserted to make up the width, otherwise spaces are used. If the counter exceeds the specified width then it is not truncated and all digits are shown. Alternatively, a number of **#** characters would specify that number of characters be used for a counter.
,	This denotes a null value for the unused **not_found** parameter.
initial_value (optional)	The initial value used when the field is first evaluated, regardless of whether counting occurs or not. Omitting this parameter sets a null starting value.
,limit (optional)	This is an integer value which specifies an ultimate value for a counter, after which the counter resets.
,reset_value (optional)	The integer value to which the counter resets after the **limit** has been reached. If **reset_value** is omitted it defaults to **initial_value**. If **initial_value** is omitted it defaults to zero.

For example:

```
{+points=02,,03,12,01}
```

Initially, composite field is set to the value 03. Each time the field named "points" is found, the composite field value is incremented by 01 until it reaches the value 12. The next time "points" is found, the composite field value is reset to 01.

{+fieldname=,not_found[,[initial_value],limit[,reset_value]]}

A counter that is incremented when a named field is *not* found.

,	This shows that the (redundant) **found** parameter has been skipped and default value – null – set.
not_found	An integer specifying the number of characters to be used for a counter. If **not_found** value starts with a zero then leading zeros are inserted to make up the width, otherwise spaces are used. If the counter exceeds the specified width then it is not truncated and all digits are shown. Alternatively, a number of **#** characters would specify that number of characters be used for a counter.
,initial_value (optional)	The initial value used when the field is first evaluated, regardless of whether counting occurs or not. Omitting this parameter sets a null starting value.
,limit (optional)	This is an optional integer value which specifies an ultimate value for a counter, after which the counter resets to **initial_value**.
,reset_value (optional)	The integer value to which the counter resets after the **limit** has been reached. If **reset_value** is omitted it defaults to **initial_value**. If **initial_value** is omitted it defaults to zero.

For example:

{+debit=,2,0} *or*
{+debit=,##,0}

Initially, composite field returns the value 0. Each time the field named "debit" is not found, the composite field value is incremented by 1.

{+fieldname=found}

A simple construct for counting **found** fields, where the initial value is null.

found	An integer specifying the number of characters to be used for a counter. Alternatively, a number of **#** characters would specify that number of characters be used for a counter.

For example:

{+count=1} *or*
{+count=#}

The composite field value starts null. Then each time the field named "count" is found, the composite field value is incremented by 1.

Obsolete syntax:

- **{fieldname=digits[,initial_value[,limit]]}**
  This initializes and increments a counter: use +fieldname254 syntax above instead.

fieldname=	The composite value must include a field name followed by an equals sign.
digits	Specifies how many characters wide the 'counter' field should be. It may be an integer or a string of # characters.
,initial_value (optional)	The value that the counter starts counting from. Default value is zero.
,limit (optional)	Ultimate value that the counter can reach before resetting to initial_value.

When the specified field is encountered for the first time, the counter is set to **initial_value**, or **0** if that is not specified. Subsequently, if the field exists the counter is incremented until it reaches the limit (if any), when it is reset to the initial value.

If **digits** parameter value is an integer and starts with a zero then leading zeros are inserted to make up the width, otherwise spaces are used. If **digits** parameter value is a number 'n' of **#** characters, then the width is specified as n characters.

If the counter exceeds the specified width then it is not truncated and all digits are shown.

Examples:
Invoice {page1=1,1}
This specification would have the value "Invoice 1" the first time field page1 was found, and the number would increment each time field page1 was found.
Set{page1=02,0,99}
This specification would start at "Set00" and go up to "Set99" before resetting to "Set00".

To truncate the counter another composite field may be used. For example, you might use:
{countfield:-4}
to take the last 4 digits of countfield.

See also More on defining composite fields246.

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String conditions

The + syntax should be used in preference to the obsolete ? form.

The + prefix is a versatile condition field syntax which may be used with integer parameters (see Numerical conditions 254) or with strings. A string condition may be applied to a pre-defined symbols (see Special fields in composed strings 247) as well as User-defined fields. Full nesting is supported, so the 'found' and 'not_found' parameters may themselves consist of another field expression or conditional field, provided that they resolve to a string.

- **{+fieldname=['found'],['not_found']}**
  The *string* value of this composite field depends on whether a field is found or not.

found	This is a string and must be enclosed within a pair of quote characters. It is the value that the composite field returns if **fieldname** is found.
not_found	This string, in quotes, is the value that the composite field returns if **fieldname** is *not* found.

See also Examples: Composite fields 438

Obsolete syntax:

- **{?fieldname=['true_value'][,'false_value']}**
  This expression determines whether or not a field value is present in a data-field: superseded by +fieldname 257 syntax above.

?fieldname=	Must start with a question mark followed by a field name and an equals sign.
true_value (optional)	The value assigned if a value exists for the named field. If **true_value** is a single 'word', it need not be in quotes. Default value is **T** if **true_value** parameter value is omitted from the expression.
false_value (optional)	The value assigned if a value for the named field does *not* exist. If **false_value** is a single 'word' quotes may be omitted. Default value is **F** if **false_value** parameter value is omitted from the expression.

See also **{?fieldname}** below.

- **{?fieldname}**
  To just return the default values T if the field value exists or F if it doesn't, it is sufficient simply to precede the field name by a question mark. Use +fieldname 257 syntax instead.

See also More on defining composite fields 245.

Links
Numerical conditions 254
Examples|Composite fields 438

Page conditions

- **{=fieldname}**
  generates a null value if named field is not found on the current page.

  Using **{fieldname}** just returns the most recently defined value for the named field. Using the = syntax enables a composite field to be defined which automatically resets its value to an empty string each time a page is started.

  For example, if only one of **FIELD1** or **FIELD2** occurs on the current page then
  {=FIELD1}{=FIELD2}
  will contain the value of whichever field occurs.

- **{+=fieldname=['same_value'][,'different_value']}**
  This redefines the value of the named field, dependent on whether the field-value is the same as the previous page, or different.

+=fieldname=	Must start with **+=** followed by a field name and an equals sign.
same_value (optional)	The value assigned if the named field's value is the same as on the previous page – *unchanged*. If omitted, the value is not redefined.
different_value (optional)	The value assigned if the named field's value is the different from the previous page – *changed*. If omitted, the value is not redefined.

  When the same_value/different_value parameters are single 'words' they need not be in quotes, but note that # characters that are not in quotes indicate a 'Counter': see Numerical conditions 254.

- **{?=fieldname=['same_value'][,'different_value']}**
  This is equivalent to the +=fieldname 258 syntax above.

See also More on defining composite fields 245.

User input data fields

{"question"}

This construct displays a dialog with the **question** text as its caption and prompts the User for an 'answer'. The answering value entered by a User in response will be stored as the required field value: see also Defining a composite field 244.
The default is to prompt once per file. Alternatively, to prompt for every page, check **when field changes** in the Action 208 page of the Field dialog.

Example

```
{"Please enter your postal code"}
```

Part XIV

Data Control files

Data Control files

The control files described in this section supply the data for creating composite documents. (To create a composite document using Intelligent Document Format, see IDF documents 266 and IDF wizards 342.)

- About Control files 260 describes how LOF (and CSV) files may be used to set up composite documents.
- How to display a data control file in EscapeE and how to view the composite document: see Viewing a data control file 261.
- How to build an LOF control file automatically or from the keyboard: see Creating a data control file 262.
- How to edit an LOF control file or save as a template for editing; CSV note: see Editing a data control file 203.
- About .EE files for control files 264 describes the fields, records and FILENAME pertaining to field definitions files.
- How to create a field definitions file: see Creating the .EE file 264.

About Control files

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A control file that is used to provide the data for assembling into a composite document may be a simple text list 260 or a CSV 260 file. An IDF document is, strictly speaking, a control file too. However an IDF document 'control file' also contains code for creating a document as well as data, so it is treated differently. See Editing an IDF document 268.

Text control files (.LOF)

A "text" control file is basically a list of files: see Creating an LOF control file 262. Each line of the file starts with the name (and path if the documents are not all in the same folder) of one of the component documents. The filename may be a wild-carded file specification; filenames must be enclosed in single quotes if they contain spaces. By default, EscapeE will create a field definition file with the same filestem automatically if none already exists. For complex composite documents, however, you may find it convenient to set up separate field definition files for some of the component files: see LOF details. 424

CSV control files (.CSV)

If the control file has extension .CSV or begins with a double-quote character it is assumed to be a set of field definitions in comma-separated form: see Editing a data control file 263.
The first record must contain the field names for the data found in subsequent records.
Each subsequent record must contain the information required for EscapeE to construct the filename of one component document. By default it will use the first CSV datafield as the source of the filenames, but by using a field definitions file it is possible to use the special composite field definition named **FILENAME** to construct it from other field values. The fixed values for fields defined in the CSV file may be used in other fields and with *plugins*, for example, to add text or barcodes: see Using Plugins 227.

Viewing a data control file

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1. Select **File** on the menu-bar then:
   - Click **Open...**, select the control file and click the **Open** button *or*
   - if the file has been displayed recently, select the file from the History list 446. Control files are indicated by **^** character.
2. The control file is displayed in the Text-editor 447 window.

Displaying the composite document

1. Open 261 the control file as above.
2. Click **Show** on the Text-editor window's menu-bar to display the first page of the composite document in the EscapeE window. *Or*
   Double-click a file named in the Text-editor's window to display that file in the EscapeE window. (Any options set up in associated EE 264 and/or INI 417 files will be applied.)
3. You may page through the document using the navigation 70 buttons on EscapeE's menu-bar as usual. The name of the original component file used to create each page is shown in the EscapeE title-bar.
   In addition to exporting a page on display in the normal way, you may export the whole composite file by ticking the **Treat as a single file** check-box on the Export 123 dialog.

◆ Tip: if the composite document is on display in the EscapeE window, selecting **View control file** from the 'View' menu opens another window in which the Text-editor displays the control file.

Links
About Control files 260
Creating a Control file 262

Creating a data control file

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LOF ("List Of Files") data control files may be built automatically 262, or from the keyboard 262 in the Text editor 447 window.

Creating an LOF control file automatically

1. Open 44 a file to be included in the new LOF.
2. Select **Remember file** from the 'File' menu: the 'Name of new control file' dialog is displayed.
3. Set up the new **File name** (with extension `.LOF`) then click **Save**.
   EscapeE creates a new LOF file and adds the "remembered" filename to it, along with its fields file (and any specified INI file). The Text editor window opens to show the LOF file's contents.
4. To add another file to the LOF file: open 44 the next file in the EscapeE window then select **Remember file** from the 'File' menu. The new file's path is appended to the LOF file shown in the Text editor window.
   Repeat until all the files have been added to the LOF.
   Double-clicking the name of the file in the list will load it with the specified options (for example, /PDF 384 option would export the file directly, in PDF format).
5. Select **Save** from the Text editor window's 'File' menu. Name the file, with extension "`.LOF`".

Creating an LOF control file manually

1. Highlight **New...** in the 'File' menu and select ▸ **New list of files** from its sub-menu.
2. Enter the **File name** in the 'Name of new control file' dialog.
3. Select **List of files (LOF)** from the 'Save as type' drop-down list, then click **Save**.
   The Text-editor 447 is displayed, with `:\ESCAPEE` 424 entered on the first line of its window.
4. Type in the names and paths of the files to be included in the control file, one file per line. If these files have associated files (such as .EE, .INI), add those too. *Or*
   Select **Add files...** from the text-editor's 'File' menu to display the standard 'Open' dialog. You may:
   - Click on a file to add it to the control file's list. *Or*
   - Add a block of files by clicking on the first file in the block then, holding down the **Shift** key, clicking on the last file in the block.
   - Add additional files to the selection by holding down the **Control** key and clicking each file separately.

   Click **Open**.
5. To insert the *contents* of a file, click **Load...**: select the file then click **Open**.
6. Click **Save** then close the LOF window:
   - Click the Text-editor window's title-bar button *or*
   - Choose **Close** from the Text-editor window's title-bar menu *or*
   - Press **Alt F4** keys.

See also Example .LOF file 434

Editing a data control file

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- Open 261 the LOF file then:
  - Edit the list shown in the Text-editor window directly from the keyboard *or*
  - Use the file as a template for a new LOF file:
    - Select **Save As...** from the Text-editor's 'File' menu to create a new LOF file. Name the new LOF file then click **Save**.
    - Edit its code in the Text-editor window.

Text-editor features

- **Show** Click to display the document in the EscapeE window, see Viewing a data control file 261.
- **Search** Click to find text 67 or go to a specific line-number 67.
- **x y** Current location of cursor: character position (x), line number (y).

File options

Add files... 262	Load... 262
Save 262	Save As... see above 263.

Edit options

Undo	Ctrl Z
Cut	Ctrl Del
Copy	Ctrl Ins
Paste	Shift Ins
Select All	Ctrl A
Checkpoint	Ctrl B
Restore	Ctrl R
Paste from file...	

CSV note

Expert users will realize that the Text-editor window provides all the functionality necessary to construct CSV data control files 260 as well as LOF files:

- Replace the first line with fieldnames separated by a character such as a comma, semicolon or tab.
- Enter the data, one record per line. Use the same separator character between each data-value in a record.
- If a string-value contains separator character(s) or space(s), the whole string-value must be enclosed within a pair of quote characters. Single or double quotes may be used, as long as the opening quote character is the same as the closing quote character.
- Save the file with **.csv** as the extension.

See also LOF details 424.

About .EE files for data control files

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The ".EE" (field definitions) file is supplied with field names found in the first record of the associated data control file. Using EscapeE's composite field 244 mechanism, field definitions may be constructed to compute filenames from the fixed data values in subsequent records in the control file. The named files are assembled into the composite document.

If no **FILENAME** has been supplied in the first record of the control file, EscapeE uses any .EE file it finds with the same file-stem as the control file. If a field definition file in that name cannot be found, EscapeE creates a new field definition file automatically and names it with the control file's file-stem. It is by this means that a control file consisting of a simple list of files may be used to construct a composite document, the User remaining unaware of the underlying .EE file.

Links
Field definitions files 212
About Control files 260

Creating the .EE file

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1. Select **Edit** from the 'Fields' menu
   or
   press **Ctrl D**.
2. Check the composite box on the Definitions 200 page of the Field dialog.
3. Enter **FILENAME** in the field box.
4. Enter the fieldname – enclosed in curly brackets – of the data to be found in the control file, and associated options using the usual notation: see Special fields in composed strings. 247
5. On the File 213 page of the dialog, enter the name for the field definition file and click **Save**.
6. Click **OK**.

Links
About .EE files for data contol files 264

Part XV

IDF documents

IDF documents

EscapeE Professional 450 editions only

IDF *quick start*

Create new files from clippings:

1. Sweep out an area of a page to copy and click **Copy & Add selection to IDF**. Repeat for each clip.
2. **Save** the file in IDF format.

The IDF file may then be viewed 266, printed 104 or edited 268. You may also export it in another format 118.

'Intelligent Document Format' is the RedTitan document description language interchange format designed to enable users to edit existing documents in a variety of formats. EscapeE wizards write the code to create new documents in IDF: see IDF wizards 342 section.

- How to assemble a new composite document using copies clipped from other documents. Extracts may be parts of a page, whole pages or whole files: see Creating an IDF document 267.
- How to open an IDF file as a document for display and as a control file: see Viewing an IDF document 266.
- How to open an IDF file as a control file for editing: see Editing an IDF document 268.
- Setting up IDF editor options 270: full-width clip selection, retaining a clip's position and using relative paths.
- IDF editing tips 271 contains hints about editing text, clip regions, file specifications and page-breaks in the code; finding your way around elements, tags and attributes.

Viewing an IDF document

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Once you have created 267 an IDF document, you may use EscapeE to view 266 it, edit 268 it and/or export 140 it into other formats.
You may run an IDF file just by opening it in EscapeE. EscapeE interprets the file and displays the first page of the document in its window. Once the file is running, you may open the Console notebook 61 and display the code that generated the page(s).

To view an IDF document

- Choose **Open...** from the EscapeE 'File' menu, select the IDF file and click **Open**.
  Or
- if you have opened the document recently, select it from the History list 446 at the foot of the 'File' menu.
  ◇Note that although IDF files act as control files 260, there is no ^ character preceding the file's name in the list. EscapeE will show the composed document in its window. To see the IDF code too, see below 267.

To view the IDF control file

1. Open the IDF file as above 266.
2. Select **View source...** from the 'View' menu *or*
   Press **Ctrl S** keys.
   The IDF code for the document is displayed in the Source code window of the Console notebook: see Source code 65.

Creating an IDF document

EscapeE Professional 450 editions only

- Highlight **New...** on the 'File' menu and select ▸ **New IDF file**
  or
  press **Ctrl I** keys.

The Console notebook 68 is opened with a new "IDF" page on view containing the code to make a vestigial IDF document. This code may be constructed directly from the keyboard (see Editing an IDF document 268) or by assembling "clips" copied from other "component" files:

1. Click **Open...** from the EscapeE 'File' menu to display 44 a component file and navigate 70 to a page for copying.
   - To clip whole pages, *right*-click in the page and choose one of these options from the 'pop-up' menu:
     - **Add whole page to IDF**. *Or*
     - **Add as two sections to IDF** to create two separate clips from the whole page. The elements are split at the current cursor position and the clips are placed on the page one after the other.
       Although this looks the same as the 'Add whole page to IDF' option above, it creates an ideal starting point for editing just part of the code for the page. *Or*
     - **Add whole file to IDF**.
   - To clip part of the page instead, start by using the mouse to sweep out the area of the page to be copied. Then *right*-click on the page to display a pop-up menu and choose one of these options:
     - **Copy & Add selection to IDF** places the elements found in the selected area as a single block clip.
     - **Add selection as paragraphs to IDF** and enter the size of the gap to be made between one paragraph and the next below it, measured in inches. Click **OK**.
2. EscapeE adds the IDF code for the component to the IDF window.
   Repeat the step above 267 for each clip, page and file to be included in the IDF file, opening new component files when necessary.
3. To start another page in the new document click **New page...**: EscapeE inserts a page-break at the cursor position in the code.
4. Click **Save** from the IDF tool-bar to open the standard 'Save As' dialog and set up the **File name** as usual.
5. When you're done, click **Close** from the IDF tool-bar.

You may edit IDF documents – adding, removing, rotating, changing text, glyphs etc. – see Editing an IDF document 268.

If a component document contains fields, you may use the areas defined for the fields as clip regions in an IDF document: see Using fields as clip regions 268.

See also Composite document wizard 344.

Links
About Composite documents and IDF 39
Editing an IDF document 268

Editing an IDF document

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Existing IDF documents can be used like templates and re-purposed, without changing the original documents. The control file which built the IDF document can be edited 268 in the IDF coding 68 page of Console notebook. An area defined as a field 268 may be treated as a clip region and copied to an IDF document.

To edit an IDF document

1. Open the document in the EscapeE window and its control file in the Source 65 page of the Console notebook, see Viewing an IDF document 266.
2. Click **Save as...** from the Source code window's tool-bar 66. Enter a new name for the file and click **Save**.
3. You now have a copy of the original IDF document's code open in an IDF page of the Console. You may:
   - add more clips using the Copy & Add to IDF 267 feature and field clips using Copy clip to control file 268. *And/or*
   - edit the code from the keyboard.
     Programmers: see IDF syntax 274.
     Non-programmers: see IDF editing tips 271.
4. Click **Save** from the IDF tool-bar.
5. When you've finished editing, click **Close** on the IDF tool-bar.
   The IDF document remains on-view in the EscapeE window.

There are hints to help novice Users get started in IDF editing tips 271; dip into the IDF 274 when you need to add a new feature (see Elements 279 and Attributes 291, Notes 275 and Samples 326).

Using fields as clip regions

1. Open the document in the EscapeE window and its control file in the Source page of the Console notebook, see Viewing an IDF document 266.
2. Open 44 the component file then display the definition of the field for copying in the Field dialog 199.
3. Click **Copy clip to control file** button then **OK** to close the 'Field' dialog.
   The field's area is added as a clip to the IDF document (the component file is unaffected).

Hot-keys

Hold down then click:

Ctrl A	Select All.
Ctrl B	Sets a checkpoint in the file which may be restored 269.
Ctrl C *or* **Ctrl Ins**	Copy to clipboard; see also cut 269, paste 269.
Ctrl F	Select IDF statements for the current file (if defined as a block).
Ctrl G	Call the Go to page 72 dialog.
Ctrl J *or* **Ctrl Enter**	Select block of IDF statements for the current page; see also next page 269.
Ctrl N *or* **Ctrl PageDown**	Move to Next page/select its statement; see also current page 269.
Ctrl R	Undo editing to Restore file to its checkpoint 268 state.
Ctrl V *or* **Shift Ins**	Paste from clipboard; see also copy 269, cut 269.
Ctrl X *or* **Ctrl Del** *or* **Shift Del**	Cut to clipboard; see also copy 269, paste 269.
Ctrl Y	delete line.
Ctrl Z *or* **Alt Back**	undo last update.

Navigation keys

left arrow	go one character left.
right arrow	go one character right.
up arrow	go up one line.
down arrow	go down one line.
Ctrl left arrow	go to previous word
Ctrl right arrow	go to next word
Home	go to start of line
End	go to end of line
PageUp	go to previous page
PageDown	go to next page
Ctrl PageUp *or* **Ctrl Home**	go to start of document
Ctrl PageDown *or* **Ctrl End**	go to end of document

◆ Tip: To open a file specified in the code shown in the IDF editor, just *double*-click on its text string (any options found in an associated INI 417 file are applied). If the file is on display already, the appropriate clip-region (found in associated EE 264 file) is shown outlined in red.

Links
IDF editor options 270
Creating an IDF document 267

IDF editor options

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Click **Options...** on the IDF coding 68 page of the Console notebook to see more options for creating 267/editing 268 an IDF document.

- **Select all** (*or* **Ctrl A**)
  Selects all the code on that IDF page of the Console notebook.
- **Copy** (*or* **Ctrl C** *or* **Ctrl Ins**)
  Copies selected code to clipbboard.
- **Relative paths**
  When checked, any file path which is the same as that of the IDF file itself is omitted.
  For example, an IDF file `c:\Invoices\2016\JanSummary.idf` containing a clip from the file `c:\Invoices\2016\January1.pdf` would code it with the relative path
  `FILENAME="January1.pdf"`
  instead of the full path
  `FILENAME="c:\Invoices\2016\January1.pdf"`
- **Keep coordinates**
  To place clips at the same position in the new document as they were in the component document, select this option then choose a clip option, see Creating an IDF document 267. (A tick ✓ beside 'Keep coordinates' indicates that this "keep" mode is already engaged.)
  When this option is *deselected*, the first clip is placed at the top of the container (`Y="0"`) and subsequent clips are located just below the previous clip (`Y="Y +0.05"`).
  See also Positioning and sizing 276.
- **Full width select**
  This expands any clipped areas to the full width of the page when adding them to the document (useful if re-paginating a document by moving items between pages).

◆Tip: If you have selected a narrow clip area but EscapeE has clipped the whole line instead, *deselect* **Full width select** from the text editor's Options 270 menu.

Links
Creating an IDF document 267
Editing an IDF document 268

IDF editing tips

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The code shown in the IDF coding 68 window can be edited from your keyboard; if you're not a programmer, here are some tips...

To search for text

To look for a particular string of characters in the code, click **Search** on the Menu-bar. This displays the 'Find' dialog – see To find text 67.

To update text

Sweep-out the text 271 to be changed and type in the new.

Old text
```
<TEXT>5 Regius Court,
Penn,
High Wycombe</TEXT>
```

New text
```
<TEXT>Aston Court
Kingsmead Business Park
Frederick Place
High Wycombe</TEXT>
```

To change a file

Sweep-out the text-string specifying the filename and/or path and type in the new filename and/or path.

Old file `<FILE FILENAME="c:\Reports\2015\Winter.pcl" />`

New file `<FILE FILENAME="c:\Reports\2016\Spring.pcl" />`

Elements

An IDF document is built from a series of individual "parts" placed on its page(s). These parts (known as "elements") need to be tagged according to their purpose – to add a piece of text or a logo from a file etc.. Elements are easily recognized by their start and end tags 271.
See IDF elements 279 for descriptions of what each element can do.

Tags

"Tags" signal the opening and closing of an element 271.

For example 271, the tag **<TEXT>** 289 opens a TEXT element and the tag **</TEXT>** 289 closes it. The text that is actually put on the page is entered between the tags.

Some elements are composed of a single self-contained tag. See, for example, the FILE 282 element above 271: the tag starts with **<** and ends with **/>**.

Attributes

"Attributes" can be added to the 'start' tags of elements 271 to override the default set up for that element.

For example, you could specify that the color of the text is to be red by adding **COLOR="RED"** to the start tag of a **<TEXT>** element.

Default color
```
<TEXT>5 Regius Court,
Penn,
High Wycombe</TEXT>
```

Specific color
```
<TEXT COLOR="RED">5 Regius Court,
Penn,
High Wycombe</TEXT>
```

See IDF attributes 291 for a list of available attributes and click on an attribute name for details on the values (e.g. what pen color 300) which each attribute may take.

Clips

Clicking **Copy & Add to IDF** adds a clip region as attributes 271 to an element 271 (see Creating an IDF document 267).
In the example below, a clip region 9.01 inches wide and 2.34 inches high is copied from page 12 of the 'Tables.pdf' file. The position of the top-left corner of the clip region in the original file is 3.45 inches from the left and 6.78 inches down from the top-left corner of the page. It is placed 0.5 inch below the current coordinates X, Y in the IDF container 276 element.
To change the location of the clip region to a fixed position instead, enter absolute values for the 'X' and 'Y' attributes:

Relative position
```
<FILE FILENAME="c:\Reports\2015\Tables.pdf" PAGE="12" UNITS="Inches" CLIPX="3.45"
CLIPY="6.78" CLIPWIDTH="9.01" CLIPHEIGHT="2.34" X="X" Y="Y+0.5"/>
```

Absolute position
```
<FILE FILENAME="c:\Reports\2015\Tables.pdf" PAGE="12" UNITS="Inches" CLIPX="3.45"
CLIPY="6.78" CLIPWIDTH="9.01" CLIPHEIGHT="2.34" X="5.67" Y="8.9"/>
```

Page breaks

PAGE elements 287 are used to assemble the clip(s) 272 into separate pages of the IDF document. The **<PAGE>** tag opens a new page, and the **</PAGE>** tag closes it.

1. To split an existing page into two pages, move the cursor to the end of the last element required to be in the current page.
2. Press **Enter** then key-in **</PAGE>** to close the current page.
3. Press **Enter** again then key-in **<PAGE>** tag to open a new page.

In this example, a page-break is inserted between the second and third clips.

One PAGE element containing three CLIPs
```
<PAGE>
<FILE FILENAME="Report.pdf" PAGE= "2" CLIP="0.93,1.74,7.455,6.63" X="0"
Y="Y+0.05"/>
<FILE FILENAME="Report.pdf" PAGE= "5" CLIP="0.81,1.14,7.545,3.735" X="0"
Y="Y+0.05"/>
<FILE FILENAME="Report.pdf" PAGE= "5" CLIP="0.855,5.94,7.425,9.51" X="0"
Y="Y+0.05"/>
</PAGE>
```

New PAGE element created to contain third CLIP
```
<PAGE>
<FILE FILENAME="Report.pdf" PAGE= "2" CLIP="0.93,1.74,7.455,6.63" X="0"
Y="Y+0.05"/>
<FILE FILENAME="Report.pdf" PAGE= "5" CLIP="0.81,1.14,7.545,3.735" X="0"
Y="Y+0.05"/>
</PAGE>
<PAGE>
<FILE FILENAME="Report.pdf" PAGE= "5" CLIP="0.855,5.94,7.425,9.51" X="0"
Y="Y+0.05"/>
</PAGE>
```

To join two adjacent pages, just delete the **<PAGE>** and **</PAGE>** lines which formed the page-break.

Give it a try

1. Click **New IDF file** on the 'File' menu to open a new IDF page into the Console notebook.
2. Copy and paste the code from one of the Sample IDF scripts 326 over the existing default text (it's **OK** to lose the formatting, only the plain text need be extracted).
3. Click **Show in EscapeE** to check what it does then try editing its code.

EscapeE can spot some types of coding errors and warn you of the problem when the IDF document is opened, e.g.

```
missing > after end tag  at line 4
```

Part XVI

IDF syntax

IDF syntax

IDF is a means of describing the structure of a composite document to the *EscapeE* print file conversion resources system. A complete document can be assembled from a number of fragments in any of the supported EscapeE formats. EscapeE wizards 342 write the code for their documents in IDF.

XML 1.0 notation 302 is used to describe document content. IDF uses a simple tree structure where each branch is a tag or an array of tags. Leading and trailing "whitespace" in body text is removed. The intrinsic space character entity ** ** may be used to preserve "whitespace" in these positions.

- See Notes on IDF syntax 275 for details on positioning, sizing and drawing; about text and data fields in IDF.
- The pieces of material which go to make up the page(s) of an IDF document are known as "elements". There are a variety of elements, each suited to a different function, e.g. writing text, extracting clippings from files. See IDF elements 279 for their descriptions.
- IDF attributes 291 describes the parameters set up in the elements, such as position or color. There is no significance in the ordering of attributes. Where appropriate, the attributes of container elements are used as defaults for nested elements; nesting may be up to 8 levels deep.
- Example scripts demonstrating the use of IDF are given in the Sample IDF scripts 326 section.

Notes on IDF syntax

This section contains explanatory topics on:

- Positioning and sizing 276 About units, cursor position, horizontal and vertical distances, width, height, alignment, stacking and containers. Use of arithmetic expressions and special symbols. Defining fields and bounds.
- Notes on drawing 277 Repositioning the "pen". Drawing straight (Polyline) and curved (Bezier) lines. Placing ellipse and filled or open rectangular shapes.
- Notes on text 277 About formatting pages; applying default fonts and pagination to "plain text".
- Using data fields 278 How to prompt users for data, include data values in attributes, use processing instructions to place data and apply conditions to groups.

Positioning and sizing

The position[276] of an item is given relative to the origin (the top-left corner) of the 'container' (e.g. GROUP) it is in. The size[276] of an item defaults to the dimensions of the container.

- The default unit in IDF is 1/600th of an inch: to change it, see UNITS[323] attribute.

Positioning

To specify a *horizontal* distance of an element from the left side of its container, use the LEFT[307] (or X[325]) attribute.

To specify a *vertical* distance of an element down from the top of its container, use the TOP[321] (or Y[325]) attribute.

To specify that the current *cursor* position (i.e. as left by the previous piece of text or bottom-right corner of the previous group) is used, set **X="X"** or **Y="Y"**. This is useful for stacking elements such that they are placed one after the other on the page (e.g. in a row, column or table).

To force an element to the edge of its container, use the ALIGN[292] attribute. Text may be justified or be baseline aligned too.

Sizing

Use WIDTH[325] and HEIGHT[306] attributes to specify the *size* of an item: the values can be full arithmetic expressions including brackets. You may also use the following special symbols:

_PRINTABLE gives the printable area of the page. e.g. **_PRINTABLE.LEFT** is the leftmost printable point.

_PAGE gives the full page dimensions e.g. **_PAGE.WIDTH** is the width of the paper.

Alternatively, an element's size may be supplied by a FIELD element[281]. A FIELD element may originate from an existing *EscapeE* field definitions (".EE") file or from an IDF statement: see DEFINE[301] attribute. A field sourced from an EscapeE .EE file may be resized using the BOUNDS[297] attribute.

Examples

```
<PAGE BOUNDS="_PRINTABLE">
```

sets the page-boundaries to the printable area of the page.

```
<FILE FILENAME="Logo1.tif" LEFT = "WIDTH/2"/>
```

would be used to position the file Logo1.tif on the right of a two-up page.

Tip: usually, a leading underscore is used to distinguish special fields from user-defined fields. If there is no user-defined field with the same name then the underscore may omitted.

Notes on drawing

IDF may be used to draw lines 277 and shapes 277 on the page. Furthermore, *EscapeE* may use the rectangular area occupied by a drawn path as a field tag (see 'To set up tags' topic).

Lines may be made up of one or more straight 277 segments, curved 277 segments or a sequence of straight and curved segments. To position the pen at the start of a new line, use the Move element 286 <M>.

To draw a *straight* line to another point, simply define that position as a Polyline element 287 <P>.

To draw a *curved* line to another point, however, three pairs of coordinates must be defined so that a "Bezier" curve may be calculated. The first two points are not positioned on the curve itself: they are "control" points which bend the line so that it passes through the third pair of coordinates: see Bezier element 280 <B>.

The SHAPE 318 attribute may be used to construct regular shapes (BOX, ELLIPSE and filled RECTANGLE) from the dimensions of the element (GROUP 283, PAGE 287 etc.) that contains it.

Notes on text

When a file contains "text", i.e. strings of characters, the way in which the text is formatted, details of font, style, page breaks etc. are generally specified in that file. Thus *pages* from files in most formats may be added to an IDF document using the FILENAME 303 attribute in a FILE element 282.

Files in 'plain text' format (extension typically **.TXT**) do not include this formatting information. Furthermore, plain text files are not paginated: each line of text is allocated a line number instead. *EscapeE* can treat plain text files as PCL, thereby applying default formatting and pagination for you: just set FILETYPE="PCL".
To add text as a plain text file however, you must set FILETYPE="TEXT" 304, include formatting information (e.g. FONT, ALIGN), and if the text is likely to run onto another page, set PAGE="NEXT" 312.

Alternatively, text from a plain text file can be placed in a document using the TEXT element 289. Specify a FILENAME; formatting details will be taken from the TEXT tag – or if undefined there, from the tag of its parent container element.

When adding a short piece of text (just a few lines, no page breaks) to a document, it may be more convenient to insert the text directly into the IDF code using the TEXT element 289 rather than via a file.

A single line of text (no page or line breaks) can be added to a document using the STRING 319 attribute of a TEXT element 289.

Using data fields

- To use data values in IDF attribute values, enclose the data fieldname in braces (curly brackets), for example
  `FILENAME = "C:\MyFiles\{field1}.pcl"`
- To prompt a user to provide data for a field, place double quotes within the braces, e.g.:
  `<FIELD DEFINE="YES" NAME="MyInFile" STRING='{"Input file name"}'/>`
  See Double page sample script 339.
- To place data within the body text of an IDF document, use the processing instruction
  `<?EE fieldname?>`
  See Element GROUP sample script 329 and REPEAT 316 attribute.
- To make the processing of items dependent on the value of a data field, place the items in a GROUP 283 and set up a CONDITION 300.
- To enable the value of an attribute in an INCLUDE 285 GROUP 283 contained within another GROUP to be changed, DEFINE 280 a temporary field.
  See Element DEFINE sample script 327.

IDF elements

These element tags are defined:

- IDF 284 – mandatory root element,

in which the following element tags may occur:

- DDF 280 – to insert *Dynamic Document Formatter* code into the IDF script
- DEFINE 280 – to create a temporary field for propagating attributes
- EXECUTE 281 – a program to be called to supply data
- FIELD 281 – a type of group which invokes an *EscapeE* field and is positioned relative to it
- FILE 282 – displays the contents of a page of a file
- GROUP 283 – encapsulate (and re-use) a group of items
- INCLUDE 285 – incorporates a named GROUP or IDF or EE field-definitions file
- INFO 286 – for placing comments in an IDF script
- PAGE 287 – a type of group which defines a physical side of a page of output
- RS2 288 – for placing RS/2 code in an IDF script.
- SIGNATURE 288 – a digital signature
- TEXT 289 – a text string caption; formatting can be applied using <?FORMAT?> instruction 290

plus the drawing element tags:

- B 280 – points for defining a Bezier curve
- M 286 – Moves the drawing cursor
- P 287 – points defining a Polyline.

◆Technical note

You may include 'non-IDF' XML statements in an IDF file by using a tag with a colon to denote the change of name-space. E.g.:

```
<RS2:TEXT>
```

The content of these elements will be ignored by RTIDFIN.DLL.

Links:
IDF attributes 291

Element Bezier

The element "B" is used to define any point of a Bezier curve.

To draw a Bezier curve, first define a starting point. The next two points are 'control points'; these points are not positioned on the line but are used to guide the curve to the next defined point, which is positioned on the line. Continue to define groups of three points (i.e. 2 off-line control points + 1 on-line position point) until the line is drawn.

If the starting-point is omitted then the group origin is used.
If the start and end-points are both omitted then the group origin is used for both.

Drawing elements sample script 332

Attributes

X 325	Y 325

Links:
Element Polyline 287
Element Move 286
Notes on drawing 277

Element DDF

The DDF element inserts a RedTitan *Dynamic Document Formatter* script in the IDF code.

Attributes

ALIGN 292	FONT 305	PADBOTTOM 311	STRING 319
COLOUR 300 or COLOR 300	FONTSIZE 305 (scaled by current SCALEY 317)	PADLEFT 311	STYLE 320
FIELD 302	LEFT 307	PADRIGHT 311	SYMBOLSET 320
FILENAME 303	PAD 311 or PADDING 311	PADTOP 311	TOP 321
FILL 304		POINTSIZE 315	WEIGHT 324
		ROTATE 316	

Links:
Element RS2 288
Element TEXT 289

Element DEFINE

The DEFINE element creates a "temporary" field, i.e. a field which is not saved in an ".EE" field definitions file. Elements usually inherit their default settings from the attributes of their containing element. When a GROUP is INCLUDEd 285 within another GROUP 283, however, only ROTATE 316, X 325 and Y 325 attribute values are inherited. Other attribute values may, in effect, be propagated to an included group by defining a temporary field to provide a value for the included group.

Element DEFINE sample script 327

Attributes:

DEFINE 301	FIELDFLAGS 302	NAME 310	STRING 319

Links:
Element GROUP 283
Element INCLUDE 285
DEFINE 301

Element EXECUTE

EXECUTE builds a command line which runs a program.

The program – an *EscapeE* 'Plugin' or other external 'DLL' or 'EXE' program – is specified in the PLUGIN 314 attribute, for example

```
<EXECUTE PLUGIN = "FRED.EXE" />
```

Further options may be added to the command line using the PARAM 314 attribute. For example

```
<EXECUTE PLUGIN = "IDFPLUGIN" PARAM="OPTION1 OPTION2">
Here are the results:
</EXECUTE>
```

The EXECUTE command creates a temporary file (with a name such as `EETMP12345678`) in which it can store the contents, including any sub-tags. (In the example above, the body text `Here are the results`.) This command-line is then executed, calling `IDFPLUGIN` program:

```
IDFPLUGIN EETMP12345678.XML OPTION1 OPTION2
```

The files must reside in the EscapeE plugins folder.

If ENCODING 302 is set to BASE64 (for binary data) and there are no sub-tags then the body text is decoded as base 64; otherwise it is written as it appears.

Attributes

PARAM 314	PLUGIN 314

Element FIELD

A type of group which specifies a position and display area. The area may be used by other elements e.g. PAGE 287, or as a "clip region" – see CLIP 298 attribute. Fields can be defined in terms of other fields (including any special ones such as the time) or a value obtained by prompting the user; see Double page sample script 339.

If the named field has *not* been defined already in an associated .EE fields file, the area's coordinates are constructed from the IDF position attributes. If the named field *is* defined in the .EE fields file, the display's coordinates may be taken from the *EscapeE* field instead: see DEFINE 301 attribute.

- Element FIELD sample script 328

Attributes:

DEFINE 301	FIELDFLAGS 302	NAME 310	STRING 319

Element FILE

FILE is a type of group that normally displays a PAGE 312 of a file specified by the FILENAME 303 attribute. Sections of a page may also be incorporated by adding attributes to define a "clip region": see CLIP 298 attribute. The file format may be PCL, PDF, PostScript, Epson ESCP, DCX, PCX, BMP, DICOM, IMG, JPEG, PNG, TIFF, TXT etc. as well as IDF. The default format for files with non-standard extensions is PCL. See FILETYPE 304

Files in any of these formats *except* TXT 282 provide text-formatting details within the file. In a PCL file, however, PAPER 313, TRAY 322, BIN 294 or PLEX 314 attributes can be specified in the FILE tag to override these settings.

TXT format lacks pagination and text-formatting details (see Notes on text 277), so formatting attributes (FONT 305, FONTSIZE 305 etc.) should be supplied by the IDF code. In the FILE tag, set FILETYPE 304 attribute to "TEXT"; do not specify a PAGE 312 number, but use PAGE="NEXT" 312 (see also REPEAT 316).

To encapsulate binary data (for example from an image file) "in-line" rather than as an external file, use ENCODING = "BASE64" 302.

If an IDF script contains an empty FILE element:

```
<FILE />
```

then on opening, *EscapeE* displays the 'Input file name' dialog so that you may choose which FILENAME to use. Alternatively, you may supply the missing FILENAME on the command line, e.g.:

```
ESCAPEE c:\Catalogs\Spring.idf,Special4
```

This is a convenient method of customizing a document without editing its IDF code directly.

- Tip

EscapeE can treat plain text files as PCL, thereby applying default formatting and pagination for you: just set FILETYPE="PCL" instead of FILETYPE="TEXT".

- Examples

```
<FILE FILENAME = "FRED2.PCL" PAGE="4"/>
<FILE FILENAME = "PHONE1.CSV" SEPARATOR=":"/>
<FILE FILENAME="Revisions.txt" FILETYPE="TEXT" FONT="Times New Roman"
POINTSIZE="7" PAGE="NEXT"/>
```

- Element FILE sample script 328

Attributes

ALIGN 292	COLOUR 300 or COLOR 300	MONOCHROME 310	SEPARATOR 317
BIN 294	ENCODING 302	ORIENT 310	SIDE 318
BOUNDS 297	FILENAME 303	PAGE 312	STYLE 320
CLIP 298	FILETYPE 304	PAPER 313	TOP 321
CLIPHEIGHT 298	FILL 304	PLEX 314	TRANSPARENT 322
CLIPSTEPX 298	FONT 305	POINTSIZE 315	TRIM 322
CLIPSTEPY 299	FONTSIZE 305	ROTATE 316	UNITS 323
CLIPWIDTH 299	HEIGHT 306	SCALE 317	WEIGHT 324
CLIPX 299	IMAGERES 306	SCALEX 317	WIDTH 325
CLIPY 299	LEFT 307	SCALEY 317	

Links:
Element TEXT 289

Element GROUP

Encapsulates a number of items so that they may be treated as a single unit. Conditions may be applied to the group: only if conditions are 'true' will the group be processed (see CONDITION 300 attribute).

Groups may contain, or be contained by, INCLUDE 285 elements and PAGE 287 elements.

Any attributes of the group become the defaults for items within the group. Note that an included element only passes the group's ROTATE 316, X 325 and Y 325 attributes to the objects within it.

Groups can be nested up to 8 levels deep.

Element GROUP sample script 329

The INDEX parameter is used when setting up an IDF file to display a Table of Contents. It specifies a title for each PAGE 312 to be shown in the Table of Contents. When a title shown in the Table of Contents is clicked, *EscapeE* displays the corresponding PAGE. Groups using INDEX parameters can be nested so that titles may be shown within folders; *double*-click to open/close a folder – see INDEX attribute 307.

A named GROUP specifying CACHE="YES" will create an overlay which can be invoked by an INCLUDE element specifying the GROUPNAME for the group. This group's tag may also specify a transparency value: see ALPHA attribute 292.

Attributes

ALPHA 292	COLOUR 300 or COLOR 300	NAME 310	SIDE 318
BGCOLOUR 293 or BGCOLOR 293	CONDITION 300	ORIENT 310	STEPX 319
BIN 294	FILL 304	PAPER 313	STEPY 319
BLANKLINES 294	FONT 305	PLEX 314	STYLE 320
BOUNDS 297	FONTSIZE 305	POINTSIZE 315	THICKNESS 321
CACHE 297	HEIGHT 306	PREFIX 315	TOP 321
CLIP 298	INDEX 307	REPEAT 316	TRANSPARENT 322
CLIPHEIGHT 298	LEFT 307	ROTATE 316	TRAY 322
CLIPSTEPX 298	LINEEND 308	SCALE 317	UNITS 323
CLIPSTEPY 299	LINEJOIN 308	SCALEX 317	WEIGHT 324
CLIPWIDTH 299	LINESTYLE 309	SCALEY 317	WIDTH 325
CLIPX 299	MONOCHROME 310	SHAPE 318	
CLIPY 299			

Element IDF

This is the top-level tag encapsulating the whole file. All of the other elements – B,[280] DDF,[280] EXECUTE,[281] FIELD,[281] FILE,[282] GROUP,[283] INCLUDE,[285] INFO,[286] M,[286] P,[287] PAGE,[287] RS2,[288] SIGNATURE,[288] TEXT[289] – are used within it. You may even use the INCLUDE element to nest another IDF file inside it!

The <IDF> tag does not have attributes per se, but provides a convenient site for setting up default attributes for the whole document. For example, the attributes common to any GROUPs defined in the script such as PAPER[313] and FONT[305]. It may also contain the FILENAME[303] of a 'global' file.

Command-line tips

Instead of specifying a global file **myfile1.pcl** in the IDF tag of **c:\myscripts\myscriptfile1.idf** file:

```
<IDF FILENAME="myfile1.pcl">
```

you may specify it on the command-line:

```
ESCAPEE c:\myscripts\myfile1.pcl /USING c:\myscripts\myscriptfile1.idf
```

For backwards compatibility, a comma by inserted between the IDF file's name and the global file's name:

```
ESCAPEE c:\myscripts\myscriptfile1.idf,myfile1.pcl
```

has the same effect.

Element IDF sample script[330]

Element INCLUDE

The INCLUDE element is used to incorporate named groups and IDF, CSV or EE files. For example,

```
<INCLUDE GROUPNAME = "para2"/>
```

incorporates an existing group with the name of 'para2'.

Files can be INCLUDEd within a PAGE 287 container if the file itself supplies no more than *one* page. You may, however, incorporate one page selected from a *multi*-page file within a PAGE container by employing the REPEAT 316 attribute. To incorporate several pages from a multi-page file directly, the INCLUDE statement must be located *outside* any PAGE container.

INCLUDE may be used to invoke an overlay by specifying a named GROUP and setting the CACHE 297 attribute to "YES". (Overlays are used for efficiency when an object is used more than once in the document.) For example:

```
<INCLUDE GROUPNAME = "overlay1" CACHE = "YES"/>
```

The ALPHA 292 attribute may be specified for an overlay, either in the INCLUDE tag or its GROUP tag. This makes all the pixels translucent to the specified percentage, from 0 (completely transparent) to 100 (opaque).

You may use an "empty" INCLUDE element to create a customized document and yet leave the IDF file unchanged:

```
<INCLUDE />
```

When the IDF file is opened, *EscapeE* displays the 'Input file name' dialog: select the FILENAME to be INCLUDEd. If you open the IDF file from the command-line, you may add the missing FILENAME instead e.g.:

```
ESCAPEE c:\Catalogs\Summer.idf,Special7
```

When an INCLUDE element is placed within a GROUP 283, included objects do not inherit any properties from that group other than supplying the X,Y position 325 and rotation 316 to be applied to the object.

When an INCLUDE statement does not specify a GROUPNAME 305 or FILENAME (i.e. **<INCLUDE/>**), IDF uses the group or file specified in its parent container.

The file type is determined by the extension of a named file:

.IDF is another Intelligent Document Format file

.EE is a set of *EscapeE* field definitions

.CSV is a comma-separated data file with field names in record 1. The data values are assigned to the specified fields.

Element INCLUDE sample script 330

Attributes

ALPHA 292	COLOUR 300 or COLOR 300	PAPER 313	STEPX 319
BIN 294	FILL 304	PLEX 314	STEPY 319
BOUNDS 297	FONT 305	POINTSIZE 315	STYLE 320
CACHE 297	FONTSIZE 305	PREFIX 315	THICKNESS 321
CLIP 298	GROUPNAME 305	ROTATE 316	TOP 321
CLIPHEIGHT 298	HEIGHT 306	SCALE 317	TRANSPARENT 322
CLIPSTEPX 298	LEFT 307	SCALEX 317	TRAY 322
CLIPSTEPY 299	NAME 310	SCALEY 317	UNITS 323
CLIPWIDTH 299		SHAPE 318	WEIGHT 324
CLIPX 299		SIDE 318	WIDTH 325
CLIPY 299			

Element INFO

The INFO element is used for including information in the script which *EscapeE* must not process.

This information may be a simple comment for the benefit of programmers such as

```
<INFO>***part one starts here***</INFO>
```

or information for an external program to process, e.g.

```
<INFO>
FIELD1
FIELD3
FIELD6
</INFO>
```

The 'information' must not contain any tags.

- INFO element sample script 331

Element Move

The "Move" element, M, is used to move the "pen" to a new drawing position before starting to draw a line.

- Drawing elements sample script 332

Attributes

X 325	Y 325

Links:
Element Bezier 280
Element Polyline 287
Notes on drawing 277

Element PAGE

A container which defines a physical side of a page of output.

PAGE and IDF 284 elements cannot be placed directly into a PAGE element, but they may be incorporated using an INCLUDE 285 element.
All of the remaining elements – B, 280 DDF, 280 EXECUTE, 281 FIELD, 281 FILE, 282 GROUP, 283 INCLUDE, 285 INFO, 286 M, 286 P, 287 RS2, 288 SIGNATURE, 288 TEXT 289 – are allowed in the PAGE container.

Any attributes of the PAGE become the defaults for items defined within it.

- Element IDF sample script 330
- Element GROUP sample script 329
- Element INCLUDE sample script 330

Attributes

BGCOLOUR 293 or BGCOLOR 293	COLOUR 300 or COLOR 300	ORIENT 310	STEPX 319
BIN 294	FILL 304	PAPER 313	STEPY 319
BLANKLINES 294	FONT 305	PLEX 314	STYLE 320
BOUNDS 297	FONTSIZE 305	POINTSIZE 315	THICKNESS 321
CLIP 298	HEIGHT 306	PREFIX 315	TOP 321
CLIPHEIGHT 298	LEFT 307	REPEAT 316	TRANSPARENT 322
CLIPSTEPX 298	LINEEND 308	ROTATE 316	TRAY 322
CLIPSTEPY 299	LINEJOIN 308	SCALE 317	TRIM 322
CLIPWIDTH 299	LINESTYLE 309	SCALEX 317	UNITS 323
CLIPX 299	MONOCHROME 310	SCALEY 317	WEIGHT 324
CLIPY 299	NAME 310	SHAPE 318	WIDTH 325
		SIDE 318	

Links:
PAGE 312

Element Polyline

The "Polyline" element, P, is used to define a point to which a straight-line segment is drawn. The starting point for the first segment of a Polyline may be given by a Move 286 element or the origin of the containing group. Subsequent segments use the previous Polyline element as their starting point.

- Drawing elements sample script 332

Attributes

X 325	Y 325

Links:
Element Bezier 280
Element Move 286
LINESTYLE 309
Notes on drawing 277

Element RS2

An RS2 element inserts RS/2 code in an IDF script. It may be used, for example, to compute a field value or to draw items on the page.

Attributes

ALIGN 292	FONT 305	PADBOTTOM 311	STRING 319
COLOUR 300 or COLOR 300	FONTSIZE 305 (scaled by current SCALEY 317)	PADLEFT 311	STYLE 320
FIELD 302	LEFT 307	PADRIGHT 311	SYMBOLSET 320
FILENAME 303	PAD 311 or PADDING 311	PADTOP 311	TOP 321
FILL 304		POINTSIZE 315	WEIGHT 324
		ROTATE 316	

Links:
Element DDF 280
Element TEXT 289

Element SIGNATURE

SIGNATURE adds a digital signature: this is a security feature that *EscapeE* can add to make PDF documents tamper-proof, and enables signatures to be validated. (See Security options for PDF export topic.)

Digital signatures need the certificate name and a serial number; they may also include a description. E.g.

```
<SIGNATURE CERTIFICATE="DGF LLC" SERIAL="7C 56 05 3F 88 42 13 88 45 95 4A
2B 03 C7 56 47 " DESCRIPTION="Test file">
[digital signature encoded in base 64]
</SIGNATURE>
```

IDF helps with setting these up: check the "Sign" box when creating the IDF file.

Attributes

CERTIFICATE 297	DESCRIPTION 302	LOCATION 309	SERIAL 318

Element TEXT

The TEXT element is used to place text on a PAGE 287. A short line of text can be placed directly in the text tag using the STRING attribute:

```
<TEXT STRING="text"/>
```

To place several lines of text, enclose the block of text in a pair of tags:

```
<TEXT> text
block...</TEXT>
```

To place the textual content of a plain text file, use:

```
<TEXT FILENAME="filename"/>
```

The attributes listed below are used to set up the formatting. If, however, you just need to emphasize an odd word or two in a block of otherwise plain text, the <?FORMAT?> instruction 290 is often the simplest method.

See also Notes on TEXT 277.

- Element TEXT sample script 331
- Element FILE sample script 328

Attributes

ALIGN 292 BLANKLINES 294 COLOUR 300 or COLOR 300 FIELD 302 FILENAME 303	FILL 304 FONT 305 FONTSIZE 305 (scaled by current SCALEY 317) LEFT 307	PAD 311 or PADDING 311 PADBOTTOM 311 PADLEFT 311 PADRIGHT 311 PADTOP 311	POINTSIZE 315 ROTATE 316 STRING 319 STYLE 320 SYMBOLSET 320 TOP 321 WEIGHT 324

Links:
FORMAT instruction 290

<?FORMAT?> instruction

The <?FORMAT?> instruction is a convenient means of applying 'spot' formatting to a short string of text, which is itself nested within a larger block of plain text in a <TEXT> element. 289

<?FORMAT options?>

where **options** are:

FONT fontname

The fontname is the name of the Typeface family: if this includes spaces then the name must be enclosed in quotes, e.g. **"Courier New"**.

WEIGHT weight

You may use any integer from 7 to -7 for the value **weight**. There are also some permitted string values for frequently-used weights:

string	#	description
	-7	ultra thin
	-6	extra thin
	-5	thin
	-4	extra light
LIGHT	-3	light
	-2	demi light
	-1	semi light
REGULAR	0	medium (default)
	1	semi bold
	2	demi bold
BOLD	3	bold
	4	extra bold
	5	black
	6	extra black
BLACK	7	ultra black

STYLE style

where **style** may take these integer or string values:

#	string
0	UPRIGHT
1	ITALIC
	OBLIQUE

POINTSIZE number

The commonly used shorthand alternatives **POINT** and **PT** are also acceptable in place of **POINTSIZE** – in fact a number by itself is sufficient. (The same cannot be said of **WEIGHT** and **STYLE**, which may also take numeric values.)

Mail-merge sample script 340

Links:
Element TEXT 289

IDF attributes

A

ALIGN 292
ALPHA 292

B

BASEFILE 293
BGCOLOR 293
BIN 294
BLANKLINES 294
BORDERCOLOUR 295 or BORDERCOLOR 295
BORDERS 295
BORDERSTYLE 296
BORDERWIDTH 296
BOUNDS 297

C

CACHE 297
CERTIFICATE 297
CLIP 298
CLIPHEIGHT 298
CLIPSTEPX 298
CLIPSTEPY 299
CLIPWIDTH 299
CLIPX 299
CLIPY 299
COLOR 300 or COLOUR 300
CONDITION 300

D

DEBUG 301
DEFINE 301
DESCRIPTION 302

E

ENCODING 302

F

FIELD 302
FIELDFLAGS 302
FILENAME 303
FILETYPE 304
FILL 304
FONT 305
FONTSIZE 305

G

GROUPNAME 305

H

HEIGHT 306

I

IMAGERES 306
INDEX 307

JKL

LEFT 307
LINEEND 308
LINEJOIN 308
LINESTYLE 309
LOCATION 309

M

MONOCHROME 310

N

NAME 310

O

ORIENT 310

P

PAD 311 or PADDING 311
PADBOTTOM 311
PADLEFT 311
PADRIGHT 311
PADTOP 311
PAGE 312
PAPER 313
PARAM 314
PLEX 314
PLUGIN 314
POINTSIZE 315
PREFIX 315

QR

REPEAT 316
ROTATE 316

S

SCALE 317
SCALEX 317
SCALEY 317
SEPARATOR 317
SERIAL 318
SHAPE 318
SIDE 318
STEPX 319
STEPY 319
STRING 319
STYLE 320
SYMBOLSET 320

T

THICKNESS 321
TOP 321
TRANSPARENT 322
TRAY 322
TRIM 322
TYPEFACE 323

UV

UNITS 323
VSPACE 324

W

WEIGHT 324
WIDTH 325

XYZ

X 307
Y 321

Links:
IDF elements 279

ALIGN

ALIGN overrides the default **LEFT**, **TOP** (and **BASELINE** for text) positioning of items.

To specify a horizontal or vertical alignment only, use:

ALIGN="value"

where **value** can be:

LEFT
RIGHT
TOP
BOTTOM
CENTRE or **CENTER** (horizontally only)
BASELINE (for textual items only)
JUSTIFY (for textual items only)

For example, **ALIGN="centre"** places the item centrally with its top at the **TOP** position, unless the item is text; in this case the text's baseline is aligned with the **TOP** position.

To specify a horizontal and vertical alignment, separate the two values with a comma:

ALIGN="value,value"

horizontal	vertical
LEFT	**TOP**
RIGHT	**BOTTOM**
CENTRE or **CENTER**	**CENTRE** or **CENTER**
JUSTIFY (for textual items only)	

In addition, you may specify **BASELINE** for textual items. This uses the leftmost point of the text's baseline to position the item instead of the top-left corner of the item.

Note that when ALIGN is used in conjunction with ROTATE, 316 ALIGN is applied *before* ROTATE.

Element TEXT sample script 331

ROTATE sample script 336

Links:
Element TEXT 289

ALPHA

ALPHA is a translucency value that may be assigned in an INCLUDE 285 element, or a named GROUP 283 within the INCLUDE tag, when used in to make an overlay by specifying CACHE="YES" 297.

ALPHA="percentage"

where **percentage** is a real number from **0** (transparent) to **100.00** (opaque). E.g.:

```
<INCLUDE GROUPNAME = "mutedoverlay" CACHE="YES" ALPHA="33.33"/>
```

Links:
TRANSPARENT 322

BASEFILE

BASEFILE="filestem.pdf"

BASEFILE is an attribute of the IDF 284 element which specifies a PDF file on which a new PDF, modified by the IDF script, is to be based.

- INFO element sample script 331

Links:
Element IDF 284

BGCOLOR

Flood-fills the containing GROUP 283 or PAGE 287 element with the specified "background" color. Elements which print in the same area as the GROUP will be overprinted if they occur before the GROUP in the IDF; if they occur after the GROUP then they will overprint the background color.

BGCOLOR="r,g,b"
where each of the 3 values (red, green, blue) is in the range '0' to '100' percent, *or*

BGCOLOR="colname"
where 'colname' takes one of these values:

CYAN	**MAGENTA**	**YELLOW**	**BLACK**
RED	**GREEN**	**BLUE**	**WHITE**

Alternative spellings:
BGCOLOUR="r,g,b"
BGCOLOUR="colname"

- Tip: to fill a SHAPE 318 or TEXT 289 with colour use FILL 304.
- COLOR sample script 333

Links:
BORDERCOLOR 295
COLOR 300
FILL 304

BIN

BIN="n"

Used to specify the output bin number instead of using the bin set up on the printer.

Typical output bin numbers:

0 Automatic
1 Upper
2 Lower (rear)

Links:
TRAY 322

BLANKLINES

BLANKLINES = "YES"

Honours empty lines in the text, and spaces down by the Vertical Motion Index (the default).

BLANKLINES = "NO"

Blank lines of text are omitted.

- Element GROUP sample script 329
- Mail-merge sample script 340

Links:
Element TEXT 289

BORDERCOLOR

Sets the color of a border around an element: see BORDERS 295.

BORDERCOLOR="r,g,b"

where each of the 3 values (red, green, blue) is in the range '0' to '100' percent,

or

BORDERCOLOR="colname"

where 'colname' takes one of these values:

CYAN	**MAGENTA**	**YELLOW**	**BLACK**
RED	**GREEN**	**BLUE**	**WHITE**

Alternative spellings:

BORDERCOLOUR="r,g,b"

BORDERCOLOUR="colname"

To specify the color of the ink used to draw a colored SHAPE 318, Bezier 280, Polyline 287 or TEXT 289, use COLOR 300.

COLOR sample script 333

Links:
COLOR 300

BORDERS

BORDERS = "L,T,R,B"

Places a border around all four sides (Left, Top, Right and Bottom) of an element with defined boundaries such as a FIELD 281, GROUP 283, PAGE 287, or TEXT 289. If LEFT 307, TOP 321, HEIGHT 306 and WIDTH 325 attributes are not defined in the element itself, they will be inherited from its parent element.

The ordering of the values **L**, **T**, **R** and **B** does not matter.

Omitting value(s) omits the corresponding side(s) of the border, for example

BORDERS="B,T"

places lines at the bottom and top of the item; there are no lines at the sides of the item joining the top and bottom lines.

Borders are drawn as if using an imaginary 'pen'. The thickness of the border-pen is defined by the BORDERWIDTH 296 attribute. The outer edge of the border lies on the boundary but does not extend beyond it; i.e. the border is drawn entirely within the area occupied by the element.

The shape of the 'pen' is defined by the LINEJOIN 308 attribute. In the example above, where there are no joins, LINEEND 308 parameter may be used to specify the shape of the pen instead (if LINEEND and LINEJOIN are both defined for a border, LINEJOIN takes precedence).

The style of the border-lines is defined by the BORDERSTYLE 296 attribute, and the color by the BORDERCOLOR 295 attribute.

COLOR sample script 333

Links:
BORDERWIDTH 296
BORDERSTYLE 296
BORDERCOLOR 295

BORDERSTYLE

BORDERSTYLE="style"

Sets the type of line used to draw BORDERS 295 around an element, where **style** may take one of these values:

SOLID	A continuous line, a BORDERWIDTH 296 wide.
BROKEN	A line of dashes (3xBORDERWIDTH) long spaced a BORDERWIDTH apart. Dashes are a BORDERWIDTH wide. Synonym: **DASHED**.
DOTTED	A line of dots. The dots are round or square, depending on the value of LINEJOIN 308 or LINEEND 308 attribute. The diameter of round dots is equal to the BORDERWIDTH value. The square dots are a BORDERWIDTH wide/high. The distance between one dot and the next is the BORDERWIDTH value.

COLOR sample script 333

Links:
BORDERS 295
BORDERCOLOR 295
BORDERWIDTH 296
LINEEND 308
LINEJOIN 308
LINESTYLE 309

BORDERWIDTH

BORDERWIDTH="width"

Width of line used to draw BORDERS 295 around an element, e.g.

BORDERWIDTH="60"

sets their width to 0.1" when default UNITS 323 (1"/600) are used,

or

BORDERWIDTH="width units"

to set the width *and* units of a border to be used specifically for that element. For example:

BORDERWIDTH="2 mm"

sets that element's border to a width of 2mm, even when other units have been set up elsewhere.

COLOR sample script 333

Links:
BORDERS 295
BORDERCOLOR 295
BORDERSTYLE 296
THICKNESS 321

BOUNDS

BOUNDS="fieldname"

Sets the boundaries for a group. It is derived from a named *EscapeE* field

or, when there are no commas separating the values:

`BOUNDS="left,top,right,bottom"` (deprecated).

Alternatively, the boundaries may be supplied by the **_PAGE** and **_PRINTABLE** symbols, e.g.

BOUNDS="_PRINTABLE"

- Tip: a leading underscore is used to distinguish special symbols from user-defined fields. If there is no user-defined field with the same name then the underscore may omitted, e.g. **BOUNDS="PRINTABLE"**.

Element FILE sample script 328
Element GROUP sample script 329

Links:
Positioning and sizing 276
Element GROUP 283
Element PAGE 287
Element FILE 282
HEIGHT 306
WIDTH 325

CACHE

CACHE = "YES"

An attribute of INCLUDE 285, or of a GROUP 283 or IDF file within an including element. Enables the object to be read once and stored on printers such as PostScript and PDF (i.e. it creates an "overlay"). When an object is invoked repeatedly, it is more efficient to reuse an overlay than to reread the object.

Element GROUP sample script 329

Links:
ALPHA 292
GROUPNAME 305

CERTIFICATE

This is the security certificate name for a digital signature, e.g.

CERTIFICATE="DGF LLC"

See SIGNATURE element 288.

CLIP

The area defined by a CLIP attribute is copied from a file and inserted into the IDF document.

CLIP="fieldname"

or

CLIP="left,top,right,bottom" (deprecated).

If there are no commas, then the parameter is assumed to be a fieldname whose boundaries are used to set up the 'clip region', see Element FIELD 281 and Element DEFINE 280.

The top left corner of the resulting area is positioned at the LEFT 307 (or X 325) and TOP 321 (or Y 325) position.

- Tip: the clip may be positioned relative to the original position of the CLIP. E.g.

```
CLIPX="CLIP.LEFT + 50"
CLIPY="CLIP.TOP + 150"
X="CLIP.RIGHT + 100"
X="CLIP.BOTTOM" + 200
```

Links:
CLIPHEIGHT 298, CLIPWIDTH 299
CLIPSTEPX 298, CLIPSTEPY 299
CLIPX 299, CLIPY 299
UNITS 323

CLIPHEIGHT

CLIPHEIGHT="clipheight"

Specifies the height of a 'clip region' in the default units, e.g.

```
CLIPHEIGHT="1200"
```

sets position to 2" using default of 1"/600.

Alternatively:

CLIPHEIGHT="clipheight units"

Height of the clip region in specified units, e.g.

```
CLIPHEIGHT="2 in"
```

sets position to 2", whatever units have been set up for use elsewhere.

- INFO element sample script 331

Links:
UNITS 323

CLIPSTEPX

CLIPSTEPX="distance"

Steps the horizontal position of a 'clip-region' by the specified amount for each sub-item.

Links:
CLIPSTEPY 299

CLIPSTEPY

CLIPSTEPY="distance"

Steps the vertical position of a 'clip-region' by the specified amount for each sub-item.

Links:
UNITS 323

CLIPWIDTH

CLIPWIDTH="clipwidth"

Width of the 'clip region', e.g.

```
CLIPWIDTH="1200"
```

sets width to 2" in default units

or

CLIPWIDTH="clipwidth units"

E.g.

```
CLIPWIDTH="2 in"
```

sets width to 2", whatever units have been set up elsewhere.

INFO element sample script 331

Links:
CLIPHEIGHT 298
UNITS 323

CLIPX

CLIPX="x"

Horizontal offset of a 'clip region', relative to the start of group, e.g.

```
CLIPX="60"
```

sets position to 1/10 inch when UNITS 323 is 1/600 inch (default value).

Alternatively, an expression referring to the clip's position may be used, e.g.

```
CLIPX="CLIP.LEFT + 450"
```

Links:
CLIPY 299
CLIP 298

CLIPY

CLIPY="y"

Vertical offset of the 'clip region', relative to the start of group e.g.

```
CLIPY="600"
```

Sets position to 1inch (using default UNITS 323).

Alternatively, an expression referring to the clip's position may be used, e.g.

```
CLIPY="CLIP.TOP + 300"
```

COLOR

Sets the color for drawing lines, shapes or text. (To color a border around an element, use BORDERCOLOR 295.)

COLOR="r,g,b"

where each of the 3 values (red, green, blue) is in the range '0' to '100' percent,

or

COLOR="colname"

where 'colname' takes one of these values:

CYAN	**MAGENTA**	**YELLOW**	**BLACK**
RED	**GREEN**	**BLUE**	**WHITE**

Alternative spellings:

COLOUR="r,g,b"

COLOUR="colname"

To place the line, shape or text on a colored background, use FILL 304.

- COLOR sample script 333
- Element TEXT sample script 331

Links:
BGCOLOR 293
BORDERCOLOR 295
FILL 304
MONOCHROME 310
TRANSPARENT 322

CONDITION

Specifies the case(s) which must (all) be valid in order to process a GROUP 283.

CONDITION="String Operator String"

where **Operator** is one of:

= equal	> greater than	>= greater than or equal
<> not equal	< less than	<= less than or equal

and **String** can include:

- quoted strings
- fields

For example:

```
CONDITION = "{FIELD1}='First'"
```

The comparison is case-sensitive.

Links:
Element GROUP 283
FIELD 302

DEBUG

When dealing with a complex document, it may prove useful to check the progress of its composition. The attribute:

DEBUG="string"

will place a warning button on the toolbar; click this to display the "**string**" in the Console Log if the enclosing tag has been processed.

- TRIM sample script 338

DEFINE

An optional attribute which can be used for specifying the source of the position and size coordinates for a FIELD 281 or temporary field (see Element DEFINE 280).

DEFINE="yes"

Field coordinates are fixed at the position attributes given in the IDF element 284 tag.
For backward compatibility, the shorthand for
FIELD DEFINE="YES"
is
DEFINE

DEFINE="no"

Field coordinates are taken from an existing field in an EE field-definitions file, and will change if the field is changed using *EscapeE*.

DEFINE="auto"

If the field exists already, coordinates are taken from the EE field-definitions file (like "No") but if the field does *not* exist in an EE file, the field is defined using the IDF position attributes (like "Yes").

- Command-line tips

  DEFINE field=value

  The value may be numbers, characters or a filename.
  You may declare a field in the IDF file e.g.

  ```
  <INCLUDE FILENAME="Brochure{part}.pdf" />
  ```

  and supply the value on the command-line e.g.

  ```
  ESCAPEE c:\CustomerRecords\MailBrochure.idf /DEFINE part=Fruit1
  ```

  The equivalent IDF statement would be:

  ```
  FILENAME="BrochureFruit1.pdf"
  ```

- Element FIELD sample script 328
- Double page sample script 339

Links:
Element DEFINE 280
Element FIELD 281
FIELD 302

DESCRIPTION

DESCRIPTION="text"

This optional attribute allows a description of the document to be added to the document when creating a digital signature for security purposes. E.g.

```
DESCRIPTION="Test file"
```

See Element SIGNATURE 288.

ENCODING

ENCODING="BASE64"

This attribute is used in FILE 282 or IDF 284 elements to allow binary data to be placed in the IDF document. This is a convenient means of including binary, non-text data such as images, "in-line" rather than as separate files.

When ENCODING is set, any body text found in the element will be converted from the base64 (in which the binary data is encoded) and processed according to the FILETYPE 304. If it is not set, the characters in the body text will used literally – which in the case of binary data, would be meaningless.

◆XML note

IDF scripts commonly start with an XML instruction for which the default encoding is **UTF-8**.

INFO element sample script 331

FIELD

FIELD="fieldname"

The FIELD *attribute* uses the value of the named field (whereas the FIELD 281 *element* specifies a field's location), for example:

```
<TEXT FIELD="Field3" LEFT= "2" TOP="7" WIDTH="1" HEIGHT="1" COLOUR="RED"/>
```

uses the value of Field3 as its text string.

Note that processing instructions embedded in text may also use field values like this:

```
<TEXT LEFT= "2" TOP="7" WIDTH="1" HEIGHT="1" COLOUR="RED">
Here is <?EE Field3?> in some text
</TEXT>
```

Fields may be used when setting up criteria for processing "conditional" groups: see Element GROUP 283.

FIELDFLAGS

FIELDFLAGS="type,method,border"

The FIELDFLAGS attribute defines a clickable field on a PDF form (corresponding to the PDF options set up in the *EscapeE* Field dialog). It can take up to three arguments, separated by commas.

The first parameter defines the type of field. The second, where appropriate, defines the method. The third parameter, BORDER, is used when a border is required around any of these types of field.

type	method	border	Description
CHECKBOX	**CHECKED** **CENTRE** (or **CENTER**) **RIGHT**	**BORDER**	A checkbox: checked, centered vertically or with the button on the right of the caption.
COMBO	**EDIT**	**BORDER**	A drop-down list/editable drop-down list.
LINK		**BORDER**	Hyperlink.
LIST		**BORDER**	A list of options.
RADIO	**CHECKED** **CENTRE** (or **CENTER**) **RIGHT**	**BORDER**	A radio button: checked, centered vertically or with the button on the right of the caption.
RESET		**BORDER**	Reset button.
SEND	**FDF** **XML**	**BORDER**	Submits the form. (No button is drawn.)
SUBMIT	**FDF** **XML**	**BORDER**	Submits the form. A "Submit" button is drawn.
TEXT		**BORDER**	An editable text field.

FILENAME

FILENAME="filename.extension"

This attribute supplies an external filename and format for an element, e.g. FILE 282 or TEXT 289. If it is placed in the IDF 284 element it is in effect the 'global default' for the document: any element calling on this file need only specify which PAGE 312 is to be used.

If the path of the named file is the same as the IDF file, it may be omitted ("relative" path) e.g.:

```
<FILE FILENAME = "FRED2.PCL" PAGE="4"/>
```

Otherwise use the full path ("absolute" path) e.g.:

```
<FILE FILENAME = "c:\ARTICLES\FRED2.PCL" PAGE="4"/>
```

If the format is not obvious from the file extension (such as `ESCP`, `JPG`, `TIF`, `DCM`, `BMP`, `DCX`, `PCX`, `PNG`, `RTF`, `IDF`, `IMG`), *EscapeE* can also identify and process PDF, PostScript, PCL XL, DICOM, JPEG and Epson (Esc-P) files automatically, even when a non-specific extension such as **PRN** is used.

Alternatively, the format may be specified in the FILETYPE 304 attribute.

- Element IDF sample script 330
- Element INCLUDE sample script 330
- Double page sample script 339

Links:
Element INCLUDE 285
Element TEXT 289
NAME 310

FILETYPE

If the format of a specified FILE 282 is not recognizable either explicitly (by its extension) or implicitly (by its content), specify its FILETYPE in the FILE tag itself:

FILETYPE="ext"

where **ext** may take one of three values:

PCL
CSV
TEXT

For example, a file output by printer with extension **PRN** could be placed in an IDF document using

```
<FILE FILENAME = "FRED2.PRN" FILETYPE = "PCL" PAGE="4"/>
```

Plain text files – which usually have extension ".TXT" – are normally specified as **FILETYPE="TEXT"**. Due to the lack of page-breaks in TXT files, however, it is sometimes useful to specify **FILETYPE="PCL"** instead: see Notes on text 277.
The default file-type for unrecognized files is PCL5.

- Element FILE sample script 328
- MONOCHROME sample script 336

Links:
FILENAME 303

FILL

FILL="r,g,b"

The color for filled areas, where each of the three values (red, green, blue) must be in the range 0 to 100 percent,

or

FILL="colname"

where 'colname' takes one of these values:

CYAN	**MAGENTA**	**YELLOW**	**BLACK**
RED	**GREEN**	**BLUE**	**WHITE**

or **NONE** to turn off filling.

FILL may be used in TEXT elements 289 to place the text on a colored background. The filled area will be a rectangle just sufficient to underlie normal characters. PADDING 311 may be used to extend the area. ROTATE 316 may be applied too, though while the resulting IDF document will print correctly, some systems will be unable to display it properly on screen.

- COLOR sample script 333
- Element TEXT sample script 331
- Tip: to flood-fill a GROUP 283 or an entire PAGE 287, use BGCOLOR 293.

Links:
BGCOLOR 293
BORDERCOLOR 295
COLOR 300
TRANSPARENT 322

FONT

FONT="fontname[,weight,style]"

Specifies the font-family name, optionally followed by a weight and/or style for plain text 277 e.g.

"Times New Roman,bold,italic"

Alternatively, the font's style and weight may be given by the STYLE 320 and WEIGHT 324 attributes.

- Element FILE sample script 328
- Element GROUP sample script 329

Links:
FONTSIZE 305
POINTSIZE 315
Element TEXT 289
Element GROUP 283
Element PAGE 287
Element FILE 282

FONTSIZE

FONTSIZE="n units"

A way of specifying a font size and units for plain text 277.

INCHES (or **IN**)
MM
CM
POINTS (or **PT**)

E.g.

FONTSIZE="10 pt"

Unlike POINTSIZE 315, it is scaled according to the current SCALE 317 factor. If

FONTSIZE="n"

is used to specify a font size, the UNITS 323 will be applied e.g. **FONTSIZE="12"**

- Element INCLUDE sample script 330
- Element TEXT sample script 331

GROUPNAME

Once a GROUP 283 has been defined and **name**d in an IDF document, it may be used in subsequent INCLUDE 285 elements using this attribute:

GROUPNAME="name"

E.g.:

GROUPNAME = "3rdQuarter"

Links:
NAME 310

HEIGHT

HEIGHT="height"

Height of an item, e.g.

```
HEIGHT="1200"
```

sets height of item to 2" when 1"/600 units (the default) used.

or

HEIGHT="height units"

Height of an item, e.g.

```
HEIGHT="2 in"
```

sets height of item to 2", whatever units have been set up elsewhere.

- Drawing elements sample script 332
- Element TEXT sample script 331

Links:
WIDTH 325
UNITS 323
Positioning and sizing 276
BOUNDS 297
PAGE 312
VSPACE 324
X,Y 325

IMAGERES

The IMAGERES attribute may be used to specify the resolution of images accessed using the FILE 282 element in Dots Per Inch. Used like this:

IMAGERES="dpi"

the resolution defined in IMAGERES is only used when the image file specifies the resolution as 0 or does not specify the resolution at all. For example,

```
IMAGERES = "100"
```

is a useful default for most printers. Alternatively, use

IMAGERES="-dpi"

to override resolutions specified in image files and force the IMAGERES value. E.g.

```
IMAGERES = "-96"
```

gives good results for viewing an image on-screen.

Links:
Element FILE 282

INDEX

INDEX="title"

An attribute of the GROUP element 283 which specifies a title to be used for indexing a PAGE 312.
If no PAGE parameter is specified the current input page number is used. Multiple nesting levels are allowed.

- INDEX sample script 333

Links
Element GROUP 283
Element INCLUDE 285
Element PAGE 287
PAGE 312

LEFT

LEFT="distance"

Horizontal position of the element's "origin" relative to the "origin" of an enclosing container element. The origin for most items is their top-left corner but for unALIGNed 292 TEXT 289 it is the leftmost point of the first character's baseline.

The default UNIT 323 is 1/600 inch, so:

```
LEFT="600"
```

would set the horizontal position to 1" inside the container's left boundary. If a 'unit' value is appended to the offset value, the current unit value is overridden for that item, e.g.

```
LEFT="12CM"
```

See also TOP 321 and X 325.

- Drawing elements sample script 332
- Double page sample script 339

Links:
Positioning and sizing 276
ALIGN 292
TOP 321
WIDTH 325
X,Y 325

LINEEND

LINEEND="pen"

The (imaginary) 'pen' used to draw any Polylines 287 and Bezier curves 280 is, by default, flat; its size is specified using the THICKNESS 321 attribute. The line starts and finishes at the specified X,Y positions. The LINEEND attribute applies terminals to the ends of a line, as if it had been drawn by a square or round pen. See also BORDERS 295.

The LINEEND pen can take one of two values:

SQUARE		Lines are drawn with a square pen one THICKNESS 321 wide and high. The centre of the pen starts and finishes at the defined locations, so that each end of the line appears lengthened by half a thickness.
ROUND		These lines are drawn with a round pen of one THICKNESS 321 diameter. The centre of the pen starts and finishes at the defined locations, so the line appears lengthened by a semi-circle at each end.

- LINEEND, LINEJOIN sample script 334

Links:
Element GROUP 283
Element PAGE 287
LINEJOIN 308
LINESTYLE 309
BORDERS 295

LINEJOIN

LINEJOIN = "pen"

Sets the profile of the (imaginary) pen used to draw any Polylines 287 and Bezier curves 280 within the element. See also BORDERS 295.

The pen can take one of two values:

SQUARE		Junctions are mitered, making sharp inner and outer corners (the default).
ROUND		Junctions naturally form a sharp inner corner and a rounded outer corner.

See also LINEEND 308 attribute.

- LINEEND, LINEJOIN sample script 334

Links:
Element GROUP 283
Element PAGE 287
LINEEND 308
LINESTYLE 309
BORDERS 295

LINESTYLE

LINESTYLE = "pen"

This specifies the style of line to be used by any Bezier 280 curve or Polyline 287 found between the element's opening and closing tags.

The pen may take these values:

SOLID	A continuous unbroken line (the default).
DOTTED	Dots and spaces are both one THICKNESS 321 wide. Dots are square or round, depending on the value of LINEEND 308.
BROKEN	Dashes are 3 times the THICKNESS long with spaces of one THICKNESS. Synonym: **DASHED**.
CUSTOM,d,s[,d,s...]	Define a repeating sequence of dashes and spaces as a comma-separated list of up to 20 numbers. A dash is **d** times the THICKNESS long and a space is **s** times the THICKNESS long.

LINESTYLE sample script 335

Links:
Element GROUP 283
Element PAGE 287
STYLE 320
BORDERSTYLE 296

LOCATION

The LOCATION attribute is the URL added by *EscapeE* for a digital signature's security certificate: see Element SIGNATURE 288.

Links:
LEFT 307
TOP 321
X,Y 325

MONOCHROME

A color image from a FILE 282 element may be displayed as "black and white" in an IDF document using the MONOCHROME attribute.

MONOCHROME="threshold"

The threshold may take values in the range 0 to 255. Values less than the threshold are treated as black, values equal to or greater than the threshold are treated as white.

- MONOCHROME sample script 336

Links:
Element FILE 282
COLOR 300
TRANSPARENT 322

NAME

NAME="name"

This attribute names the GROUP 283, FIELD 281 or PAGE 287 element being set up by the tag.

Note: the GROUPNAME 305 attribute is used to invoke a NAMEd GROUP from an INCLUDE element 285.

- Element FIELD sample script 328
- Double page sample script 339

Links:
FILENAME 303

ORIENT

ORIENT="o"

Orientation of the page, where o takes one of the values:

- **P** – portrait (the default)
- **L** – landscape
- **I** – inverse (portrait rotated 180°)
- **J** – journal (landscape rotated 180°)
- **?** – orientation is set to match the orientation of the first file loaded

- ROTATE sample script 336
- Double page sample script 339

Links:
PAPER 313
ROTATE 316

PAD

PAD="thickness"

Defines the thickness of the padding between the contents of an item and its border. To specify the thickness of the padding on each side of the item independently, use the PADLEFT 311, PADRIGHT 311, PADTOP 311, PADBOTTOM 311 attributes.
◆Note that padding is applied after ALIGN 292 and ROTATE 316.
Alternative spelling:
PADDING="thickness"
For example:
PADDING="0.250"

Links:
PADBOTTOM 311
PADTOP 311
PADLEFT 311
PADRIGHT 311
VSPACE 324

PADBOTTOM

PADBOTTOM="thickness"

Thickness of the padding at the bottom of an item.
For example:
PADBOTTOM="0.200"

PADLEFT

PADLEFT="thickness"

Thickness of the padding at the left of an item.
For example:
PADLEFT="0.200"

PADRIGHT

PADRIGHT="thickness"

Thickness of the padding at the right of an item.
For example:
PADRIGHT="0.200"

PADTOP

PADTOP="thickness"

Thickness of the padding at the top of an item.
For example:
PADTOP="0.200"

PAGE

PAGE="n"

'n' is an integer specifying the number of the page (or line-number 277 in TXT files) to be used by a FILE 282, GROUP 283 or INCLUDE 285 element.

Alternatively, you may specify:

PAGE="NEXT"

This syntax is used when extracting data: see REPEAT 316. It can also be used to place *all* the text contained in a plain text file rather than a single line. Plain text files have their FILETYPE 304 set to "TEXT" and usually have the extension "TXT".

For example:

```
<FILE FILENAME = "FRED1.PCL" PAGE="2"/>
<INCLUDE PAGE="3"/>
```

- Element GROUP sample script 329
- INDEX sample script 333

Links:
BOUNDS 297
INDEX 307
PAPER 313
Notes on text 277
Element PAGE 287

PAPER

This sets up the dimensions of the paper to be used.

PAPER="t"

where paper type 't' takes one of these values:

A0 A1 A2 A3 A4 A5 A6	ARCHA ARCHB ARCHC ARCHD ARCHE ARCH30	LETTER LEDGER ANSIC ANSID ANSIE	EXECUTIVE LEGAL

or for envelopes:

C5	DL	MONARCH

The default value of 't' is "A4".

E.g.

```
PAPER="LETTER"
```

Alternatively, specify the width and height of the paper:

PAPER="width,height"

e.g.

```
PAPER="6.5,8"
```

Use ORIENT 310 to define the orientation of the paper. Using orientation as a second parameter of the paper attribute, e.g. `PAPER="LETTER,P"` is deprecated.

- Element IDF sample script 330
- Element TEXT sample script 331

Links:
Element_PAGE 287
ORIENT 310
PAGE 312
UNITS 323

PARAM

PARAM="parameter[parameter...]"

Enables any number of extra PLUGIN 314 parameter(s) to be passed to a program being called by an EXECUTE 281 command line, for example

```
<EXECUTE PLUGIN = "MYPROG.EXE" PARAM = "FIRST SECOND THIRD">
```

could run

```
MYPROG "EETMP12345.PRN" FIRST SECOND THIRD
```

(**EETMP12345.PRN** is an example name for the temporary file created by PLUGIN).

Links:
Element EXECUTE 281
PLUGIN 314

PLEX

PLEX="value"

The default is to print on one side of the sheet of paper only (**SIMPLEX**). When both sides are to be printed, the PLEX value also sets up the page binding:

SIMPLEX	default
LONG	long-edge binding duplex
SHORT	short-edge binding duplex

Element GROUP sample script 329

Links:
ORIENT 310
SIDE 318
Element GROUP 283
Element PAGE 287
Element FILE 282

PLUGIN

PLUGIN="file"

The name of a Plugin or other external program to be EXECUTEd; 281 it must reside in the *EscapeE* plugins folder. E.g.

```
PLUGIN = "IDFPLUGIN"
```

The contents of the item, including any sub-tags, are written to a temporary file. The name of the temporary file is passed first, before any other parameters supplied by the PARAM 314 attribute. Note that when calling a *program*, the temporary file *must* be enclosed in quotes.
If the ENCODING 302 is set to BASE64 and there are no sub-tags then the body text is decoded as base 64, otherwise it is written literally.

Links:
EXECUTE element 281
PARAM 314

POINTSIZE

POINTSIZE="pointsize"

Specifies the absolute font height for a piece of plain text 277.
It is never scaled.

- Element FILE sample script 328
- Element GROUP sample script 329

Links:
FONT 305
FONTSIZE 305
Element GROUP 283
Element PAGE 287
Element FILE 282
Element TEXT 289

PREFIX

PREFIX="prefix"

This attribute may be used to add the **prefix** characters to the start of:

- group names in INCLUDE 285 elements.
  Group names in the included file all start with the prefix, to avoid conflict with names in the main file.
- field names defined by fields taken from CSV files.
  This allows one to read a CSV file without danger of inadvertently redefining fields that were defined in *EscapeE* or the IDF file. For example, if
  PREFIX="XX_"
  then the field names read from the CSV file would all start with **XX_** which would distinguish them from other fields.

- Mail-merge sample script 340

REPEAT

To step through a database file extracting data values, e.g. for merging files, use
REPEAT = "n"

where **n** is a number: repeats n times *or*

REPEAT="YES"
This repeats until no new data is provided by a database or until all the text supplied by a file of FILETYPE="TEXT" has been formatted onto a PAGE 312.

- Element GROUP sample script 329
- Element FILE sample script 328
- Technical note

New data is provided by reading a file whose page number is specified by:

- setting the attribute **PAGE = "NEXT"** *or*
- calling a plugin whose return code must be **ee_dataProvided** to signify that it produced new data.

Links:
Using data fields 278
Notes on text 277
PAGE 312

ROTATE

ROTATE="n"
where **n** is the number of counter-clockwise right-angles to rotate text, lines and other drawn items. **n** may take these values:

0 (the default)
1 (left-side down)
2 (up-side down)
3 (right-side down)

Text is rotated *after* alignment. If ALIGN 292 is not specified then the initial position (i.e. before rotation) may be taken from the LEFT 307 or X 325, TOP 321 or Y 325 attribute values. When LEFT or TOP is used the string turns around the boundaries of its container; when X or Y is used the string wheels around the leftmost point of the baseline.

PADDING 311, if specified, is applied *after* ROTATE.

- ROTATE sample script 336

Alternatively text, lines and other drawn items may use:
ROTATE="n DEGREES"

where **n** is the number of degrees of rotation counter-clockwise.

- Element TEXT sample script 331

Note that while IDF documents using ROTATEd FILLed 304 TEXT 289 elements print correctly, some systems cannot display the rotated text on top of the background color.

Links:
ORIENT 310

SCALE

SCALE="s"

Multiplies both the current x and y scale factors by s,

or

SCALE="FULL"

Instead of a number, s can be set to "FULL" to set the scale back to 1, regardless of the scale of any enclosing group.

- Double-page sample script 339
- INFO element sample script 331

Links:
SCALEX 317
SCALEY 317

SCALEX

SCALEX="s"

Multiplies the current scale in the x direction by s.

SCALEY

SCALEY="s"

Multiplies the current scale in the y direction by s.

SEPARATOR

IDF assumes that the separator for data-fields is a comma; enclosing the data-values in each field in a pair of single-quotes or a pair of double-quotes as well is optional.

SEPARATOR = "s"

placed in a FILE 282 tag defines **s** as the separator instead. In this example **s** is set to ; so that

```
<FILE FILENAME = "ADDRESS2.CSV" SEPARATOR = ";" />
```

can be used for a data file with fields separated by semicolons.

◆Note: if you set the separator to be a comma explicitly, i.e.

```
SEPARATOR=","
```

you can force any quotes to be treated as part of the field data.

Links
Element FILE 282
FILENAME 303
FILETYPE 304

SERIAL

The SERIAL number for a security certificate added by *EscapeE*, e.g.

```
SERIAL="7C 56 05 3F 88 42 13 88 45 95 4A 2B 03 C7 56 47 "
```

See Element SIGNATURE 288.

SHAPE

SHAPE="value"

Draws a shape bounded by the containing group. The value can be one of:

RECTANGLE	Rectangular area filled with solid COLOR 300 – the default.
BOX	Solid line drawn with a square 'pen' centered on the boundary.
ELLIPSE	Solid line drawn with a round 'pen'. The outer edge of the line is drawn to just touch the boundary.

- Drawing elements sample script 332
- ROTATE sample script 336

Links:
THICKNESS 321
Notes on drawing 277
BORDER 295

SIDE

SIDE="side"

The 'side' of the sheet of paper – choose from:

FRONT (default)

BACK

NEXT

- Mail-merge sample script 340

Links:
Element GROUP 283
Element PAGE 287
Element FILE 282
PAGE 312
PAPER 313
PLEX 314

STEPX

STEPX="distance"

Steps the horizontal print position LEFT 307 by the specified amount for each sub-item.

- STEPX sample script 338

Links:
CLIPSTEPX 298
STEPY 319
UNITS 323

STEPY

STEPY="distance"

Steps the vertical print position TOP 321 by the specified amount for each sub-item.

- STEPY sample script 338

Links:
CLIPSTEPY 299
STEPX 319
UNITS 323
VSPACE 324

STRING

STRING=""

The string for a "plain" TEXT 289 element to display on a PAGE 287, at the given position using the specified FONT 305.

STRING='{""}'

The text to be used to prompt a user for input to a FIELD 281.

- Element TEXT sample script 331
- Double page sample script 339

Links:
Notes on text 277
Element TEXT 289
FONT 305

STYLE

STYLE="n"

where n is one of these integer values, specifying the style of font:

#	description
0	normal, upright
1	italic
2	oblique
4	condensed
5	condensed italic
24	expanded
32	outline
64	inline
128	shadowed
160	outline shadowed

Element TEXT sample script 331

Links:
Notes on text 277
Element TEXT 289
<?FORMAT?> instruction 290
FONT 305
BORDERSTYLE 296
LINESTYLE 309
WEIGHT 324

SYMBOLSET

The SYMBOLSET is used by TEXT 289 elements to determine which set of characters to use.

SYMBOLSET="identifier"

The alphanumeric **"identifier"** for the default symbolset is "19U". Note that while some characters (e.g. A to Z) commonly map to the same character in different symbol sets, other characters are likely to map to different characters. Thus you may only notice that the wrong symbolset is in use when accented characters or mathematical symbols are output inappropriately. For example, plusminus in **19U** (equivalent to Microsoft® Codepage 1252) maps to Yacute in **8U** (HP's Roman-8), and a checkerboard in **10U**!

Element FIELD sample script 328

Links:
Element TEXT 289
ENCODING 302
FONT 305

THICKNESS

THICKNESS="t"

Sets the (imaginary) pen's thickness for drawing Polylines, 287 Bezier 280 curves, BOX and ELLIPSE SHAPEs 318. The pen may be flat, square or round, depending on the settings given for LINEEND 308 and LINEJOIN 308 attributes.

- LINESTYLE sample script 335
- Drawing elements sample script 332

Links:
Element_Polyline 287
Element_Bezier 280
SHAPE 318
BORDERS 295
BORDERWIDTH 296

TOP

TOP="distance"

Sets up a vertical offset relative to the *start* of the container element, e.g.

TOP="600"

sets position to 1" down from the top of the container when using the default units (1"/600).

- TEXT note

For TEXT 289 elements, TOP offsets the position of the *baseline* of the characters. This may be overridden using the ALIGN 292 attribute: e.g.

ALIGN="TOP"

specifies a vertical offset from the *top* of the character cell.

- Element TEXT sample script 331
- ROTATE sample script 336

Links:
Positioning and sizing 276
LEFT 307
HEIGHT 306
VSPACE 324
X,Y 325

TRANSPARENT

TRANSPARENT="Y"

allows any white parts of a file to appear transparent (default).
Note that some file formats apply a white background on which to place the file content, which negates the effect.

or

TRANSPARENT="N"

places the file content on a white background.

Try the Element IDF sample script 330 to see the effect using an image file.

Links:
Element_GROUP 283
Element_PAGE 287
Element_FILE 282
ALPHA 292
COLOR 300
MONOCHROME 310

TRAY

TRAY="n"

Specifies the Input tray number.

Typically used only when the job uses more than one type of paper, for example, when each page is to be printed on a different colored sheet.

Links:
BIN 294
PAPER 313

TRIM

TRIM="YES"

Setting TRIM to "yes" removes any white space bordering an image or page of a file that is being included. TRIM has no effect on the page being defined by the IDF, only on external objects that are being incorporated. The default is:

TRIM="NO"

TRIM sample script 338

Links:
Element_FILE 282
Element_INCLUDE 285

TYPEFACE

TYPEFACE="n"

Specifies the typeface using HP PCL numbers, e.g.

TYPEFACE="3"

to use Courier. This would be better expressed as **FONT="Courier"** 305

- Element FIELD sample script 328

(See also 'Font attributes for specialists' topic.)

Links:
FONT 305

UNITS

UNITS="value"

Where 'value' may be one of:

INCHES, IN
DOTS (1"/300)
DOT600, D600 (1"/600, the default)
POINTS, PT
DE (decipoints)
CM
MM

or a number followed by one of the units, e.g.

UNITS="0.01 IN"

- ROTATE sample script 336
- STEPX sample script 338

Links:
Positioning and sizing 278
Element GROUP 283
Element PAGE 287
Element FILE 282

VSPACE

VSPACE="distance"

Steps the vertical print position TOP 321 by the specified amount for each sub-item. This sets the vertical spacing for lines of text. It is inherited by child elements, so may be used to set the spacing for the whole document (unlike the STEPY 319 attribute). E.g.:

```
<TEXT BOUNDS="AGENT" BLANKLINES="NO" ALIGN="LEFT,TOP" PAD="0.04"
VSPACE="0.17">
```

Links:
CLIPSTEPY 299
HEIGHT 306
PAD 311
STEPY 319

WEIGHT

WEIGHT="n"

Supplies the weight of font for TEXT 289. To specify a precise weight you may use any of the integer values (akin to HP-PCL values) described below. There are string equivalents for the most commonly-used font-weights which may be used instead for convenience:

string	#	description
	-7	ultra thin
	-6	extra thin
	-5	thin
	-4	extra light
LIGHT	-3	light
	-2	demi light
	-1	semi light
REGULAR	0	medium(default)
	1	semi bold
	2	demi bold
BOLD	3	bold
	4	extra bold
	5	black
	6	extra black
BLACK	7	ultra black

- Element TEXT sample script 331
- LINESTYLE sample script 335

Links:
FONT 305
STYLE 320
Notes on text 277
<?FORMAT?> instruction 290

WIDTH

WIDTH="width"

Width of an item, e.g.
`WIDTH="2400"`
sets width to 4" when default units (1"/600) used, *or*

WIDTH="width units"

Width of an item, e.g.
`WIDTH="4 in"`
sets width to 4", whatever units have been set up elsewhere.

- ROTATE sample script 336
- Drawing elements sample script 332

Links:
Positioning and sizing 276
BOUNDS 297
BORDERWIDTH 296
HEIGHT 306
PAGE 312
UNITS 323
X,Y 325

X,Y

X="distance"

Y="distance"

X specifies the horizontal offset from the origin of the containing element and **Y** specifies the vertical offset. They are used primarily for specifying coordinates when drawing: see B 280, M 286, P 287, CLIP 298, SHAPE 318. Although the X and Y attributes are similar to the LEFT 307 and TOP 321 attributes, when text is rotated they behave differently – see note 325 below.

```
<GROUP X="600" Y="900" WIDTH="1000" HEIGHT="500" SHAPE="BOX">
```

The default UNIT 323 is 1/600 inch.

◆TEXT rotation note

The location X,Y specifies the position of the leftmost point of (unALIGNed 292) TEXT's 289 baseline; if ROTATE 316 is applied then the string is pivoted about the point X,Y. If the location were specified using LEFT 307 and TOP 321 instead, the position would be rotated relative to the edges of its container, taking the string along with it.

- Drawing elements sample script 332
- ROTATE sample script 336

Links:
Positioning and sizing 276
Notes on drawing 277
LEFT 307
TOP 321

Sample IDF scripts

These topics show example IDF scripts to demonstrate how IDF elements and attributes may be used. An xml header may not be necessary if the document was saved in UTF-8. Typical headers:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

Examples of elements:

- Element DEFINE sample script 327, also GROUP, INCLUDE and PAGE elements.
- Element FIELD sample script 328, also TEXT element.
- Element FILE sample script 328, also GROUP, PAGE and TEXT elements.
- Element GROUP sample script 329, also INCLUDE, PAGE and TEXT elements.
- Element IDF sample script 330, also FILE and PAGE elements.
- Element INCLUDE sample script 330, also PAGE and TEXT elements; command-line tips.
- Element INFO sample script 331, also FILE and PAGE elements.
- Element TEXT sample script 331, also GROUP, PAGE and TEXT elements.

Plus an example to illustrate the Bezier, Polyline and Move elements:

- Drawing elements sample script 332

Examples of attributes:

- COLOR sample script 333, also BGCOLOR, BORDERS, BORDERCOLOR, BORDERSTYLE, BORDERWIDTH, FILL, POINTSIZE and WIDTH.
- INDEX sample script 333, also PAGE attribute.
- LINEEND, LINEJOIN sample script 334, also THICKNESS, X and Y attributes.
- LINESTYLE sample script 335, also FONT, WEIGHT, X and Y attributes.
- MONOCHROME sample script 336, also FILENAME and FILETYPE attributes.
- ROTATE sample script 336, also ALIGN, HEIGHT, ORIENT, SHAPE, UNITS, X and Y attributes.
- STEPX sample script 338, also LEFT, TOP and UNITS attributes.
- STEPY sample script 338, also ORIENT, PAPER and STRING attributes.
- TRIM sample script 338, also ALIGN, TOP and DEBUG attributes.

Plus examples to demonstrate how to create "two-up" pages from a file nominated by a user and USING the command-line:

- Double page sample script 339: DEFINE, FILENAME, NAME, PAGE, SCALE, STRING, and REPEAT attributes.
- Command-line sample script 339: FONTSIZE, REPEAT and STYLE attributes; / USING command-line option; LOF file.

Example of a script created by a wizard:

- Mail-merge sample script 340: BLANKLINES, BOUNDS, FILETYPE, PREFIX, REPEAT, SIDE attributes and FORMAT instruction.

Element DEFINE sample script

The only attributes that an INCLUDE 285 element directly inherits from a GROUP 283 that contains it are ROTATE 316, X 325 and Y 325. A DEFINE element can be employed to propagate other attribute values from its containing group to an included element.
In this example, a temporary field is created by the DEFINE 280 element with the NAME 310 **GroupColour**. This contains a STRING 319 value for the COLOR 300 of a group named **Arrow**. A new temporary **GroupColour** field is defined to contain the new value for its color each time that **Arrow** is invoked.

```
<IDF UNITS="INCHES" >
<GROUP NAME="Arrow" WIDTH="2" HEIGHT="2" THICKNESS="0.25"
COLOR="{GroupColour}" >
<M X="2" Y="0" />
<P X="3" Y="1" />
<P X="2" Y="2" />
<M X="1" Y="1" />
<P X="3" Y="1" />
</GROUP>
<PAGE >
<GROUP TOP="1" LEFT="2" WIDTH="4" HEIGHT="2">
<DEFINE NAME="GroupColour" STRING="RED"/>
<INCLUDE GROUPNAME="Arrow"/>
</GROUP>
<GROUP TOP="4" LEFT="1" WIDTH="4" HEIGHT="2" >
<DEFINE NAME="GroupColour" STRING="BLUE"/>
<INCLUDE GROUPNAME="Arrow" />
</GROUP>
</PAGE>
</IDF>
```

Links:
DEFINE 307

Element FIELD sample script

Example of two FIELD 281 elements: in the first the coordinates are taken from an EE file, in the second the coordinates are taken from the IDF file itself.

The TEXT 289 elements demonstrate the use of different SYMBOLSETs 320.

```
<IDF UNITS="INCHES">
<PAGE>
<FIELD NAME="Field1" LEFT= "1" TOP="1" WIDTH="4" HEIGHT="2" DEFINE="AUTO"
 SHAPE="BOX">
<TEXT ALIGN="CENTRE,CENTRE" SYMBOLSET="8U">Text centered in field;
coordinates of the field can be moved
by editing the fields file with EscapeE
Symbolset 8U ÙµÁ</TEXT>
</FIELD>
<FIELD NAME="Field2" LEFT= "1" TOP="4" WIDTH="4" HEIGHT="2" DEFINE="YES"
 SHAPE="BOX">
<TEXT ALIGN="CENTRE,CENTRE" TYPEFACE="3" SYMBOLSET="10U">Text centered in
 the field; coordinates fixed by the IDF.
Symbolset 10U ÙµÁ</TEXT>
</FIELD>
</PAGE>
</IDF>
```

Links:
Element FIELD 281
FIELD 302

Element FILE sample script

Here, a plain text FILE 282 **descriptionA.txt** is to be printed. The number of pages needed to print the document is not known, so **PAGE="NEXT"** and **REPEAT="YES"** are specified. The area of the page to be printed is specified as the _PRINTABLE 276 area. This "features" text is preceded by a **BOX** containing lists of (productA's) dimensions. The **TEXT** for the sizes in 'mm' are supplied by file **metricA.txt** and listed on the left (default **ALIGN**ment). The **TEXT** for the sizes in 'inches' are supplied by file **imperialA.prn** and listed on the **RIGHT**; note that **FILETYPE="TEXT"** is specified.

```
<IDF UNITS = "INCHES">
<PAGE BOUNDS="_PRINTABLE">
<GROUP HEIGHT="3" FONT="Times New Roman" POINTSIZE="12" SHAPE="BOX">
<TEXT FILENAME="metricA.txt" />
<TEXT FILENAME="imperialA.prn" FILETYPE="TEXT" ALIGN="RIGHT"/>
</GROUP>
<FILE FILENAME="featuresA.txt" FILETYPE="TEXT" PAGE="NEXT" TOP="4" FONT="Arial"
POINTSIZE="9" ALIGN="CENTRE"/>
</PAGE>
<PAGE BOUNDS="_PRINTABLE" ALIGN="CENTRE" REPEAT="YES" PAGE="NEXT" >
<FILE FILENAME="featuresA.txt" FILETYPE="TEXT" FONT="Arial" POINTSIZE="9" />
</PAGE>
</IDF>
```

Links:
Element FILE 282

Element GROUP sample script

The GROUP 283 in this example steps through the records of a CSV file, merging the data into fields in a print file. Caching the static elements of the pages is not a requirement, but if the printer is capable of storing overlays, it improves efficiency.

```
<IDF UNITS="INCHES" PLEX= "SIMPLEX" PAPER = "A4" FONT = "Times New Roman"
POINTSIZE = "12">
<GROUP REPEAT="YES">
<PAGE>
<INCLUDE FILENAME = "c:\escapee\users.csv" PAGE = "NEXT"/>
<INCLUDE FILENAME = "c:\escapee\letter.lsh" PAGE="1" CACHE="YES"/>
<TEXT BOUNDS ="ADDRESS" BLANKLINES="NO">
<?EE TITLE?> <?EE FIRSTNAME?> <?EE NAME?>
<?EE COMPANY?>
<?EE ADDR1?>
<?EE ADDR2?>
<?EE ADDR3?>
<?EE ADDR4?>
<?EE TOWN?>
<?EE COUNTY?>
<?EE POSTCODE?>
<?EE COUNTRY?>
</TEXT>
<TEXT BOUNDS =" SALUTATION"><?EE TITLE?> <?EE NAME?></TEXT>
</PAGE>
<PAGE>
<INCLUDE FILENAME = "c:\escapee\letter.lsh" PAGE="2" CACHE="YES"/>
</PAGE>
</GROUP>
</IDF>
```

Links:
Element GROUP 283

Element IDF sample script

This IDF file superimposes a graphic on page number 2 taken from a PDF file:

```
<IDF UNITS = "INCHES" PAPER="A4">
  <PAGE>
    <FILE FILENAME="manual.pdf" PAGE="2" />
    <FILE LEFT="1" TOP="0.3" FILENAME="logo.png" TRANSPARENT = "Y" />
  </PAGE>
</IDF>
```

Links:
Element IDF 284

Element INCLUDE sample script

This script uses the **REPEAT** attribute to enable each page from a named PDF file to be **INCLUDE**d one **PAGE** at a time, followed by a "Compliments" slip on another **PAGE**.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF>
<PAGE REPEAT="YES">
<INCLUDE FILENAME="Brochure.pdf" PAGE="NEXT"/>
</PAGE>
<PAGE>
<TEXT ALIGN="CENTRE,CENTRE" FONTSIZE="16 pt" STYLE="1">
With Compliments
</TEXT>
</PAGE>
</IDF>
```

Command-line tips

Omit the FILENAME from the INCLUDE statement above:

```
<INCLUDE PAGE="NEXT"/>
```

and specify the file on the command-line or Run box instead:

```
ESCAPEE c:\CustomerRecords\BrochureGarden.PDF /USING MailBrochure.idf
```

where **MailBrochure.idf** is the name of this sample IDF file and **BrochureGarden.PDF** is the name of the file INCLUDEd in the document.

This frees you to customize the document "on the fly" – there is no need to open and edit the IDF file each time you need to output a new variant of the document.

See also Command-line sample script 339.

Links:
Element INCLUDE 285

Element INFO sample script

In this IDF script, information on its configuration is contained within an INFO element 286. The odd (non-blank) pages from the specified BASEFILE 293 attribute are extracted to make a new PDF. This ensures that no subtle features of the original file are lost when the new PDF is exported. The "info" is not used by *EscapeE* when it exports the new PDF.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF ENCODING="UTF-8" NAME="1COL" UNITS="INCHES" FONT="Arial"
POINTSIZE="10" PAPER="A4" ORIENT="P" BASEFILE="original.pdf">
<INFO>
:\PORTRAIT
:\SCALE 1
:\PAPER A4
</INFO>
<PAGE BOUNDS="_PAGE">
<FILE NAME="1" CLIPWIDTH="8.5" CLIPHEIGHT="11" TOP="0" PAGE="1"/>
</PAGE>
<PAGE BOUNDS="_PAGE">
<FILE NAME="2" CLIPWIDTH="8.5" CLIPHEIGHT="11" TOP="0" PAGE="3"/>
</PAGE>
<PAGE BOUNDS="_PAGE">
<FILE NAME="3" CLIPWIDTH="8.5" CLIPHEIGHT="11" TOP="0" PAGE="5"/>
</PAGE>
<PAGE BOUNDS="_PAGE">
<FILE NAME="4" CLIPWIDTH="8.5" CLIPHEIGHT="11" TOP="0" PAGE="7"/>
</PAGE>
</IDF>
```

Links:
Element INFO 286

Element TEXT sample script

A heading, (left-aligned) in red bold italics, is placed on a page of A4 paper. The baseline for the heading is at the TOP.
A paragraph of text, right-aligned (in black) is placed with its baseline 2 cm further down the page on a grey background.
An "EXAMPLE" sticker is simulated using rotated text and a rectangular box shape.

```
<IDF UNITS = "INCHES" PAPER="A4">
<PAGE TOP="1" LEFT="0.5" WIDTH="7.25" HEIGHT="9" >
<TEXT STRING="IDF syntax" COLOUR=red FONT="Arial" WEIGHT="3" STYLE="1" />
<TEXT TOP="2.00cm" ALIGN="RIGHT" FILL="90,90,90" >IDF is a way of
describing in XML
the structure of a composite document
to the EscapeE viewer and transformation system.</TEXT>
<TEXT STRING="EXAMPLE" COLOUR="50,50,100" FONT="Arial"  FONTSIZE="14 PT"
WEIGHT="3" TOP="1" LEFT="2" ROTATE="22.5 DEGREES"/>
<GROUP LEFT="1.5" TOP="1" WIDTH="2" HEIGHT="0.25" SHAPE="BOX"
ROTATE="22.5 DEGREES"/>
</PAGE>
</IDF>
```

Links:
Element TEXT 289

Drawing elements sample script

This example code draws an ogee arch topped plaque. Note that the outer line is made up of a Bezier curve 280 starting from the 'Move 286' position (1,2) and a Polyline 287 , starting from the last Bezier point.

The first GROUP 283 places an image in a circle with a red border. The second places a BOX 318.

```
<!DOCTYPE IDF SYSTEM "C:\REDTITAN\SOFTWARE\IDF.DTD">
<IDF UNITS="INCHES" PAPER="A4" ORIENT="P">
<PAGE THICKNESS="0.05" LINEEND="SQUARE" >
<M X="1" Y="2"/>
<B X="2" Y="2"/>
<B X="2" Y="1"/>
<B X="3" Y="1"/>
<B X="4" Y="1"/>
<B X="4" Y="2"/>
<B X="5" Y="2"/>
<P X="5" Y="5"/>
<P X="1" Y="5"/>
<P X="1" Y="2"/>
<GROUP LEFT="2.5" TOP="1.25" WIDTH="1.0" HEIGHT="1.0" SHAPE="ELLIPSE"
 THICKNESS="0.01" COLOUR="red">
<FILE FILENAME="LOGO60.PNG" />
</GROUP>
<GROUP LEFT="1.5" TOP="2.5" WIDTH="3" HEIGHT="2" SHAPE="BOX" />
</PAGE>
</IDF>
```

Links:
Element Bezier 280
Element Move 286
Element Polyline 287
SHAPE 318

COLOR sample script

This example shows the four attributes for specifying colors in IDF.

The PAGE is cream (BGCOLOR 293) with the string "original text". The string is partially covered by a GROUP with grey background (BGCOLOR) and a green border (BORDERCOLOR 295). This contains an ellipse drawn in red (COLOR 300) with a cyan FILL 304. Another string "New!" in yellow (COLOR) on magenta (FILL) is added on top of the GROUP.

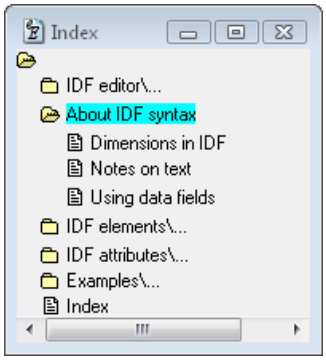
```
<IDF UNITS="INCHES" PAPER="A4" ORIENT="P" >
<IDF UNITS="INCHES" PAPER="A4" ORIENT="P" >
<PAGE BGCOLOUR="100,100,80" >
<TEXT LEFT="0.75" TOP="2" STRING="original text" />
<GROUP LEFT="1" TOP="1.5" WIDTH="3" HEIGHT="2" BGCOLOUR="75,75,75"
BORDERS="L,R,T,B" BORDERSTYLE="DASHED" BORDERCOLOUR="GREEN"
BORDERWIDTH="0.01" SHAPE="ELLIPSE" COLOR="RED" THICKNESS="0.01"
FILL="CYAN" />
<TEXT LEFT="1.5" TOP="2.5" STRING="NEW!" POINTSIZE="18" COLOUR="YELLOW"
FILL="MAGENTA" />
</PAGE>
</IDF>
```

Links:
COLOUR 300

INDEX sample script

This example is an extract from the index of a PDF file:

```
...
<IDF FILENAME="IDF.pdf">
...
<GROUP INDEX="IDF syntax" PAGE="15">
  <GROUP INDEX="Dimensions in IDF" PAGE="15"/>
  <GROUP INDEX="Notes on text" PAGE="15"/>
  <GROUP INDEX="Using data fields" PAGE="16"/>
</GROUP>
...
<PAGE PAGE="15"><INCLUDE/></PAGE>
<PAGE PAGE="16"><INCLUDE/></PAGE>
...
```



Three topics (Dimensions in IDF, Notes on text, Using data fields) are contained within a parent group (IDF syntax) shown in an open folder.

Folders may be opened and closed with a double-click of the mouse.

Links:
INDEX 307

LINEEND, LINEJOIN sample script

Five chevrons are drawn using Polylines 287 in different colors. Each chevron demonstrates the effect of a different combination of LINEEND 308 and LINEJOIN 308 attributes.

A BOX 318 provides reference lines for comparing the positions of the line-ends.

```
<IDF UNITS="INCHES" >
<PAGE THICKNESS="0.5" >
<GROUP LEFT="0" TOP="1" WIDTH="1" HEIGHT="2" COLOR="RED" >
<M X="1" Y="0" />
<P X="2" Y="1" />
<P X="1" Y="2" />
</GROUP>
<GROUP LEFT="1" TOP="1" WIDTH="1" HEIGHT="2" LINEEND="ROUND"
COLOR="GREEN" >
<M X="1" Y="0" />
<P X="2" Y="1" />
<P X="1" Y="2" />
</GROUP>
<GROUP LEFT="2" TOP="1" WIDTH="1" HEIGHT="2" LINEEND="ROUND"
LINEJOIN="ROUND" COLOR="CYAN"  >
<M X="1" Y="0" />
<P X="2" Y="1" />
<P X="1" Y="2" />
</GROUP>
<GROUP LEFT="3" TOP="1" WIDTH="1" HEIGHT="2" LINEEND="ROUND"
LINEJOIN="SQUARE" COLOR="BLUE" >
<M X="1" Y="0" />
<P X="2" Y="1" />
<P X="1" Y="2" />
</GROUP>
<GROUP LEFT="4" TOP="1" WIDTH="1" HEIGHT="2" LINEEND="SQUARE"
LINEJOIN="SQUARE" COLOR="MAGENTA" >
<M X="1" Y="0" />
<P X="2" Y="1" />
<P X="1" Y="2" />
</GROUP>
<GROUP LEFT="1" TOP="1" WIDTH="1" HEIGHT="2" SHAPE="BOX" THICKNESS="0.01"
/>
</PAGE>
</IDF>
```

Links:
LINEEND 308
LINEJOIN 308

LINESTYLE sample script

This is an example of lines found on a map.

```
<IDF UNITS="INCHES" >
<PAGE FONT="Arial" WEIGHT="2" >
<GROUP LEFT="1" TOP="1" WIDTH="5" HEIGHT="1" LINESTYLE="DOTTED">
<P X="2" Y="0" />
<TEXT LEFT="2.1" STRING="Path" />
</GROUP>
<GROUP LEFT="1" TOP="1.25" WIDTH="5" HEIGHT="1" LINESTYLE="DASHED"
THICKNESS="0.02" >
<P X="2" Y="0" />
<TEXT LEFT="2.1" STRING="Bridleway" />
</GROUP>
<GROUP LEFT="1" TOP="1.75" WIDTH="5" HEIGHT="1" LINESTYLE="SOLID"
THICKNESS="0.08" >
<P X="2" Y="0" />
<TEXT LEFT="2.1" STRING="Railway" />
</GROUP>
<GROUP LEFT="1" TOP="2.04" WIDTH="5" HEIGHT="0.1" LINESTYLE="SOLID"
THICKNESS="0.01" >
<P X="2" Y="0"/>
</GROUP>
<GROUP LEFT="1" TOP="1.96" WIDTH="5" HEIGHT="0.1" LINESTYLE="SOLID"
THICKNESS="0.01" >
<P X="2" Y="0" />
</GROUP>
<GROUP LEFT="1" TOP="2.00" WIDTH="5" HEIGHT="1" LINESTYLE="CUSTOM,60,60"
THICKNESS="0.08">
<P X="2" Y="0" />
<TEXT LEFT="2.1" STRING="Single track" />
</GROUP>
<GROUP LEFT="1" TOP="2.5" WIDTH="5" HEIGHT="1"
LINESTYLE="CUSTOM,40,20,10,20" THICKNESS="0.01" >
<P X="2" Y="0" />
<TEXT LEFT="2.1" STRING="County Boundary" />
</GROUP>
<GROUP LEFT="0.75" TOP="0.75" WIDTH="5" HEIGHT="1" LINESTYLE="SOLID"
LINEJOIN="ROUND" LINEEND="ROUND" THICKNESS="0.25" COLOR="CYAN" >
<M X="3.5" Y="0" />
<P X="4.5" Y="1" />
<P X="3.5" Y="2" />
<P X="0" Y="2" />
</GROUP>
</PAGE>
</IDF>
```

Links:
LINESTYLE 309

MONOCHROME sample script

These examples show how changing the threshold values affect the rendering of the same image:

```
<FILE FILENAME="COMPASS.PNG" FILETYPE="PNG" />
<FILE FILENAME="COMPASS.PNG" FILETYPE="PNG" MONOCHROME="25" />
<FILE FILENAME="COMPASS.PNG" FILETYPE="PNG" MONOCHROME="50" />
<FILE FILENAME="COMPASS.PNG" FILETYPE="PNG" MONOCHROME="100" />
<FILE FILENAME="COMPASS.PNG" FILETYPE="PNG" MONOCHROME="200" />
```

Links:
MONOCHROME 310

ROTATE sample script

Example 1 336 shows how TOP,LEFT and X,Y positioning affect rotation of TEXT.

Example 2 337 shows an image ROTATEd 316 and ALIGNed 292 in a grid of square boxes.

Example 1

The strings in the first GROUP are offset from the GROUP origin and resemble a "+" shape in a circle. The starting point for the second GROUP of strings ROTATEs around the edges of the GROUP. The strings in the third group are ALIGNed around the edges of a rectangular box.

```
<IDF UNITS="DOTS" PAPER="A4" ORIENT="P" >
<PAGE>
<GROUP X="500" Y="500" WIDTH="800" HEIGHT="800" SHAPE="ELLIPSE">
<TEXT X="400" Y="400" >X,Y offset 0</TEXT>
<TEXT X="400" Y="400" ROTATE="1">X,Y offset 1</TEXT>
<TEXT X="400" Y="400" ROTATE="2">X,Y offset 2</TEXT>
<TEXT X="400" Y="400" ROTATE="3">X,Y offset 3</TEXT>
</GROUP>
<GROUP X="500" Y="500" WIDTH="800" HEIGHT="800">
<TEXT >X,Y box 0</TEXT>
<TEXT ROTATE="1" >X,Y box 1</TEXT>
<TEXT ROTATE="2" >X,Y box 2</TEXT>
<TEXT ROTATE="3" >X,Y box 3</TEXT>
</GROUP>
<GROUP LEFT="500" TOP="500" WIDTH="800" HEIGHT="800" SHAPE="BOX">
<TEXT ALIGN="CENTRE" >LEFT,TOP box 0</TEXT>
<TEXT ALIGN="CENTRE" ROTATE="1" >LEFT,TOP 1</TEXT>
<TEXT ALIGN="CENTRE" ROTATE="2" >LEFT,TOP 2</TEXT>
<TEXT ALIGN="CENTRE" ROTATE="3" >LEFT,TOP 3</TEXT>
</GROUP>
</PAGE>
</IDF>
```

Example 2

```
<IDF UNITS="INCHES" PAPER="A4" ORIENT="P">
<PAGE>
<FILE FILENAME="compass.png" SHAPE="BOX" Y="1" X="1" WIDTH="2cm"
HEIGHT="2cm" ROTATE="0" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="1" X="2" WIDTH="2cm"
HEIGHT="2cm" ROTATE="1" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="1" X="3" WIDTH="2cm"
HEIGHT="2cm" ROTATE="2" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="1" X="4" WIDTH="2cm"
HEIGHT="2cm" ROTATE="3" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="2" X="1" WIDTH="2cm"
HEIGHT="2cm" ROTATE="0" ALIGN="bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="2" X="2" WIDTH="2cm"
HEIGHT="2cm" ROTATE="1" ALIGN="bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="2" X="3" WIDTH="2cm"
HEIGHT="2cm" ROTATE="2" ALIGN="bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="2" X="4" WIDTH="2cm"
HEIGHT="2cm" ROTATE="3" ALIGN="bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="3" X="1" WIDTH="2cm"
HEIGHT="2cm" ROTATE="0" ALIGN="right,bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="3" X="2" WIDTH="2cm"
HEIGHT="2cm" ROTATE="1" ALIGN="right,bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="3" X="3" WIDTH="2cm"
HEIGHT="2cm" ROTATE="2" ALIGN="right,bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="3" X="4" WIDTH="2cm"
HEIGHT="2cm" ROTATE="3" ALIGN="right,bottom" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="4" X="1" WIDTH="2cm"
HEIGHT="2cm" ROTATE="0" ALIGN="right" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="4" X="2" WIDTH="2cm"
HEIGHT="2cm" ROTATE="1" ALIGN="right" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="4" X="3" WIDTH="2cm"
HEIGHT="2cm" ROTATE="2" ALIGN="right" />
<FILE FILENAME="compass.png" SHAPE="BOX" Y="4" X="4" WIDTH="2cm"
HEIGHT="2cm" ROTATE="3" ALIGN="right" />
</PAGE>
</IDF>
```

Links:
ORIENT 310
ROTATE 318

STEPX sample script

Using STEPX 319 to set up column headings.

```
<IDF UNITS = "CM" PAPER="A4">
<PAGE TOP="4" LEFT="2.5" STEPX="4.0" >
<TEXT STRING="Date" />
<TEXT STRING="Registration number" />
<TEXT STRING="Time in" />
<TEXT STRING="Time out" />
</PAGE>
</IDF>
```

STEPY sample script

Using STEPY 319 to lay out a form.

```
<IDF UNITS = "INCHES" PAPER="A6" ORIENT="L">
<PAGE TOP="1" LEFT="1" STEPY="0.5" >
<TEXT STRING="Name:" />
<TEXT STRING="Address:" />
<TEXT STRING="Postcode:" />
<TEXT STRING="Telephone number:" />
</PAGE>
</IDF>
```

TRIM sample script

An image "logo.png" is placed 1inch from the top of a page being defined in IDF.
The same image is placed 3inches from the top of the IDF page, but with white pixels at the edges TRIMmed 322 off.
The second page of the document "Results pdf" is placed, trimmed, at the lower-right of the IDF page.

```
<IDF UNITS="INCHES">
<PAGE>
<GROUP LEFT= "1" TOP="1" WIDTH="0.5" HEIGHT="0.4" SHAPE="BOX" DEBUG="So
far">
<FILE FILENAME="logo.png" ALIGN="TOP,LEFT" TRIM="NO"/>
</GROUP>
<GROUP LEFT= "1" TOP="3" WIDTH="0.5" HEIGHT="0.4" SHAPE="BOX" DEBUG="So
good">
<FILE FILENAME="logo.png" ALIGN="TOP,LEFT" TRIM="YES"/>
</GROUP>
<FILE FILENAME="Results.pdf" PAGE="2" ALIGN="BOTTOM,RIGHT" TRIM="YES"/>
</PAGE>
</IDF>
```

A DEBUG 301 comment has been placed in each group for monitoring the progress of the document composition. In this example, click the warning button on the *EscapeE* toolbar to display the message in the console log:

```
So far at byte 100
So good at byte 249
```

Links:
TRIM 322

Double page sample script

This IDF script prompts the user for an input file of pages in portrait orientation and then shows it as double-page spreads on landscape pages.

The pages are scaled to fit the length of the input page into the height of the output page. The location of each input page alternates between the top-left and the top-centre of each landscape page so that two pages are placed side-by-side on the output page.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF UNITS="INCHES" PAPER="A4" ORIENT="L">
<FIELD DEFINE="YES" NAME="INFILE" STRING='{"Input file name"}'/>
<GROUP REPEAT="YES" FILENAME="{INFILE}">
<PAGE>
<FILE LEFT="0" TOP="0" SCALE="0.7071" PAGE="NEXT"/>
<FILE LEFT="_PAGE.WIDTH/2" TOP="0" SCALE="0.7071" PAGE="NEXT"/>
</PAGE>
</GROUP>
</IDF>
```

Links:
Positioning and sizing 276
FILENAME 303
NAME 310
REPEAT 316
SCALE 317

Command-line sample script

This example demonstrates the power of running from the command-line. It invokes two control files – an IDF script file 339 and an LOF file 339 – to concatenate a number of data files and append a supplementary page. On the command-line or in the Run box, enter:

```
ESCAPEE /FROM c:\CustomerRecords\Fruit.LOF /JOIN
```

where `Fruit.LOF` is the list of files containing the pages to be output:

Fruit.lof

```
FruitTrees.pdf
FruitBushes.pdf
FruitSeeds.pdf /USING BrochureLast.idf
```

and `BrochureLast.idf` is the IDF file adding the extra page to a standard brochure:

BrochureLast.idf

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF>
<PAGE REPEAT="YES">
<INCLUDE PAGE="NEXT"/>
</PAGE>
<PAGE>
<TEXT ALIGN="CENTRE,CENTRE" FONTSIZE="16 pt" STYLE="1">
With Compliments
</TEXT>
</PAGE>
</IDF>
```

Mail merge sample script

This is the IDF code for a simple document created by the mail-merge wizard.

The "fixed" text of the letter is given in file `Summer1.PCL`. The positions on the page for the "variable" data are given in its "EE" file, `Summer1.ee`. File `contacts.csv` contains field-values in comma-separated format. The mail-merge wizard enables you to associate the `Summer1` fieldnames with the fieldnames given in the first line of `contacts.csv`. It can then create an IDF file to generate one customized page per data record.

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF ENCODING="UTF-8" NAME="Mailmerge" UNITS="INCHES" FONT="Arial"
POINTSIZE="10" ORIENT="P" PLEX="SIMPLEX">
<INFO>
:\DOCUMENT MAILMERGE
</INFO>
<INCLUDE FILENAME="Summer1.ee"/>
<GROUP NAME="Repeat" REPEAT="YES">
<FILE PAGE="NEXT" PREFIX="CSV_" FILETYPE="CSV" FILENAME="contacts.csv"/>
<PAGE NAME="Page1" SIDE="FRONT">
<FILE NAME="OVERLAY" PAGE="1" FILENAME="Summer1.PCL"/>
<TEXT BOUNDS="SURNAME" FONT="Arial" WEIGHT="0" STYLE="0" POINTSIZE="10"
BLANKLINES="NO" ALIGN="LEFT,TOP">
<?EE CSV_SURNAME?>
</TEXT>
<TEXT BOUNDS="ADDRESS1" FONT="Arial" WEIGHT="0" STYLE="0" POINTSIZE="10"
BLANKLINES="NO" ALIGN="LEFT,TOP">
<?EE CSV_ADDRESS1?>
</TEXT>
<TEXT BOUNDS="ADDRESS2" FONT="Arial" WEIGHT="0" STYLE="0" POINTSIZE="10"
BLANKLINES="NO" ALIGN="LEFT,TOP">
<?EE CSV_ADDRESS2?>
</TEXT>
</PAGE>
</GROUP>
</IDF>
```

Links:
Mail merge wizard 359

Part XVII

IDF wizards

IDF wizards

EscapeE is equipped with "wizards" for quickly setting up specialized, but commonly used, documents:

- Composite documents 343
- Mail merge 358

In addition, EscapeE includes dual-mode editor for creating and editing non-standard documents:

- Other documents 362

Links:
IDF syntax 274

Composite documents

Composite documents are created from parts clipped from one or more files which may then be output in a choice of layouts.

- Set up the layout of the new document in the Composite document wizard 344
- Set up the files from which clippings are extracted in the File pages table 346
- Booklet 348 layout
- Multi-column 348 layout
- Close packed 349 layout
- Music part extraction 350 layout
- Select clippings in the Page editor 352 window of the Trimming dialog
- Enter the details of the clippings in the Trimming dialog; see Trimming options 354
- Page numbers and additional text may be added to clippings: see Setting up text 356
- How to re-open the wizard for editing: see Editing a composite document file 357

Links
Mail merge wizard 359
Text mode wizard 362
Tree mode wizard 363

Composite document wizard

First set up the document's layout parameters in the upper panel of the wizard (see below 344), then add file(s) and specify the regions to be clipped from them in the lower panel, see File pages table 346.

1. Click **New...** and select **IDF Document wizard** from the 'File' menu. *Or* Press **Ctrl Z** keys.
2. Choose **Composite document** then click **OK**.
3. If a title page is required, tick **Title page** to display the 'Text for title' edit window. Key in the title-text then close the window (**Alt F4**) to return to the wizard. (You may re-edit the title-page text by clicking **Text...** to re-open the 'Text for title' edit window.)
   'Title page' counts as page1.
4. Choose a layout from the drop-down list:
   - **Booklet** of up to four pages per sheet, see Booklet 348.
     - To allow extra space at the fold, enter a **Binding margin** in the edit-box. This is labeled with the measurement units (set up in the Trimming options 354)
   - **Close packed** to minimize gaps between clip-regions, see Close packed 349
   - **1 column**, **2 columns**, **3 columns**, **4 columns** per page, see Multi-column 348.
     In addition, you may opt to:
     - Tick **Interleave the files**.
       The default is to *deselect* to fill all the columns on a page before printing the next page.
   - **Music part extraction** of parts from a full score, see Music part extraction 350.
     In addition, you may opt to:
     - *Either* tick **Bar numbers** to include the number of the first bar of each staff.
     - *Or* tick **Number staves** to include the stave numbers instead.
5. Enter the type of **Paper** to be used, for example `A4` (see also Paper types 361 and Booklet 348).
6. You may enter a PCL input tray number in the **Tray** edit-box, but it is not normally required and so usually left blank.
7. Select orientation of paper: **Portrait** *or* **Landscape**. (See also Booklet 348).
8. Tick **Repeated** to continue placing clip-regions until they have all been formatted into the document.
9. Tick **Duplex** to print on both sides of the paper;
   deselect to print on one side only (simplex).
   - The exception is Booklet 348: this is always printed in duplex.
10. Enter the **Scale** at which to render the clip-regions.
    - For Booklet 348 the default value is `0.7071`.
    - For all other layouts, the default value is `1`.

11. To set up a template for numbering pages, click **Page numbers...** button: see Setting up text 356. The current template is shown in the panel alongside the button. When the template's 'Alignment' is set to **None** (the default value), this panel is blank and page numbering is switched off.
    You may opt to offset the page-number text from the selected 'Bounds':
    - Enter a horizontal offset distance of the Bounds corner to the closest text corner in the **X** edit-box.
    - Enter a vertical offset distance of the Bounds corner to the closest text corner in the **Y** edit-box.
    - Enter the vertical space allowed for the page numbers in the **Height** edit-box. The default is the natural size of the selected font.

You now need to select the files and the regions within them which you would like to put in your new document: see File pages table 346.

Closing the wizard

The Composite document wizard remains open while you set up the clip-regions for the document, even if you have had the Trimming 354 dialog open. To close the wizard and finish the document:

1. Click **OK**.
2. The IDF editor opens with the IDF code for the document completed.
    - You may make further changes to the document by editing the IDF: see Text mode 362 and Tree mode 363.
3. Click **Save** *or* **Save as...**.
    Enter a **File name** for the file, then **Save** as type **IDF files**.
    The Composite document IDF file is created and displayed in *EscapeE*.

Tips

◇ If you would like to take a quick look at the output but don't need to print the entire file, enter a number in the **Total pages** edit-box. This sets an upper limit on the number of pages processed.

◇ The setup of the wizard can be saved for future reference: click **Save list...** to display a standard 'Save' dialog. Enter a **File name** for the file, then **Save** as type **List of files**.

Links
File pages table 346
Setting up text 356
Paper types 361
Page numbering 356

File pages table

Once you have set up the document's layout parameters in the Composite document wizard 344, you need to specify how each page is to be composed in the wizard's 'File pages' table.

When a file is added to the document, each of its pages is listed in a row of the 'File pages' table. Clicking on a row selects it for processing; for example, you could open the Page editor 352 and use the mouse to drag-out a clip-region. The 'Options' cell of the table-row would be updated with the clip-region's parameters automatically. If you add more than one clip-region from the same page, each new clip-region is added to the table in a new row (with the same 'File page number').

1. Select the file(s) to be processed:
   click **Add files...** and choose file(s) from a standard 'Open' dialog *or* highlight file(s) in your usual File Manager and 'drag&drop' them onto the 'File pages' table.
   (Standard '**Ctrl**+click' and '**Shift**+click' hot-keys may be used for selecting multiple files.)
   - If you have selected 'Music part extraction', *EscapeE* will access the file and display images of its page(s) for editing: see Music part extraction 350.
     Otherwise
   - EscapeE enters the details in the 'File pages' table directly.

   You will see the table of files and pages build at the foot of the wizard. The wizard will take care of the positioning, rotation and ordering of pages dictated by the chosen layout automatically.
   To add more clippings from other files to the document, simply repeat this step.
2. Further features may be accessed by clicking the **More...** button:
   - **Add EscapeE fields** ▸
     Standard 'Open' dialogs are displayed for you to select a file and its EE file. You may opt to:
     - use the **Existing...** fields, *or*
     - set up **New...** fields.
   - **View fields**
     Displays the Trimming dialog with any existing field(s) set up in the Options editor 354.
   - **Text...**
     Enter the text to be placed on the page: see Setting up text 356.
   - **Split up...**
     When extracting music parts, the split between choirs 355 is deemed to occur when there are no bar-lines joining the staves, other that at the start of the line.
   - **Delete parts**
     Opens 'Delete parts' dialog: enter the range of music parts to be removed, e.g. 3–5.
   - **View IDF in EscapeE**
     Runs another EscapeE and displays the IDF document in its window.
   - **Re-paginate** ▸
     - **Remove all page breaks**
     - **Break at original page breaks**

3. Select clip-regions to be extracted:
   - Click **Trimming...** – see Trimming options 354 *or*
   - *Right*-click a table-row to display the pop-up menu then choose:
     - **Show clip-regions** – see Page editor 352 *or*
     - **Edit the options** – enables you to edit the Element options box directly. E.g.:
       `/WIDTH 8.2667 /HEIGHT 11.6933`.
     - **Show file in EscapeE** – Select a clip-region in the newly opened EscapeE window, and, while holding down the **Alt** key, 'drag-and-drop' it onto the file-table.

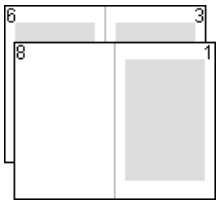
   The 'Options' cell of the selected table-row is updated with the clip-region's parameters. If more than one clip-region has been set up from a page, extra rows containing their details are added to the table.
4. To delete a clip-region from the file-table, click on its row in the table to select it, then:
   - click **Remove** *or*
   - *right*-click and choose **Remove** from the pop-up menu.
5. To change the order of the clips in the file-table, select it then:
   - click **Move up** *or* **Move down** *or*
   - *right*-click and choose **Move up** *or* **Move down** from the pop-up menu.
6. Click **OK**. The IDF editor opens with the IDF code for the document completed.
   - You may make further changes to the document by editing the IDF: see Text mode 362 and Tree mode 363.
7. Click **Save** *or* **Save as...**.
   Enter a **File name** for the file, then **Save** as type `IDF files`.
   The Composite document IDF file is created and displayed in EscapeE.

Links
Composite document wizard 344
Trimming options 354
Page editor 352

Booklet

- On the Composite document wizard 344, select **Booklet** layout from the drop-down list.

When forming a Booklet, up to four clip-regions are placed on each sheet of paper 361 – two on each side. If the clips' orientations are portrait then the Booklet should be printed in **Landscape** and vice versa. *EscapeE* rotates, scales and places the clips on the sheets such that, when folded, they read like a book. The default **Scale** factor is `0.7071` – the optimal value for 'A' series papers. For example, A4 paper folds into an A5-size booklet. In the special case of a two-page booklet, both pages would be printed beside each other on one side of a single sheet (in effect 'simplex').

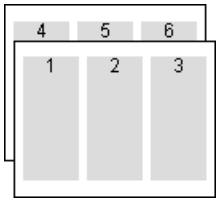


In this example, a 7-page portrait booklet is constructed from two landscape sheets of paper, folded in half. The paper is always printed in duplex, so that the 2nd, 4th, 5th and 7th pages are on the 'back' of the sheets (there is no 8th page, so its half-sheet is blank).

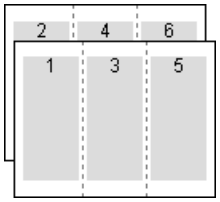
Multi-column

Clip-regions may be formatted into columns within each page.

- On the Composite document wizard 344, select a layout from the drop-down list:
  - **1 column**
  - **2 columns**
  - **3 columns**
  - **4 columns**



Multi-column pages are normally filled by placing one clip-region after the other down the left-hand column to the foot of the sheet then continuing in the next column to the right. A new sheet is started when there is not enough room at the foot of the right-hand column to fit in the next clip-region. (E.g. news-sheet.)



Alternatively, the columns may be **Interleaved**. This allows the sheaf of sheets to be cut into single-column stacks of single-column pages in page-number order. *EscapeE* calculates the total number of columns in the document and formats the clip-regions such that left-hand column of every page would be filled before starting the next column on the first page. (E.g. long list of items.)

Further options may be set up from the Trimming 354 dialog:

- In the 'Margins' panel, enter a width in the **Left** edit-box and a height in the **Right** edit-box.
- In the 'Gaps' panel, enter a width in the **Column** edit-box and a height in the **Row** edit-box.

Links
Paper types 361
Composite document wizard 344

Close packed

- On the Composite document wizard 344, select **close packed** layout from the drop-down list.

When the Close packed layout option is selected and Files added 346, *EscapeE* automatically draws clip-regions around non-blank objects such as lines of text. These clip-regions are rectangular and trimmed of blank (white) pixels. They are placed one after the other down the page(s) with no vertical space between clip-regions.
This is useful for gathering lots of disparate pieces of information together in the minimum of space as a resource document, rather than as a finished document for general publication.

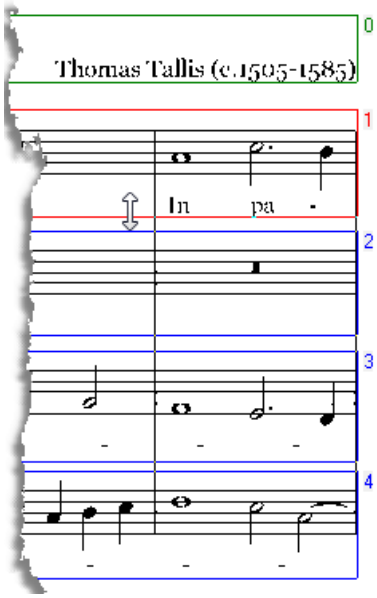
- You may add 'Margins' to a Close-packed document from the Trimming dialog: enter a width in the **Left** edit-box and a height in the **Right** edit-box.

Links
Paper types 361
Composite document wizard 344

Music Part extraction

This layout option separates a full score into sets of pages for individual 'Parts'.

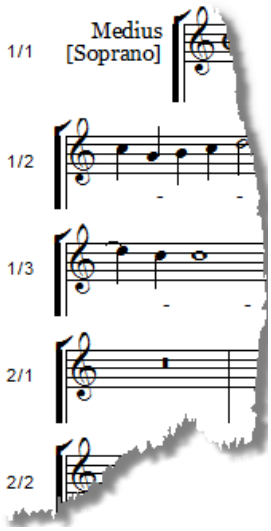
1. Select **Music part extraction** from the drop-down list of layouts and set up the document's parameters, see Composite document wizard 344.
2. You may specify how choir parts are to be assembled in the score. Click **Choirs** to open the 'Defining choir parts' dialog.
   - Key-in part-numbers to define each range e.g. `1-4`.
   - use a semi-colon as separator between ranges e.g. `1-4;5-8;9-14`
3. You may click **Bar numbers** to label the first bar of each staff its bar number *or* click **Number staves** to label the staves in the order that they are retrieved from the File pages table 346. *Or*
   Clear both check-boxes (the default).
4. Click **Add files...** and choose a music file from a standard 'Open' dialog.
   EscapeE will make TIFF images of each page of the music file and then display its first page in the Trimming 354 dialog's Page editor 352.
5. Set up Part extraction:



Any blocks of text or staves that EscapeE detects will be shown enclosed within coloured boxes. Each box denotes a clip region and may labeled with a number or letter on the right.
Size, position, labels and number of Parts can be edited here, either now or later by re-opening this page-editor: see Editing a composite document file 357.
In this example there are six pages containing systems of four Parts, numbered 1 to 4, for extraction. Note the double-headed arrow icon over a red box edge: this demonstrates the mouse being dragged to move that box's boundary. Further editing functions may be accessed from a pop-up menu 353: hover the mouse over a box and *right* click.

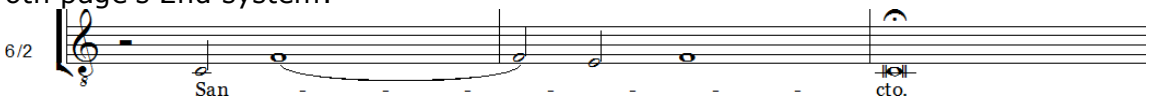
6. When you have finished editing the page, click **OK** to show the next page: it may be edited 357 straight away or later. Repeat the showing/editing of each 'next page' until the last page is done, then click **OK** to close the Page-editor.
7. Click **OK**; see Closing the wizard 345.

EscapeE shows the first page for Part1:



The pair of Stave numbers shown on the left of each staff indicate its original location. E.g. staff "2/1" is the first system on page 2 of the original score.

- You may use the 'Next page' button to step through the all the pages created by the IDF file. In this example, pages 1 and 2 are for Part 1, pages 3 and 4 are for Part 2, etc..
  Thus the last staff on (last) page 8 is for the last line of Part 4, from the original 6th page's 2nd system:



Links
Composite document wizard 344
Page editor 352
Trimming options 354

Page editor

- To display the Trimming 354 dialog's Page editor, open 344 or re-open 357 the Composite document wizard, *right*-click a row of the File Pages table 346 then click **Show clip regions**.

The Page editor opens with the clip-regions outlined in a window below the Options editor 354 panel.

The **Scale** at which pages are shown is set up in the Options editor panel: **`300%`**, **`200%`**, **`150%`**, **`100%`**, **`75%`**, **`50%`**, **`33%`**, **`25%`** *or* **`Fit window`** (the default).

To draw a clip-region

In the Page editor 352 window:

1. Use the mouse to drag out the area of the page to define the clip-region's boundaries then click **OK**.
2. You will be prompted to annotate the clip:
   - If it is a music part 350, enter the number of the part.
   - If it is a Header (repeated at the top of every page) enter **`H`**.
   - If it is a Footer (repeated at the bottom of every page) enter **`F`**.
   - Otherwise enter **`0`** or leave blank.
3. Click **Yes**.

To bring a boundary into view at your chosen Scale 354, press an arrow key:

Arrow up ⊞ top boundary
Arrow left ⊞ left boundary
Arrow right ⊞ right boundary
Arrow down ⊞ bottom boundary

To adjust a boundary's position click on a boundary line then drag and release the mouse button when the line is correctly placed. (The mouse position is shown on the Options editor 354 beside the **Units** drop-down box.)

To shrink the boundary (trimming the white 352 line(s) bordering the inside edge of the boundary), hold the **Shift** key down and press the appropriate Arrow key 352.
If there are no white lines bordering the boundary, the boundary skips to the next white line outside the colored content. On an area of text, for example, pressing of **Shift** key with **Down** key steps the boundary up the to the next line of text.

To expand the boundary so that it includes any white 352 line(s) immediately outside that edge of the boundary, hold the **Ctrl** key down and press an Arrow key 352.
◆ Tip: by default, a line is deemed to be white if it contains no more than 3 colored pixels. To optimize this setting, use the **Threshold** spin-box arrows.

Editing options

- **Right**-click *inside* the boundary line of a clip-region to display a pop-up menu of editing options.

New page **Not new page** **Front page**	See Mail merge wizard 359.
Add field Ctrl A	Use the mouse to sweep out the new clip-region *then* click 'Add field'.
Delete field	◇Tip: it is often easier to 'Delete field' then 'Add field' than to drag a misplaced boundary line to its proper position.
Trim field	Remove any horizontal and/or vertical white 352 lines bordering the contents of the clip-region.
Align field	See Setting up text 356.
Join to field below Ctrl J	Merges clip-regions.
Rotate field	Enter the number of degrees to rotate the top-left corner of the clip-region counter-clockwise, then click 'OK'.
Field is a Header Ctrl H	Clip-region (labeled H 352) repeated at top of each page.
Field is a Footer Ctrl F	Clip-region (labeled F 352) repeated at foot of each page.
Set caption	Enter the caption text in the edit box then click 'OK'. (The text-origin is taken from the position of the mouse on right-click.) ◇Tip: the mouse coordinates are shown below 'Scale' on the Trimming options 354 panel.
Set Clip Region	
Markup selected area Ctrl M	

- To return to wizard 345, click **OK**.

Links
Trimming options 354

Trimming options

The Trimming dialog is accessed from the Composite document wizard: see Composite document wizard 344 or Editing a composite document file 357. It contains an Options editor 354 panel and a Page editor 352 window.

- **To open** the Trimming dialog, *right*-click a table-row to display the pop-up menu then choose **Show clip-regions**.
  Click **OK** to close the Trimming dialog and return to the wizard 344.
- **To open** just the Options editor 354 panel click **Trimming...**.
  Click **OK** to close the Trimming dialog and return to the wizard 344.

Options editor

- Select the Units used in the Trimming dialog from the drop-down list: choose from **PIXELS**, **CM**, **MM**, **INCHES**, **1/300** inch or **1/600** inch.
  The mouse position is shown alongside.
- Select the **Scale** at which pages are shown in the Page editor window: choose from **300%**, **200%**, **150%**, **100%**, **75%**, **50%**, **33%**, **25%** or **Fit window** (the default).

Changes made with the mouse in the Page editor are fed directly into the Options editor. Changes made in the Options editor can be seen into the Page editor by clicking **Apply**. If there are no clip-regions shown in the Page editor when 'Apply' is clicked, *EscapeE* defaults to displaying the clip-regions which it would have selected for a Close packed 349 layout.

These boxes log the part of the original document to be extracted as a clip-region:

Left Distance between left side of clip-region and the origin of the container 276 element (typically the top-left of the PAGE or PRINTABLE page): see CLIPX 299.

Top Distance between top of clip-region and the origin of the container element: see CLIPY 299.

Width Width of clip-region: see CLIPWIDTH 299.

Height Height of clip-region: see CLIPHEIGHT 298.

There are a number of specialist options for music part extraction, see below 355.

Music options

EscapeE recognizes many features of musical notation and can mark out each staff as a clip-region automatically. (You may also create/edit the clip-regions manually using the mouse in the Page editor – see Music part extraction 350.) You can choose which features are to be included in these clip-regions in the Options editor:

Has lyrics	• Tick box to expand each clip-region to include lyric text.
Headers	Header text can be recognized and labeled (`H`). • Tick box to outline a clip-region around each header found.
Footers	Footer text can be recognized and labeled (`F`). • Tick box to outline a clip-region around each footer found.
Tacets	Tacets can be recognized, labeled (`Tacet`), and the clip-region given a gray background. • Tick box to copy the line of another part if tacit.
Calculate bar numbers	Recalculates the bar number for the piece of music it is splitting up.
Field	The field-number in the spin-box identifies the clip-region which is outlined in red in the Page editor window 350. • To select a different clip-region, click the up/down arrow buttons. • In the **X** / **Y** boxes, enter the horizontal / vertical distances to step from one clip-region to the next . • The size of the field is shown in the **Width** and **Height** boxes. Edit these values as required.
Choir Parts	Combines the staves together in 'choirs' as specified in the Splitting 346 dialog.
Scanned	Tick if the input file is an image produced by a scanner (rather than constructed precisely by a program). The image is likely to appear with various degrees of shading and you may need to adjust the thresholds and alignment.
Threshold	A number in the range `0` to `254` that sets the point below which gray is deemed to be 'white'; a value equal to or above this is deemed 'black'. (Default is blank.)
Min stave	The minimum number of black pixels required to recognize a stave line. (Default is blank.)
Max black between	The maximum number of black pixels allowed between `Systems` of staves and between individual `Staves`. (Default is blank.)
Auto-align	Automatically rotate the graphic to correct slight misalignments of staves to the horizontal, *or*
Angle	Enter a number (in degrees) to correct gross misalignments of staves from the horizontal.

Links
Page editor 352

Setting up text

The 'Text' dialog is used for adding page numbers 345 and "more" text to the pages of clippings, see File pages table 346.

1. Enter the text in the window (standard editing options such as cut, copy and paste may be used).
   - For page-numbering use a # character to indicate the insertion point for the digits, e.g. **page #**.
2. Click **Font...** to display a standard Font dialog and set up the font (family, style, colour etc.) to be used for the number string.
3. Select an **Alignment** option...
   - **Top Left**
   - **Top Centre**
   - **Top Right**
   - **Alternate Top Left/Right**
   - **Bottom Left** (the default page numbering option)
   - **Bottom Centre**
   - **Bottom Right**
   - **Alternate Bottom Left/Right** *or*
   - **None** (the default for switching off page-numbering).
4. ... relative to one these **Bounds** areas:
   - **Group**
   - **Page**
   - **Printable area** *or*
   - leave blank (the default).
5. Click **OK**.
   The dialog closes and returns to the Composite document wizard 344.

Editing a composite document file

You may fine-tune the IDF code that extracts the clip-regions when you first set up the Composite document 344 or later, by re-opening the wizard 357 or using the IDF editor 357.

Re-open the wizard

1. Select **Edit control file** from the Edit menu.
2. Click **Yes** to confirm that you would like to edit the Control file using the wizard: the Composite document wizard opens.
3. Select the first of the rows in 'File pages' table for editing:
   - Click **Trimming...** to edit the clip region set-up, see Trimming options 354 *or*
   - *Right*-click then
     - **Edit the options**: enter the clip-region definitions directly in the edit-field *or*
     - **Show clip regions** and use the mouse to define the clip-regions in the Page editor 352.
4. Click **OK** when you have finished editing the page.
5. Click **OK** to exit the wizard.

Using IDF code

1. Select **Edit control file** from the Edit menu.
2. Click **No** when the 'Confirm' dialog prompts you to edit the Control file using the wizard.
3. The IDF editor opens: see Tree mode wizard 363 for details on editing IDF Elements 279 and IDF Attributes 291 for IDF syntax.

Mail merge

Mail merge is normally used to personalize otherwise standard letters by adding details (such names and addresses) read from a data-file.

- How to set up the letter and select the data to merge into it: see Mail merge wizard 359
- Setting up Advanced options – printing, orientation etc.: see Mail merge options 360
- Changing the fields, text and letter files: see Editing a Mail merge file 361
- List of suitable Paper types 361

Links
Composite document wizard 344
Mail merge wizard 359
Text mode wizard 362
Tree mode wizard 363

Mail merge wizard

1. Click **New...** and select **IDF Document wizard** from the 'File' menu. *Or* Press **Ctrl Z** keys.
2. Choose **Mail merge** then click **OK**.
3. Enter *or* **Browse** to select, the CSV file containing the data to be used. The fieldnames found in this file are listed in 'Select the data for this field' list box, in the order in which they occur in the CSV.
   - To list fieldnames in alphabetical order instead, tick **Sort**.
   - Default **PREFIX** for fieldnames is set to **CSV_**.
4. Enter the Paper type 361 for the letter.
5. The tabbed notebook initially shows 'Page 1': enter, *or* **Browse...** to select, the **Name of the file containing the letter or text for this page**. This supplies the fieldnames to the 'Field giving the position on the page' drop-down box.
   - If the file contains more than one page, enter the number of the page containing the required text in the **Page** edit box.
   - Click **Advanced...** to configure further options: see Mail merge options 360.
6. Select a **Field giving the position on the page** from the drop-down list of field names found in the letter file, e.g. TOWN.
   - Specify the origin of the field:
     - Choose one of these horizontal positions from the drop-down list: **Left**, **Centre**, **Right**.
     - Choose one of these vertical positions from the drop-down list: **Top**, **Centre**, **Bottom**, **Baseline**.
   - Select the name of the data-field to provide the data-value for the selected field position from the **Select the data for the field** box. This enters the data field names from the CSV file into the **Text** edit-box. Data field names are shown in upper case with a prefix 315, enclosed by braces, e.g. **{CSV_ADDRESS3}**. Additional text may now be typed into the Text edit-box (the ␣ character indicates a place where the Text editor has wrapped the text to fit the window.)

   Repeat this step for each field on the page.
7. Click **Font...** to open the standard 'Font' dialog and set up the font to be used for the text added to the page. In addition, these parameters may be set up directly in the Mail merge dialog:
   - The font's family and style, e.g. **Arial,Bold**.
   - The font's **Point** size, e.g. **8.4**.
   - The **Vertical spacing** of the lines of text in **Point**s.
8. If another page is required for the letter, select the **New page** tab then repeat steps above 359. See also Editing a Mail-merge file 361.

9. Click **OK**.
   The IDF wizard opens showing the mail-merged letter's parameters ready set up.
10. Click **Save** to display the standard 'Save' dialog. Name the file then click the **Save** button.
    The IDF file is created and displayed in *EscapeE*.

Links
Mail merge options 360
Editing a Mail merge file 361

Mail merge options

A job may require several documents to be generated from each data record: for example, an invoice and a delivery note. You may be set up these extra documents in the 'Mail merge options' dialog.

1. Set up the first document in the Mail merge wizard 359 then click **Advanced**. The 'Mail merge options' dialog is displayed.
2. Select the printing mode for the document from the drop-down list:
   - **SIMPLEX** – default
   - **LONG** – Long-edge binding duplex
   - **SHORT** – Short-edge binding duplex
3. With 'Copy 1' tabbed page on view, select the **Paper** to be used from the drop-down list (see Paper types 361).
4. Select the **Orientation** of the paper from the drop-down list:
   - **P** – Portrait (the default) *or*
   - **L** – Landscape *or*
   - **I** – Inverse (portrait rotated 180°) *or*
   - **J** – Journal (landscape rotated 180°).
5. Enter the number of the **Input tray** to be used.
6. Enter the number of the **Output bin** to be used.
7. Enter, or **Browse** to select, the file containing the letter or text for this page in the **Front overlay** edit-box.
   - If duplex ('long' or 'short', see above 360) is configured, enter (or **Browse** to select) the file containing the letter or text for this page in the **Back overlay** edit-box.
8. If another document is required for the job, click **New copy** tab. A new document set-up is shown as 'Copy 2' and another 'New copy' tab appears. Repeat the steps above 360 to set up the new document.
9. Click **OK**.

◆ Tip: click **Delete copy** to remove any unwanted "copies"; click the last tab to add a 'New copy' tab.

Links
Editing a Mail merge file 361

Editing a Mail merge file

To edit an existing Mail merge 359 IDF file in *EscapeE*:

- Open the IDF file and select **Edit control file** from the 'Edit' menu.
  You will be prompted to edit using the wizard: choose
  - **Yes** to reopen the Mail merge wizard – see below 361, *or*
  - **No**. The 'Source' page of the Console notebook will be displayed and may be edited there like any other IDF source code.

Editing in Mail-merge wizard

1. To edit the fields giving the position on the page, click **Edit fields...**. The file containing the letter/text for the page is opened in another EscapeE window.
   Edit its fields as appropriate then close the window to return to the wizard.
   - Click **Reload**: the wizard updates its field definitions.
2. To edit the file containing the letter/text for the page, click **Edit letter...**. A rich-text editor such as WordPad® is displayed.
   Open the appropriate letter file, then edit, save and close it as usual to return to the wizard.
3. Similarly, to create a new letter/text for a page, click **New letter...** to open the rich-text editor.
   Set up a new filename for the letter file, then edit, save, and close it, returning to the wizard.
4. To remove a page from the letter, select its tab and click **Delete page**.

Links
Mail merge 359

Paper types

When setting up a Composite document 344 or Mail merge 359 using a wizard, enter one of these values for the paper type:

A0 **A1** **A2** **A3** **A4** **A5** **A6**	**ARCHA** **ARCHB** **ARCHC** **ARCHD** **ARCHE** **ARCH30**	**LETTER** **LEDGER** **ANSIC** **ANSID** **ANSIE**	**EXECUTIVE** **LEGAL**

Links:
PAPER 313

Other documents

IDF wizards documents may be customized using its dual-mode editor:

- To type in the IDF script directly see Text mode wizard 362.
- Tree mode wizard 363 presents an interactive schematic view of the IDF script. Its "tree" structure provides an overview which is especially convenient when editing complex documents.
- Clicking on an element in Tree mode displays the Properties editor 364 – just choose the options from its lists and *EscapeE* writes the IDF script for you.

Links
Composite document wizard 344
Mail merge wizard 359
Text mode wizard 362
Tree mode wizard 363

Text mode wizard

To build a new document

1. Click **New...** and select **IDF Document wizard** from the 'File' menu. *Or* Press **Ctrl Z** keys.
2. Choose **Other** then click **OK**.
   This opens the schematic editor (see Tree mode wizard 363) and writes the IDF code necessary to construct a default document containing one blank page.
   - To add to the code that EscapeE has created, select **Text** mode. The window switches to listing the IDF code to construct a default new document 362. Enter the code for your document between the **<IDF>** and **</IDF>** tags: see IDF syntax 274 for descriptions of IDF elements and attributes.
3. To apply a digital signature 288 to the document, tick the **Sign** check-box. You will be prompted to select a **Container** and enter a **Description** on saving the document.
4. Click **Save** and set up an appropriate File name, folder and type in the standard 'Save as' dialog.

Default new document

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<IDF ENCODING="UTF-8" UNITS="DOT600" FONT="Arial" POINTSIZE="10"
ORIENT="P">
<PAGE/>


</IDF>
```

Links
Tree mode wizard 363
IDF elements 279
IDF attributes 291
Sample IDF scripts 328

Tree mode wizard

In **Tree** mode, the wizard displays the document's code schematically. For a new document the window defaults to showing an empty page within the IDF document:

Editing an element

1. Display the Properties editor by:
   - Clicking on an element 279 – it will expand/collapse to show/hide any elements contained within it. *Or*
   - *Right*-click on an element and choose **Properties...** from the pop-up menu.
2. Set up the attributes and values for the element.
   For example, clicking "PAGE" in the schema selects it:
   PAGE
   and displays the Properties editor for the PAGE element 287 – see example in Properties editor 364.
3. When you've finished editing the file, you may click **Save** to update the existing file with the edits *or*
   click **Save as** and create a new file containing the edits while leaving the existing file unchanged since it was last saved.

◆ Tip: if you intend to store all of the files cited in the IDF in the same folder as the IDF file, tick **Relative paths**.

Links
Text mode wizard 362
Properties editor 364

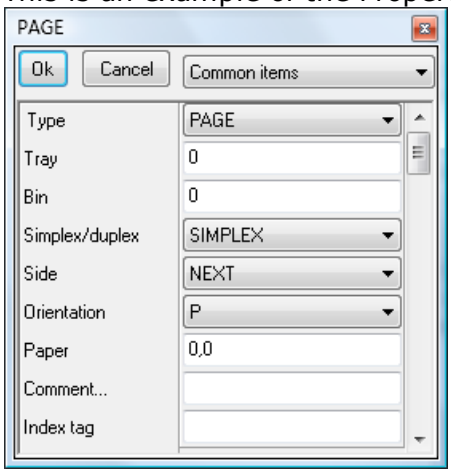
Properties editor

The Tree mode 363 Properties editor lists all of the attributes 364 defined for the particular instance of the selected element, with their values 364.

- To define a new attribute for the selected instance of the element, just select it from the drop-down list on the tool-bar at the top of the editor: it will be added to the Attributes panel.

◆ Tip: IDF supports dozens of attributes; rather than showing **All items** in the tool-bar's list, you may choose to show a reduced list of the most **Common items** or just a list of the **Defined items** instead.

This is an example of the Properties editor for a PAGE element 287:



Type

The *type* of element is shown at the top of the Properties editor's Attributes 364 panel (PAGE in the example 364 above). This may be changed by selecting the new **Type** from the drop-down list alongside.

Attributes

The *attributes* (and their values 364) for the selected element are listed below Type 364. In the example 364 above, the attributes shown in the toolbar's drop-down list have been restricted those most commonly used only, for convenience.

Values

Attributes of the selected element are listed in the panel with their *values* alongside. Many attribute values can be edited by choosing from drop-down list (e.g. **Units** 323), some can be edited by keying the new value directly into an edit box (e.g. **Left** 307), and those which are underlined can be clicked to display dialogs (e.g. **Font...** 305).

- When you have finished setting up the properties of the particular element, click the **OK** button on the toolbar. Any alterations which you have made in the Properties editor will be coded into IDF automatically. *Or*
- Click **Cancel** to ignore the alterations to that element and close the Properties editor.

Links
Tree mode wizard 363

Part XVIII

Running tasks

Running tasks

Experts may set up custom "jobs" and "shortcuts" and run *EscapeE* from the "command line".

- How to create shortcut icons to run tasks manually or automatically: see Shortcuts - the easy way to construct a command line 367
- How to construct command lines to run tasks: see Run from the command line 368
- How to set up and run jobs from customized INI files: see Run custom jobs 370
- About the **`GetExitCodeProcess`** call used by programs running EscapeE automatically and the **`/PIPE`** command: see Run from a program 371.

(See Running EscapeE 43 for general usage instructions.)

Shortcuts

You may change the *EscapeE* Configuration options and keep them as your default set-up using **Save**, see Setting General export options 124. In addition, you may set up one or more "Shortcuts" with alternative configurations, each customized for a specific task. You may choose to place each of these shortcuts as an icon on your Start menu, desktop or elsewhere: see To create a special shortcut icon 367, below.

If you wish to run EscapeE continuously and monitor a particular folder for files with other extensions, you can add the special icon to the Windows StartUp group. See To run EscapeE continuously from startup 367, below.

Expert users can set other options from the command line and to do this a special icon can be created manually, with options added to the command line and the icon can then be moved to the StartUp group. See Run from the command line 368.

To create a special shortcut icon

1. With EscapeE running, select **Configuration...** from the 'Options' menu.
2. Set up options as required on the tabbed pages (Printer 108, Viewing 57, TCP/IP 129, Layout 239, Log file 237, Images 141, Automatic 127, General 124 and its further format-specific options).
3. Click **Shortcut...**; the commands to carry out the special options are already entered into the 'Arguments' box.
4. The default setting is to create the icon in the Windows Start menu, as shown in 'Shortcut location'. To change the location of the shortcut, select:
   - **Desktop** to create an icon on the desktop, *or*
   - **Elsewhere** and click **Browse** to select another path.

Every time you run this version of EscapeE the options you specified for it will be used.

To run EscapeE continuously from startup

With EscapeE running, select Configuration... from the 'Options' menu.

1. On the **Automatic** page, set the folder you wish to monitor using wildcards 136.
2. Set any other options, such as the output format 128 and the time interval 127 between checks.
3. Click **Shortcut...**.
4. Select **Elsewhere** and click **Browse**.
5. Locate the **Windows StartUp** folder.

EscapeE will automatically run at startup and monitor the folder you choose.

Links
Run from the command line 368

Run from the command line

Applies to EscapeE Professional and Batch Automation editions 450 only

Advanced users can run EscapeE from the command line of the program for batch or unattended usage. The Shortcut dialog provides a convenient way of setting up options, see Shortcuts - the easy way to construct a command line. 367 It is also possible to save a configuration as an ***.INI** file (use **Save As...** from the Options menu's Configuration 124 dialog) and invoke it later using the syntax:

ESCAPEE ^^configname

The name of a file may be specified on the command line and may be followed by a space and one or more options 383.

A wildcard specification may be given if desired, e.g.:

ESCAPEE *.PRN *or* **ESCAPEE C:\TIFFS**

which is equivalent to **ESCAPEE C:\TIFFS*.LSH**

To extract file data and incorporate it into the folder name you need to give an output file specification that includes an equals sign, which will be substituted by the data extracted from the field. For instance

escapee dir*.pcl /tiff /outspec s:\escapee\=*.tif /mkdir

processes all PCL files with names starting with DIR and converts them to TIFFs, then puts the result in a folder dependent on the field.

The format, the input specification and the output specification are interconnected. If a format is specified on the command line then any default output specification is ignored. For example, to create a PDF from the command line you need to specify the option explicitly:

ESCAPEE c:\temp\test.pcl /PDF

(Note that specifying **ESCAPEE c:\temp\test.pcl** just displays the file.)

The default input and output specifications are mainly of use in continuous (timed) mode: see To run EscapeE continuously from start-up 367 and Setting the Automatic export options 127.

If you specify an output format then you should also specify the input file name (or a wildcard specification) and if you wish to send the output to another folder you must also specify the **/TO** 410 command (not **/OUTSPEC** 384 which is merely the default, and therefore ignored in this case).

For example:

```
"C:\Program Files\RedTitan\software\ESCAPEE.EXE" ^^"c:\INIfiles
\ideatiff.ini"c:\inputfile.pcl /TO c:\output\*.tif /BORDER 0 /TIFF /X
```

(The purpose of the **/X** 411 command is "exit after processing the file or files specified on the command line".)

Printing

To send output to a printer, use the **/PRINT** 385 command. For example,

ESCAPEE TEST.PRN /PRINT

would use the default printer, whereas

ESCAPEE TEST.PRN /PRINT 'My printer'

would use a printer named **My printer**. To ask the user to select a printer, use the ? option:

ESCAPEE TEST.PRN /PRINT ?

Further options may be appended, e.g.

ESCAPEE TEST.PRN /PRINT 'My printer,S'

scales the page to fit the paper.

Background processing

There is a **/DISPLAY** 393 option to show the file in EscapeE and also a **/WINDOW HIDE** 411 option to run minimized in the background while processing, instead. When hidden, the program is not shown on the taskbar, so to close it:

1. Open your system's 'Task Manager' (**Ctrl**+**Alt**+**Del**).
2. Scroll down to the list of 'Background processes' and select **View and Transform (32 bit)**
3. Click **End task**.

Examples: Command lines 436

The following topics define the syntax of the options:

Command line syntax 383
EscapeE configuration symbols 417

Tips

◇ If TIFF generation is selected and there are some fields selected, then a log file in CSV format will be generated. The first field (called **FILENAME**) contains the full file path of each generated TIFF image and the selected fields are extracted from the text for each page.

◇ The option(s) used for a job may be stored in an 'options file' and invoked simply using the /OPTIONS 413 syntax, for example:

```
ESCAPEE /OPTIONS myoptions.OPT
```

IDF note

IDF files 39 may be run from the command line just like any other EscapeE compatible file, e.g.

```
escapee C:\Reports\Winter.idf
```

You may also specify a default file to supply data for the IDF file: add a comma and the filename, e.g.

```
escapee C:\Reports\Winter.idf,North.txt
```

Any FILE 282 or INCLUDE 285 statements in `Winter.idf` which do not specify a filename will use the default file `North.txt`.

Links
Shortcuts - the easy way to construct a command-line 367
Running EscapeE from a program 371

Run custom jobs

Applies to EscapeE Professional and Batch Automation editions 450 only

Experts may set up custom jobs by creating 371 handy lists of the specialized configuration (`.INI`) files likely to be needed in the job. You may then select 370 the appropriate list file at the start of the job and simply choose 370 the INI file from the list whenever you need to switch to a different configuration file.

A job list files may be saved as a simple `.LOF` file or as a `.JOB` file with Comments, see Technical Notes 371.

Selecting a job

1. Display the **General** page of the 'Configuration options' dialog by selecting **Configuration** from the 'Options' menu *or* by pressing function key **f8**.
2. Click **Job types** to display the 'Job selection' dialog.
3. Choose the job from:
   - a **Folder**
     The 'Folder containing ini files' dialog opens: choose the appropriate Drive and Folder then click **OK**. *Or*
   - a **List of ini files**
     The 'Job configuration files' dialog opens: select the appropriate `.lof` or `.job` file then click **Open**. *Or*
   - an **Ini file**
     The 'Job configuration files' dialog opens: select the appropriate `.ini` file then click **Open**.
   - *Alternatively*, opt for **None** to cease running custom jobs. EscapeE reverts to using the default RT.INI file.

   The current configuration file is shown at the foot of the Configuration dialog, e.g.
   `c:\ESCAPEE\SOFTWARE\JOBS\INVOICE1.INI`
4. Click **Save**.

Choosing an INI file

Having all of the relevant configuration (INI) files listed in one job file simplifies the choosing and switching between customized INI files while processing the job. With the job file selected 370:

1. Click **Choose job configuration** from the 'Options' menu.
2. Select the required job configuration (`.INI`) file.
3. Click **Open**.

◆ Tip: you may also view .LOF job files using this dialog by choosing **Lists of files (*.lof)** from the 'Files of type' drop-down list and .JOB files by choosing **All files**.

Editing a job

1. Select **Choose job configuration** from the 'Options' menu.
2. The currently selected **Job type (.ini file)** path is shown: to choose a different job click **Browse** and select it from the 'Job selection' dialog.
3. Click **Edit** to display a Text editor window. The first line of this code is `:\ESCAPEE JOBS`
4. This line is followed by a list of job file paths, one per line.
   - A Comment may be appended to each line provided that the file is saved as `.JOB` instead of `.LOF`.
     - An * placed between the path and the Comment means that only the Comment is displayed.

   See Technical notes 371 below.
5. Edit the list using the Text editor's functions 263 and when done click **Save** (or **Save As...**) on its 'File' menu.
6. Click the 'Exit' button to close the Text editor.

Technical notes

Custom job files must begin with the identifier and option
`:ESCAPEE JOBS`

- LOF type files follow this with a simple list of INI file paths; if a path contains space(s), the path must be enclosed in quotes.
  → Users select from this list of file paths.
- JOB type files may contain Comments to aid the identification of appropriate INI files by Users.
  Type in the list of INI file paths as for an LOF job file. To add a comment to an INI file in the list, enclose its path in quotes and add the text string for the Comment on the same line.
  → Users see a list of the file paths *and* their Comments.
  - Alternatively, the Comment may be preceded by an asterisk to suppress the file path.
    → Users see just the list of Comments.

See LOF details 424, Example .LOF files 435 and Example .JOB files 434.

Run from a program

EscapeE may be run and controlled from an external program such as *EEview* 449 using the `/PIPE` command.

- When calling EscapeE from another program the `/X` 411 option must be specified to cause EscapeE to exit after processing the specified file(s). For example:
  `c:\redtitan\software\escapee.exe d:\data\myfile1234.pcl /pdf /x`
  calls EscapeE, converts `myfile1234.pcl` to PDF format then exits EscapeE.
- Return codes can be obtained using the Windows `GetExitCodeProcess` call. The code is normally zero; non-zero codes indicate errors, see Error return codes 418. If error(s) occur when running in continuous mode or when the `/X` option is supplied, they are noted in an error-log file, see Command line option `/ERRORLOG` 395.
- To suppress the reporting of return codes that would not affect your program adversely, use Command line option `/ERROROK` 395.

/PIPE command

Specify the name of the 'pipe' to be used for communication using syntax:

/PIPE pipename

The batch commands 372 in the table below can be sent to EscapeE on the pipe and will return the result:

- 'OK' if successfully processed *or*
- 'BUSY' if EscapeE is not idle when the command arrives.

ALPHA a	Set the alpha-blend transparency value (**1-255**).
CLOSE	Close the current file.
EXPORT opts	Export the current file using the specified options, which can be any of: **/TIFF p** Output in TIFF format, where p = 1 for single-page, 2 for multi-page TIFFs. **/PNG p** Output in PNG format. **/PDF p** Output in PDF format with options as in PDFOPTS. **/PCL p** Output in PCL format with options as in PCLOPTS. **/PS p** Output in Postscript level 3 format with options as in PSOPTS. **/PAGE n-m** *or* **/PAGES n-m** Specifies page range (default is just the current page). **/RES n** Output image resolution in dpi. **/RUN prog** Specifies a program to run, optionally with parameters all in quotes. If prog is NO then do not run a program. **/TO fn** Specifies an output file name otherwise defaults to input name with an appropriate extension. N.B. the parameters for options such as /PDF are optional and if omitted then the currently configured EscapeE options are used. However in this case the next option, if any, must start with a **/** or a **!** character. The parameter may be in quotes so the null string **''** is equivalent to omitting it.
FIND s	Find the specified string '**s**'.
MENU b	Specify whether the Tool-bar and menus are to be shown or not. **Y** = Yes (default) **N** = No, do not show.
OPEN f	Open file **f**.
PAGE p	Go to page **p**.
PCL [p]	Export to PCL; optional mnemonic codes or numeric flag parameter(s) may be included.
PDF [p]	Export to PDF; optional mnemonic codes or numeric flag parameter(s) may be included.
STATUS	Returns the last error message stored by EscapeE and clears it.
TIPS n	Whether to show the console window or not on encountering errors. **n** = odd: show the console window; **n** = even: do not show the console window.
WINDOW s,l,t,w,h	Specifies state of window on start-up: **s** **0**=Normal, **1**=Minimized, **2**=Maximized **l** Left offset in pixels **t** Top offset in pixels **w** Window width in pixels **h** Window height in pixels.
X	Exit from EscapeE.

The commands in the table below can be sent to EscapeE on the pipe and will take effect immediately, irrespective of whether EscapeE is idle or not. All immediate commands 373 begin with the **!** character.

!DISPLAY b	Sets the display mode, where parameter **b** can take the values: **Y** = Yes, display mode on *or* **N** = No, display mode off. Defaults to returning **Y** (on) if no parameter is specified.
!PAGE	Returns the number of the page currently on view; **0** if none.
!PROCESSID	Returns EscapeE's process ID as a decimal number.
!VERSION	Returns the version number of the EscapeE being run.
!X	Abort.
!ZOOM	Change the zoom factor, where: **1** corresponds to 600 dpi, **2** corresponds to 300 dpi etc.

Links
Error return codes 418
Run from the command line 368
Command line syntax 383

Part XIX

Troubleshooting

Troubleshooting

In reality, a lot of documents contain imperfect code. A document which has been rendered well on one printer may cause problems on another printer. *EscapeE* is able to read a number of formats (see About EscapeE 18) and is powerful enough to recognize aspects of the document likely to cause difficulties.

When this happens, EscapeE displays a warning triangle on its menu-bar and logs the error in the Error messages 62 page of the Console notebook.

- To show a list of specific types of error, click **Problems** from the Help menu *or* click the warning triangle:
  - A tick indicates the error found: click to view the appropriate topic in this Help section.
  - Click **Clear the errors** to remove ticks and messages from the Log.

These topics relate to the specific problems listed:

- A plugin has been configured for a field but it is not enabled for use: see Plugins are disabled 376
- The page may contain marks in the unprintable area: see Printing beyond page bounds 376
- Fonts not downloaded: see Missing fonts 376
- Unknown, unsupported Ignored fonts or images 377
- Font just doesn't look right: see Poor text appearance 377
- Faulty or Unsupported download font format 377
- Hewlett-Packard 18 Graphics Language printer-driver problems: see HP-GL 377
- Dealing with printer-specific HP PJL 76 commands: see Printer Job Language 378
- Handling Kyocera Prescribe 378 commands.
- Document specifies the use of an Unsupported printer language 378
- Incorrect command line: see PDF output file not created 379
- Obsolete or undocumented PCL commands; PCL commands with no useful effect: see Unknown/Ignored command 379

You can access these topics by selecting the **Problems** item on the Help menu; see also Field problems, 215 Ignored fonts, images, shading 59, Handling fonts 33

- If you have tried these suggestions but still cannot resolve the problem, you can send us an example file: see Problem reporting. 379

Plugins are disabled

- One or more fields in the document have been set up to use a *Plugin*, but Plugins have not been enabled.

If you have Plugins installed on your system already, simply clicking the plugins button on the Tool-bar enables them. (If a field uses a plugin and plugins are not enabled by default then you will be prompted to enable them.)

If Plugins have *not* been installed on your system yet, you will need to enter a permission code. This is supplied when you buy Plugins: please contact sales@redtitan.com.

Links
Using plugins 227

Printing beyond page bounds

- Some elements on the page have been drawn partly or entirely outside the printable area of the page.

If you wish to find out which items are involved then click one of the **View** | **Unprintable Area** options 57 or **View** | **Whole Page.** Note that the offending element might be text, line, shading or graphics and could even be white, in which case it would not normally be visible. If you select an area by dragging the mouse, any white elements will become visible against the blue background of the selected area. Note that merely lowering the pen in HP-GL mode causes a dot to be printed and whilst this may not be easy to see it can cause this problem to be signaled. The presence of this problem does not therefore necessarily mean that the result of converting the image will be incorrect even though some items may not be included in the output.

Missing fonts

- Some of the fonts used were not fully recognized because they were not downloaded when the PCL file was created.

A font will not be recognized if it is a resident font not supplied with the standard *EscapeE* Product or if an incorrect selection sequence has been used. The Error messages 62 page of the Console notebook will give extra information e.g.

```
Unknown font {esc}(9E{esc}(s0p18.91h10vs2b3T used weight 3 not 2 at byte 313
```

The first part of the message gives the complete PCL font selection sequence 86 that was used to select the font and there may follow an explanation of the most important reason why no exactly matching font was found. In the example above, a weight of 2 (semi-bold) was requested but a bold font was the best that could be found. Almost all of the fonts in the standard set are of weight 0 or 3 so that requesting Courier (typeface 3 in the example) with weight 2 is an error.

EscapeE will substitute the most closely matching font and, in most cases, this will yield the same result as on the target printer. There is a fixed-pitch font set that can be downloaded if required, and there is a font pack containing some of the rarely used fonts that can be purchased for a modest sum – contact RedTitan (sales@redtitan.com) for details.

Links
Handling fonts 33

Ignored fonts or images

- Click **Ignored fonts or images** on the Help menu's **Problems** list to show the errors 62

This may indicate that *EscapeE* has encountered fonts or images which it has been configured to ignore, see Optimizing the output 59. Alternatively, it may have encountered a download font in an unknown or unsupported 377 font format.

Poor text appearance

- This usually means that the wrong font is being used.

There are a number of reasons why this might be. You could try checking whether:

- *EscapeE* has been configured to ignore fonts: see Optimizing the configuration 59.
- A font substitution has been requested: see Font tables 84.
- The font would have been resident on the target printer but EscapeE does not have it: see To display resident fonts table 53.
- There was a problem in reading a download font: see Handling fonts 33.

Unsupported download font format

- The font is in an unsupported format such as Intellifont, or is faulty e.g. has a bad checksum.

HP-GL

'Hewlett-Packard Graphics Language'

All commonly used features of HP-GL are currently supported apart from those that are only appropriate to a continuous-feed plotter. Some plotter drivers make unjustified assumptions about the default configuration which can cause problems. The default HP-GL palette is set to RGB when an IN (initialize) command is encountered, but prior to that only a black pen (1) and a white pen (0) are defined. If the appearance of the page is not correct, contact RedTitan for advice and for news about current releases.

Links
Configuring the printer defaults 108
Command line syntax 383

Printer Job Language

◆ Printer Job Language commands are largely ignored, as they are printer-specific. Contact the RedTitan support desk help@redtitan.com for more help.

You may opt to remove PJL 447 commands or to output PJL Comments 64 when exporting pages in PCL 169, PostScript 186, PDF 175 and PDF/A 180 formats: see Setting General export options 125.

The **PJL_** prefix can be used to construct a composed string 249 for extracting data from a PJL command: see PJL field prefix 214 feature.

Links
PJL Comments 64
Preamble and PJL options 170
Unsupported printer language 378

Kyocera Prescribe

◆ Full support for KYOCERA 448 PRESCRIBE 448 printer description language 447 commands is not currently available though certain commands such as BARC (barcode) are implemented.

The character sequence **!R!** in a print-stream denotes to a KYOCERA printer that one or more KPDL 447 command(s) follow; *EscapeE* displays a warning message when it encounters this sequence. Normally, EscapeE is configured to skip over these command statements, but in the unlikely event that the !R! occurs in the data – not as a command but simply as text – you may select the 'Ignore' option 'Kyocera !R!': see Setting General export options 125.

Contact RedTitan for news about the latest releases.

Unsupported printer language

◆ A PJL 447 command requested a printer language which is not currently supported. *EscapeE* supports:

- PCL 5 and its variants.
- PCLSLEEK, including differing x and y resolutions.
- PCL XL (also known as PCL 6) including embedded JPEG graphics. For information about our products for processing PCL XL please contact help@redtitan.com.

◆ Tip: If you created the file under Windows then try using a PCL5 printer driver instead.

Links
Printer Job Language 378

PDF output file not created

A command line 368 of the form:

```
ESCAPEE c:\temp\test.pcl
```

just displays the file rather than outputting it as you might expect. This is so that double-clicking a file in Windows Explorer views the file rather than creating it.

To create a PDF 384 from the command line you need to specify the option explicitly e.g.

```
ESCAPEE c:\temp\test.pcl /PDF
```

Unknown/Ignored command

EscapeE ignores any PCL commands which would have no tangible effect, such as switching between draft and letter-quality mode.

EscapeE also ignores PCL commands which it does not recognize. There is a huge range of printers supporting different levels of PCL, and some of these make use of obsolete or undocumented PCL commands. There are also a number of obscure or rarely-used commands that have not been implemented in EscapeE. These unknown commands will be ignored, which will not usually cause a problem, but if the appearance is incorrect see Problem reporting 379 for details of how to send RedTitan the file for analysis.

Problem reporting

If you have a problem to report concerning *EscapeE*:

1. Please say what version of EscapeE was used. This can be determined from the About 23 dialog or from the creation time of the **escapee.exe** file.
2. It helps if you give the Email a specific subject (perhaps mentioning the filename).
3. Specify exactly what the problem is e.g. "On page 2 when converting file x.pcl to PDF the text in the first box is in the wrong font".
4. If the file is very large and the problem occurs near the beginning of the file then please do not send the whole file but use EscapeE's **File** | **Save subset** option to extract the first few pages of the file. If you start at page 1 then the resulting file is simply a copy of the beginning of the original file, so will show the same problem.
5. If it's a specially generated file, please try to give it a unique and meaningful name and an extension such as .PCL, .PRN or .PLT appropriate to the type of file.
6. If the file originated on a different system (e.g. a mainframe or UNIX 449® system) then if possible, before sending us the file, it would be a good thing to try printing a few pages to ensure that the file has not been damaged in transmission.
7. Please send the problem to help@redtitan.com rather than a particular person; then if they are on holiday, unwell or very busy your problem will still be looked at quickly.

Links
Troubleshooting 375

Part XX

Reference

Reference

This section brings together technical details and examples for easy reference.

- See Command line syntax index 382 for links to command line options listed in:
- Command line syntax 383 – tables of command line options with descriptions
- How to set up an Options file 413 for repeat jobs.
- Notes on setting up print option code and flag parameters on the command line; syntax tables in mnemonic and numerical order: see Print option flags 413
- The environment symbols in the **.INI** file: see EscapeE configuration symbols 417
- About Error return codes 418, with a list of their values
- Composite fields syntax summary 421 lists the conventions used for setting up composite fields in *EscapeE*. It includes links to topics which describe the syntax in detail
- Bit-wise logic 421 operators **&**, **|**, **¬** used in composite field expressions
- The element tags necessary to create DICOM documents: see Required DICOM tags 423
- About command line options and initial identifiers used in 'List Of Files' Control files and Job files: see LOF details 424
- About Dynamic Linked Libraries and other file types: see Associated files 425
- Table of the file-formats EscapeE can read, create and export: see File formats list 427.
- About PostScript import/export, language levels and font type numbers: see PostScript: levels and types 428.
- PCL tray number, Windows driver number and Output bin lists: see Tray and bin numbers 429.
- Fonts simulated for the printer and Windows® fonts: see Fonts used by EscapeE 430
- Commonly used fonts 431: their Typeface, Style, Weight attributes.
- Tables of commonly used media: see Standard paper and envelope sizes 432.

- Examples index 433

- RedTitan contact details 444 lists our office addresses, telephone numbers and websites etc.
- Notes on some terms and acronyms mentioned in this User Guide: see Miscellaneous notes. 445
- Glossary of programs mentioned in this User Guide: see Product References 448.
- Compare features 450 table of EscapeE editions.

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Command line syntax

Applies to EscapeE Professional and Batch Automation editions 450 only

The syntax and description of each command is listed below. For convenience, the commands are grouped into tables:

Main options 384,

Printer configuration options 387,

Composite document options 391,

Other options 392

plus some Special/obsolete options 412

There is also a list of the commands, in alphabetical order, which link directly to that command's entry in its table; see Command line syntax index 382.

Command line options may be of the form:

```
/<option>
```

i.e. a symbol that opens with a / character, or:

```
/<option> <parameterstring>
```

where a parameter string follows the symbol and is separated from it by a space character. The parameter may be composed of several values, generally separated by a comma. There should be no spaces before or after a comma separator. If a value contains a space character, that value must be enclosed in quotes.

```
/<option> <value1>,<value2>,<'value three'>
```

Options may be concatenated on the command line. Use a space character to end one option before starting the next option with its opening / character, as in this example command line:

```
escapee C:\MyDocuments\Design.pdf /HP /LOG AV
```

Alternatively, the options may be contained in an "options" file which is specified using the /OPTIONS 403 syntax: see Options file 413.

Main export options >

Main (export) command line options

/AFP	Export 144 file to IBM-AFP 119 datastream.
/AFP M	Generate FormDef 145 and export 144 file to IBM-AFP datastream.
/CSV	Export 233 data fields to comma separated 121 values. See also /CSVQUOTE 384 and /CSVSEPARATOR 384 below.
/CSVQUOTE "q" *or* **/CSVQUOTE "'"** *or* **/CSVQUOTE N**	Where **q** specifies the character (other than the default double-quote) in which data-values are enclosed when outputting CSV 445 records. To specify the single-quote character, set **q** to **"'"**. To specify that the data-values are *not* to be enclosed within quotes, set **q** to **N**. See also /CSV 384 above and /CSVSEPARATOR 384 below.
/CSVSEPARATOR s *or* **/CSVSEPARATOR T**	Where **s** specifies a character (other than the default comma) which separates data-values when outputting CSV 445 records. To specify the Tab character as the separator, set **s** to the value **T**. See also /CSV 384 and /CSVQUOTE 384 above.
/FDL	Export 150 file to Forms Description Language 118.
/FONTFILE filename	When exporting to HP-PCL®, the /FONTFILE option 170 requests a separate file containing the downloaded fonts. Each font is marked as "Permanent" and assigned a unique font "ID". Wildcards may be used in the filename e.g. **ESCAPEE myfile /HP /FONTFILE *.HP** See also /HP 384 below.
/HP	Export 167 file to Hewlett-Packard® Printer Command Language 118 format. This option produces entirely new PCL output, incorporating any header pages 214, overlays 210 or plugin 227 amendments. See also /FONTFILE 384 above and /SUBSET 385 below.
/IMG	Export 160 file to Xerox® IMG 120 format.
/INSPEC	Defines the specification for input files when used in timed mode 368, e.g. **ESCAPEE /INSPEC C: \REPORTS*.PCL /PRINT /TIME 30** See also /FILE 412, /OUTSPEC 384 below.
/JPEG	Export 165 file to JPEG 120 format.
/MACRO nnn	Exports a range of pages as a macro 100 with the Permanent Macro 169 flag set in the PCL export options. The macro number defaults to **100** (maximum value **2147483647**). ◇Tip: you can use a batch file to create a PCL macro from a non-PCL file by specifying a subsequent /HP 384 option.
/OUTSPEC f	Defines the default specification for output files when used in timed mode 368. It is ignored if a format (e.g. /TIFF 387) is specified on the command line. See also /INSPEC 384 above and /TO 410 below.
/PDF	Export 172 file to Adobe 448® Portable Document Format 118.
/PNG	Export 141 file to Portable Networks Graphic 120 image.

/PRINT [option [,option...]]

Printer options can be any of:
D formats the output and sends it directly to the printer, bypassing the driver.
- The output format may be appended, see example below;

I images the page in memory before printing (useful for printer drivers which handle fonts with difficulty);
N used to inhibit immediate printing while setting the defaults for future printing.
S scales to fit on the paper when printing. EscapeE chooses an appropriate integer factor automatically.
? to prompt for printer selection.

In addition, you may specify:

- the name of the driver/printer to be used; this may contain field names enclosed in curly brackets. The whole string should be enclosed in quotes.
- option /TO 410: this sends the print file to a file (instead of the printer) but using the printer's driver.

Examples:

```
ESCAPEE TEST.PRN /PRINT D /HP
ESCAPEE MyDocument.pcl /PRINT 'HP Color Laserjet CP2025,I' /to c:\temp\temp.prn
ESCAPEE TEST.PRN /PRINT 'HP LaserJet 4 {field1},S'
```

See also Run from the command line 368.

/PROCESS

Processes the whole file *without* outputting the document. Plugins are called for each page when required, as if in a normal print-run. No output is selected: Configuration is shown as <none>.
See 'No output' note 121.

/PS

Export 182 Postscript 118® Format level 2.

/PS3

Export Postscript® Format level 3.

See also PostScript: levels and types 428.

/RESIZE n,m
or
/RESIZE x,y
or
/RESIZE x,y"
or
/RESIZE p%

This exports the image file in the specified format and scaled to fit the specified size.

To specify the size in *pixels*, width **n** and height **m** must be integers. E.g.:

```
ESCAPEE  C:\Images\background.bmp /RESIZE 1500,250 /TIFF
```

To specify the size in *centimeters*, width **x** and height **y** must be real (i.e. contain a decimal point). E.g.:

```
ESCAPEE  C:\Images\background.bmp /RESIZE 2.54,2 /TIFF
```

To specify the size in *inches*, add a double quote; **x** and **y** may be integer or real. E.g.:

```
ESCAPEE  C:\Images\background.bmp /RESIZE 0.67,2" /PNG
```

To specify that the whole image be scaled by a *percentage*, add % (**p** may be integer or real). E.g.:

```
ESCAPEE  C:\Images\background.bmp /RESIZE 33.3% /PNG
```

/SUBSET

Exports a subset 96 of the file as HP-PCL 118.

See also /HP 384 above.

/TEXT

or

/TEXT [option...]

Export 192 file to plain text 121 format.

If no options follow /TEXT, the current text settings are retained.

When no fields are defined and no options follow /TEXT then all of the text on the whole of each page is output as plain text.

These text options may be used in combination:

Y Extract text.
N Do not extract text.

If any options other than Y or N are specified then any default settings are ignored.

T Extracted text is to be in UTF8 Unicode.
U Extracted text is to be in 16-bit Unicode.
X Extracted text is to be in the user's original symbol set.

If none of the options T, U or X is specified, the text is extracted in default Windows® Codepage (19U).

_ (Underscore character) Retain underlining.
H Use the font's cell width for determining the spacing when extracting text.
I Reverse the order of the characters in inverse fonts.
L Left justify.
M Use character mapping derived from the TTLIB 417 character database.
O Obsolete option retained for backwards-compatibility.
P Plain, with no Form Feeds between pages.
R Right justify.
S Nulls are treated as spaces.
V Use the top of the character cell as the reference point rather than the baseline when extracting text.
W Ignore downloaded character widths and recalculate based on raster dimensions.

For example **/TEXT YR**

For plain text Log files 237, you may use:

C to show the number of sides output.
E to show the number of sheets output.

The information is put at the end of the output file.
The side count, if requested, is given first: 1 page or n pages or, if nothing has been output, No pages produced.
If requested, the sheet count: 1 sheet or n sheets comes next.

◇Tip: Used in conjunction with /TO 410, an initial **+** in the output name appends the output to an existing file if it exists, creating a new file if not, e.g.:

```
ESCAPEE D:\REDTITAN\EscapeE\Report*.PCL /TEXT /TO
"+Extracts.txt"
```

/TIFF *or* **/TIFF Y** *or* **/TIFF Nn**	Export 189 file to Adobe® Tagged Image File Format 120. An optional parameter may be specified: **Y** sets TIFF as the default output, **N** shows that TIFF is not the default output and **n** is: **1** to create a single page TIFF (the default) *or* **2** to create a multi page TIFF. E.g. **/TIFF N2**
/UBERED	Export 156 file to HTML5 118 *UberEd* 449 format for subsequent editing and document creation purposes.
/XML	Export 235 data fields to Extensible Markup Language 121 values.

For convenience, files exported using any of these main options are named, assigned the appropriate extension and placed in the originating folder automatically. Used in conjunction with the /TO 410 option, however, you may set up other names and/or destination folders instead.
The main command line options may be followed by a parameter which may begin with V to request that the pages are shown on screen also. It may also specify a time, t, for continuous operation where a scan is made every t seconds, e.g.:
ESCAPEE *.LSH /TIFF V5

Printer configuration options

The following options can be used to initialize some of the parameters that could have been set manually using the printer's front panel:

/BIN n	Sets the default output bin 108. If n is negative then it forces this bin regardless of what is specified in any data files, e.g. **/BIN -2** forces the output to be sent to bin 2. For Postscript 183 printing it may be necessary to define bins corresponding to the PCL 168 numbers. The symbols PSBINS1, PSBINS2 etc. define the output bin names associated with PCL bins 1, 2 etc.
/BOOKLET	To print four 'pages' on each sheet: EscapeE switches the orientation (see /L 389) of the paper (size /PAPER 390). The pages are scaled, rotated and composed so that they are printed in the appropriate order to fold into a booklet. Note: any plugins which print 'on the back' 209 cannot be honored, and (because pages will be processed out of order) fields relying on sequentiality may fail.
/COPIES n	n is the number of copies 110 required. If n is positive the copies are collated. If n is negative they are uncollated. Note that collated copies may result in up to an n-fold increase in file size though fonts and images will only occur once.
/CR **r_low,r_high,** **g_low,g_high,** **b_low,b_high**	Sets the color range for HP-GL plotter pens defined by /PC 390, below. Expressed as three pairs of real numbers defining the lower and upper limits of the **r**ed, **g**reen and **b**lue values. The default values are 0 and 255, i.e. **/CR 0,255,0,255,0,255** Only valid when the number of pen colors is also defined: see /NP 389 below.

/CUSTOM [type,] width,height

Sets up a custom paper 108 size; **width** and **height** are in inches. For example, you may define paper for a letter (portrait) as:

```
/CUSTOM 11.3,17.1
```

When a paper **type** is included in the command, the specified PAPER 390 size is redefined. So a "DL" (landscape) envelope may be changed to 8.4in wide, 3.5in high by:

```
/CUSTOM DL,8.4,3.5
```

/DUPLEX e

Specifies whether to print on one side of the paper only (simplex) or both sides (duplex). A minus character may be used to override the print file setting, so **e** may take these values:

- **L** Long-edge binding duplex.
- **N** Simplex (default).
- **S** Short-edge binding duplex.
- **U** Undefined duplex.
- **-L** force Long-edge binding duplex.
- **-N** force Simplex.
- **-S** force Short-edge binding duplex.
- **-U** force Undefined: removes any duplex specifications from the file, allowing any output document to be printed either simplex or duplex as required.

See also Setting the printer defaults 109 and /DUPSIM, 388 / OUTPLEX 390 below.

/DUPSIM e

Simulates simplex output using duplex; **e** may take these values:

- **L** Long-edge binding
- **S** Short-edge binding

See also /DUPLEX 388 above and /OUTPLEX 390 below.

/EDGE

Request edge-to-edge 108 printing, so that coordinates are measured from the physical edge of the paper.

/HPGL p

Where **p** specifies the parameter(s) for setting up EscapeE HP-GL plotter emulation 114 mode:

Y Engage HP-GL mode

N Engage PCL mode

If neither **N** nor **Y** are specified, EscapeE defaults to engaging HP-GL mode (equivalent to **HPGL Y**)

Supplementary options:

R Specify when rotated 114 embedded bitmapped graphics are required

X Switch from HP-GL to PCL on encountering any Escape sequence 445 (except **Escape%#B** for entering HP-GL mode!)

For example, to stay in PCL initially add **N**:

```
ESCAPEE /HPGL NX
```

/HPTRAYS a,b,c,...

Converts the tray numbers specified in the file to those needed by the Windows printer actually being used (see Media definitions 111). It consists of an ordered list of tray numbers, separated by commas: the 1st number corresponds to "tray 1" specified in the input file, the 2nd number to "tray2" etc..
If the HPTRAYS symbol is not specified then it defaults to
HPTRAYS=1,4,6,2,11,5,7

giving:
source 1 –> upper
source 2 –> manual
source 3 –> manual envelope feed
source 4 –> lower
source 5 –> large-capacity feeder
source 6 –> envelope feeder
source 7 –> auto
(see Tray and bin numbers 429); other numbers are passed straight though.
See also /PSTRAYS 390, /TRAY 391 below.

/L

Set landscape orientation.

/LINEEND

The line-ending sequence:

0	CR -> CR,	LF -> LF,	FF -> FF (the default)
1	CR -> CRLF,	LF -> LF,	FF -> FF
2	CR -> CR,	LF -> CRLF,	FF -> CRFF
3	CR -> CRLF,	LF -> CRLF,	FF -> CRFF

/LINES n

Set initial VMI to allow n lines per page (default is 66).

/MEDIA<name> <tray number>

Associate special media with tray number. Note that there is no space between the MEDIA keyword and the name, e.g.
/MEDIALETTERHEAD 2

/MONO

Causes HP-GL mode to default to a two-pen monochrome palette rather than an eight-pen color palette. See also /NP 389 below.

/NP n

Sets up the number **n** of pen colors for an HP-GL plotter. See also /MONO 389, /PW 390 and /CR 387.

/ORIENT x

Set **x** equal to:
P for Portrait,
L for Landscape,
I for Inverted portrait,
J for Journal (inverted landscape) *and/or*
A for Automatic 110 font rotation to match orientation.
Add ***** to force the specified orientation: e.g. **/ORIENT *L**

/OUTPLEX [p]

This override feature is only relevant when printing or when exporting to PCL, PDF and PS. It supersedes any other plex configuration options. Normally *p* is omitted so that the plex parameters specified in the input file pass through to the export file. Alternatively, *p* may take these values:

- **N** simplex.
- **L** Long-edge binding duplex.
- **S** Short-edge binding duplex.
- **DL** Long edge Duplex, with blank page on back to simulate 'simplex' sheets.
- **DS** Short edge Duplex, with blank page on back to simulate 'simplex' sheets
- **U** plex is Unspecified: any 'plex' parameters are removed so that there are no plex parameters in document output.

See Simplex and duplex options 113 and /DUPLEX 388 above.

/PAPER p

Sets up a standard paper size 432, where p is one of:

A0, A1, A2, A3, A4, A5, A6,
LETTER, LEDGER, ANSIC, ANSID, ANSIE,
ARCHA, ARCHB, ARCHC, ARCHD, ARCHE, ARCH30,
EXECUTIVE, LEGAL

or **COMMERCIAL, C5, DL, MONARCH** (envelopes).

See also /CUSTOM 388, /TRAY 391.

/PCn r,g,b

Where a number of pens have been defined for an HP-GL printer (see /NP 389), /PCn sets up *relative* color values for each pen. For example:

```
/PC1 255,0,255
/PC2 0,128,255
```

The color values *actually* used are bounded by the range of values set up using /CR 387.

/PSTRAYS n

Defines the input tray name associated with *PCL* tray **n**.

See also /HPTRAYS 389 above, /TRAY 391 below and Tray and bin numbers 429.

/PW[n] pen_width

Where a number of pens have been defined for an HP-GL printer (see /NP 389), **/PWn** sets the width of pen **n** to the specified value in standard HP-GL units of 1/40 mm (~1/1000 inch). E.g.

```
/PW1 40.0
/PW2 25.0
```

If **n** is omitted, all the pens are set to the specified **pen_width**.

See also /PCn 390.

/SELECT f

Define default font f where f is an HP-PCL font selection sequence 86, for example:

```
/SELECT "^(19U^(s0p12h10vsB"
```

Note that the ^ character is used in place of the 'Escape' character in a selection sequence, *except* when used on an MS-DOS® command line with Windows® XP and later systems (a single ^ character has special significance for these systems, so ^^ must be used instead).

Default font is Courier 10 pitch in PC character set (10U).

There is a RedTitan extension of the selection syntax to allow explicit specification of the font name in single quotes instead of a typeface e.g.

```
/SELECT "^(19U^(s0p11.8h11.73vsb'Lucida Console'"
```

See also /PNUMFONT 405, below.

/SHADING s

PCL shading patterns, where s is:

- **0** standard
- **1** fine
- **2** gray-scale solid color.

/SPOT n

Define spot color as RGB.
n is a three-byte color number: Red (low byte), Green, Blue (high byte) converted to decimal e.g. **cyan= 65535**.

/TRAY n

Sets the default PCL input paper tray.
If n is negative then it forces this tray regardless of what is specified in any data files, e.g. **/TRAY -2** forces the input media to be taken from PCL tray 2.
For PostScript printing it may be necessary to define trays corresponding to the PCL numbers.
See also /HPTRAYS, /PSTRAYS above and Tray and bin numbers.

Composite document options

/CAPTURE

Used in conjunction with the the RedTitan® CaptuRedTitan generic Windows® print capture utility, this option is used to pre-define some special fields for creating output filenames using the /TO option.
The document title defines the job title (equivalent to specifying /LPRJOB 'job' on the command line) and the special field **{_Title}**.
The user name defines the user parameter (equivalent to specifying /LPRU 'user' on the command line).
The ID sets the special field **{_Id}**.
The default output file name is set to **{_Title}{_Id}**
For example, a Job titled **My document** with ID **1234** creates a PDF named **My document1234.pdf** by default. This may be overridden using the /TO option.
See also Filenames and widcards.

/FROM filename

Read the named LOF control file.
The default is to export each file in the list of files separately unless the /JOIN command is used.
Further options may be appended; in the example below, only the first page of each file in the list of files is exported.**escapee /from mylist.lof /TIFF /pages 1-1**

/FROM filename ,filenamefield [,startpagefield ,endpagefield]

Read the named CSV control file.
The component files will be treated as if they were a single file with reset commands at file boundaries. A "start" and "end" page may be specified as well as a "file name".
If a **startpagefield** is given but no **endpagefield**, then, if the file name is the same as the previous one, the end page of the previous file is set to one less than the start of the next. In the absence of a **filenamefield** specification the **filename** field is used if it exists, otherwise the first field in the CSV file is assumed to contain the filename.
See also /PAGES below and _numpages symbol.

/JOIN [filename]

Use to treat a list of files as a single (composite 391) document. This is the default for control files which are in CSV format. **/JOIN** may be followed by the control **filename** e.g

```
ESCAPEE /JOIN MYLIST.CSV
```

See also /FROM 391, above.

/SORT s

Use to define an order for processing a list of files (instead of the default order in which they are presented in the control file). Up to three sort levels may be defined.

A single level sort is simply the value of 's' shown below. To precede this by a second level of sorting, multiply the secondary level 's' value by 16 then add the 's' value for the primary sort. Similarly, a third level requires 256*s to be added to the value.

s	sort in order of
1	file path and name, case sensitive
2	file name, case sensitive
3	file extension
4	file size
5	update date
6	creation date
7	access date
8	short 8.3 name
9	uppercase path
10	uppercase name

For example, **/SORT 2** orders by filename only, whereas **/SORT 163** sorts by uppercase name (16*10) then by extension(3).

Other options

/ABORT a,b,c...

or

/ABORT ALL

Use to terminate the processing of the current file if the errors specified occur and take alternative action defined by option /ABORTACTION 392 instead.

The errors ("a", "b", "c" etc.) are specified as a comma-separated list of return codes 418. For example:

```
/ABORT-134..-126,-140
```

aborts on encountering error code **-140** and all the codes in the range (denoted by **..**) **-134** up to **-126** inclusive.

In the special case of **/ABORT ALL**, all errors *not* ignored by the /ERROROK 395 specification will cause an abort.

See also /ABORTLOG 392 below

/ABORTACTION p

This defines the action on aborting a file (see /ABORT 392 above). **p** may be either one or both of the parameters:

A to Abort timed processing and exit.
The default is to ignore the file and continue processing the file.

E to Erase the faulty input file.
The default is to rename it when there has been an error.

See also /ABORTLOG 392 below.

/ABORTLOG xxx

Specifies the path of a folder into which aborted output files and error logs are placed: see /ABORT 392. The input file's disposition depends on the value of the /ERASE 394 option.

/BLANKPAGES y|n

Show blank pages, **Y**(es) or **N**(o). The default is to suppress blank pages.

/BORDER wl,wt,wr,wb
or
/BORDER wlr,wtb
or
/BORDER w

Adds borders 178 of specified widths to all four edges when exporting an image or PDF.

If four values are specified, the first is used to set the left border, the second the top border, the third to set the right border and the fourth the bottom border.
If only two values are specified, the first is used to set the left and right borders and the second to set the top and bottom borders.
If only one value is specified, all four borders are set to that width.

A double quote character in the parameters (integer or real) denotes inches. If **"** is not specified, dimensions are assumed to be in pixels (independent of resolution) when all the parameters are integers, or else centimeters when there are decimal point(s). For example:

```
BORDER 1,0.5
```

gives 1cm wide side borders and top and bottom borders of 0.5cm, whereas:

```
BORDER 1,0.5"
```

gives 1inch wide side borders and top and bottom borders of 0.5inches.

/CALCHDR

Calculate the font header parameters from the font size rather than using the ones supplied. This is sometimes useful (e.g. for FDL forms generation) because some Windows® drivers supply faulty header parameters for download fonts.

/CLIP

Set the Unprintable area 51 with parameters as follows:

- **Y** Crop.
- **N** Outline the valid region.
- **B** Outline if not blank.

/COMMENTS x

Creates up to 26 dedicated fields per page, solely to hold the PJL JOB command line and PJL comment lines. EscapeE assigns each a letter: 'a to z' or 'A to Z'. These are output when exporting to PCL 168, PDF 175, PDF/A 181 and PostScript 185.

- **N** No comments – the default
- **P** Plain text format, e.g.

```
% COMMENT "HEADER PCL" % COMMENT "Driver version
: 02.03"
```

- **X** XML format, e.g.

```
% <RT A='JOB NAME=&34;Magic&34;' B='COMMENT
&34;This is a comment&34;'/>
```

(the UNICODE hex code **34** outputs the double quote character).

See also /PJLPREFIX 405 and /REM 405, below.

/DEFINE fieldname='string'

Defines a field with the given fieldname and assigns it the specified value.

/DISPLAY

Display the page whilst outputting TIFFs, PDFs, Postscript etc.

See also /WINDOW HIDE 411 below.

/DRAW x

Specifies drawing mode, where **x** is:

2 rotates images and PDFs through 180°.

R use rectangles to create horizontal or vertical lines instead of drawing with the current pen in HP-GL.

S draw HP-GL lines using strokes with the appropriate ends (round or square).

RS both **R** and **S** options.

N neither **R** nor **S** options.

M filled areas are merged with the existing page contents.

Q requests EscapeE to perform non-orthogonal image rotation directly rather than using the Windows® coordinate transformation. This technique may be slower, but it handles heavily scaled images better.

X in PCL, this allows cursor commands to set the actual print position to any value, even if it is outside the printable area. Unlike HP-GL printers, PCL printers locate out-of-bounds positions to the boundary of the printable area. This may cause a problem if any marks have been placed in the unprintable area of the page (e.g. comments, layout marks) so that they would not appear on the printed page: kerned characters or rounded positions may protrude into the printable area and show up as visible marks on the page.
/DRAW X may be used to overcome this problem.

The default is to use strokes for all lines and no merge.

This option supersedes the **/USELINES** option.

/DRIVERDEFAULTS

Specify /DRIVERDEFAULTS to ignore the settings given in the original input file and use the printer driver's defaults used instead.

You may choose these defaults (paper type, duplexing and bin selection) from the standard 'Print setup' dialog: see Printer Setup... 107.

/DROP y|n

Action on drag-and-drop. **Y** causes file to be exported, **N** merely views it.

/ENCRYPT recipient_profile

Sets up the default Security profile 177 for encrypting 176 PDF files. A PDF file which has been encrypted on export may only be viewed by the people cited in that profile. E.g.

```
/ENCRYPT my_music_group
```

See also /SIGN 408 below.

/ERASE *or*
/ERASE OK *or*
/ERASE N

When in *timed* mode (see Setting automatic export options 127) this specifies how the input files are treated after processing.

/ERASE (i.e. without parameters) simply erases the input files after processing.

/ERASE OK erases the input files only if they have been successfully processed.

/ERASE N renames the processed input files (usually as *.bak: see /RENAME 406). This is the default action if the erase option has not been specified.

/ERRORLOG <file>

Use to create an error-log file 238 for recording errors (a / REPORT 406 is also generated to place an error 62 summary in the Console notebook), see also Run from a program 371. For example,
/ERRORLOG c:\temp\error.log
creates an error-log file named **error.log** in the **temp** folder. If the error-log file reaches the size of 10 Megabytes it is renamed with a ~ inserted in its extension (**~log** for the example above, erasing any such previous file) and a new **error.log** file is started.
To suppress error log creation, just use
/ERRORLOG
without specifying a file.
See also /ERROROK 395 below and Error return codes 418.

/ERROROK a[,b] [,c..d] *etc*

or

/ERROROK ALL

Use to ignore specified errors, where **a**, **b**, **c** etc. are Error return codes 418 which are to be treated as acceptable and ignored when setting the error return code from EscapeE.
For example, to prevent the red warning triangle 62 being shown when a missing or unknown font is encountered, use:
/ERROROK -136
Use **..** to denote a range of codes, e.g.
/ERROROK -134..-126,-140
ignores code **-140** and all the codes in the range **-134** up to **-126** inclusive.
In the special case of **/ERROROK ALL**, all non-vital errors are ignored.
See also /ABORT 392, /ERRORLOG 395, /REPORT ERRORS 406 and Run from a program 371.

/FDLRES <res>

Sets the dot resolution for FDL form generation, where **<res>** may take the values **300** or **600** dpi.

See also /FDLUNITS 395.

/FDLRIF [option [,option]]

Sets up conversion and format options for exporting a document to FDL.

Conversion options are:

A *or* **Y** to convert the whole page to a graphic (default)
G to convert all non-text items to a graphic

Format options are:

P to output images as PNGs
T to output images as TIFFs

When no options are specified, **/FDLRIF** defaults to converting the whole page into a single image, format RIF 447

See FDL export options 151.

/FDLUNITS <n>

Sets the units used for FDL forms, where **n** may be:

300 dpi (normally the default) *or*

600 dpi: this also sets the resolution default to 600, see / FDLRES 395.

/FIELDCLR c

Defines the color of field data area – such that c is the color number:

c = 65536 * blue + 256 * green + red

where R, G, B values run from 0 to 255.
Defaults to green.

See also /SELCLR 408, /TAGCLR 409, /TAGFIELDCLR 409.

/FIELDDEF file

file is the name and path of the default field definitions file 213 to be used when no /FIELDS 396 option is given.
May contain wildcards 136.

/FIELDNAMES 'string'

Redefines the characters that are allowed in field-names.

The default characters (acceptable to most programs) are:

- hyphen
_ underscore
0..9 digits range
a..z lower-case Roman alphabet
A..Z upper-case Roman alphabet

where .. indicates a range of characters from first to last inclusive.

Specify the new characters to be allowed as a string enclosed in single- or double-quotes. For example:

```
/FIELDNAMES '%,A..Z,a..z£'
```

allows percent, upper- and lower-case alphabets and pound characters.

◇Note that the single- and double-quote, full-stop and comma characters are *never* allowed in fieldnames, even if they are specified in the string either explicitly (as in the example above) or within a range.

/FIELDS file

Use file **file** as the field definitions file.
Defaults to **x.EE** where **x** is the data file name stem, or **DEFAULT.EE** if **x.EE** is not found.

See Field definitions files 212 and /FIELDDEF 396 above.

/FIFO

This 'First In First Out' option processes files in the order of their creation date (i.e. oldest first), not ordered by their update date (the default).

See Setting automatic export options 127.

/FIND 'string'
or
/FIND "string"

Highlights the first occurrence of the string in the document's text. To include a single quotation mark in the string itself, enclose the string in double quotes. To include a double quotation mark in the string itself, enclose the string in single quotes, e.g.

```
/FIND '39.37"'
/FIND "The Winter's Tale"
```

/FLOW

When creating FDL forms generate flowed text rather than using absolute placement. This may result in less than perfect alignment but does allow the text to be changed and reformatted more readily.

/HEADER filename

or

/HEADER filename+

Allows a file to be processed before the main file. This may contain printable pages but is more often used for defining some fonts or macros to be used by the main file. It overrides the Header file specification in the ".EE" field definitions file as set up in the File 213 page of the Field dialog. If the filename is followed by a "plus" sign then the PCL state is preserved after reading the file. Any fonts defined in a such file are retained when reading subsequent files.

See also To set up a header file. 214

/HISTORY n

The number of files in the History list 446 at the foot of the 'File' menu is set to **8** by default. To extend the list, specify the total number of files **n** to be shown, e.g.
/HISTORY 12

In the special case where **n** is set to **0**, the history list is empty: the file names are never written to the INI file 417.

/HOST h

Define the host name or IP address for LPR output 130, e.g.:
/HOST \\mainserver\ourprinter

or

/HOST 192.168.7.15

/IGNORE x

Where **x** equal to:

- **F** ignores downloaded fonts,
- **I** ignores images,
- **K** ignores downloaded fonts if they have a substitute defined,
- **P** ignores paper specifications,
- **S** ignores shading,
- **U** ignores fonts downloaded already,
- **W** ignores white areas,
- **Y** ignores Kyocera command !R!.

See Setting General export options 124.

For example **/IGNORE IS** sets printer to ignore images and shading.
See also Optimizing the configuration 59 and Configuring the printer defaults 108.

/IMAGE x

Where **x** is set to:

B to omit blank pages.

W to create transparent white backgrounds (only relevant to PNG, TIFF).

M to force monochrome pages using default halftone shading.

MD for monochrome output using dithering.

MT[n] for monochrome output using threshold shading where n is a value in the range 1 to 254 (if n is omitted, value defaults to 127). For example:

/IMAGE=MT80 forces monochrome output with a threshold value 80.

/IMAGE=MB outputs halftoned monochrome images with any blank pages omitted.

See Image import/export options. 143

/IMAGECACHE n

Sets the size, in Mbytes, of the cache which EscapeE may use to retain images in memory so as to be able to have multiple references to a single image when exporting to formats such as PDF.

Default image cache size is 200 Mbytes, maximum 1000.

/IMAGERES n

The default Image resolution 132, where if **n** is:

positive it applies to any images whose resolution is zero or unspecified;

negative the resolution **–n** applies to all images, over-riding any specified resolution.

/INI filename

Uses the specified .ini configuration file.

This is the equivalent to specifying **^^ininame** as the first command line parameter but can be configured permanently in the RT.INI file if required.

If the filename is ***** then it tries for a file with the same name as the data file but with extension **.ini**.

See also Setting General export options 124.

/INILOG

Use to log any errors, their date and time, encountered on the EscapeE RT.INI file 417 in a file named **escapee.log** in the Windows® temporary folder (normally **C:\Users\<username>\AppData\Local\Temp**).

/INPORT p

Define name or number of TCP/IP 129 input port.

/INPUT x

The input format, where **x** may be:

AFP – IBM AFP
BMP – Bitmap
CAPSL – Canon
DDF – RedTitan DDF language
DICOM – DICOM medical image
ESCP – Epson printer language (supersedes **EPSON**)* 399
FORM – Field generation for a form* 399
GIF – Graphic Interchange Format
IDF – Intelligent Document Format* 399
JPEG – JPEG photo format
PCC – Lineprinter Control Codes* 399
PCL – HP Printer Control Language
PCX – PC Paint format or DCX (supersedes **DCX**)
PDF – Portable Document Format
PNG – Portable Network Graphic
PS – PostScript
PTRX – Printrex
RS2 – RedTitan Scripting language
RTF – Rich Text Format
STAR – Star POS printer format
TIFF – Tag Image Format
XIMG – Xerox IMG (supersedes **IMG**)
XL – HP PCL 6 (supersedes **PCL6**)
ZJS – Zenographics format

This is useful when the extension or initial bytes of a file are non-standard so that the file's format may not be detected 45. For example, use

```
ESCAPEE /INPUT ESCP
```

*Some import DLLs may take further option(s) given as a string following the import format and separated by a comma.

RTESCPIN module options:

DPI n – dots per inch horizontally
STEP n – vertical step between rows (1, 2 *or* 3)

RTFORMIN module options:

ALL – Fields apply to all pages.
CHECKBOX n – Maximum size of a checkbox in 1/600".
KEEP – Save fields on exiting EscapeE.
MINFIELD n – Minimum size of a box to be considered a field.
PAD n – Padding inside the box containing a field.

RTIDFIN module option:

DEBUG, tag, tag – set debug for specified tags *or*
DEBUG CONDITION, REPEAT, PARSE, COPY, CSV – to debug these operations.

RTPCCIN module option:

ROW – fields' locations given by the 3-digit line-number in columns 1,2,3; the number of lines to skip before printing given in column 4.

For example:

```
ESCAPEE /INPUT PCC,ROW
```

See Input options 47.

/JPEGOPTS option, [option,...] decision, quantisation

This sets up the rules for deciding when to use JPEG compression for an IDF, PDF, PDF/A, PS or JPEG document's image(s) and the compression parameters to be applied.

The **option** parameter(s) can be any combination of:

- **LQ** low quality colour
- **LR** low resolution colour
- **JP** to retain JPEG compression if, and *only* if, the image was originally sourced from a JPEG file.

The **decision** parameter determines whether to use JPEG for images or not, expressed as a percentage:

- **0** never
- **100** always
- **50** 'if appropriate' (default)

(see JPEG compression options 165)

The **quantisation** parameter determines the fineness of the detail of the image. It is specified as a percentage, where 100 is the highest quality. Values typically range from 40 for a coarse image to 70 for a good quality image, see Compression parameters 166.

E.g. **JPEGOPTS LQ,JP,50,40**

/LIB 1

Define the font library 76 search path.

/LINEHEIGHT n

In TXT 193, IDF 158, RTF 187 and UberEd 156 output formats, this defines the minimum vertical distance between the baselines of two words for them to be deemed on different lines. The value of **n** is measured in the units currently configured 58: **dots**, **dot600**, **de**, **cm** or **in**.

See also /TEXTHEIGHT 409 below.

/LOG f

Specifies which fields are to be logged when outputting documents, see Setting Log file options 237.

The parameter consists of appropriate combinations of the option 'flags' listed below. (Options may be dependent on the export format and fields that are to be stored; some are retained for backwards compatibility.)

- **A** all defined fields (see also **S**).
- **B** the log file is to contain *Bates* page numbers (see also **#** and **$**).
- **C** the log file is to be in CSV format.
- **E** write a log record at end of file (see also **+1**).
- **F** the log file is to contain the filenames.
- **H** header-line containing field-names to be *omitted* from CSV log files.
- **L** a new log file is to be generated for each output file.
- **N** no log file to be generated.
- **P** suppress page numbers in log file: the default for CSV, TXT (see also **#**).
- **R** the log file is renamed on completion.
- **S** the selected fields (see also **A**).
- **T** all text: *only* applies to log files in TXT format).
- **V** make one log file entry for every *page* of output: the default for CSV and XML log files (see also **-**).
- **X** the log file is to be in XML format.
- **#** include page numbers in log file: the default for XML format (see also **B**, **P** and **$**).
- **$** include sheet numbers in log file: (see also **B** and **#**).
- **?** write a log file record only when a field specifies it.
- **-** suppress 'one log entry per page output': the default for TXT (see also **V**).
- **~** ignore /LOGTEXT 401 definition when text logging.
- **1** makes one log file entry for each output *file* (see also V).
- **+1** write a log record as if having read the next page *after* the end of file (see also **E**).

For example, use **/LOG AX** to output all fields to XML.

See also /SAVE 407

/LOGFILE <spec>

Specifies the name of the log file. If the <spec> begins with a plus sign the new data are appended to any existing file. The <spec> can be a full path and name or a wildcard e.g. ***.INF**

/LOGTEXT 'string'

Inserts a message in a TXT log file. The string must be enclosed in a pair of single or double quotes, and may contain Special fields in composed strings 247 within it. See also /LOG 401, /SAVE 407 and Examples: Command lines. 436

/LP_DATASIZE n

Used to specify that the size of the file is unknown.

- **n** specifies value (likely user)
- **0** 0 default (Xerox®, nQ 449)
- **-1** 9999999 (HP 448®)
- **-2** hex7fffffff maximum positive integer.

/LPR [hostname]

Where **hostname** is a string 443 specifing the name or "ip address" of the host 129 providing LPD 446 service. This is usually a network printer or a spooling system e.g.:

```
escapee test.txt /hp /lpr 192.168.1.13 /x
```

The string may include field names in braces, e.g.

```
/LPR {hostname}
```

/LPRC 'class'

Specifies the LPR job class identifier. The string 443 may include the name of a field from which the class may be derived. Field names must be enclosed in braces. E.g.:

```
ESCAPEE XX.PCL /PDF /LPR 123.45.67.89 /LPRC
C{classfield}
```

If the field named **classfield** contains the value **12** when the first page is output then the LPR class would be **C12**.

/LPRJOB 'job'

Specifies the name of an LPR output job. The string 443 may include field names in braces, e.g.:

```
/LPRJOB AB{field1}CD{field2}EF
```

if **field1** contains **xxxx** and **field2** contains **yyyy**, the job name would be **ABxxxxCDyyyyEF**.

/LPRL 'L field'

A string 443 to set LPRL field in the control file. The string may include field names in braces.

/LPRQ 'queue'

A string 443 defining the name of LPR output queue, e.g.

```
escapee /LPRQ HeaderPaper.
```

The string may include field names in braces, e.g.

```
escapee /LPRQ {queuefield}.
```

/LPRU 'user'

A string 443 to set LPRL field in the control file. The string may include field names in braces.

See also /LPRL 402 above.

/MENU N

Inhibits display of the EscapeE Tool-bar and menus.

/MKDIR

Create a new directory (folder) if necessary when exporting.

/NEXTPAGE p

Use **p** as the next page number. A positive number assigns that number to the first page of the file and starts numbering the next document where it left off. A negative value ensures that the page number is not saved for the next document and that the number is adjusted by any offset in the /PAGE 403 option.

/NOCACHE

Ensures that EscapeE does not cache any images, which may reduce memory requirements in some cases, though possibly at the expense of speed.

/NQ

Used only for calling EscapeE from the RedTitan 449 spooler *nQ* 449. Use /LPRQ 402 to specify destination spooler folder. To force an exit from EscapeE on completion, use the /X 411 option.

/NQERROR xxx

If an error is found with a file from an *nQ* 449 spooler, then **/NQERROR** moves it to folder 'xxx'. If 'xxx' is null then the output file is left in the input folder, so effectively ignoring the error. See also /NQLOG 403 below.

/NQLOG xxx

Specifies the path of a folder to contain any faulty input file *and* the error log file. Error log files are created with the extension '.log'; for example, if **DFAyyy** is the input file name the error log file will be called **DFAyyy.log**.

/OPTIONS filename

Specifies an *options file* containing a list of one or more command line options, one command line option per line.

See Options file 413 and Examples: Command lines 437.

/PACK p

Defines the image data mode, where **p** is:

- **0** byte aligned (default: no bits set)
- **1** unpacked (raw)
- **3** CCITT group 3 fax compression
- **4** CCITT group 4 fax compression
- **5** LZW compression

TIFF 189 options 190 may be set up by adding flag bits to **p**:

- **16** bit reversal
- **64** End Of Line markers
- **128** single strip
- **256** carry odd bits over to next row

Use **p = -1** to set Packbits compression 133.

/PAGE n-m*s
or
/PAGES n-m*s
or
/PAGES firstpage,lastpage

Process pages **n** to **m** inclusive, broken into sets **s** pages long.
Omit ***s** to process as one file (cannot apply to Subset 96 output).
If **-m** is omitted then process just page 'n'.
To process pages from 'n' to the end of the file, use **/PAGE n-**

Used in conjunction with /FROM 391, fields containing the numbers of a "starting" and an "ending" page may be specified to process logical sets of pages. E.g.:

```
ESCAPEE /FROM CONTROL.CSV /PAGES
STARTPAGE,LASTPAGE /PDF /X
```

See also /NEXTPAGE.

/PCLOPTS n

Define PCL options 168, where **n** is the decimal number made by adding the required flag bits 415 *or* a string of mnemonic codes 413.

/PCLPREAMBLE

Use to output a Preamble in PJL on exporting a document to PCL, see Preamble and PJL options 170

/PCLRES r

Define the initial dot resolution (default is 300).

/PDF-A 'name'

Defines the author 219 of a PDF document. The 'name' parameter is terminated by a space, so if a name includes spaces it must be enclosed in quotes.

/PDF-K 'keyword1 keyword2 ...'

Defines the list of keywords 219 associated with a PDF document. The 'keyword' parameter is terminated by a space, so if there is more than a single word the string must be enclosed in quotes.

/PDF-S 'string'

Defines the subject 219 of a PDF document. Since parameters are terminated when a space is encountered, if the description string includes spaces it must be enclosed in quotes.

/PDF-T 'string'

The **string** defines the title 219 of a PDF document. Since parameters are terminated when a space is encountered, if the title string includes spaces it must be enclosed in quotes.

Superseded by /TITLE 409, /PDF-T is retained for backward compatibility. If /TITLE and /PDF-T are both defined for a document, /TITLE takes precedence.

/PDFOPTS n

Define PDF options 174, where **n** is the decimal number made by adding the required flag bits 415 *or* a string of mnemonic codes 413

/PDFPASS p

Define password 174 required to have full access to a PDF. PDFs encrypted this way cannot be decoded if the password is lost.

/PDFPASSR p

Define password 174 required to have full access to a PDF. RedTitan can recover this type of password if lost.

/PDFPREF

Defines which features of a PDF reader are to be displayed on the screen. Add the flag values:

- **1** Hide the tool-bars
- **2** Hide the menu-bar
- **4** Hide the window interface, i.e. scroll bars and other navigation tools
- **8** Resize the window to fit the first page
- **16** Position window to center of screen
- **32** Put document title in title-bar instead of filename
- **64** Use the full-screen display mode
- **128** Opening display to fit horizontal width
- **256** Opening display to fit vertical height (use **384** for fit-page)

For example:

```
ESCAPEE C:\Sales\Accessories1.pdf  /PDFPREF 128
```

See also PDF Viewer Preferences 221

/PDFREADPASS p

Defines a password 174 for PDF input (independent of the password for output).

/PDFUSER p

Define password 174 to have specified access to a PDF; see /PDFOPTS 404.

/PJLPREFIX p

Sets up a prefix string such that any PJL comment, PJL JOB and PJL JOBATTR items create fields with a name beginning with the prefix.

See also /COMMENTS 393 above and /PJLSEPARATOR 405 below.

/PJLSEPARATOR s

Defines the separator to be used when parsing PJL commands so that prefixed fields may be created: see /PJLPREFIX 405 above. (If no separator is given then separators "colon", "equal" and "space" are sought in that order.)

/PNUM xxx

Define the page number template.

See also /PNUMFONT 405 below.

/PNUMFONT f

or

/PNUMFONT *

Defines the font to use for printing the page number.

f is the full HP-PCL font selection sequence 86, with ^ used to denote the 'Escape' character, e.g.

```
/PNUMFONT ^(19U^(s0p10h12vsb3T
```

Note on Windows® XP and later systems, ^^ must be used to denote the 'Escape' character. (A single ^ character has special significance when used on an MS-DOS® command line for these systems.)

***** is a special case: it suppresses page-numbering by nullifying the font.

See also /PNUM 405 and /SELECT 390 above.

/PSOPTS

Define PostScript options 183, where **n** is the decimal number made by adding the required flag bits 415 *or* a string of mnemonic codes 413.

/PSPREAMBLE

Used for setting up the preamble 170 when exporting a document in PostScript format, see PS export options 185. For example, if re-exporting a file originally from a Xerox printer to PostScript format, the XRX commands can be propagated to the output using

```
ESCAPEE filename /PS /PSPREAMBLE {RT_XRX}
```

/REGISTRY

This option associates 136 the EscapeE program with its standard file extensions in the Registry. Consequently, if you double-click a file listed in your File manager with with any of these extensions:

IDF 446, LSH 446, PRN 447, PCL 447, PLT 447, RS2 447

EscapeE will be called, the file will be opened 44 and on display.

/RELOAD

Automatically reloads a file if it changes (normally the user is asked whether it should reload the file of not).

/REM 'remark'

Enables a comment to be included which is not interpreted by EscapeE.

See also /COMMENTS 393, above.

/RENAME filename

Specify the new filename to be given to input files 127 after they have been processed e.g.

```
*.done
```

The default is to rename processed input files ***.BAK**.

See also /ERASE 394 above.

/REPORT
or
/REPORT ERRORS

Puts an error summary into the Error Log 62 when errors occur in batch 368 or automatic 127 mode. This gives more details of errors such as missing fonts, plus the EscapeE version number and calling command line.

Appending the parameter ERRORS omits any errors ignored by /ERROROK 395 option from the report. May be abbreviated to **E**, for example:

```
ESCAPEE *.pcl /ERROROK -136 /ERRORLOG bad.log /
REPORT E
```

/RES r
or
/RES x,y

Sets the resolution for image generation (default is 300dpi). Different resolutions may defined for 'x' and 'y' directions by specifying two numbers in the range 25 to 600dpi. For example

```
/RES 204,198
```

/ROT r

Specify that pages are to be rotated 48 as follows:

- **0** not rotated (default).
- **1** 90 degrees counter-clockwise.
- **2** 180 degrees (upside down).
- **3** 270 degrees counter-clockwise (90 degrees clockwise).

/RUN p

When EscapeE exports a file, it can run the output to another program.

/RUN Y runs the associated program 136 on outputting the file, even in timed 127 mode.

/RUN N does not run the output file to an associated program.

If **p** is set up to be a program name, that program will be called on completion of the output file and the output file name passed as a parameter. For example:

```
ESCAPEE /RUN myprog
```

runs program **myprog** (which would be found in the EscapeE software folder since no path is specified).

See also /RUNWAIT 406 below.

/RUNWAIT

Waits until the output file is complete before running the associated program.

See also /RUN 406 above.

/SANDBOX

This is used to prevent writing to any folders other than the one from which the input file is sourced.

See also SANDBOX 417 configuration symbol.

/SAVE f

This parameter defines which fields are to be output during export 232 to CSV, XML or TXT. Most are identical to the /LOG 401 options:

- **A** All defined fields
- **B** the log file is to contain *Bates* page numbers (see also **#**)
- **C** the log file is to be in CSV format
- **E** write a log record at End of file
- **F** the log file is to contain the Filenames
- **H** Header-line containing field-names to be *omitted* from CSV log files
- **L** a new Log file is to be generated for each output file
- **N** No log file to be generated
- **P** suppress Page numbers in log file: the default for CSV, TXT (see also **#**)
- **S** the Selected fields
- **T** all Text: *only* applies to log files in TXT format
- **V** make an entry in the log file for every *page* of output: the default for CSV and XML log files (see also **-**)
- **X** the log file is to be in XML format
- **#** include page numbers in log file: the default for XML format (see also **P**)
- **?** write a log file record only if a field specifies it
- **-** suppress 'one log entry per page output ': the default for TXT (see also **V**)
- **~** do not use /LOGTEXT 401 definition when doing text logging
- **1** makes one log file entry for each output *file* (see also **V**).

Note that:

- **R** Renames the main output file (*not* the log file) on completion.

In addition, /SAVE can also take these options:

- **D** Discard list of files previously created; a new output file will overwrite one of the same name created in this run
- **I** for TIFF output: an individual file is created for each page
- **O** a suffix of #1, #2 etc. is added to the filename to make it unique if it would Overwrite an existing file.

/SCALE s

Set viewing scale for when a file is first opened. The scale may be defined as a percentage from 20% to 600% or a scale factor where:

- **-2** View full width of page
- **-1** View all printed data
- **0** View full page
- **1** 600%
- **2** 300%
- **3** 200% etc.

/SCALEMENU s1 s2...

Set up Zoom menu scale list. A scale of 1 corresponds to 600 dpi, 2 to 300 dpi etc.

/SCALING n

Set up gray-scaling of scaled images to improve appearance when they are scaled down in size, where n = c x 4 + m.
'c' is the mode for color output and 'm' for monochrome. The values of c and m are:

- **0** simple scaling
- **1** two-bit scaling
- **2** four-bit gray shading

For example **/SCALING 9** would request four-bit shading for colored output and two-bit for monochrome.

/SELCLR c

Defines the color of highlighted text such that c is the color number:

c = 65536 * blue + 256 * green + red

where R, G, B values run from 0 to 255.
Defaults to cyan.

See also /FIELDCLR 396, /TAGCLR 409, /TAGFIELDCLR 409.

/SHIFT r,d

Moves the whole page, where **r** is the distance right and **d** is the distance down. Use negative values to move the page left/up. Units: 1/600 of an inch. Alternatively, use a double-quote character after the number to denote "inches".

For example, **/SHIFT 1",-2.5"** moves the page 1 inch right and 2.5 inches up.

See Configuring the view. 57

/SIGN certificate_profile

Sets up the default Security profile 177 for digitally signing 176 PDF files. This enables the recipients of the signed PDF file to verify the authenticity of the document. Example:

/SIGN prof_academy

See also /ENCRYPT 394 above.

/SOURCE s

Source of data:

- **R** RedTitan software e.g. Dynamic Document Formatter,
- **W** Windows HP driver,
- **O** Other.

/SPACEWIDTH n

In TXT 193, IDF 158, RTF 187 and UberEd 156 output formats, this sets the minimum width of space required to separate two words.
n is normally given in 1/600th inch dots; when followed by the **%** character this indicates that it is a percentage of the width of the space character; if negative it specifies a percentage of the font height.
The default minimum width is 33% of the space width 99.

/STEM s

Default stem of filename. This is substituted for = in any output file spec if not overridden by a field or special PJL COMMENT 170.

/SUBST f

Gives the name of a file containing font substitutions to be used in the current run, and may contain wildcards 94.

See also /SUBSTDEF 408, below.

/SUBSTDEF f

Gives the default file to be used when no /SUBST 408 option is given.
May contain wildcards 94.

/SYMSET s

Set default symbolset 81.
Commonly used values for s are 2, 3, -29.
To set up automatic symbolset recognition, set s to *

/TAGCLR c

Defines the color of search tag area, such that c is the color number:
c = 65536 * blue + 256 * green + red
where R, G, B values run from 0 to 255.
Defaults to yellow.

See also /FIELDCLR 396, /SELCLR 408, /TAGFIELDCLR 409.

/TAGFIELDCLR c

Defines the color of tag+field area such that c is the color number:
c = 65536 * blue + 256 * green + red
where R, G, B values run from 0 to 255.
Defaults to yellowish-green.
See also /FIELDCLR 396, /SELCLR 408, /TAGCLR 409.

/TEMP ext

Define the extension to be used for temporary files.

/TEXTHEIGHT v

Specifies the inter-line spacing for text extraction 99, determining whether blank lines are inserted between lines. The line spacing **v** is expressed in the currently configured 58 units.

See also /LINEHEIGHT 400 above.

/TIFFORIENT r

Define orientation for TIFFs, where 'r' is:

- **0** no rotation
- **1** 90 degrees counter-clockwise
- **2** 180 degrees counter-clockwise
- **3** 270 degrees counter-clockwise
- **p** rotate landscape pages clockwise to become portrait
- **l** rotate portrait pages clockwise to become landscape.

The addition of an asterisk to any of these options stores the TIFF rotation as zero even when it has been rotated, e.g.
/TIFFORIENT p*

/TIME t

Define the time, t, for continuous operation where a scan is made every t seconds. See Exporting files automatically. 127

/TITLE 'string'

Defines the title of a TIFF 189 or PDF 219 document. If the **string** includes spaces it must be enclosed in quotes.

/TO f

Defines the default specification for output files. For example:

```
c:\MyFolder\*.pcl /TIFF /TO c:\Images\*.tif
```

exports PCL files found in **MyFolder** to the **Images** folder in TIFF format. If /FROM 391 is also specified then the resulting output files are joined together.

Note that the /OUTSPEC symbol (if defined) in the INI file 417 is unchanged.

In the special case of /TEXT 386 export, the specification for output file names may start with a "plus" sign: this appends the output to an existing file or if it does not exist, creates a new file. E.g.:

```
ESCAPEE D:\REDTITAN\EscapeE\Dept*.PS /TEXT /TO
"+AllDeptsData.txt"
```

See also Filenames and wildcards 136 and /OUTSPEC 384 above.

/TRIM

or

/TRIM m

or

/TRIM m,w,h

Remove white space from around any generated images (i.e. printed areas).
The value **m** specifies the chosen area to which any clipping is applied:

- **0** Full page
- **1** Printed region only
- **2** Selected region only
- **3** Printable region only

Specifying **w** and **h** too produces an image **w** units wide, **h** units high.
The default unit is pixels. Using a " specifies inches; a decimal point specifies centimeters (see /BORDER 393).

/TTSUBSET

On export to PDF, only that subset of characters actually used in the document are included in any embedded TrueType font. See PDF export options 175.

/UNINSTALL

Uninstalls 25 EscapeE.

/UNITS x

Engages the dimensions 55 for the mouse coordinates, where **x** is:

- **IN** for inches
- **CM** for centimeters
- **DE** for decipoints (1/720")
- **DOTS** for 1/300"
- **DOT600** for 1/600"
- **USER** for user-defined units (see Configuring the view 58).

If **x** is preceded by an asterisk then mouse coordinates are not shown on the page view.

See also /USERUNITS 410 below.

/USERUNITS n.m

When setting up user-defined units, **n.m** is the factor by which 1/600" pixels are multiplied before being shown, e.g.

```
/UNITS USER /USERUNITS 23.62
```

would set up and show "mm" units. For "mile" units on a 1:50000 map use **760.32**.

See also /UNITS 410 above.

/USING file

Allows the name of a *script* **file** to be given separately from the *data* file e.g.

```
ESCAPEE DFA0001 /USING MAILSHOT.RS2 /NQ /X
```

◇ New: the default stem for output files is taken from the main file rather than the script file. So, for example:

```
ESCAPEE data121219.pcl /USING MAILSHOT.RS2 /PDF
```

creates a file called **data311219.PDF**.
Previously, this would have created **MAILSHOT.PDF**. To output the file with this name now, specify **scriptfile,mainfile**, e.g.

```
ESCAPEE MAILSHOT.RS2;data311219.pcl /PDF
```

/VIEWFIELDS

Option(s) to show fields on a page (see Defining fields and tags 201), where:

A shows All fields,
F shows fields only if Found;
Y is for "Yes, show field names".

For example,

```
/viewfields AY
```

shows all the fields *and* their names.

/VIEWHINTS v

Turn hints 51 on and off. If v is **N** then no hints are shown.

/VIEWPAGE

Sets the page extent 50 with parameters as follows:

P Printable area.
A Unlimited (All). This is the default for plotter mode.
S Paper size. This is the default for PCL mode.

/WINDOW s,l,t,w,h

Specifies state 57 of window on startup:

s **0**=Normal, **1**=Minimized, **2**=Maximized *or* **HIDE**=background processing 369.
l Left offset in pixels.
t Top offset in pixels.
w Window width in pixels.
h Window height in pixels.
See also /DISPLAY 393 above.

/X

Exit after processing the specified file(s).
See Run from a program 371.

/XMLCODE x

Defines the XML encoding scheme, x, where:

1 = "UTF8" the most compact Unicode encoding (XML default)
2 = "ASCII" ASCII (strictly 7 bit)
3 = "ANSI" ISO-8859-1 extended ASCII similar to the Windows® 8-bit codes
4 = "UCS2" 2-byte Unicode as used by Windows NT®
5 = "UCS4" 4-byte Unicode (very bulky).

Special options

These options are obsolete or used for special purposes.

/1BIT	Use Windows® scaling for images rather than 2-bit scaling.
/BMP	Export 141 to MS Windows BMP 120 format.
/DCX	Export 146 file to DCX 119 fax file format.
/FILE filename	Specifies the name of a file which EscapeE will process by default, e.g. **/FILE BILLS_0000_1234567890.PRC** It is a rarely used, since specifying **ESCAPEE /FILE xxx** is equivalent to using the simpler command **ESCAPEE xxx**. See also /INSPEC 384, /OPTIONS 403, /OUTSPEC 384 above
/NOCAMP	Do not use the Windows option to camp on a directory (folder) waiting for changes.
/NOFONTS	Ignore download fonts; use /IGNORE F 397 instead.
/NOIMAGES	Ignore downloaded images; use /IGNORE I 397 instead.
/PCL	This command for exporting files to Hewlett-Packard Printer Command Language format is now obsolete. Use /HP 384 instead to create the PCL output afresh.
/RFFS	Scan the RedTitan fonts rather than using font information files.
/SHORTCUT	Call up the shortcut creation dialog at once.
/SPACEFILL	Space-fill fields.
/TIFFORIENT O	Defined the orientation for TIFFs. Default was P for portrait (i.e. no rotation), L (landscape), I (inverse P) or J (inverse L). Use /TIFFORIENT r 409 instead.
/TIFFRES	A synonym for /RES 406.
/USELINES x	Superseded by /DRAW 394.

Links
Run from the command line 368
IDF syntax 274

Options file

The command line option /OPTIONS 403 is particularly useful when a routine job requires several options or there are several jobs each requiring different options.

It specifies an *options file* (the extension **.OPT** is generally used) which contains a list of one or more command line options. Each line of the file specifies one option. The options – without a preceding / character – should be of the form:

option=value

Options that take values of "yes" or "no" only may be abbreviated to **Y** or **N**, e.g.

```
DISPLAY=Y
MKDIR=N
```

Options that would not normally have a command line parameter need to be in the form:

option=Y

For example:

```
PDF=Y
```

Boolean options are simply stated, e.g.

```
X
```

A file name can be put in the INI file 417 using the FILE 412 option in the options file:

```
FILE=escapee.prn
```

◆ Tip: For backward compatibility, the "equals" sign may be omitted from options statements, but using the = instead is preferred as it brings the syntax into line with that used in INI files.

See Examples: Command lines 437.

Links
Command line syntax 383
Print option flags 413

Print option flags

Command-line options to specify print job set-ups (/PDFOPTS 404, /PCLOPTS 403, /PSOPTS 405) often include one or more parameters. When saving options you may choose whether mnemonic 413 (alphabetic) or numeric 415 parameters are used. The default format (for backwards compatibility) is numeric unless *all* options have been read in mnemonic form.

Mnemonic parameters

To use mnemonic parameters, a sequence of two-character codes is used. The initial letter (upper case) in these two-character codes defines the Class of option:

- **C** Comments
- **F** Fonts
- **G** Graphics
- **M** Macros
- **N** No or do not allow
- **O** Output
- **S** Substitute fonts

For clarity, the codes can be separated by commas:

PDFOPTS FT,NP,NN,OP

or for conciseness, the commas may be omitted and the parameters run together:

PDFOPTS FTNPNNOP

For human readability, however, using upper case for the first letter and lower case for the second letter of each code, e.g.:

PDFOPTS FtNpNnOp

may be a better approach. It also has the advantage that parameters in the same Class 413 can then be compounded, omitting any repeated initial capital letters, e.g.:

PDFOPTS FtNpnOp

▸ See the option flags table arranged in Mnemonic code order 414 below.

Mnemonic code order

Code	Flag	Decimal	Output	Description
Co	$4000000	67108864	All	Store comments in the output file. See also Ox 415, Np 414.
Cx	$1	1	PCL only	If PJL comments are to be saved then save them as XML.
Fa	$800	2048	PDF, PS only	Do not download fonts: all fonts are to be substituted by standard Postscript or Acrobat® fonts.
Fp	$40000	262144	Print formats*	Download fonts before use.
Ft	$1000	4096	Print formats*	Include TrueType fonts in the output file.
Ga	$10000	65536	All	Image the whole page as a graphic.
Gt	$20000	131072	Print formats*	Image all but the text.
Ma	$40	64	PCL only	Macro is to be positioned absolutely.
Mp	$1000000	16777216	PCL only	Make a permanent macro
Mt	$2000000	33554432	PCL only	Make a temporary macro
N4	$10000000	268435456	All	Inhibit CCITT group 4 compression.
Nb	$400000	4194304	PDF only	Skip blank pages.
Nc	$4	4	PDF only	Disable copying of text and graphics from the document.
Ne	$2	2	PDF only	Disable changing the document other than by adding or changing text notes.
Ni	$100000	1048576	PCL only	No scaled images output. See also No 414.
Nj	$80	128	PCL only	Do not use any PJL commands.
Nn	$8	8	PDF only	Disable adding and changing text notes.
No	$100000	1048576	PDF only	Omit the table of contents. See also Ni 414.
Np	$1	1	PDF only	Disables printing the document. See also Cx 414, Ox 415.
Ns	$20000000	536870912	PCL only	Scaled printing forbidden.
O6	$400	1024	All	Request 600 dpi resolution.
Oa	$20	32	PDF only	AES encryption
Oc	$200	512	Print formats*	Combine words into longer text strings where possible.

Oe	$200000	2097152	PDF only	Use 128 bit encryption. See also Ol 415.
Og	$8000000	134217728	PDF, PS only	Output graphics on pass 1, text on pass 2
Oi	$80000	524288	PCL, PDF only	Allow inverse orientations to be displayed upside down
Oj	$40000000	1073741824	All	Jog offsetting required
Ok	$800000	8388608	PDF, PS only	Suppress reordering of shading and graphics.
Ol	$200000	2097152	PCL only	PCL Lightweight Imaging Device. See also Oe 415.
Op	$100	256	All	Compress the PDF output using Flate compression.
Os	$80000000	2147483648	All	Stapling required.
Ox	$1	1	HTML only	Save as XML, not simple HTML. See also Cx 414, Ox 414.
Sb	$4000	16384	Print formats*	Use substitutes instead of any bitmap fonts.
Sn	$8000	32768	Print formats*	Do not use substitute fonts even a substitute font has been specified in the font library.
St	$2000	8192	Print formats*	Use substitutes instead of any True type fonts.

Numeric parameters

The value of an option when expressed numerically is the sum of all the flag-bits. For example, the flag bits ($1000+1+8+$100) add up to $1109; in decimal this option would be keyed-in as:

```
PDFOPTS: 4361
```

▸ See the option flags table arranged in Numeric flag bit order 415 below.

Numeric flag bit order

Flag	Decimal	Code	Output	Description
$1	1	Cx *or*	PCL only	If PJL comments are to be saved then save them as XML.
		Ox *or*	HTML only	Save as XML, not simple HTML.
		Np	PDF only	Disables printing the document.
$2	2	Ne	PDF only	Disable changing the document other than by adding or changing text notes.
$4	4	Nc	PDF only	Disable copying of text and graphics from the document.
$8	8	Nn	PDF only	Disable adding and changing text notes.
$10	16			(unassigned)
$20	32	Oa	PDF only	AES encryption
$40	64	Ma	PCL only	Macro is to be positioned absolutely.
$80	128	Nj	PCL only	Do not use any PJL commands.
$100	256	Op	All	Compress the output (e.g. using Flate compression for PDF).
$200	512	Oc	Print formats*	Combine words into longer text strings where possible.
$400	1024	O6	All	Request 600 dpi resolution.

$800	**2048**	**Fa**	PDF, PS only	Do not download fonts: all fonts are to be substituted by standard Postscript or Acrobat® fonts.
$1000	**4096**	**Ft**	Print formats*	TrueType fonts are to be included in the output file.
$2000	**8192**	**St**	Print formats*	Use substitutes instead of any True type fonts.
$4000	**16384**	**Sb**	Print formats*	Use substitutes instead of any bitmap fonts.
$8000	**32768**	**Sn**	Print formats*	Do not use substitute fonts even a substitute font has been specified in the font library.
$10000	**65536**	**Ga**	All	Image the whole page as a graphic.
$20000	**131072**	**Gt**	Print formats*	Image all but the text.
$40000	**262144**	**Fp**	Print formats*	Download fonts before use.
$80000	**524288**	**Oi**	PCL, PDF only	Allow inverse orientations to be displayed upside down.
$100000	**1048576**	**Ni**	PCL only	No scaled images.
		or		
		No	PDF only	Omit the table of contents.
$200000	**2097152**	**Ol**	PCL only	PCL Lightweight Imaging Device.
		or		
		Oe	PDF only	Use 128 bit encryption.
$400000	**4194304**	**Nb**	PDF only	Skip blank pages.
$800000	**8388608**	**Ok**	PDF, PS only	Suppress reordering of shading and graphics.
$1000000	**16777216**	**Mp**	PCL only	Make a permanent macro.
$2000000	**33554432**	**Mt**	PCL only	Make a temporary macro.
$4000000	**67108864**	**Co**	All	Store comments in the output file.
$8000000	**134217728**	**Og**	PDF, PS only	Output graphics on pass 1, text on pass 2.
$10000000	**268435456**	**N4**	All	Inhibit CCITT group 4 compression.
$20000000	**536870912**	**Ns**	PCL only	Scaled printing forbidden.
$40000000	**1073741824**	**Oj**	All	Jog offsetting required.
$80000000	**2147483648**	**Os**	All	Stapling required.
	-1		All	Resets export options to their default values.

**"Print formats" are those which include the text of the document as strings of characters (e.g. PCL, PDF, PS) rather than just images (e.g. JPEG, PNG, TIFF).*

EscapeE configuration symbols

The default configuration is stored in a number of environment symbols which will normally be set from the program's configuration or main (export) menus.

Most of these symbols are stored in the **[PCLVIEW]** section of the RT.INI file and have the same names as the corresponding command-line option. For example

```
INPUT=PCL
IMAGECACHE=400
```

The following symbols are in the main **[REDTITAN]** section of the RT.INI file:

INSTALLROOTDIR	The path to the RedTitan folder containing folders such as Software, e.g. `c:\Program files\Redtitan\`
RTINI	The name and path of the RTZ licence file 21, e.g. `d:\Software\Redtitan\RTlicence.exe`
RTLANG	Set the language version of EscapeE: **33** = French **34** = Spanish **44** = English **49** = German **55** = Portuguese.
RTLIBROOT	The path to the library 79 root folder containing folders such as Macros.
RTPCLDL	The folder in which the downloaded fonts will be stored.
RTPCLLIB	The folder where the resident fonts are stored.
RTPCLMACROS	The folder in which macros are stored.
SANDBOX	To confine *EscapeE* to accessing files in the starting folder and its sub-folder(s) only (e.g. for testing purposes), set: **SANDBOX=Y** See also /SANDBOX 406 command line option.
TTLIB	Defines the filename of a specific character recognition database 79 to be used by *EEfonts*, e.g. `ESCAPEE /TTLIB TEMP.TTK`. Setting the symbol to **N** in the **rt.ini** file instead, however, prevents the creation of the character recognition database: **TTLIB=N**

See also **/OPTIONS** 403 command line option.

Technical notes

If any errors are encountered in the RT.INI file, EscapeE logs the date, time and details in a file named **escapee.log** in the Windows® temporary folder (normally **c:\Users\<username>\AppData\Local\Temp**). See also **/INILOG** 398.

If the /INI 398 option is specified and the REDTITAN symbol is not found, EscapeE sets up the REDTITAN symbol in WIN.INI if it can write to it, otherwise in the Registry **KEY_CURRENT_USER\SOFTWARE\REDTITAN\REDTITAN**

Error return codes

- If a program 371 calls EscapeE and waits for it to complete, it can obtain the return code using the Windows® **GetExitCodeProcess** call. The code is normally zero.

A positive 418 return code indicates an I/O or system error; a negative 418 number indicates an internally generated error return code. In the case of an error when running in continuous mode or when the /X 411 option is supplied, there will be an entry in the ERROR.LOG file, see Command line option /ERRORLOG 395.

To suppress the reporting of return codes that would not affect your program adversely, use Command line option /ERROROK 395. For example, to ignore errors concerning missing fonts 420 and printing beyond the page bounds 420 use **/ERROROK -133,-136**

Error return codes

1	Illegal file name
2	File not found
3	Illegal path or directory not found
4	Too many open files
5	File access denied
6	Invalid file handle.*
12	Invalid file access code.*
15	Invalid drive letter
16	Cannot remove current directory
17	Cannot rename across drives
32	File open to another user
87	Invalid parameter to a Windows call
100	Reading beyond end of file
102	Attempting to open a file that has no name assigned
103	Reading from or writing to a file that is not open
104	Reading from a file that is not open.*
105	Writing to a file that is not open.*
106	Invalid numeric format
110	The INI file specified on the command line does not exist
112	Not enough disk space
161	Invalid file path
199	Premature end of file encountered.
200	Division by zero.*
201	Range check error.*
202	Stack overflow error.
203	Not enough memory.
204	Invalid pointer operation.*

Codes marked with an * indicate internal errors which should not occur – in the unlikely event that you encounter one, please contact help@redtitan.com.

-1	No file name given
-2	Bad file format
-3	Wrong file type
-11	Key not found
-12	Record too large for buffer
-13	End of file
-14	Bad key
-15	Bad Keyfiles version
-16	Record too large
-17	Operation not allowed
-18	Internal fault
-19	File not open
-29	Bad disk address
-30	Bad block
-33	Bad last block address
-34	Bad record header
-35	Newly allocated block already exists
-36	Block is of wrong type
-37	Bad backward link
-38	Bad forward link
-39	Bad disk address of self
-40	Bad file identifier
-41	Block remains locked
-42	Incorrect index
-100	Zero width image
-101	Null image specified
-102	Unsupported compression mode for type of image
-103	Too many strips
-104	Faulty image
-105	Unable to access raster
-120	Unknown option
-121	No fields defined
-122	Invalid page range
-123	Canceled by user
-124	PDF, Postscript® or PCL® export error
-125	XML error
-126	FDL error
-127	Image error
-130	TCP/IP error
-131	Transform error
-132	Invalid font substitute file

-133 Printing beyond page bounds
-134 Unknown PCL command
-135 Unsupported printer language
-136 Missing/unknown fonts
-137 Unsupported Download Font Format
-138 LZW compression not authorized
-139 AFP error
-140 Unsupported transform
-141 CSV error: invalid comma-separated field
-142 Too many concurrent users
-143 Feature not authorized
-144 Print2PC box not operational
-145 Bad DICOM field
-146 Problem with the Color Management System
-147 Illegal field expression
-148 Invalid control file
-149 Unsupported feature – ignored
-150 Unimplemented feature – problems likely
-151 Minor error reported
-152 Major error reported
-153 Bad file format
-154 Too many colors or patterns
-155 Security Certificate not found
-198 Unable to install font
-199 OpenType® fonts not supported on this system
-200 Not a TIFF file
-201 Unexpected end of TIFF file
-202 Need to use TIFFJPEG unit.*
-203 TIFF & JPEG data inconsistent
-204 Bad JPEG data
-205 No JPEG interchange data present
-206 Unsupported TIFF format
-207 TIFF warning messages given
-208 TIFF – no image present
-300 Not a font database file
-301 Wrong database file version
-302 No suitable character encoding found
-303 Bad TrueType® font
-304 Inconsistent character encoding between fonts with same name
-305 This type of databases cannot be merged with yours
-306 Characters too large to generate

Composite fields syntax summary

Topic	Syntax	Function
▪ Defining field values 253	`{fieldname:=value}`	Assign field value.
▪ Partial fields 251	`{fieldname.size}`	Returns attribute(s) of a field.
	`{fieldname:range}`	Extracts the part of a field value specified by **range**.
	`{fieldname[n]}`	Extracts the **n**th sub-string from the named field.
	`{fieldname[#n]}`	Extracts the **n**th line from a multi-line field.
▪ Numerical conditions 254	`{+fieldname=[integer1],[integer2] [[,integer3],integer4,[integer5]]}`	Defines a counter.
▪ String conditions 257	`{+fieldname=['string1'],['string2']}`	Defines **string1** to be used if a field is found and **string2** if a field is not found.
▪ Page conditions 258	`{=fieldname}`	Assign a null value if the field is not on current page.
	`{+=fieldname['string1'],['string2']}`	Defines **string1** to be used if a field has not changed and **string2** if a field has changed.
▪ User input data fields 258	`{"query"}`	Question prompting the User to enter a value.

Links
Special fields in composed strings 247

Bit-wise logic

Binary logic calculations can be made when fields contain integer values.
This example shows the 5 lowest binary bits (all of the higher bits are zeroes) for two numbers A, B:

	Decimal	Lowest 5 binary bits				
		bit5	bit4	bit3	bit2	bit1
A	7 (=4+2+1)	0	0	1	1	1
B	21 (=16+4+1)	1	0	1	0	1

A "bit-wise" logic operator works with a pair of bits, one from each integer. So in this example, it operates on the **bit1** values of 1 and 1, the **bit2** values of 1 and 0 etc., until the entire integer has been done: so in the case of '32-bit' numbers, this means 32 operations are done in parallel for every pair of integers!
Boolean fields may take one of two values: "-1" equating to True (represented by all bits set to 1) or "0" equating to False (all bits set to 0).
The outcome of the operation depends on the operator – see AND 422, OR 422 and NOT 422 tables below:

& operator AND

Outcome is 0 except when both bits are 1.

	If A is:	
...and B is	0	1
0	0	0
1	0	1

Example:
Binary 111**&**10101 is 101 (i.e. 5 in decimal).

| operator OR

Outcome is 1 except when both bits are 0.

	If A is:	
...and B is	0	1
0	0	1
1	1	1

Example:
Binary 111**|**10101 is 10111 (i.e. 23 in decimal).

¬ operator NOT

This is used to invert the values of the bits. It is commonly used in combination with AND 422 and OR 422 operators.

- **In integer calculations**

If bit is:	0	1
...then outcome is:	1	0

Example:
¬1 is 0.

- **In Boolean expressions**

If value is:	False (0)	True (-1)
...then outcome is:	True (-1)	False (0)

Example:
¬0 is -1.

See Composite field expressions 250.

Links
Composite field expressions 250
Partial fields 251

Required DICOM tags

It is a requirement that certain DICOM tags must be defined to make a valid DICOM document. These tags are listed in the tables below.
The DICOMDIR file indexes these values:

Group Element	Tag name
0008 0020	Study date
0008 0030	Study time
0010 0020	Patient's ID
0020 0010	Study ID
0020 0011	Series number

These tags must be set up on the *first* page of a DICOM document:

Group Element	Tag name
0008 0020	Study date
0008 0030	Study time
0008 0050	Accession Number
0008 0090	Referring Physician's Name
0010 0010	Patient's name
0010 0020	Patient's ID
0010 0030	Patient's date of birth
0010 0040	Patient's sex
0020 0010	Study ID
0020 0011	Series number
0020 0020	Patient orientation

Each succeeding page in a multi-page document steps the "Instance Number" tag by 1, and two "Unique IDentifier" tags are generated automatically by *EscapeE*:

Group Element	Tag name
0020 0013	Instance Number (starts at 1)
0020 000D	Study UID
0020 000E	Series UID

In addition, these tags are propagated (if present) from the first page to all other pages in the set:

Group Element	Tag name
0010 0010	Patient's name
0010 0030	Patient's date of birth
0010 0032	Patients birth time
0010 0040	Patient's sex
0010 1010	Patients age

Links
DICOM medical image export 147
DICOM export options 148
DICOM Element Tags 223

LOF details

EscapeE uses "LOF" (List Of Files) files in a number of ways. All are, in essence, a list of file paths specified in a text file, typically
<filename>.lof

Control files

When used as control files 260, the files in the list are of the form
<filename> /<option> /<option> ...
and will be processed in order (usually, though not necessarily, utilizing the /JOIN 392 option) to create a single composite output file. The file processing options are initialized as specified in configuration files (usually RT.INI 417), modified by any EscapeE command-line 368 options.
See Example .LOF file 434.

The initial identifier
:\DOCUMENT
enables EscapeE to recognize Intelligent Document Format 39 LOF control files. For example, the first line of an LOF Booklet 348 file created by composite document wizard would be
\DOCUMENT BOOKLET
See Example .LOF file 435

LOF files created by the EscapeE **Remember file** feature take the initial identifier
:\ESCAPEE
by itself on the first line, followed by the list of files: see Example .LOF file 434. When the LOF file is viewed in the Text Editor, double-clicking the name of a file in the list will run it, with the specified options, in the EscapeE window, see Creating a data control file 262.

- EscapeE's Command-line options 383 may be appended to any component document's filename in an LOF file, see Example Command lines 436. The options commonly used in LOF files are listed below 425.

Job files

If the initial identifier :\ESCAPEE is given the option "JOBS",
:\ESCAPEE JOBS
EscapeE will recognize the file paths as a list of INI configuration files. These files are not processed like control files 424: they are provided as a convenient resource for Users to select appropriate INI files for the job in hand, see Run custom jobs 370. If the file is saved with the extension .JOB instead of .LOF, Comments 371 may be appended to the file paths: see Example .LOF file 435 example and Example .JOB file 434.

Frequently used options

/DEFINE fieldname=value 393
Defines a field.

/ERASE 394
Erases that input file once the LOF has been exported.

/FIELDS fieldsfile 396
Specifies that ".EE" **fieldsfile** is used to provide the field definitions for that component document.

/REM 'remark' 405
For placing a comment in the code which will be ignored by EscapeE.

/PAGES n-m 403
To include a sub-set of pages from the specified file rather than the whole file; for example
"s:\escapee\archive\reviews.pcl" /pages 2-3

Associated files

Separate DLLs (Dynamic Link Libraries) are used for import 425 and export 426 – they should be installed in the *EscapeE* program directory.

Import DLLs

Import DLLs of the form **RTxIN.DLL** found in the EscapeE folder are used automatically when files with the extension **x** are opened or the **/INPUT** 399 command used.

RTAFPIN.DLL	AFP input
RTDCMIN.DLL	DICOM input
RTDDFIN.DLL	Dynamic Document Formatter 449 files (PPO, PPG etc.)
RTESCPIN.DLL	Epson® Esc-P 47 input (also OKI 448® Esc %9)
RTGERIN.DLL	Gerber plotter input
RTHTMLIN.DLL	Used by Ubered2 446 to read its generated output into EscapeE
RTIDFIN.DLL	Intelligent Document Format 48 files
RTPCCIN.DLL	Printer Control Code 48 input
RTPDFIN.DLL	PDF input
RTPSIN.DLL	PostScript® input
RTPTRXIN.DLL	Printrex printer format input
RTRS2IN.DLL	RS2 447 files
RTRTFIN.DLL	Rich Text input
RTXLIN.DLL	PCL XL (PCL6) input

Export DLLs

RTHPOUT.DLL	PCL output for LIDL printers
RTHTMOUT.DLL	HTML output
RTIPDOUT.DLL	IPDS output
RTPCLOUT.DLL	PCL output
RTPDFOUT.DLL	PDF output
RTPSOUT.DLL	PostScript output
RTXMLOUT.DLL	XML output
RTXPSOUT.DLL	XPS output

Other DLLs

PCLLIST.DLL	PCL listing
RTAFPFONTS.DLL RTAFPIMAGES.DLL RTAFPIOA.DLL	Used by AFP import 425
RTCMS.DLL	Colour management system used for handling ICC profiles 143
RTERR32.DLL	Translates error codes into text messages (replaces obsolete 16-bit RTERROR.DLL)
RTPACK.D32	Data compression
RTPDFPKC.DLL	PDF encryption/decryption interface
RTSEC32.DLL	Licence checker (replaces obsolete 16-bit RTSEC.DLL)
RTSIGN.DLL	Digital signatures
RTUNPACK.D32	Data decompression

Font Information Files

PSFONTS.FIF	Font widths are read from this file and used to improve spacing of substituted text.
WINFONTS.FIF	Resident font definitions.

Other files

EEDATA.HTM	HTML file for display of HTML output
EENAVBAR.HTM	Navigation-bar for HTML output
EPSON.DAT	Epson® Esc-P command descriptions for RTESCPIN
PP.JSL	JSL file for Xerox IMG® output

Other extensions

.EE	When you mark up data fields and extract them, EscapeE creates an "EE 212" file with the field name definitions.
.SUB	Font substitutions file 93.
.LOG	Log file in plain text 234.
.CSV	Log file in CSV format 233.
.XML	Log file in XML format 235.
.TMP	The output file may be created using this temporary extension and then renamed when complete. The temporary extension can be changed using /TEMP 409 option.

Links
HTML export options 154
Associated programs 136

File formats list

EscapeE works with these formats:

Input 45	Export 144	AFP 119 – IBM advanced function printing format images
Input 45	Export 141	BMP 120 – Bitmap images
Input 46		CAPSL 445 – Canon
	Export data 233	CSV 121 Comma separated fields
Input 45	Export 147	DCM 119 – DICOM medical images
Input 45	Export 146	DCX 119 fax file format
Input 45		DDF 449 – RedTitan Dynamic Document Formatter language
	Export 149	EMF 120 Enhanced Metafile
Input 45		ESCP 445 – Epson printer language
	Export 150	FDL 118 forms
Input 45		GIF 446 – Graphic interchange format
Input Create 156	Export 152 Export 156	HTML 118 document – WEB page HTML5 118 UberEd Format HTML MIME-encoded: see MHT 427.
Input 45 Create 267	Export 158	IDF 119 – Intelligent Document Format
Input 45	Export 160 Export 161	IMG 120 images (Xerox) IMG 120 images (Xerox, Barr)
	Export 163	IPDS 119 (if installed)
Input 45	Export 165	JPEG 120 – JPEG photo format images
Create 100	Export 100	MCR 121 Macro file
	Export 153	MHT 118 (MIME-encoded HTML)
Input 45		PCC 447 – Lineprinter control codes
Input 46		PCC,ROW 447 – Lineprinter row number format
Input 45	Export 167	PCL 118 – HP printer control language document
Input 45	Export 146	PCX 119 – PC Paint format
Input 45	Export 172 Export 179	PDF 118 – Portable document format document PDF/A 118
Input 45	Export 141	PNG 120 – Portable network graphic images
Input 45	Export 182	PS 118 – PostScript levels 428 2 and 3.
Input 45		PTRX 447 – Printrex
Input 45		RS2 447 – RedTitan scripting language
Input 45	Export 187	RTF 447 – Rich Text Format
Input 46		STAR 449 – Star POS 447 printer format
Input 45	Export 189	TIFF 120 – Tag image format
	Export 192	TXT 121 Plain Text
Input 46	Export 160	XIMG – Xerox IMG 427
Input 45		XL 378 – HP PCL 6
	Export data 235	XML 121 fields
	Export 195	XPS 119 document – XML paper specification
Input 45		ZJS 449 – Zenographics format

PostScript: levels and types

PostScript import

The RedTitan PostScript engine interprets files conforming to Adobe 'level 2' specification and supports many popular 'level 3' features, such as:

- Flate[445] decompression
- ReusableStreamDecode
- CID fonts[445]
- Masked images

Rather than just paint the pages, *EscapeE* is able to flatten (and thus simplify) them, facilitating conversion to other formats or document modification.

PostScript export

Compressed files generated for (older) level 2 PostScript[118] printers will work on the (newer) PostScript level 3 printers. These PostScript 3 printers accept more efficient methods of compression (e.g. Flate[445]) than PostScript level 2 and so even smaller files may be generated, but these files may not be usable by PostScript level 2 printers.

PostScript font types

The PostScript language encompasses the specification of fonts. There are several 'types' of PostScript fonts.

type **1**	The original PostScript outline font. Converted to OpenType[446] in EscapeE.
type **2**	Type1 format updated to a more compact form. Converted to OpenType in EscapeE.
type **3**	'User-defined' fonts – fonts sourced from documents. The characters in bitmapped fonts can be recognized as text, but those in vector drawn fonts cannot.
type **4**	Cartridge fonts: converted to OpenType in EscapeE.
type **42**	Converted to TrueType[448] in EscapeE.
type **0**	These are fonts constructed from characters extracted from other fonts. A type 0 font may contain characters used in Western fonts (8-bit, e.g. Roman), Eastern fonts (larger, e.g. Chinese) or a mixture of the two. EscapeE works with the component fonts directly.

Links
PostScript file export[182]
PostScript export options[183]

Tray and bin numbers

This topic lists some of the technical details which *EscapeE* media definitions 111 manage behind the scenes.

A PCL file will normally specify the media that it expects the whole document to be printed on. It does this by quoting a source tray number 429. This is not the number written on a printer tray, but an index number referring to the *sort* of tray that the media may be found in. For example, 2 for paper or 3 for envelopes.

PCL tray numbers

1 = Feed paper from a printer-specific tray
2 = Feed paper from manual input
3 = Feed envelope from manual input
4 = Feed paper from lower tray
5 = Feed paper from optional paper source
6 = Feed envelope from optional envelope feeder
Note: '0' in the tray list represents the default tray.

Selecting **Print** from the File menu engages the Windows® printer driver. This too uses 'sorts' of media trays referenced by number 429 – confusingly, not the same as the PCL ones (and the same printer run in PostScript mode may use yet another tray number). *EscapeE* uses the symbol HPTRAYS 389 to translate the PCL source tray numbers to Windows printer tray numbers.

Windows driver numbers

1 = Upper
2 = Lower
3 = Middle
4 = Manual
5 = Envelope feed
6 = Feed envelope manually
7 = Auto
11 = Large-capacity feeder

The numbers on the actual physical trays depend on the model of printer and do not occur in the file's printing set-up! For example, on the Xerox N40 printer, a PCL file requesting the lower tray "4" should be output as "2" by the Windows driver and the paper would actually be found in the printer tray labeled "3".

Output bin numbers are simpler, typically:

0 Automatic
1 Upper
2 Lower (rear)

Technical note

Instead of selecting the tray by number, some printers allow an alphanumeric ID associated with a specific tray to be used in the `{escape}&n#W` command.

Links
Media definitions 111

Fonts used by EscapeE

Simulated for the printer:

Filename	PCL font name	Used for Typeface number(s)
COUR	Courier	3, 4099
ELGO	Letter Gothic	6
LYRA	Univers	52, 4148
RTLP	Lineprinter	0
RTSTICK	HP-GL Stick	48

System's standard Windows fonts:

ARIAL	Arial	16602
TIMES	Times New Roman	5, 4101, 16901
SYMBOL	Symbol	16686
WINGDING	Wingdings	31402

Link
Handling fonts 33

Commonly used fonts

Weight	Style	Typeface	Name
0	4	4362	Albertus ExtraBold
0	0	4362	Albertus Medium
0	0	4168	Antique Olive
0	3	4168	Antique Olive Bold
1	0	4168	Antique Olive Italic
0	0	16602	Arial
0	3	16602	Arial Bold
1	3	16602	Arial Bold Italic
1	0	16602	Arial Italic
0	0	4113	CG Omega
0	3	4113	CG Omega Bold
1	3	4113	CG Omega Bold Italic
1	0	4113	CG Omega Italic
0	3	4101	CG Times Bold
1	3	4101	CG Times Bold Italic
1	0	4101	CG Times Italic
0	0	4101	CG Times Roman
4	0	4140	Clarendon Condensed
1	0	4116	Coronet
0	3	4099	Courier Bold
1	3	4099	Courier Bold Italic
1	0	4099	Courier Italic
0	0	4099	Courier Medium
0	0	4197	Garamond Antiqua
0	3	4197	Garamond Antiqua Bold
1	3	4197	Garamond Antiqua Bold Italic
1	0	4197	Garamond Antiqua Italic
0	0	48	HP-GL Stick font
0	0	4102	Letter Gothic
0	3	4102	Letter Gothic Bold
1	0	4102	Letter Gothic Italic
0	0	4297	Marigold
0	3	16901	Times New Bold
1	3	16901	Times New Bold Italic
1	0	16901	Times New Italic
0	0	16901	Times New Roman
0	0	4148	Univers
0	3	4148	Univers Bold
1	3	4148	Univers Bold Italic
4	0	4148	Univers Condensed
4	3	4148	Univers Condensed Bold
5	3	4148	Univers Condensed Bold Italic
5	0	4148	Univers Condensed Italic
1	0	4148	Univers Italic
0	0	31402	Wingdings

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Using font attributes as tags 87
Fonts used by EscapeE 430

Standard paper and envelope sizes

Paper	width x height mm	width x height inches
A0	841 x1189	(33.1 x 46.8)
A1	594 x 841	(23.4 x 33.1)
A2	420 x 594	(16.5 x 23.4)
A3	297 x 420	(11.7 x 16.5)
A4	210 x 297	(8.3 x 11.7)
A5	148 x 210	(5.8 x 8.3)
A6	105 x 148	(4.1 x 5.8)
letter	(216 x 279)	8.5 x 11
ledger	(432 x 279)	17 x 11
ANSIC	432 x 559	17 x 22
ANSID	559 x 864	22 x 34
ANSIE	864 x1118	34 x 44
ARCHA	229 x 305	9 x 12
ARCHB	305 x 457	12 x 18
ARCHC	457 x 610	18 x 24
ARCHD	610 x 914	24 x 36
ARCHE	914 x1219	36 x 48
ARCH30	(76.2 x 106.67)	30 x 42
executive	(184 x 267)	7.25 x 10.5
legal	(216 x 356)	8.5 x 14
RA3	305 x 430	(12.0 x 16.9)
RA4	215 x 305	(8.5 x 12.0)
SRA3	320 x 450	(12.6 x 17.7)
SRA4	225 x 320	(8.9 x 12.6)

Envelope	width x height mm	width x height inches
COMMERCIAL10	(241.3 x 104.8)	9.5 x 4.125
C5	229 x 162	9.0 x 6.4
DL	220 x 110	8.66 x 4.33
Monarch	(190.2 x 98.4)	7.5 x 3.875

To specify media on the command line, use **/PAPER** 390.

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- .JOB file 434
- .LOF file 434
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- Local file path 439
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- Strings 443
- Search tags 442
- URI path 443

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Sample IDF scripts 326
Examples using Plugins [Plugins Help]

.EE file

This is a page of a PCL® document displayed in *EscapeE* with 3 fields defined and shown:

- name
- date
- address

The fields are defined in this ".EE" file:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ESCAPEE UNITS="DOT600">
<_TAG SS=" "/>
<name LEFT="2442" TOP="1134" WIDTH="1824" HEIGHT="204"/>
<date UNITS="CM" LEFT="2" TOP="6.33" WIDTH="7.5" HEIGHT="0.75"/>
<address LEFT="450" TOP="6306" WIDTH="2052" HEIGHT="108"/>
</ESCAPEE>
```

Note that the units of measurement for the document have been set up in line2 as 1/600 inch dots but the units used for specifying the "date" field's dimensions have been changed to centimeters in line5.
The UNITS attribute may take these values:

IN	inches
CM	centimeters
DE	decipoints (1/720 inch)
DOTS	1/300 inch
DOT600	1/600 inch

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About exporting data 38
Defining fields and tags 200

.JOB file

.JOB files 371 contain a list of .INI file paths (like .LOF files 434) but they may also include "Comments" for a User to see. If an asterisk is inserted between a file path and the Comment then the display of the file path is suppressed and the User sees just the Comment.

When this job file:

```
:\ESCAPEE JOBS
"c:\REDTITAN\SOFTWARE\JOBS\Atlanta12.INI" English USA
"c:\REDTITAN\SOFTWARE\JOBS\Berlin34.INI"German
"c:\REDTITAN\SOFTWARE\JOBS\High Wycombe56.INI" *English
"c:\REDTITAN\SOFTWARE\JOBS\Verneuille78.INI"*French
c:\REDTITAN\SOFTWARE\JOBS\Copenhagen90.INI
```

named `ExampleJob.JOB` is selected, the User sees this list:

Job type (.ini file)
c:\REDTITAN\SOFTWARE\JOBS\ExampleJob.JOB
"c:\REDTITAN\SOFTWARE\JOBS\Atlanta12.INI" English USA "c:\REDTITAN\SOFTWARE\JOBS\Berlin34.INI" German English French "c:\REDTITAN\SOFTWARE\JOBS\Copenhagen90.INI"

shown in the *EscapeE* window.

Links
Run custom jobs 370

.LOF file

There are several ways of using 'List Of Files' files in *EscapeE*.

Example 1

Enter file paths in a plain text editor and save the file as type ".LOF". EscapeE can open this file and create a composite document, e.g.:

```
c:\Resources\Images\broccoli.BMP
c:\Veg\Summaries\broccoli.TXT
c:\Resources\Images\cauliflower.BMP
c:\Veg\Summaries\cauliflower.TXT
```

Example 2

The EscapeE **Remember file** feature could be used to assemble the same files into an LOF composite document, see Creating an LOF control file automatically 262. The LOF file created would be shown in the text editor window:

```
:\ESCAPEE
c:\Resources\Images\broccoli.BMP
c:\Veg\Summaries\broccoli.TXT
c:\Resources\Images\cauliflower.BMP
c:\Veg\Summaries\cauliflower.TXT
```

Example 3

This LOF file was created by the IDF Composite document wizard to extract music parts 350 from a score:

```
:\DOCUMENT MUSICPARTS
:\PORTRAIT
:\UNITS INCHES
:\LEFT 0 \TOP 0
:\REPEATS 4
:\SCALE 1
:\PAPER A4
"c:\Music\IDF\Tallis2.pdf" 1 /PART 1 /CLIPX 0.5967 /CLIPY 4.7767 /WIDTH
7.0767 /HEIGHT 0.5633
"c:\Music\IDF\Tallis2.pdf" 1 /PART 2 /CLIPX 0.5967 /CLIPY 5.4033 /WIDTH
7.0767 /HEIGHT 0.5667
"c:\Music\IDF\Tallis2.pdf" 1 /PART 3 /CLIPX 0.5967 /CLIPY 6.0333 /WIDTH
7.0767 /HEIGHT 0.51
```

Example 4

This file named "ExampleJob.LOF" provides a list of INI files for a custom job 371:

```
:\ESCAPEE JOBS
c:\REDTITAN\SOFTWARE\JOBS\Atlanta12.INI
c:\REDTITAN\SOFTWARE\JOBS\Berlin34.INI
'c:\REDTITAN\SOFTWARE\JOBS\High Wycombe56.INI'
c:\REDTITAN\SOFTWARE\JOBS\Verneuille78.INI
c:\REDTITAN\SOFTWARE\JOBS\Copenhagen90.INI
```

The User chooses an INI file from this list shown in the *EscapeE* window:

Job type (.ini file)
c:\REDTITAN\SOFTWARE\JOBS\ExampleJob.LOF
"c:\REDTITAN\SOFTWARE\JOBS\Atlanta12.INI" "c:\REDTITAN\SOFTWARE\JOBS\Berlin34.INI" "c:\REDTITAN\SOFTWARE\JOBS\High Wycombe56.INI" "c:\REDTITAN\SOFTWARE\JOBS\Verneuille78.INI" "c:\REDTITAN\SOFTWARE\JOBS\Copenhagen90.INI"

◆ Tip: if the purpose of an INI file isn't clear from its name or location, save the job file with the extension ".JOB" instead of ".LOF" and add Comments to make it easier for the User make their choice – see Example .JOB file 434.

Links
LOF details 424

Command lines

Example 1

This command line in the *Run* box

```
escapee /from REPORT.CSV,FILENAME,PAGE
```

calls file `REPORT.csv` containing this text:

```
"FILENAME","PAGE"
"REPORT.prn","2"
"REPORT.prn","5"
"REPORT.prn","6"
```

The PAGE field supplies the value of 'startpagefield' but as no 'endpagefield' values are supplied, *EscapeE* fills in default values for you. This results in the first segment consisting of pages 2, 3 and 4; the second segment of just page 5 and third segment, just page 6.

You might then go on to use this command line:

```
escapee REPORT.PRN /csv /save fecr#? /fields COUNT.EE
```

to create a log file containing the file name and page number. A log record is written every time a field is encountered that has the 'Write log record' option selected (see Setting field actions 208), and also at the end of file. This file can then be read back and have the number of pages added using the {_numpages} 248 special field. For example

```
escapee /from REPORT.CSV /pcl /fields MARKUP.EE
```

Example 2

A plain text log file may contain a "Text log file message". This can be set up on the 'Log file' page of the Configuration dialog (see Setting log file options 237) or on the command-line using the /LOGTEXT 401 option. It can contain Special fields in composed strings 247 as well as text. For example

```
escapee myfile.pcl /pdf /log 1T /logtext '{_Day}/{_Month}/{_Year} {_Hour}:
{_Minute} input file {_ifilename}{_crlf}Exported as: {_ofilename}:
{_sheets} pages'
```

The resulting log file "myfile.log" contains:

```
24/09/2009 15:15 input file C:\temp\myfile.pcl
Exported as: C:\temp\myfile.PDF: 5 pages
24/09/2009 15:15 input file C:\temp\myfile.txt
Exported as: C:\temp\myfile1.PDF: 2 pages
```

Should you wish to suppress the message on occasion, just add "~" to the /LOG 401 options; there is no need to delete the "message":

```
escapee myfile.pcl /pdf /log 1T~ /logtext '{_Day}/{_Month}/{_Year}
{_Hour}:{_Minute} input file {_ifilename}{_crlf}Exported as: {_ofilename}:
{_sheets} pages'
```

Then if you want to return to showing the message, you only need to remove the ~ character.

Example 3

Command line options may be appended to component files specified in a LOF control file; see LOF details 424.

```
:\ESCAPEE
'C:\TEST\first file.pcl' /REM 'A3 example' /PAPER A3
'C:\TEMP\second file.pcl' /REM 'A4 example' /PAPER A4
```

Example 4

The syntax
/OPTIONS filename
allows an Options file 413 to be specified which contains a number of options. Each line of the file should be a statement of the form
option=value
as in this example file **myopts.OPT**:

```
PDF=Y
To=\\123.123.123.123\mine_pdf\maturity\{CNtext}_{IDtext}_{datetime}
_{_bates:-6}.pdf
Fields=c:\nqroot\files\mine1.ee
ERRORLOG="C:\NQROOT\MINE-ERRORS\!!LPRJ;.LOG"
INI=c:\progra~2\RedTitan\software\RTEE.ini
x
```

The command line to export the file would simply be:

```
ESCAPEE /OPTIONS myopts.OPT
```

Example 5

Here each page in a PDF report is split into a separate file:

```
ESCAPEE C:\Reports\Spring.PDF /TIFF 1 /TO {_front}{_back}page{_page}.tif
```

Each file output is given a name determined by its page-number and whether it is a "front" or a "back" page:

```
C:\Reports\FRONTpage1.tif
C:\Reports\BACKpage2.tif
C:\Reports\FRONTpage3.tif
C:\Reports\BACKpage4.tif
...etc.
```

Links
Run from the command line 368

Composite fields

Example 1: string condition

In this example, you use the "plus 257" composite field notation to set up two possible string values for a field. One of the strings will be used if a tag finds a particular search string, the other string will be used if a tag finds any other value (or null).

Start by sweeping out the text to be checked and define a tag 201 named **Report** containing 'Any text'. Then, on the Searching 205 page of the Field dialog 199, set the 'Tag string' to **Paperless** and tick 'Match'.
Define a composite field 244 named **Send** and enter **{+Report='EMAIL','PRINT'}** in the 'Value' box.

When a data-record contains **Paperless** as its value for **Report**, the value of **Send** is set to **EMAIL**.
When a data-record does not contain **Paperless** as its value for **Report**, the value of **Send** is set to **PRINT** instead.

Example 2: find a graphic

In this example you have a tag (named **EndGraphic**) which looks for a 'Graphic' on the page. You can test the tag to see if the graphic is *present* (True) or *missing* (False) by setting up a composite field (named **EndGraphicFound**):

EndGraphicFound:={+EndGraphic='T','F'}

You can also just test for 'True' by changing the composite field to:

{+EndGraphic='T',}

Now the composite field **EndGraphicFound** will be true when the graphic is found and null when the graphic is not found, making the test for the presence of the graphic simple.

Example 3: counter

{+chapter=2,,0}

Initially, composite field is set to the value 0. Each time the field named "chapter" is found, the composite field value is incremented by 1. The field width of 2 means that a leading *space* will be present until the field value reaches 10.
To have leading *zeros* use **{+chapter=02,,0}** instead.

Example 4: splitting a field

In this example, one field is used to define two new fields. The data value of an existing field **fullname** is:

Constable, John

Use:

lastname:= {fullname:1:','}

to extract the surname (i.e from column1 up to the comma) and

firstname:={fullname:{lastname.length+2}}

to extract the forename (everything after the comma).

Links
String conditions 257
Numerical conditions 254
Special fields in composed strings 247
Composite field expressions 250
Partial fields 251

File prefix

This sets up the way that resource files associated with an HTML document are named.

Example 1

To export an HTML document named "**Garden**" requiring one PNG image file. Set file prefix to:

*****

An associated file is created, named "**Garden1.PNG**".

NB: Leaving the file prefix *blank* produces the same result as Example 1.

Example 2

To export an HTML document named "**Garden**" requiring two PNG image files. Set file prefix to:

My*

Two associated files are created, named "**MyGarden1.PNG**" and "**MyGarden2.PNG**".

Example 3

To export an HTML document named "**Garden**" requiring two PNG image files. Set file prefix to:

Plot

Two associated files are created, named "**Plot1.PNG**" and "**Plot2.PNG**".

Links
HTML export options 154

Local file path

Use the local file path box to specify where the resource files associated with the HTML document 152 are to be placed. (Leave the box blank to place the associated files 425 in the same location as the output HTML document.)

Example 1

Specify the full path.

D:\MySite\Images

The associated files will be placed in "D:\MySite\Images" irrespective of the location of the HTML document.

Example 2

Specify a relative path.

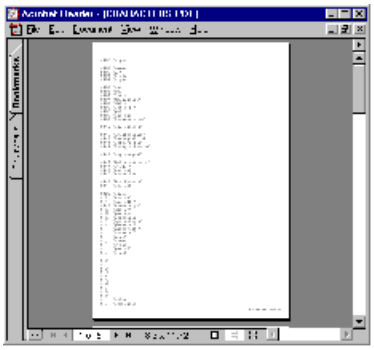
Images

The associated files will be placed in a folder named "Images" in the location set up for the HTML document in the HTML export dialog.

PDFPREF options

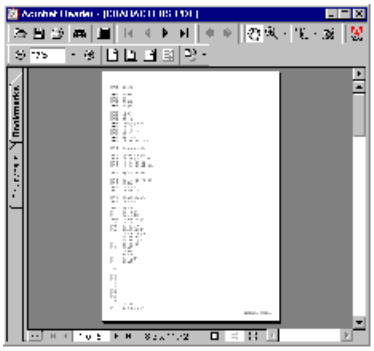
/PDFPREF 1

Tool-bar is hidden when the PDF document is opened.



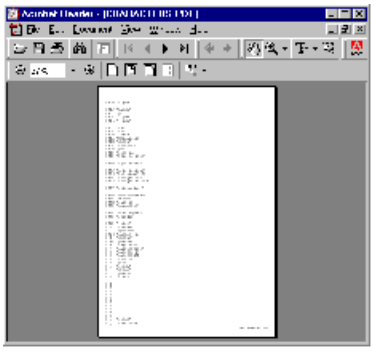
/PDFPREF 2

Menu-bar is hidden when the PDF document is opened.



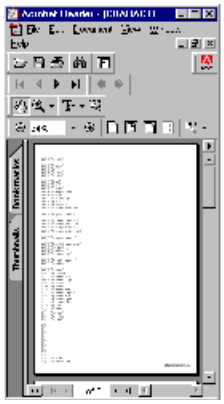
/PDFPREF 4

User interface elements associated with the document window (e.g. scroll bars) are hidden leaving only the document's contents displayed.



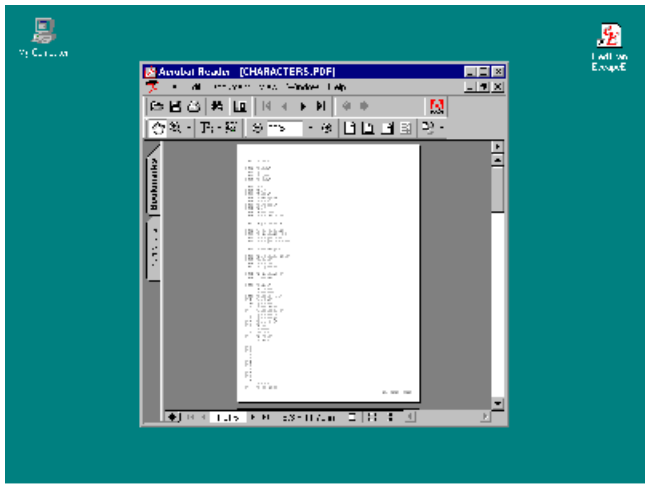
/PDFPREF 8

Resize the window to fit the first page.



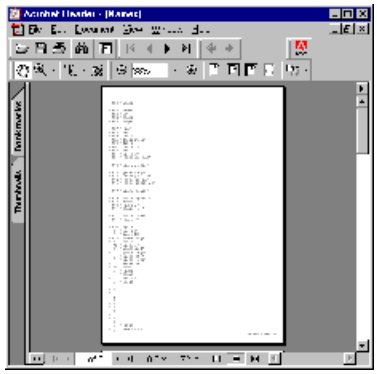
/PDFPREF 16

Window placed in the center of the screen.



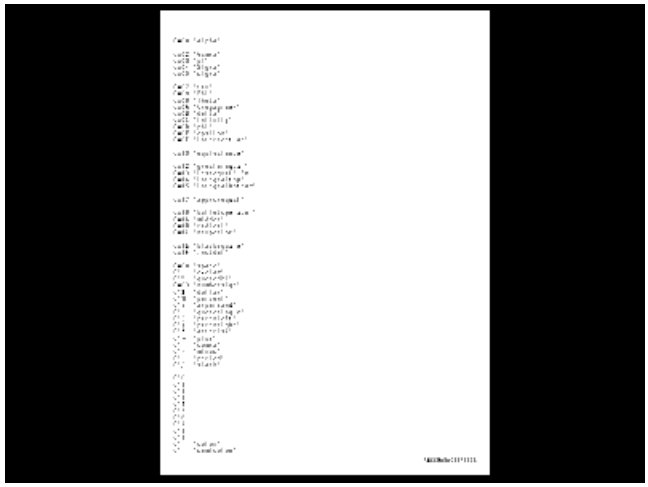
/PDFPREF 32

Document title is merged into the main title-bar; filename no longer displayed.



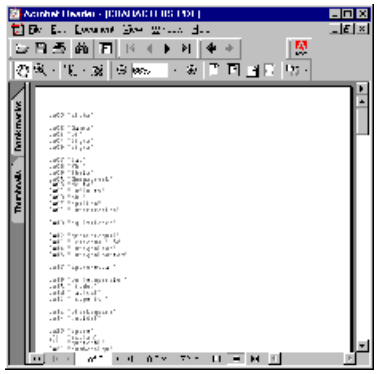
/PDFPREF 64

"Full screen mode". Press "Esc" key to revert to normal view.



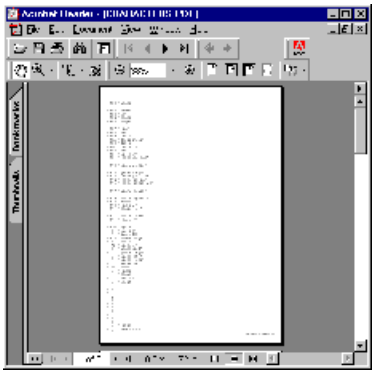
/PDFPREF 128

Page scaled to fit width of window.



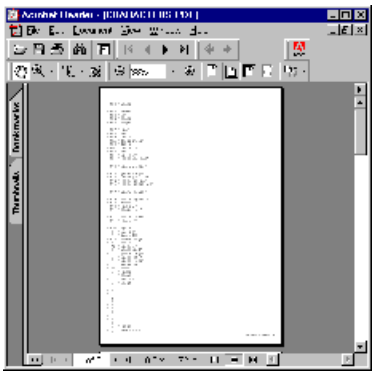
/PDFPREF 256

Page scaled to fit height of window.



/PDFPREF 384

128 + 256 = 384 results in the width and height of the page being scaled by the same percentage so that one page fills the full width or height.



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Search tags

Search tags can be set up by *right*-clicking on a piece of text or graphic and choosing **New tag**. You may need to edit the text of the tag to exclude variable data: e.g. it might be `Total: 123.45` when you want to search for `Total:` alone. Options for search tags are set up in the **Searching** section of the 'Field Definitions' window, see Setting search tag options. 205

Should you decide to use an image as a tag and find that its position varies slightly from page to page, set up the search tag as **part of a graphic** rather than **graphic**. Sweep out an area for the tag big enough to surround any occurrences of the image; the 'part of a graphic' mechanism will search for the 'colored' part of the image in the defined area. It will not matter how much 'white' there may be on each edge.

Normally, search tags are used to locate fields positioned relative to the tag itself. In this example, however, data is extracted from fields positioned relative to the record, and the tag (if present) may located anywhere in the record:

1. Define a field that must be present, say `OVERDUE`.
2. Define a composite field, say `RENEW` defined by the composed string 247 `{?OVERDUE}`.
   This field will be set to `T` only if `RENEW` is found, otherwise it is set to `F`.
3. Set up a search tag for `RENEW` set to `T`.
4. Define sub-fields from which data is to be extracted.

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Setting search-tag options 205
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Strings

Strings that do not contain spaces or slashes do not need to be enclosed in quotation marks. E.g.

`MyDocument`

Strings that do contain spaces or slashes must be enclosed in matching quotation marks: single or double quotes may be used. E.g.

`'My Document'`

Strings that contain single quotes be enclosed in double quotes. E.g.

`"Adam's Documents"`

Strings that contain double quotes be enclosed in single quotes. E.g.

`'1/300"'`

URI path

The **U**niversal **R**esource **I**dentifier is used to make HTML document resources accessible to Internet web browsers. Enter a suitable URI path to create a web page automatically.

Example 1

Absolute path:

`https://www.mysite.com/images`

This would result in a resource named "`garden1.png`" being accessed as

`"https://www.mysite.com/images/garden1.png"`

Example 2

Relative path:

`images`

This would result in a resource named "`garden1.png`" being accessed as "`images/garden1.png`"

RedTitan contact details

For the most up-to-date information see https://www.pclviewer.com/about.html.
These are the RedTitan office details current at publication:

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HP11 1JU
United Kingdom
Registered in England No. 1698238
Tel: (+44) [0]1494 811420
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VAT: GB410896747

United States

RedTitan LLC
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Marietta GA 30066
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Email: help@redtitan.com
US Technical Support Tel: 404.437.7206

Miscellaneous notes

This is Help v6.36 for *EscapeE* 10.51 and above in English. EscapeE is available in several languages; select **Change language** from the Options menu and choose from ▸ **Deutsch**, **English**, **Espanol**, **Francais**, **Portuges**.

AcroForm – an interactive PDF form with buttons and boxes which users can complete and submit. See Special fields for PDF export 217.

AFP – 'Advanced Function Presentation 119' – (formerly 'Advanced Function Printing') is a data-stream format from IBM 448®. Presentation Text input data-elements may span data-records.

bitmap fonts Each character in a bitmap font is defined by a mosaic of black and white pixels. It cannot be scaled (unlike outline fonts), so contains the characters for one particular size and resolution only.

CaPSL – 'Canon Printing System Language' – predates PCL®; used by Canon 448® printers.

CID font – 'Character IDentifier' font – designed to contain a large number of Eastern pictographic characters as well as Western alphabetic characters. May be used by PS 447 and PDF 447 files.

ClearType A way of rendering fonts designed for flat-screens from Microsoft 448®. It may improve the readability of text, but edges may exhibit color fringes.

clip region An area cut from a file for insertion into an IDF document: see CLIP 298.

CMYK – 'Cyan Magenta Yellow Key (black)' – a color-space used for specifying the inks used by printers. To display colors specified as CMYK values on-screen, EscapeE converts the color into RGB color-space using *RTcms*. See Image import/export options 143.

composite document A document created in EscapeE from other files, or extracts of files, and IDF 446 code.

CSV – 'Comma Separated Variables 121' – data files in which field-values are delimited by specified characters, usually a comma. Data values are often enclosed within a pair of double-quotes. Each line of data-values corresponds to one data-record, usually with field-names defined in the first record of the file.

EE An "`.EE`" file is an EscapeE field definitions file which supplies field names found in the first record of the associated control file. Using the EscapeE composite field mechanism, field definitions may be constructed to compute filenames from the fixed data values in subsequent records in the control file. The named files are assembled into the composite document 445.

EPS – 'Encapsulated PostScript' – self-contained documents which may be placed within a PostScript® document, e.g. for forms overlays.

Escape sequence PCL 447 printers work with commands that start with an 'Escape' character. For example, the sequence `Esc E` resets the printer and sequence `Esc%#B` sets up HP-GL 114 mode.

ESC/P, **ESC/P 2** – 'Escape P' – the Epson 448® Standard Code for Printers; a printer control language used by older printers. Epson files have various extensions but the generic .PRN is the most commonly used.

FIF – 'Font Information File' – a convenient package of the selection sequences, metrics etc. derived from a number of font files. Used by EscapeE for outputting font files in the appropriate printer-specific formats (for example .HPP files for HP printers 448).

file specified The file specification can be a full file path or just a name, in which case it is assumed to be in the same folder as the input file. It can also be wildcarded, for example `???xyz.ee` or `xyz*.ee`

Flate – Deflate/Inflate loss-less compression method suitable for PDF 174, PDF/A 180, PostScript level 3 428 and XPS 196 document export.

GIF – 'Graphics Interchange Format' – an image format limited to 256 colors; more suitable for diagrams than photographs.

GOCA – 'Graphics Object Content Architecture' – vector graphics for AFP. If color is set to white then it is treated as opaque.

History list A list of the names of the most recently opened files. It is added at the end of the 'File' menu – just click to open the file 44. A ^ character generally precedes the name of a Control file 260 but this does not apply to IDF files 266.

HSB – 'Hue Saturation Brightness' – an alternative method of specifying a color in RGB color-space; used for drawn objects in PostScript 447® files.

HTML – 'HyperText Mark-up Language' – files for display by a web browser such as Internet Explorer 448®, see HTML document file export 152. Early HTML versions cannot contain *embedded* resources and call on separate resource files unless MIME encoded.
HTML5 files *can* contain embedded resources such as images and may be edited in UberEd 449.

IDF – 'Intelligent Document Format' – the RedTitan (XML-based) document description language. This is the user-friendly format used by EscapeE for creating composite documents but is powerful enough to be used to write and export entirely new documents. Scripts in IDF have the extension ".idf". See About Composite documents and IDF 39 and Element IDF 284.

LIDIL – 'Lightweight Imaging Device Interface Language' – for 'host-based' HP 448® printers. These low-cost printers simply print images; they rely on the host computer to effect text etc..

LPD, **LPR** – 'Line Printer Remote' – is the UNIX 449® Internet protocol for sending pre-formatted files to remote systems for printing e.g. spoolers using LPD – 'Line Printer Daemon' – receivers. The data is processed before LPR connection is made, so there may be a delay before a large file is transmitted. See also To use LPR output 130.

LSH – LIST HP 448® – the RedTitan 449® default extension for PCL data files.

macro Document files may be simplified by packaging any recurring blocks of statements as "macro" (.MCR 446) files. These are easily invoked and frequently used as overlays 447.

MCR The extension used by EscapeE for storing macros in the Resident macro library 79. EscapeE defaults to naming the first new macro file in a document **100.MCR** then adds **1** to each subsequent file number (maximum value **2147483647.MCR**).

Meta data A term used to refer to any "data about data" such as a document's keywords. See also Field TYPE attribute 225.

MHT The extension for MIME encoded HTML files for display in web-browsers. In this format a single file is created that contains all the resources packaged as a Multipart/Related MIME document. See HTML MIME encoded file export 153.

MIME – 'Multipurpose Internet Mail Extensions' – for creating a single MHT file that contains all the resources needed to display an HTML web-page in a browser (Internet Explorer 448® version 5 and later).

OCR – 'Optical Character Recognition' – techniques for matching shapes in images to characters of text.

OEM – 'Original Equipment Manufacturer' – EscapeE may be purchased 21 directly from RedTitan 449® or as an OEM part of other systems, see automatic 128 update checking.

OpenType® font A quadratic spline outline font supported by Windows®. May be coded as 'Compact Font' format with extension '.OTF' or as 'TrueType' font with extension '.TTF'.

outline fonts such as TrueType®, OpenType® and Type 1 contain a glyph for each character in the font. The glyphs are drawn as outlines defined by equations (splines) and filled in, rather than an arrangement of dots like bitmaps. The advantage of this is that they can be scaled to produce a range of sizes. The disadvantage is that the shape of the glyph may become indistinct at small sizes. Good outline fonts include rules (hints) for each character to improve their appearance at small sizes.

overlay On long print-runs of pages with variable data, it may be faster and more efficient to split jobs into 'static' and 'dynamic' content. The static content (printed on every page – like pre-printed stationery) is known as an "overlay". For more on generating and handling overlays, see Page Designer 449 and Dynamic Document Formatter 449.

PCC – 'Printer Control Channel' – standard data-file format for line-printers. The character in 'column 1' is used to locate the fields (+ = overprint, 1 = skip to channel 1, 2 = skip to channel 2 etc.). See also PCC,ROW 48 option.

PCL® – 'Printer Command Language 118' from Hewlett-Packard 448® – the default extension for EscapeE's output.

PCL source file "Source" files for printing on a "PCL" printer contain not only the document's text and image data, but instructions to the printer on how the data is to be placed, the fonts to use etc..

PDF – 'Portable Document Format 118' from Adobe 448. See also PDF/A 118 documents archive format.

PDL is a general term for a Printer Description Language. PDL commands control the printer. Printer-manufacturers typically have their own PDLs, e.g. KPDL 448®.

PJL – 'Printer Job Language' – is used to set up jobs on Hewlett-Packard 448® printers.

PLT The extension used by EscapeE for input files in HP-GL 377 intended for plotters 108 (rather than the HP-PCL® used for general printing).

POS – 'Point Of Sale' printers, e.g. for check-out receipts.

Printrex copyright by Transact. Thermal printers/plotters.

PRN The default extension usually used for files output by a 'Print' dialog.

PS – 'PostScript 118®' language from Adobe 448®.

RFF – 'Redtitan Font Format' files – contain bitmap images of text, barcode or logo fonts used in a job and stored in the Resident font library 79.

RGB – 'Red Green Blue' – the color-space used by most file formats to specify colors. **RGBA** images contain Alpha-channel 34 transparency information in addition to the Red, Green and Blue values.

RIF – 'RedTitan Image Format' – for storing images. Composed of color-planes of bitmaps, it is often used for logos.

RS/2 – 'RedTitan Script Two' – is a lightweight, Pascal-like scripting language which provides dynamic document features and extended field processing for EscapeE Software Development Kit. RS/2 scripts may be opened with EscapeE and its resources used to create a page from scratch. See also evaluate plugin [Plugins Help].

RTF – 'Rich Text Format' – a file format from Microsoft 448®. RTF documents contain pages of formatted text in which attributes such as font family, style, weight and size defined.

Text editor The window in which you may edit LOF control files 263. All of the text found in the file is simply displayed, rather than interpreted and rendered on-screen. It shows the instructions for building the pages of a composite document 261.

TIFF – 'Tagged Image File Format 120' – a ".TIF" file may contain more than one image and is often used to image pages for archive.

TrueType® font An OpenType outline font from Apple® supported by Windows®: each character is described by quadratic splines. These glyphs can be scaled to generate fonts at a range of sizes.

TXT – "Plain text" – files containing lines of text which is not formatted (unlike RTF). See also IDF Notes on text.

Type 1 font A cubic spline outline font. It is the Adobe® font format based on PostScript® language and is used in PDF documents. Type 1 fonts can be scaled; 'hinting' may be included do improve their appearance at small sizes.

URL – 'Uniform Resource Locator' – a URI specifying a web-address such as https://www.redtitan.com.

XML – 'eXtensible Markup Language' – an "open standard" language used for data files in which each value is "marked up" with its field name.

XPS – XML Paper Specification – is an open-architecture format, and the default output format for Windows Vista®. The output is paginated and may contain JPEG, TIFF, PNG and text elements with good color support. Documents may be digitally signed. The format is well suited to printing, viewing and archiving, making it a good standard to choose for general use. For more information on XPS, see www.pclviewer.com/XPS

ZjStream Zenographics© page description language for driving printers made by several manufacturers. Consequently, file extensions vary: EscapeE recognizes these files from their opening bytes.

Product References

There are references to the following programs in this *EscapeE* User Guide:

Adobe registered trade mark of Adobe Systems Inc.
Acrobat Reader, **PDF**, **PostScript**.

Apple registered trade mark of Apple Inc.
TrueType

Barr Systems, Inc.
PRINT370 is a trademark of Barr Systems, Inc.

Canon registered trade mark of Canon Inc.

DICOM is the registered trademark of the National Electrical Manufacturers Association for its standards publications relating to digital communications of medical information.

Epson refers to the Seiko Epson Corporation.

HP Hewlett-Packard Development Company, L.P.

IBM is a trademark of International Business Machines Corporation, registered in many jurisdictions worldwide.

KYOCERA is a trademark of Kyocera Corporation.
KPDL, **PRESCRIBE**.

Microsoft and **MS** are registered trade marks of Microsoft Corporation in the United States and/or other countries.
ClearType, **Explorer**, **Office**, **Outlook**, **Vista**, **Windows**, **Word**, **WordPad**.

OKI is a trademark of Oki Electric Industry Company, Ltd..

QRCODE is a registered trademark of DENSO WAVE INCORPORATED.

RedTitan trademark of RedTitan Technology Ltd: see redtitan.com

CaptuRedTitan (pclviewer.com/resources/disk/) is a generic Windows® XP utility which installs and manages a Port Monitor to intercept Windows® print. Output from a selected driver is stored on disk. See pclviewer.com/resources/capture/.

DataBase Manager "RTDB" makes it easy for Users to create, update and manipulate databases.

DataStream Converter "DSC" system converts fixed-pitch paginated data (e.g. line-printer datastreams) to other printer formats: see redtitan.com/legacy.htm.

Dynamic Document Formatter "DDF" is a special software package which manages dynamic reformatting of text in multi-page documents and which connects printers to the network so that pages can be printed easily to either desktop or centralized printers. See redtitan.com/formattr.html. Scripts in DDF have the extension ".ddf". See also Element DDF 280.

EEcerts "Certificate management" program for creating Security profiles and Recipient lists for PDF documents. See the EEcerts Help file.

EEfonts creates character recognition databases for fonts which have been downloaded from documents. You may install these fonts so that they may viewed on-screen or used on a different printer. You may reassign the character codes of bitmap fonts. See EEfonts Help file.

EEview runs two copies of EscapeE in tandem so that two documents may be compared side-by-side from a single Control panel. See the EEview Help file.

FONTEDIT reads and displays fonts such as TrueType, OpenType, RFF and RIF, along with their details. It may be used to add, delete and recode characters within the fonts: see the FONTEDIT Help file.

HPFONTS can split a PCL download font file into individual fonts or concatenate individual PCL download font files into a single font file.

nQ "Enterprise Queue" system is based on the Windows® PC platform. Easily interfaced to host applications, nQ acts as a batch control system for automatic data processing: see pclviewer.com/nq/ppnq.htm. **nQ Spooler** is one of the nQ applets: a TCP/IP based spooling and queuing system. It will accept data from a number of sources using FTP, LPR/LPD, HTTP, FTP and TELNET protocols on a TCP/IP network. Separate script-files and data-files (e.g. CSV 233, TXT 234, XML 235) may also be used. See Setting TCP/IP options 129 and /NQ 403, /NQERROR 403, /NQLOG 401, /USING 411 command-line options.

Page Designer is a part of *Document Design System*, a set of interlinked software modules for designing page layouts, compiling pages for printing, font conversion and editing, clipboard reading, image scanning and editing, and file transfer using Forms Design Language 118. See redtitan.com/design.htm

RTIMAGE is used to read, view and write image files in BMP, RIF, TIFF, PNG and JPEG formats. You may also compare, rotate, trim, center and even set up the image resolution.

UberEd is a multi-page document creation and editing program based on HTML5 format.

Solimar is a registered trademark of Solimar Systems Inc. (North America), Solimar Systems Ltd. (Europe).

STAR copyright STAR MICRONICS CO., LTD.

UNIX is a registered trademark of The Open Group in the United States and other countries.

VMware registered trademark of VMware, Inc. in the United States and/or other jurisdictions.

XEROX registered trademark of Xerox Corporation.

Zenographics copyright Zenographics Inc.

ZjStream

Compare features

Features	EscapeE version			
	Viewer Edition	Transformer Edition	Batch Automation Edition	Professional Edition
View PCL5, PCL6, PCL3GUI and HPGL.	✔	✔	✔	✔
View PDF.	✔	✔	✔	✔
View multi-page TIFF	✔	✔	✔	✔
Print sub-sets with page numbering.	✔	✔	✔	✔
Bookmark pages.	✔	✔	✔	✔
Maintenance. (Includes technical support and software updates for 1 year)	✔	✔	✔	✔
Page limits for each file processed	up to 5000 pages	up to 5000 pages	up to 5000 pages	no limit
Command line and automation options		user interactive	command line options single named file	spooling and directory scanning with wildcard filenames
		Note In the *Batch Automation Edition* and *Professional* versions all the program functions can be controlled from command line switches. The Command line execution feature will act as an API to client systems. The *Transformer* version is NOT suitable for automated document production.		
Runs in multi user environments. i.e. Citrix, Terminal Server or via Remote Desktop				✔
Create PDF with data compression, security and form filling		✔	✔	✔
Export to Postscript, TIFF, PNG, HTML and image formats		✔	✔	✔
Mark-up and recover text in CSV, XML and plain formats.		✔	✔	✔
Create composite PCL, PDF and image documents				✔
TCP/IP integration and LPR output				✔
Print to AFPDS or Xerox Metacode (priced separately)				✔
Plug-in options				
Barcode impositions	Add barcodes from page text data. Includes PDF417, Datamatrix, and all UPC/EAN types.			
Move and add text	Dynamically move or color part of a document			
Add image	Add graphics or watermarks to the document			

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