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INTRODUCTION

This section describes the purpose for which the software was designed, provides details of the hardware and software requirements necessary to set up and run your software and gives an overview of the folder structure.

What is EFI XF?

The EFI XF product family is the perfect tool for anyone wanting to achieve high-quality color reproduction. The software runs on both Windows and Macintosh and produces color-accurate output, while avoiding the need for complicated color management settings.

EFI XF is available in two product configurations: EFI Colorproof XF for the proofing markets and EFI Fiery XF targetting Sign & Display and Print-for-Pay markets.

Both the EFI Colorproof and the EFI Fiery XF configurations are ICC-compliant cross-platform Client/Server applications and can be flexibly configured to the customers' needs and for any size of operation due to its modular architecture.

The structured user interface and various wizards easily allow customers to either simulate the colors achieved on a professional printing press or any other printer, thereby making it possible to reproduce genuine proofs on a conventional printer, or to achieve the maximum gamut of the printer, media and ink combination.

EFI Colorproof XF focusses on ISO 12467-7/8-compliant validation printing and contract proofing , while EFI Fiery XF is configurated for production-heavy environments with intelligent clean color technologies, tiling, advanced step & repeat, color adjustments for last minute editings and professional finishing.

In the following "EFI XF" is used for both solutions, as the functional range is the same when all the available add-on modules are installed.

Program architecture

EFI XF is based on a Server/Client architecture of modular design. A Server version installed on one computer can be accessed from an unlimited number of Client versions installed on the same or on any other computer. This allows users maximum flexibility in customizing the software to suit their own particular workflow requirements.

The minimum version of the software comprises:

- EFI XF (includes one Server version and an unlimited number of Client and Job Monitor versions)
  - The Server is the “brain” behind the software. It runs as a service and is responsible for job processing. When you restart your computer after installing the software, the Server software starts automatically.
  - The Client software simply provides an intuitive user interface. All settings and actions initiated on the Client computer are sent to the Server for processing.
- One Output M Option (for one printer up to 18 inches)

However, a wide range of add-on modules is available to supplement the standard version. With the use of the appropriate modules, users can create their perfect workflows and completely do away with the need for third-party products.

System requirements

The following recommended system requirements are necessary to install and run EFI XF successfully.

- Operating systems

Windows	• Windows XP (Home, Professional) • Windows 2003 SP1 R2 Standard • Windows Vista (Home Basic, Home Premium, Business, Ultimate) • Windows 2008 Server • Windows 7
Macintosh	• Mac OS X 10.5.2 and 10.6

- Hardware

Server	• PC: 2 GHz Pentium IV PC or higher (dual processor recommended) • Macintosh: Intel Mac (dual processor recommended) • 1 GB RAM for each processor • 60 GB free hard disk space • 10/100 MBit network interface card • 2 available USB ports (for dongle and measuring device)
Client	• PC: 2 GHz Pentium IV PC • Macintosh: Intel Mac • 512 MB RAM • 10/100 MBit network interface • 1 available USB port (for measuring device)

Program folders

This section gives an overview of the file structure of EFI XF to enable you to locate program files, custom files and other important files quickly and easily.

- Installation folder

  Unless you choose a different location, fix program components of EFI XF are installed by default in the following folder:

Windows XP/2003/2008	\Program Files\EFI\EFI XF
Windows Vista/7	\All Programs\EFI\EFI XF
Macintosh	/Applications/EFI XF

The application folder contains the following five subfolders:

Folder name	Subfolder name	Contains
Client		Program files for EFI XF, including additionally licensed options
	Color Manager Charts	Charts for linearization and profiling in Color Manager
	Color Verifier Charts	Charts for checking color accuracy in Color Verifier
	Documentation	HTML Help files and PDF user manual
	IT8_CharacterizationData	IT8.7/4 profiling charts for Fogra Proof Certification
	MonitorProfile	Default and custom monitor profiles
	Samples	EFI_Form_Offset reference test files Lineal_01.ps for calculating media length correction
JDF		All JDF program and log files
Monitor		Program files for Job Monitor
Server		All program files related to the Server
Tools		Program file for EFI XF Server Information PPDs Unidriver
	Definition Strip for X-Rite DTP-20	TIDforMKV2OXP-V2.tif (TID patch for DTP 20 measuring device)
	EFI AppleTalk driver	AppleTalk driver required for AppleTalk support on Windows XP computers
	FograCert	FograCert test forms
	USB Measurement Devices	Device drivers for supported measuring devices

- Work folder

  You will find all work files directly associated with job processing located in the following folders:

Windows 2000/XP	\Documents and Settings\All Users\Application Data\EFI\EFI XF
Windows 2008/Vista/7	\ProgramData\EFI\EFI XF
Macintosh	/Library/Application Support/EFI/EFI XF

If you cannot see the Application Data folder, it may be because it is set up as a hidden folder on your computer. Consult your administrator if you have trouble accessing this folder.

The folder EFI XF contains the following folders and subfolders:

Folder name	Subfolder name	Contains
Client	Working	Temporary files. Used to save linearization and profiling files from Color Manager as well as Remoteproof Containers for manual creation.

Folder name	Subfolder name	Contains
Server	Backup	Backup files of system workflows
	ControlCharts	it8 files for the checking the measured color values of the control strips
	ControlStrip	Control strips for footer
	Environments	Backup files of environments
	Export	Default folder for print-to-file jobs
	JobFolder	Temporary job files
	Log	Log files. Important in case of support queries.
	Logo	Copies of logo files selected for job ticket
	Output	Print (bco) files
	Preview	Preview files
	Profiles	
	\Balance	Default 3cc files; vcc and vpc files created in Color Manager
	\Monitor	Monitor profiles
	\Reference	Reference profiles in common use in the industry
		Device link profiles
	\Reference Additional	Additional reference profiles in common use around the world
	\Spotcolor	Spot color tables (bct) created in Spot Color Editor
	Remote	Incoming and outgoing Remoteproof Containers (rpf) to and from Color Verifier
	Screening	Screening files (spt) created in Dot Creator
	Tickets	Record of all actions taken in EFI XF. Important in case of support queries.

- Media profiles

  Media profiles are installed in the following folders:

Windows XP/2003/2008	\Program Files\EFI\EFI Media Profiles
Windows Vista/7	\ProgramData\EFI\EFI Media Profiles
Macintosh	/Library/Application Support/EFI/EFI Media Profiles

- License files

  License files are installed in the following folders:

Windows XP/2003/ 2008/Vista/7	\Program Files\FlexLM
Macintosh	/Applications/FlexLM

About this manual

Users of this manual should already be familiar with:

- The operating system on which their software is installed
- The subject of color management

Conventions

Cautions must be read carefully. They indicate important information which can help you prevent errors when using the software.

Tips and information which you may find useful to perform a certain step.

The screen captures illustrated in this manual have been created from a mixture of both the Windows and Macintosh versions of the software. Depending on which version you are using, the image on your screen may look slightly different. However, unless otherwise stated, the functionality is the same for both operating systems.

SETTING UP

Starting the EFI XF Client

To start the EFI XF Client:

- Double-click the program icon on the computer desktop (Windows)
- Click the program icon in the Dock (Macintosh)

Program icon

The software cannot be started before it is licensed. If an error message appears to inform you that no valid license is available, you may have generated a license for an incorrect dongle ID.

Open the license file to check which dongle ID you typed in. See “License files” on page 19 for details of where license files are installed. If this does not match the dongle ID displayed in EFI XF Control, please send an e-mail to:

- eu.activation@efi.com (for Europe/Asia/Australia/Africa)
- us.activation@efi.com (for North and South America)

giving details of:

- the EAC code(s) of the incorrectly generated license(s)
- the correct dongle ID (from EFI XF Control)
- the incorrectly typed dongle ID (printed in the license file)

See also:

“Licensing” on page 32

Logging on to an EFI XF Server

If an EFI XF Server and Client are installed on the same computer, the EFI XF Client automatically logs on to that Server as the default administrator the first time you start the software. If no EFI XF Server is installed on the same computer, the following window opens when you try to start the software. You must log on to an EFI XF Server before you can proceed.

Login window

If a firewall is in use in your network, make sure that it is configured so that communication between Server and Client computers is possible. The following ports must be available on the Server and Client computers:

- 8010 (TCP and UDP)
- 50005 to 500025 (TCP)
- 20020 to 20021 (UDP)

Furthermore, make sure that the following applications can communicate with the network:

Server	EFI_XF_Server.exe EFI_Activation_Wizard.exe' EFI_XF_Control.exe ProfileUpdater.exe Updater.exe
Client	EFI_XF_Client.exe EFI_ClientPtchr.exe EFI_ClientPatcher.exe EFIColorEditor.exe EFIColorManager.exe EFIColorVerifier.exe EFIDotCreator.exe

For the Windows firewall, the port and application settings are created automatically by the installer.

TO LOG ON TO AN EFI XF SERVER

1 **Type the default login information, as follows:**

User name: admin
Password: admin

This is the default administrator login information. You can log in as a different user if EFI XF has already been set up and additional users have been created.

2 **Select the IP address of the Server computer.**

A list of all available EFI XF Servers in your sub-network is displayed with IP address in the drop-down list box. If Server and Client are installed on the same computer, the IP address of the local Server is placed first in the list. However, you can also type in manually the IP address of an EFI XF Server. Ask your system administrator if you are not sure which TCP/IP address to use.

If you are currently logged on to a Server on a different computer and want to log on to a local Server installed on the same computer as the EFI XF Client, you can type “localhost” instead of an IP address. This means that the default IP address 127.0.0.1 is used by the software.

3 **Click OK.**

The connected Server is displayed at the bottom of the program window.

System workflows

This documentation makes a distinction between the terms “system workflow” and “workflow”. The term “system workflow” consists of a user, workflow and output device. It refers to all work processes from file input by a certain user to file output on a specified printer. The term “workflow” is concerned only with file processing and the way files are handled in EFI XF.

Default system workflows

EFI XF is installed with one default system workflow, consisting of two users, one workflow and one output device.

Default system workflow configuration

The user "admin" (default password "admin") is permitted to create, set up and manage system workflows in System Manager.

The user "guest" (default password "guest") is permitted to print and manage his or her own print jobs in Job Explorer but does not have access to System Manager and cannot create or modify system workflows. ”Guest” enables infrequent users of EFI XF to log on quickly and easily, without first having to be defined as an individual user.

The workflow “EFI Linearization” and the output device “Linearization device” are used primarily in conjunction with EFI LinTool and EFI Color Manager for printer linearization and profile creation. Only users with administrator rights can print jobs via this workflow. You must configure the linearization device before you can access EFI LinTool or EFI Color Manager.

If you set up a workflow and output device as part of the installation procedure, these will also be visible in System Manager.

Setting up system workflows

You can set up a system workflow in:

- Setup Wizard (Windows) or Setup Assistant (Macintosh)

  The Setup Wizard/Assistant leads you logically through the minimum of steps necessary to set up a system workflow for the default users. You can finetune your workflow settings later in System Manager, if required.

  Normally, you will already have created a system workflow in this way when you installed EFI XF.

- System Manager

  In System Manager, you can create additional users, workflows and output devices. You can also change the configuration of existing workflows.

To set up an output device, you must have media profiles for your printer installed on the computer. If you did not install any media profiles during program installation, install them now from the software DVD or via EFI XF Control. See “EFI XF Control” on page 150 for further information.

Setting up in Setup Wizard/Assistant

Setup Wizard/Assistant provides step-by-step instructions on how to configure a basic system workflow.

System workflows created in this way enable the default users to output print jobs in their original size and with color management applied.

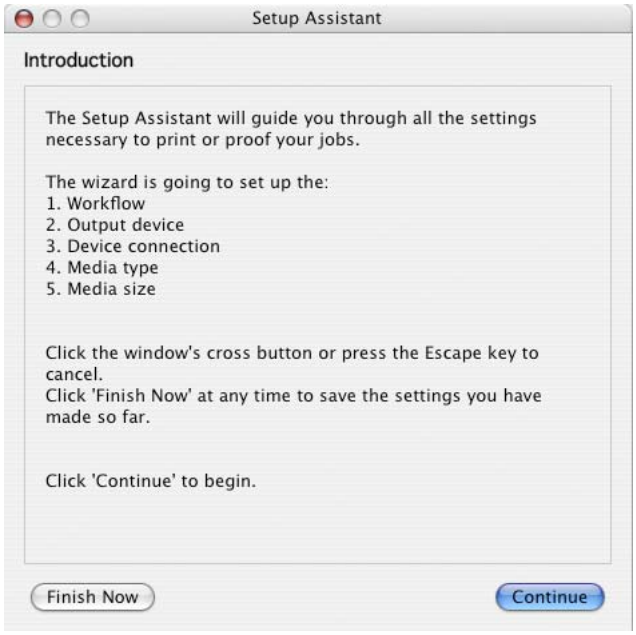
TO SET UP A SYSTEM WORKFLOW IN SETUP WIZARD/ASSISTANT

You can click Finish Now at any time to exit the setup procedure. Any settings that you have already made are saved.

1 **In the toolbar, click System Manager.**

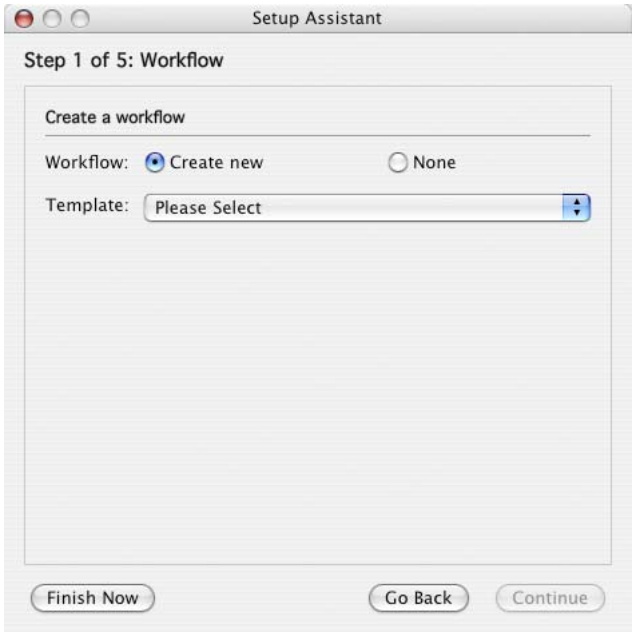
2 **From the System menu, choose Setup Wizard (Windows) or Setup Assistant (Macintosh).**

Introduction window



3 **Click Continue to open the Workflow dialog.**

Creating a workflow



4 **Select “Create new”.**

5 **From the drop-down list box "Template", choose a workflow template that best suits your needs.**

EFI XF provides many default workflow templates. Each has been set up with specific color management settings for a particular workflow scenario, such as pre-press, print production, photo printing or contour cutting.

When you make a selection from the list, the individual template settings are displayed.

6 **Click Continue to display the Output device dialog.**

Selecting an output device

7 **From the drop-down list box, select "Create a new output device".**

8 **From the drop-down list box, select your output device.**

When you make a selection, the Setup Wizard/Assistant displays the number of media profiles installed for the output device.

If no media profiles are installed, an error message is displayed. In this case, you must cancel the setup and install the appropriate media profiles from the software DVD or via EFI XF Control. See "EFI XF Control" on page 150 for further information.

Setting up a connection

9 Click Continue to open the Device connection dialog.

10 Select a connection type.

- Select "Print to system printer" to print to a Windows printer that has already been set up as a system printer in Windows.

  The available printers are listed in the drop-down list box.

  This setting is only available for Windows and the system printer must be a printer supported by EFI XF.

- Select "Print via IP network" if you want to print via TCP/IP.

  Type the IP address in the appropriate edit box. You can check whether the connection to the printer has been properly established by clicking Test. To test the connection, the printer must be switched on. If you receive an error message, consult your system administrator for advice.

  Select the type of TCP/IP protocol that your printer uses for data transfer.

  – Raw on port

    Most printers support RAW printing to port 9100. However, please note that this setting depends on the network settings made at the printer and may, therefore, be different.

– LPR. The queue name is

If your printer supports LPR printing, type the queue name in the edit box.

In most cases, you can leave this edit box blank. It is normally only necessary to type a queue name if you are printing via a Unix system or a print server with multiple interfaces. Refer to your printer manual for further information.

- Select “Print via port” to print to a printer connected via USB to the Server computer.

  The printer must be switched on when you start EFI XF. Otherwise, it will not be automatically detected.

11 Click Continue to open the Media type dialog.

Selecting a media type

12 From the drop-down list box “Ink type”, select the type of ink inserted in the printer.

13 From the drop-down list box “Media name”, select the media you want to use.

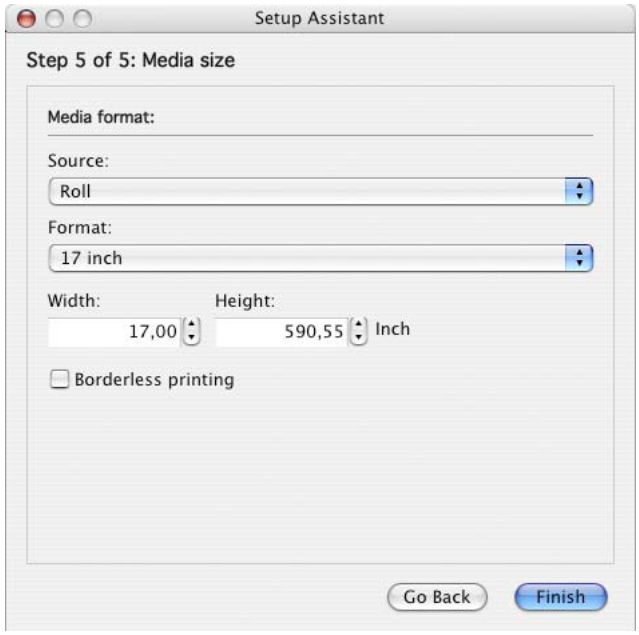
EFI XF provides media profiles that have been created for specific combinations of media, ink and resolution. Furthermore, you can implement your own custom media profiles that have been created for your exact printer.

14 From the drop-down list box “Print quality”, select a combination of color mode, resolution and print mode.

The list of available print qualities depends on the media profiles that are installed.

15 Click Continue to open the Media size dialog.

Selecting a media size



16 In the Media Size dialog, make media-specific settings.

Which settings are available depends on the selected printer.

- From the drop-down list box “Source”, select the source of media feed.
- From the drop-down list box “Format”, select the media size. Only default sizes are available initially, but you can define your own media sizes in EFI XF.
- If supported by your particular printer, you can select borderless printing.

17 Click Finish.

Your workflow and output device are now set up.

Setting up in System Manager

Creating system workflows in System Manager gives you access to all the settings available in EFI XF.

Once you have created a system workflow, you need to set it online.

TO CREATE A NEW USER

You can set up each co-worker as a user in EFI XF and define user-defined privileges for each.

1 **Create a new user by:**

- Clicking New User in the toolbar, or
- Right-clicking on an existing user in the layout area and choosing New User from the context menu, or
- Choosing File > New > User

A user with the name “New User 1” is created. The User tab displays the Profile pane.

2 **Define a name for the user by:**

- Double-clicking on “New User 1” in the layout area, overwriting the default name and pressing <Enter>, or
- Overwrite “New User 1” on the Profile pane

3 **On the Profile pane, define a password. Then confirm it by re-typing it in the appropriate edit box.**

4 **Using the drop-down list box, specify whether the new user will have administrator or user rights.**

Administrators have access to System Manager and are permitted to create, set up and manage workflows. Users without administrative rights are only able to submit print jobs and make job-specific settings in Job Explorer.

5 **Define whether the new user will be allowed to make job-specific settings for color adjustment, color management and spot colors.**

6 **In the toolbar, click Save.**

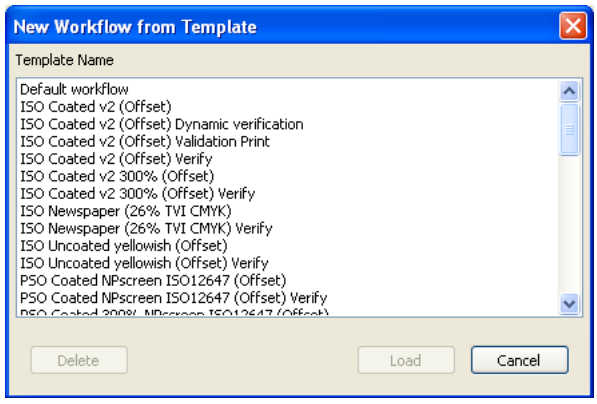
TO CREATE A WORKFLOW

1 **Create a new workflow by:**

- Clicking New Workflow in the toolbar, or
- Right-clicking on an existing workflow in the layout area and choosing New Workflow from the context menu, or
- Choosing File > New > Workflow

The window New Workflow from Template opens.

New Workflow from Template dialog



2 **Highlight a template in the list.**

EFI XF provides many default workflow templates. Each has been set up with specific color management settings for a particular workflow scenario, such as pre-press, print production, photo printing or contour cutting.

Initially only the default workflows are available as templates. However, once you have created your own workflows, you can save them and add them to the list. Workflow templates are saved with all the settings defined for the original workflow and serve as the basis for new workflows with similar properties. This enables you, for example, to use the same workflow settings to print to different output devices, since each workflow can only be connected to one printer at a time.

3 **Click Load.**

A new workflow with the name of the selected workflow template is created, supplemented by a consecutive number.

4 **Define a unique name for the workflow by:**

- Double-clicking on the new workflow in the layout area, overwriting the default name and pressing <Enter>, or
- Overwriting the default name on the General pane of the Workflow tab

5 **Type a brief workflow description, if required.**

The default settings are automatically displayed, but you can add any additional information.

6 **Define your preview and file deletion settings, if required.**

7 **Check the settings which affect the processing and print speed of your jobs.**

8 **On the remaining tabs, make any additional settings.**

For example, on the Layout tab, you can set up your workflow for automatic nesting or step & repeat.

9 **When you are finished, save your workflow by clicking Save in the toolbar.**

To save your newly created workflow as a basis for further workflows, choose Save as Template from the File menu and define a name.

The next time you create a new workflow, it will be displayed in the window "New Workflow from Template".

TO CREATE A NEW OUTPUT DEVICE

1 **Create a new output device by:**

- Clicking New Output Device in the toolbar
- Right-clicking on an existing output device in the layout area and choosing New Output Device from the context menu, or
- Choosing File > New > Output Device

2 **Set up the new output device.**

See also:

"User settings" on page 48

"Workflow settings" on page 49

"Output device settings" on page 79

Setting system workflows online

When you have created a system workflow, the next step is to set it online.

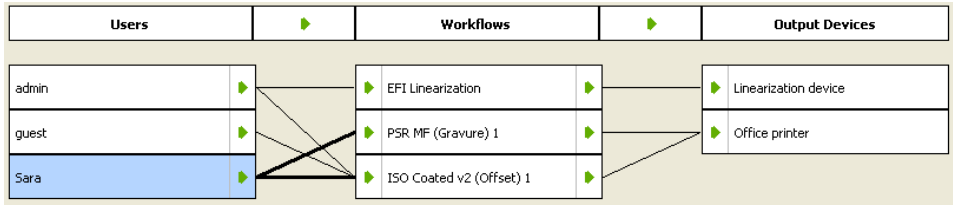
When a workflow is fully online, all jobs are automatically processed and printed as soon as they are loaded in EFI XF.

TO SET A SYSTEM WORKFLOW ONLINE

1 **Check that your system workflow is properly connected.**

Users, workflow and output must be visibly joined by a black line.

Connected system workflows depicted by a black line



To connect two objects, click object one (e.g. user) and drag the cursor across to object two (e.g. workflow). Make sure to drag the cursor from the margin area of an object. Dragging from the center rearranges the order in which your users, workflows or output devices are displayed.

2 **Check that your system workflow is online.**

A fully online system workflow is indicated by green arrows from user through to output device.

See also:

"Making changes to system workflows" on page 85

Licensing

EFI XF is a modular-based software, designed to guarantee that you receive a product tailored to meet your individual workflow needs. The software is subject to a complex license management system, which ensures that only those options which make up your chosen configuration are visible in the software.

How does the license management system work?

A so-called "EAC" (Entitlement Access Code) is provided to you whenever your purchase EFI XF or one of its modules. The EAC contains information about the product and output options you have purchased and are, therefore, entitled to use.

To create a license file, you are required to type in the EAC code printed inside the product packaging, so make sure you have this at hand.

Your dealer is responsible for ensuring that you receive all the necessary items. You will find the EAC code printed on the Product Activation Certificate. If the Product Activation Certificate is missing from the scope of delivery, contact your dealer for assistance.

To prevent unlawful copying of the software, EFI uses a hardware copy protection (dongle). The dongle is a piece of hardware which has an electronically integrated “dongle ID”. Each dongle is unique and can be identified by its ID. The licensing procedure works by extracting a unique hardware ID from the dongle provided with the software. The license file creates a fixed link between the software and the dongle.

The number of license files you require depends on the particular software configuration you have purchased. If any license file is not detected when you launch EFI XF, that part of the software will not be available. If no license files are detected, EFI XF will not start and an error message will appear.

During product registration, a license file is generated and installed. You can license EFI XF automatically or manually. To generate a license file, you require a computer with Internet access. If the EFI XF Server is installed on a computer without Internet access, you must install the license file manually.

Licensing the software

Normally, you will already have generated and installed a license file as part of the software installation procedure. However, there may be occasions when you need to reinstall an existing license file or generate a new license file for a newly purchased EFI XF add-on module.

The following methods are available for generating and installing a license file:

- On the Server computer, you can access the Activation Wizard/Assistant via EFI XF Control.
- On the Client computer, you can access the Activation Wizard/Assistant via the System menu in System Manager.
- On a computer with Internet access, go to http://activation.efi.com

Before starting the licensing procedure via the Activation Wizard/Assistant, note the following:

- Make sure that the dongle is plugged into a USB port on the computer. The dongle may take up to one minute to be detected.
- Ensure that only the EFI XF dongle is plugged into your computer. If multiple dongles are plugged in, this can lead to license recognition problems.
- If you are installing this software to upgrade a previous version, make sure that you do NOT delete the existing license files from the FlexLM folder. These are required in addition to the new license files.
- If you are extending an existing configuration of EFI XF, make sure to exit all Client versions of the software.

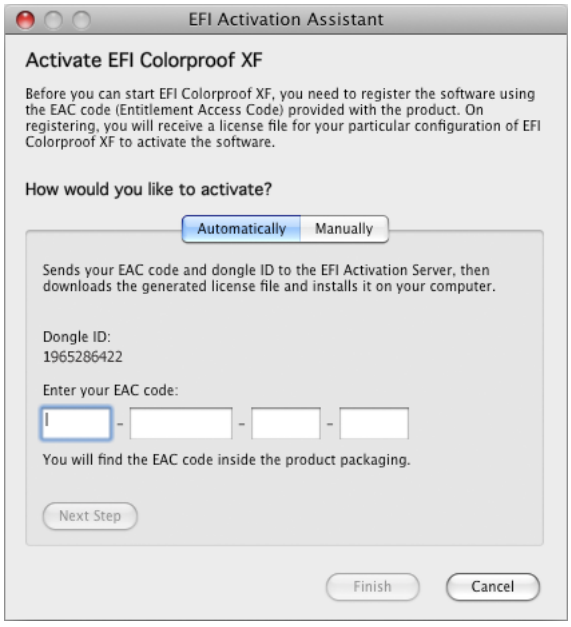
TO LICENSE AUTOMATICALLY VIA THE ACTIVATION WIZARD/ASSISTANT

Use this method if your computer has Internet access.

1 **Start the Activation Wizard/Assistant.**

2 **Click the Automatically tab.**

Setup wizard: Creating a license file (Automatic)



3 **Enter the EAC code in the appropriate edit boxes and click Next Step to establish a connection to the EFI Activation Server.**

The EAC code is case-sensitive.

4 **Read carefully the information regarding product registration. Then click Next Step.**

5 **Fill out the online form with your user registration details.**

If you have previously registered an EFI product, the form is filled out automatically if you type your e-mail address and click Retrieve.

A license file is created and downloaded to the FlexLM folder on your computer.

6 **Click Install License.**

A license file is created and downloaded to the FlexLM folder on your computer.

If problems arise when trying to download a license file, go to the website: http://activation.efi.com.

7 **Click Finish to exit the Activation Wizard/Assistant.**

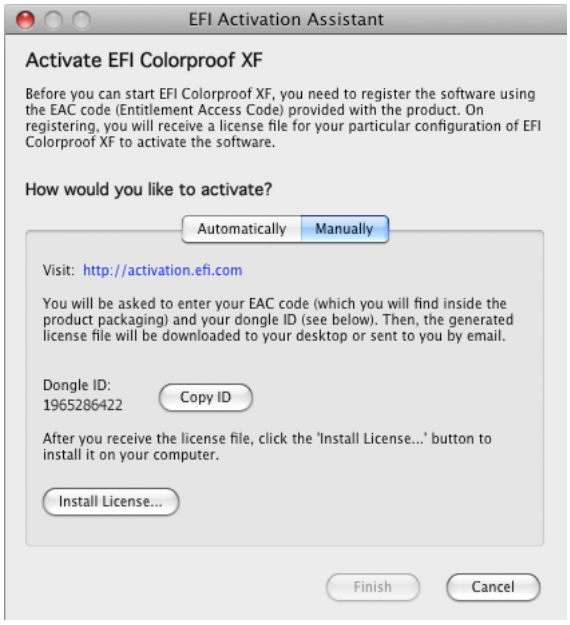
TO LICENSE MANUALLY VIA THE ACTIVATION WIZARD/ASSISTANT

Use this method if your computer does not have Internet access.

1 **Start the Activation Wizard/Assistant.**

2 **Click the Manually tab.**

Setup wizard: Creating a license file (Manual)



3 **Make a note of the displayed dongle ID or copy and paste the dongle ID number into a text file by clicking Copy ID.**

4 **From a computer with Internet access, go to the website http://activation.efi.com and follow the on-screen instructions to generate and download a license file.**

Make sure you have the following information handy:

- the dongle ID
- the Entitlement Access Code (EAC) printed inside the product packaging.

5 **Copy the downloaded license file to a location on the computer with the EFI XF Server e.g. the computer desktop.**

6 **In the Activation Wizard/Assistant, click Install License and browse to the downloaded license file.**

7 **Select the license file and click Open.**

The license file is copied to the FlexLM folder on your computer.

8 **Click Finish.**

You may need to restart the EFI XF Server if the license is not automatically detected.

TO LICENSE VIA THE EFI ACTIVATION WEBSITE

Use this method to generate a license file if you do not have access to the Activation Wizard/ Assistant.

In addition to the EAC code, you are also required to type the dongle ID. On the Server computer, go to EFI XF Control and choose Show dongle ID from the context menu.

1 **Go to the website http://activation.efi.com.**

The Login dialog opens.

2 **Make a language selection to define the display language.**

3 **Enter the EAC code in the appropriate edit boxes.**

The EAC code is case-sensitive

4 **Click Submit to open the Entitlement Information dialog.**

5 **Select the check box to the left of each listed product to indicate the modules for which you wish to generate a license file.**

6 **Click Next to open the Host Information dialog.**

7 **Type your dongle ID in the edit box.**

8 **Click Next to open the EFI Global Registration dialog.**

9 **Type an e-mail address.**

The e-mail address will be used to notify you of product innovations, etc.

10 **Click Next to open the User Profile dialog.**

11 **Fill out the online form with your user registration details.**

12 **Click Next to open the Review Information dialog.**

13 **Check the order information and the dongle ID.**

If you need to make any changes, click Previous to return to an earlier dialog.

14 **Click Next to open the License(s) dialog.**

15 **Specify how you want to receive your license file.**

- Click Save to File to save the generated license file to a defined location on your computer. The license file is saved in text format with the file extension *.lic.
- Click Send Email to send the license file to any valid e-mail address. A dialog opens to confirm that the license file has been sent to the specified e-mail address.

16 **Click Logout to exit the website.**

17 **To install the license file, follow the instructions for licensing manually.**

It is a good idea to save a backup copy of your license file should you need to reinstall it at any time. Alternatively, you can return to the Activation Wizard/Assistant at any time and download a copy of a previously generated license file.

You can check which license files are installed by choosing EFI XF Server Information from the ? menu (Windows) or from the Help menu (Macintosh).

See also:

"EFI XF Server Information (Windows only)" on page 47

"EFI XF Control" on page 150

GETTING TO KNOW YOUR SOFTWARE

The user interface of EFI XF is divided into the following two program windows, which you display by clicking the appropriate button in the program window bar:

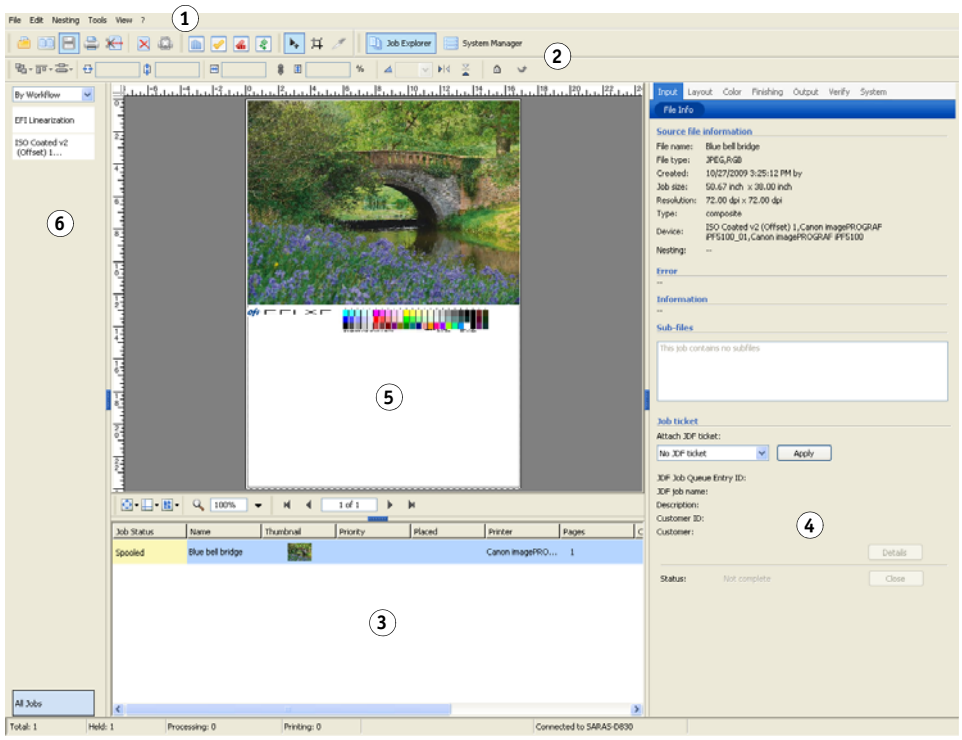
- Job Explorer (administrators and users)
  Here you load and apply settings to your print jobs.
- System Manager (administrators only)
  Here you set up and configure your workflows and printers, create users and grant them access rights to print via specific workflows.

Job Explorer

Job Explorer is where you load, organize and preview jobs, and make job settings.

Job Explorer

1 **Menu bar**
2 **Toolbars**
3 **Job list**
4 **Property inspector**
5 **Preview window**
6 **Selector**



The job list provides an overview of loaded jobs. A selected job is previewed in the preview window and you can configure job-specific settings in the property inspector.

The Selector acts as filter, listing jobs according to workflow, output device or job status. The button “All Jobs” lets you view all your jobs in the job list. By default, the Selector is hidden when you start EFI XF for the first time. To display the Selector, choose Show Selector from the View menu.

The job list contains job-specific information, such as job status and job name. Each job status is indicated by a different color.

You can add or remove columns to display the information that is most important to you by right-clicking on a column heading and choosing the required items from the context menu.

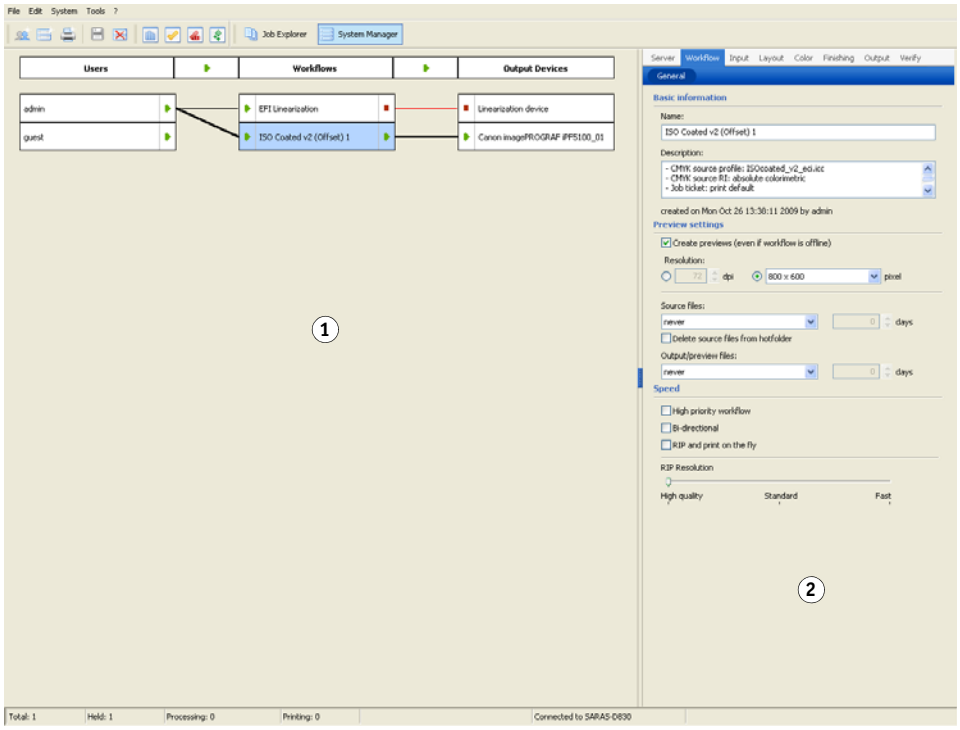
You can also change the order of the columns in the job list by holding down the mouse button on a column heading and dragging to the left to a different position. The column heading “Job Status” and “Name” are fixed and cannot be repositioned or removed.

System Manager

System Manager is where you create and configure system workflows. It is available only to users with administrator status.

System Manager

1. **Layout area for creating, configuring and managing system workflows**
2. **Property inspector**



System Manager gives you a clear overview of:

- which users can print to which workflows
- the output device assigned to each workflow

In System Manager, you can halt jobs at certain stages of the workflow. This may be desirable to perform certain tasks. For example, a workflow can be diverted quickly and easily to another output device if a particular printer needs servicing.

The changes you make in this window are applied to all jobs in the job list that have not yet been processed.

See also:

"Setting system workflows online" on page 31

SETTINGS IN SYSTEM MANAGER

These sections describe the individual settings concerned with creating and setting up system workflows. They deal only with those settings available in the basic software configuration. Settings related to add-on modules are dealt with in the respective sections.

Menus

EFI XF Client (Macintosh only)

- About

  Choose this command to open a window with details of your program version.

- Quit EFI XF Client

  Choose this command to exit EFI XF. The next time you start EFI XF you will automatically be logged on with the same user data.

File menu

- New
  - User

    Choose this command to add a new user.

  - Workflow

    Choose this command to create a new workflow that is based on one of the default workflow templates or on any other workflow that you have previously saved as a workflow template.

  - Output Device

    Choose this command to create a new output device.

- Import Environment

  Choose this command to load a backup file of your system workflow environment.

- Save

  Choose this command to save all the changes made to the system workflow.

- Save as Template

  Choose this command to save a new workflow template you have created under any chosen name. Workflow templates form the basis for new workflows with the same or similar settings.

- Save as Environment

  An environment is a combination of workflow and printer. Choose this command to create a backup copy of your workflow and printer settings.

- Backup

  Choose this command to create a backup copy of your system workflows.

- Restore

  Choose this command to restore a previously backed up copy of your system workflows.

- Login

  Choose this command to display the "Login" dialog. This command enables you to log in under a different user name or to log on to a different Server.

- Logoff and Exit

  Choose this command to log off and exit the EFI XF Client. The next time you start EFI XF the "Login" dialog opens.

  It is advisable to log off with this command if more than one person is using the same computer. This ensures that each user logs on to his workflow settings.

- Exit (Windows only)

  Choose this command to exit EFI XF. The next time you start EFI XF you will automatically be logged on with the same user data.

Edit menu

- Languages (Windows only)

  Choose this command to change the language in which the user interface is displayed. You must restart the EFI XF Client before the new language takes effect. By default, the language of the operating system is displayed.

  On a Macintosh, you can change the language the international settings in “System Preferences”.

  If you change the display language, make sure that the help set for that language is installed. Otherwise, no help will be available from the Help menu. You can install help sets in additional languages from the software DVD.

  Please note that to display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports double-byte fonts.

- Measurement system

  Choose this command to define which system of measurement is used in EFI XF. The default setting corresponds with the system of measurement set up in the operating system. However, you can choose between millimeter, centimeter, meter, inch and foot.

- Monitor Profile

  EFI XF provides you with the opportunity to verify color accuracy on a computer screen. This is known as "soft proofing". However, much like the color output of each printer can vary greatly, so each monitor displays color slightly differently. To overcome this problem, it is important that the monitor is regularly calibrated to a certain standard. Monitor calibration consists of two steps:

  – adjusting the brightness and control settings on the monitor itself to set values and

  – creating a monitor profile, which defines the white point, gamma and RGB phosphor settings

  Windows and Macintosh computers provide standard monitor profiles as part of the operating system software. In EFI XF you can select a monitor profile that you have created yourself or one provided with the operating system.

- Copy

  Choose this command to copy a selected user, workflow or output device to the clipboard.

- Paste

  Choose this command to insert a duplicate of a user, workflow or output device from the clipboard.

- Delete

  Choose this command to delete the selected user, workflow or output device.

- System

  This command enables you to make global settings to connect and disconnect users, workflows and output devices to and from a system workflow.

- User

  This command contains user-related settings which enable you to:

  – Check which workflows a selected user is connected to

  – Check if the selected user is online/offline

  – Connect the selected user to all workflows

  Users with no administrator rights cannot be connected to the EFI Linearization workflow.

  – Disconnect a selected user from all workflows

  – Create a new user

  – Delete the selected user

- Workflow

  This command enables you to:

  – View which users are connected to the selected workflow

  – View which output device is connected to the selected workflow

  – Set up a connection from user to workflow so that that user can load jobs in EFI XF

  – Set up a connection to an output device so that jobs can be processed and printed

  – Connect all users to the selected workflow

  – Disconnect all users from the selected workflow

  – Disconnect the output device from the workflow

  – Save a system workflow as an environment

  – Create a new workflow

  – Delete a selected workflow

- Output Device

  This command enables you to:

  – View which workflows are connected to the selected output device

  – Check if a selected output device is online/offline

  – Linearize/re-linearize an output device. When you choose the appropriate commands, the configuration of the selected printer is automatically transferred to the linearization device and LinTool/Color Manager is started.

  – Connect all workflows to the selected output device

  – Disconnect the selected output device from all workflows

  – Create a new output device

  – Delete a selected output device

- JDF Device Registration

  This setting is used in conjunction with EFI JDF Connector to set up a JDF connection to JDF-compliant EFI products.

- Export Media Catalog

  This command saves the media settings in CSV format. The media settings file can be imported into EFI Digital StoreFront.

System menu

- Start Font Download

  Choose this command to convert EFI XF to a low-res printer. This is ncessary if you want to use Japanese fonts.

- Stop Font Download

  Choose this command to cancel font downloading.

- Activation Wizard (Windows)/Activation Assistant (Macintosh)

  Leads you through the licensing steps necessary to activate newly purchased EFI XF modules. You can also use this command to manually reinstall an existing license.

- Setup Wizard (Windows)/Setup Assistant (Macintosh)

  Leads you step by step through the settings necessary to create new system workflows or to make changes to existing ones.

- Clean Up

  Choose this command to delete files that are no longer needed. You can choose to delete output files, preview files, temporary files, spot color definitions, files loaded in the job list and log files. Alternatively, select “All” to delete all.

See also:

"Setting up in Setup Wizard/Assistant" on page 23

"Licensing the software" on page 33

"Japanese fonts" on page 259

"JDF Connector" on page 262

Tools menu

- Open EFI LinTool

  Choose this command to start EFI LinTool (default tool) — a tool for ensuring your printer's color consistency.

- EFI XF Uploader

  This command uploads selected icc profiles, spot color tables (bct), optimization files (3cc) and visual correction files (vcc) from, for example, a USB stick to the appropriate program folder. This saves you from having to browse to the folder location to copy the files manually.

- Job Explorer

  Choose this command to switch to Job Explorer.

The Tools menu also contains the commands for starting the available add-on modules. Commands for starting Color Manager, Color Verifier, Color Editor and Dot Creator are also available if you have a valid license.

? menu (Windows)/Help menu (Macintosh)

- Help

  Choose this command to start the HTML online Help for EFI XF.

  If you change the display language, make sure that the help set for that language is installed. Otherwise, no help will be available from the Help menu. You can install help sets in additional languages from the software DVD.

- EFI Web Site

  Choose this command to access the EFI homepage.

- EFI Technical Support

  Choose this command to send an e-mail direct to our Support team if you require help with your product.

- EFI XF Server Information (Windows only)

  Choose this command to open a window in which you can view

  – which updates are installed

  – which options (license files) are installed

  This menu command is only enabled if Server and Client are installed on the same computer.

- About (Windows only)

  Choose this command to open a window with details of your program version.

Toolbar

New User:
Click this button to add a new user.

New Workflow:
Click this button to add a new workflow to the system workflow. Choose a predefined workflow template or design your own.

New Output Device:
Click this button to add a new printer.

Save:
Click this button to save your settings.

Delete Selected Object:
Click this button to delete a selected item.

EFI LinTool:
Click this button to start EFI LinTool (default tool) — a tool for ensuring your printer's color consistency.

Job Explorer:
Click this button to switch to the program window "Job Explorer" where you load and process jobs.

System Manager (this window) (for users with administrative rights only):
Click this button to display the program windows "System Manager" where you set up system workflows.

Property Inspector

The Property Inspector displays the settings of a selected:

- user
- workflow or
- output device

All the settings you make in System Manager are made for a selected workflow and are applied to all jobs processed via that workflow. Job-specific settings are possible in Job Explorer, which override the settings made in this program window.

Server tab > Info pane

Unlike the other tabs and panes in the Property Inspector which are user-, workflow- or output device-specific, depending on which element is selected in the layout area, the Info pane on the Server tab is always available. It displays information about current system utilization and the job status of all jobs. It also displays the amount of used hard disk space on your computer.

EFI XF requires a certain amount of free disk space. Be aware that if less than 2.5% free disk space or less than 5 GB free disk space is available, you may not be able to load and process jobs in EFI XF.

User settings

The users settings are available when you select a user in the layout area.

User tab > Profile pane

- User name

  Use this edit box to type a name for a new user or change the name of an already defined user.

- Password

  Define a password. Note that passwords are case-sensitive.

  Confirm the password by retyping it in the appropriate edit box.

  You may change the password of the default administrator if you wish. However, please note that if the default administrator is the only user with administrator rights and the password is misplaced, you will no longer be able to access the software to make settings at administrator level.

- User role

  Select whether the user will have administrator or user rights.

  Users with administrative rights have access to System Manager and are permitted to create, set up and manage workflows.

  Users with no administrative rights are only able to submit print jobs and make job-specific settings in Job Explorer.

- Privileges

  The rights of all users can be extended to allow them to make job settings for color management, spot colors and color verification.

Workflow settings

The workflow settings are available when you select a workflow in the layout area.

Workflow tab > General pane

- Name

  Type a name for a new workflow or change the name of an already defined workflow. It is not possible to change the name of the default linearization workflow.

- Description

  The “Description” box gives details of some of the more important settings of the template used to create the workflow. You can edit the text to reflect changed settings or add comments.

- Preview settings

  – Create previews (even if workflow is offline)

    Select this setting if you want to display an automatic preview of all loaded print jobs. If this setting is set to off, you can still create job-specific previews in Job Explorer.

  – Resolution

    Select a radio button to define the resolution of a displayed preview in dpi or pixel.

- Source files

  Use the drop-down list box to choose when job files saved to the JobFolder are automatically deleted. Files can be deleted:

  – Never

  – Automatically after printing

  – After a specified number of days. Type the time span in days in the edit box.

  Any setting you make for source file deletion is automatically applied to output/preview files. It is not possible to delete source files alone.

- Delete source files from hotfolder

  Select this check box to delete job files copied to a hotfolder.

- Output/preview files

  During job processing, EFI XF creates a print file of each job and saves it to the Output folder. If the preview function is activated for the workflow, a preview file is also saved to the Preview folder. Use the drop-down list box to choose when output and preview files saved to these folders are automatically deleted. Files can be deleted:

  – Never

  – Automatically after printing

  – After a specified number of days. Type the time span in days in the edit box.

  If you have previously made a setting to delete source files, the same setting is automatically applied to output/preview files. An independent setting is only possible if you have specified that source files are never to be deleted.

- Speed

  – High priority workflow

    Select this check box to ensure that all jobs printed via this workflow go straight to the front of the print queue, i.e. if more than one workflow is printing to the same printer, all jobs received via a high-priority workflow will be output first.

  – Bi-directional

    If your printer supports this feature, select the check box to increase print speed. Bi-directional printing is faster than unidirectional printing, as the print head prints in both directions, but may provide less accurate results.

    Please note that some settings in the linearization may be overwritten.

  – RIP and print on the fly

    Select this check box if you want your jobs to start printing as soon as processing starts. If this check box is not selected, printing will not commence until job processing has been fully completed.

    Simultaneous processing and printing may cause the printer to pause from time to time. This can lead to undesirable lines on the printout.

- RIP Resolution

  Use the slidebar to define whether speed or quality is the more important factor during processing. By reducing the resolution at which the print job is processed you increase the processing speed.

  Processing a print job at a low resolution may result in a draft-quality output, whereas printing at a high resolution setting will take longer. Selecting a low resolution can be useful for photographic images where the resolution is normally not higher than 300 dpi. It is not possible to process a print job at a higher resolution than the output resolution.

  If the Japanese font option is installed, the RIP resolution of PostScript-based files is restricted to 1200 dpi.

Input tab > General pane

To enable job detection settings, you must first set the workflow offline. To do so, click on the green arrow at workflow entry.

- Hotfolder

  Define the folder that is routinely monitored by EFI XF for incoming files. When new files are detected, they are automatically loaded for processing.

  A hotfolder is usually located in a network environment where it can be accessed by any number of users who do not have the EFI XF Client installed on their computers.

  The EFI XF Server runs on Windows as a service. To enable communication with hotfolders via the network, you need to assign network access rights for the EFI XF Server by creating a user with administrative rights. See “Printing via a hotfolder” on page 123.

  If Server and Client are installed on the same computer, set the workflow offline and click Choose to navigate to the folder you wish to use as a hotfolder. A hotfolder can be located anywhere on the network.

  Please be aware of the consequences of inadvertently defining your computer desktop or a network drive as a hotfolder. This will cause all the files saved to this location to be loaded.

  If Server and Client are installed on different computers, you can only print from hotfolders located inside the JobFolder of the EFI XF Server application folder.

  It is recommended that you use a computer on which an EFI XF Server is installed to set up hotfolders.

- Enable load balancing

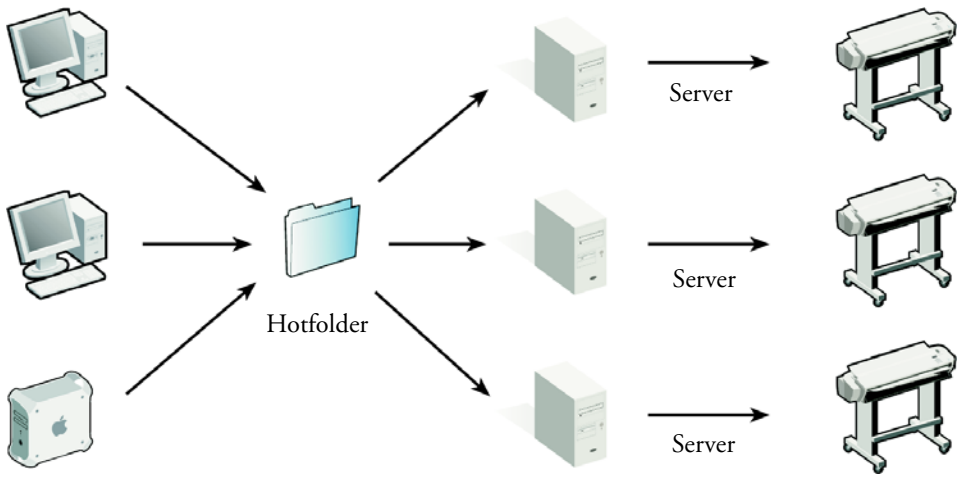
  If the selected hotfolder is being monitored by more than one workflow, you have to select this check box to instruct EFI XF to distribute the workload by diverting print jobs to the first idle workflow that becomes available.

  This ensures that print jobs are always output as quickly as possible, e.g. if one workflow is busy processing a large-volume print job or if one Server encounters a problem. Once a job starts being processed, it is locked to other workflows. This prevents jobs being processed by two workflows simultaneously.

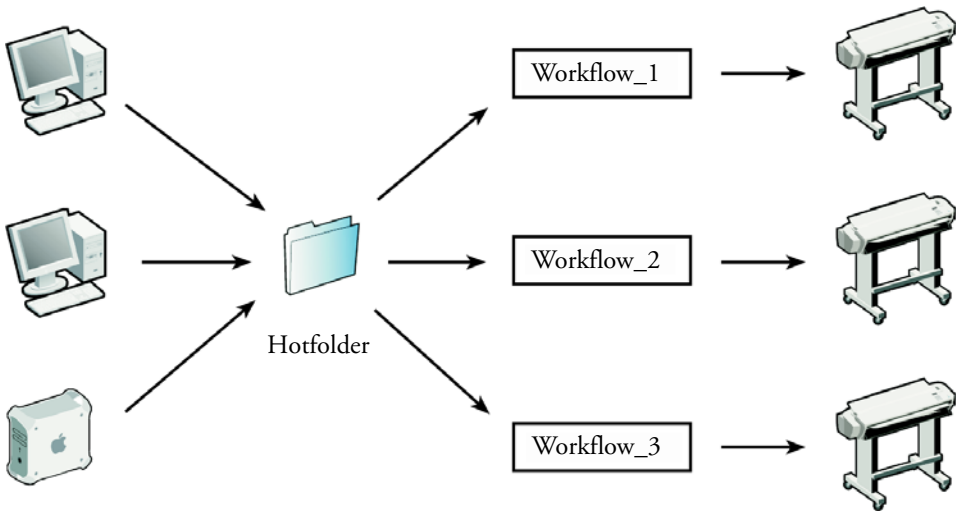
  The advantage of load balancing is that it utilizes all the available system resources as efficiently as possible.

  The following diagrams illustrate two possible scenarios for using load balancing.

Example of load balancing using different Servers



Example of load balancing using different workflows



Please note the following:

– Workflows accessing the same hotfolder may not necessarily be configured identically. This can result in unsatisfactory color results if the workflow settings are different or if a different printer is connected.

– This setting cannot be applied to print jobs in multi-file format, e.g. one-bit, DCS, Scitex, Tiff/IT or delta lists.

- Enable AppleTalk Spooler

  This option must be selected if you wish to print directly to EFI XF from a Macintosh application using the PPD provided on the software DVD.

  By default, this setting is dimmed on Windows XP computers because Windows XP does not support AppleTalk printing. However, if you need to print via AppleTalk from a Windows XP computer, a special EFI AppleTalk driver is provided with your product.

  To set up printing via the PPD:

  – AppleTalk must be installed on the Server computer

  – a hotfolder must be defined

- Create Virtual Printer

  This setting sets up a virtual printer for the workflow. It can be selected from the print dialog of any application and thus enables users to print directly to EFI XF.

  To set up a virtual printer, you must first define a hotfolder on this pane. Then, select the check box and define a name for the virtual printer. This is the name that will be displayed in the printer list of the application.

  The virtual printer is created when you switch the workflow online at workflow entry.

- Import color management settings of remote job

  – Use color management settings of remote job

    Select this radio button if you are processing an EFI Remoteproof Container and wish to apply the color management settings from the JDF file. In this case, the color management settings defined for the workflow will be ignored.

  – Use color management settings of workflow

    Select this radio button if you are processing an EFI Remoteproof Container and wish to apply the color management settings defined for the workflow. In this case, the color management settings saved to the JDF file of the EFI Remoteproof Container will be ignored.

- JDF Communication

  Select the check box to enable JDF communication with other EFI applications as well as with Adobe Acrobat. You can elect to close jobs automatically after printing if you want.

See also:

"Making changes to system workflows" on page 85

"Printing and monitoring print jobs" on page 115

"EFI XF Server Configuration (Windows only)" on page 153

"JDF Connector" on page 262

Input tab > File Formats pane

- PS/PDF
  - Stop job processing if font is missing

    When you select this check box, job processing is halted if EFI XF detects a missing font. The missing fonts are listed. However, you can still preview jobs correctly.

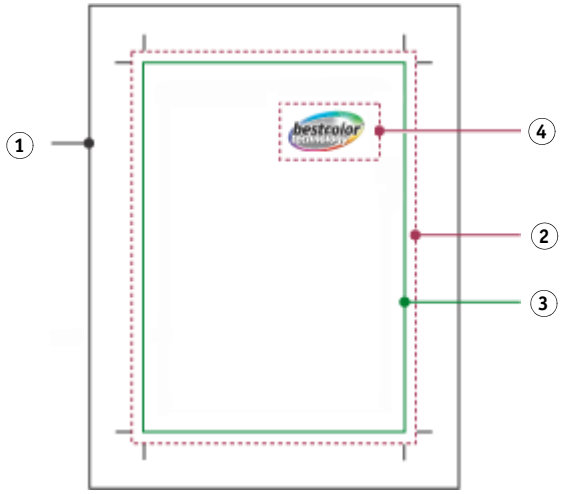
    If the check box is left unchecked, print jobs with non-available fonts are output using the default font Courier instead.
  - Use size out of the

    You can specify which PDF setting is applied to calculate the page size.

Media box	Describes the size of the output media and is displayed in the print dialog. All the other boxes are smaller and are found inside the media box.
Crop box	defines the region to which the contents of the page are to be clipped (or cropped) when displayed or printed. Unlike the other boxes, the crop box has no defined meaning in terms of physical page geometry or intended use. It merely suggests where the page should be clipped.
Bleed box	Defines the bounds to which the contents of the page should be clipped when output in a production environment.
Trim box	defines the intended dimensions of the finished page after trimming. This type of box is used by imposition applications for arranging the order of pages.
ArtBox	Defines the meaningful content of the page, including potential white space.

PDF boxes

1 **Media box**
2 **Bleed box**
3 **Trim box/crop box**
4 **ArtBox**



– Calculate page size

Select this check box to instruct EFI XF to calculate the page size. This is done by RIPping the whole document at a low resolution. It is slower than extracting the information from the bounding box but produces more accurate results. This setting helps to prevent image distortion when printing from some graphics applications.

– Simulate overprinting in composite jobs

This check box enables you to determine whether overprint settings defined in your image file are applied during printing.

Normally, when two objects of different colors overlap, there is a knock-out effect, i.e. they will not print on top of each other. Intentionally printing one layer of ink on top of another is known as overprinting. Overprinting is sometimes used to prevent gaps between adjoining colors.

This setting lets you simulate overprinting in composite jobs. This would otherwise not be possible, since overprinting is not supported by composite jobs.

By selecting the check box and examining the preview, you can check the behavior of possible overprint settings in your file before printing.

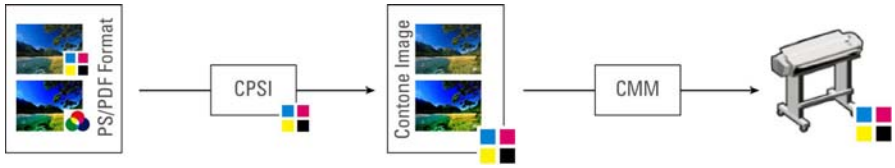
If you have a license for the Spot Color Option, overprinting is incorporated in the settings for in-RIP separation. Therefore, it is recommended that you simulate overprinting in composite jobs only if you do not have a license for the Spot Color Option or if you have a license for the Spot Color Option but in-RIP separation is disabled.

This setting has no effect on separated jobs.

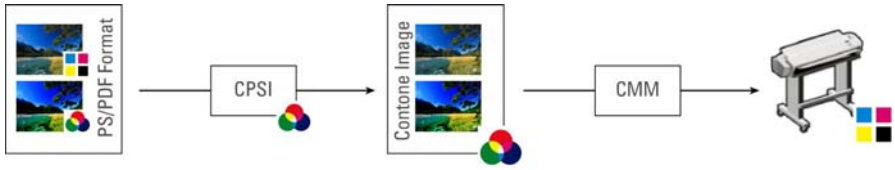
– Working Color Space

Here you can define a color mode for your input data. For example, if your PDF is composed mainly of RGB images, select "RGB". In this case, the RGB source profile selected on the “Color” tab is automatically applied to the entire PDF. Similarly, selecting “CMYK” as the working color space causes your PDF to be output using the selected CMYK source profile. For proofing, you must use the CMYK working color space.

CMYK workflow



RGB workflow



– EPS Job Detection

The setting “Waiting time for job completion” defines the time span during which EFI XF waits for incoming files that belong to a particular print job. Once this time span has elapsed, the software assumes that all files have been received and starts printing.

The default setting is five seconds. However, depending on the size and type of your print jobs, you may wish to change it. For example, for some large-volume separated jobs, a time span of sixty seconds may be needed to ensure that all the separations are received and processed as one print job. Alternatively, for an EPS composite file a setting of one second may well be sufficient to ensure that your print jobs are output as quickly as possible.

With the setting “Default resolution” you can override the default resolution of 72 dpi. Occasionally, EFI XF has difficulty correctly extracting and interpreting the resolution of incoming PS and PDF files. Normally, 72 dpi is perfectly adequate. However, in a very few cases, it is possible that rounding down errors may occur due to internal processing in EFI XF. This can cause a white edge to be output along the right and bottom edges of images, the result of missing pixels.

This is only really noticeable in step & repeat jobs, where a thin white line may be visible between images, although no spacing is defined.

To overcome the problem, EFI XF provides the option to define an input resolution of between 1 dpi and 720 dpi. Selecting the input resolution size from the image helps to prevent rounding off errors.

- PDF print engine
  - PDF print engine

    By default, print jobs are processed using the Adobe PostScript 3 Engine (also known as Configurable PostScript Interpreter or CPSI). It is able to process PostScript level 3 and PDF files. During job processing, source files are converted to PostScript format.

    If your job is in PDF format, you can choose "Adobe PDF Print Engine" (also known as APPE). This setting processes PDF files without converting them first to PostScript.

    APPE can only process 32 separations, whereas CPSI supports up to 255. If more than 32 separations are detected in a job, CPSI is automatically used.

  - Image EPS/PDF print engine

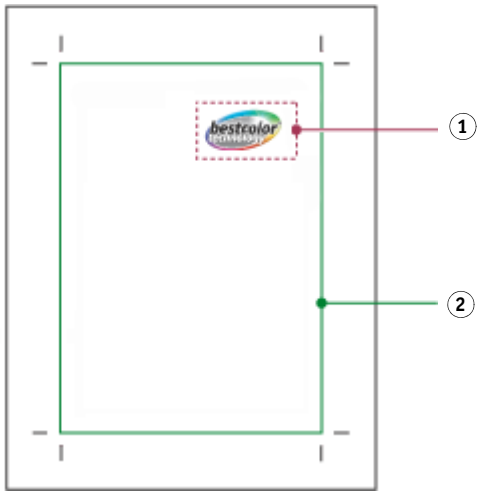
    The setting "Native" can be applied to a single EPS image saved in a PDF frame. It specifies that only the EPS image is output, i.e. without the surrounding PDF frame. This results is a quicker processing time and better output quality since, if the image is an RGB image, the selected source profiles are applied. This feature was developed mainly for users printing directly from Photoshop.

    The setting "Adobe PostScript 3 Engine" specifies that the image file is output with the PDF frame. This setting is automatically applied if the job contains more than one EPS image.

PDF boxes

1 EPS image

2 PDF frame



- TIFF/IT/Scitex CT/LW
  - Give priority to (TIFF/IT only)

    TIFF/ITfiles are composed of a CT (image data) and an LW (text data) file. If you select this radio button, EFI XF will wait until it detects both files before processing the job. This setting ensures that CT files are not processed on their own.

    CMYK TIFF files are composed of one file only. If you select this radio button, EFI XF will start job processing as soon as it detects the file.
  - Recognition (TIFF/IT and Scitex CT/LW)

    Many TIFF/IT and Scitex CT/LW files are automatically created with a final page. A final page is an additional file and contains information which ensures that the LW file and the CT file are clearly recognized as being part of the same print job.

    Select the appropriate radio button if your files have a final page.
  - The last ... characters differ from the file name

    Select this radio button if your TIFF/IT or Scitex CT/LW files do not have a final page.

    If no final page is available, EFI XF tries to match the files by their names. For example, if you have two files, “Doc4_CT.CT” and “Doc4_LW.LW”, which belong to the same print job, EFI XF does not recognize this because of the different file names. However, if you instruct the software to ignore the last two characters before the dot, this reduces both file names to “Doc4_” and makes them immediately recognizable as one print job.

Layout tab > Job Layout pane

- Sheet size

  From the drop-down list box, select whether you want to print on:
  - The media size set up for the output device
  - One of the predefined media sizes available for the selected printer
  - A custom media size. To define a custom media size, type the required sheet dimensions in the appropriate edit boxes.
- Rotate

  Select whether you want to rotate your print job. Choose from “Do not rotate”, Rotate 90°, Rotate 180° or Rotate 270°. If you select “Minimal media consumption”, EFI XF will automatically rotate your images, if necessary, to keep wastage to a minimum.
- Mirror

  Select the appropriate check box to print a horizontal or vertical mirror image of your print jobs.

- Scale page

  Select a scaling factor from the drop-down list box to define how your print job will be adapted to the size of media you are using. The following settings are available:

  – Do not scale

    With this setting, your image is printed in its original size. A warning will be displayed if it will not fit fully on the media.

  – Fit to page size

    With this setting, your image is scaled so that either the height or the width of your image is adjusted to the printable height or width of the media.

  – Fit to width

    With this setting, your image is scaled horizontally so that the width of your image is adjusted to the printable width of the media.

    However, this may mean that the height of your image is clipped. You can check the preview to see what effect this setting will have on the printed image and make sure that it will fit properly on the selected media size.

  – Fit to height

    With this setting, your image is scaled vertically so that the height of your image is adjusted to the printable height of the media.

    However, this may mean that the width of your image is clipped. You can check the preview to see what effect this setting will have on the printed image and make sure that it will fit properly on the selected media size.

    This setting is not available if you printing on roll media.

  – Scale job percentually

    With this setting, you can define an enlargement or reduction factor for your image. A value of more than 100 increases the size of your image, whereas a value of less than 100 decreases the image size. It is possible to define different scaling factors for width and height. Please note that defining different factors for width and height will result in a distorted output of your image.

    This setting is overridden by the uniform page scaling setting on the Nesting pane.

  – Scale job numerically

    With this setting, you can define a new height and width for your image.

    This setting is overidden if uniform page scaling is defined on the Nesting pane.

- Align page to sheet

  Choose an alignment setting by selecting the appropriate cell in the diagram. For example, if you check the middle cell, your job will be output centered horizontally and vertically on the selected media. This setting takes job margins into account.

  If the output device is set up to print on roll media, only horizontal alignment is possible.

- Job margin

  You can define margins for more precise positioning of images. Printer hardware margins are still applied.

Layout tab > Nesting pane

- Nesting

  Select this check box to output all print jobs loaded via this workflow as part of an automatic nesting.

  In an automatic nesting workflow, all loaded jobs are grouped together and output as a single print job according to the settings made on this tab.

  If this check box is not selected, you can still create nestings manually in Job Explorer.

  Nesting and step & repeat cannot be used simultaneously.

- Optimize layout for

  Select a radio button to define whether images should be:

  – Positioned to waste as little space as possible on the media or

  – Aligned so that they can be cut out using as few straight horizontal cuts as possible.

  – Aligned so that they can be cut out using as few straight vertical cuts as possible.

- Allow rotation of pages

  Select this check box to enable images to be automatically rotated in order to make better use of the available space.

- Uniform page scaling

  By selecting this check box you can define a uniform output size for all jobs. The combo box contains default sizes. However, you can also create your own scaling sizes by typing a width and a height in the combo box, e.g. 150 x 90, and clicking the plus (+) button.

  You can delete a custom scaling size by selecting it in the combo box and clicking the minus (-) button. It is not possible to delete default scaling sizes.

  This setting overrides the scale job percentually and scale job numerically settings on the Job Layout pane.

- Spacing
  - Between nesting elements

    Use the edit boxes to define the vertical and horizontal gap between pages on the nesting.
  - Around nesting (printer margin is minimum)

    Here you define a paper-white margin around the nesting to simulate a picture mount. This setting takes into account the non-printable area. Type the required values in the edit boxes.
- Create nesting after a minimum of

  The following settings apply only if automatic nesting has been selected.
  - % of the sheet is filled

    Select this radio button and define what percentage of the sheet must be filled before a nesting is output.
  - % of the line is filled

    Select this radio button and define what percentage of the line must be filled before a nesting is output. This setting is useful if you are printing on a roll substrate.
  - Always nest after

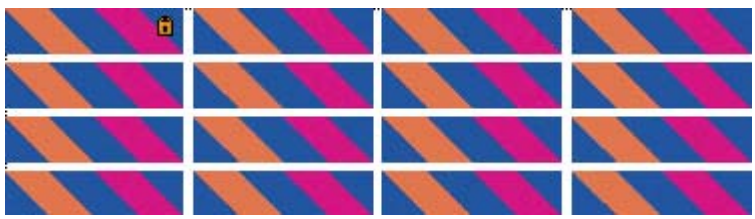
    Select this check box and define a period of time after which EFI XF will automatically output a nesting of all loaded images.

    This setting has priority over the other auto-nesting settings, e.g. a nesting will be printed after the set period even if the minimum percentage of the sheet or line has not been filled.

Layout tab > Step & repeat pane

The step-and-repeat feature enables you to create multiple copies of a job and output as one print job.

Step & repeat



Step & repeat jobs can also be created from multi-page documents. Each page of the loaded print job forms a new step & repeat page. The step & repeat settings are applied identically to all pages. This enables you to output step & repeat jobs on a duplex printer for double-sided printing.

- Step & Repeat

  Select this check box to print multiple images of a single print job according to the layout settings defined on this tab.

  Automatic nesting and automatic step & repeat cannot be used simultaneously.

  The settings you make on this tab can be grouped together and saved in the form of a preset.

  Initially, no presets are available. However, once you have made settings on this pane, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

  To make changes and overwrite an existing preset make sure that the preset is not selected for any other workflow. Presets can only be overwritten in System Manager. In Job Explorer, you must save your changes under a new name.

- Spacing

  Use this setting to define the horizontal and vertical gap between images. The illustration above shows horizontal and vertical spacing of 1 mm between images.

- Step and repeat method

  – Total number of copies

    Select this radio button and define the number of copies you want to create. The original image is included in the total number of copies. Thus, if you define “8”, it means one original and seven copies.

  – Fill rows and columns

    With this setting you define the number of rows and columns to fill. Select the appropriate check boxes to fill as many rows or columns as will fit on the sheet size. Alternatively, to define a specific number of rows or columns, deselect the appropriate check box. Then use the edit box to type in the required number. The default setting is one row and one column, i.e. one image.

  – Fill sheet

    Select this radio button to fill the selected sheet size.

  It is possible to output step and repeat patterns as tiles by defining a sheet size that is bigger than the media size set for the printer.

Layout tab > Footer pane

EFI XF lets you output a footer with your jobs. A footer contains job-specific information and can consist of:

- One or two control strips used for verifying color accuracy. Control strips can be selected on the Verify tab.
- A job ticket containing information pertinent to the print job. It lets you know which settings were applied to achieve the print result, e.g. printer model, media, ink, profiles, rendering intents, print resolution, scaling factor.
- Edit page/sheet footer

  This setting defines whether the remaining settings you make on this pane are applied to pages or sheets. In a nesting workflow, you can make separate settings for sheets and pages. For one-page jobs on a sheet, the setting “Edit sheet footer” has no effect.

Edit sheet footer	Prints a footer per sheet, e.g. one footer per nesting
Edit page footer	Prints a footer for each page, e.g. one footer per document in a nesting.

- Footer layout

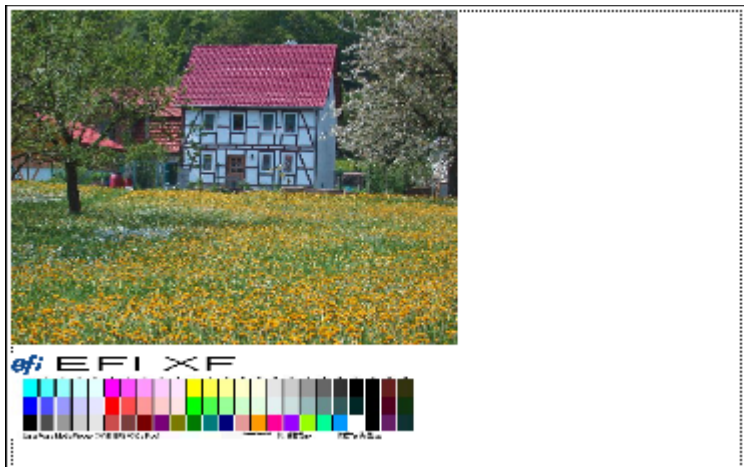
  A footer is printed left aligned under the job.

  The two available footer layout settings can be applied to simple jobs and nesting parent jobs. For jobs inside a nesting (nesting child jobs) the setting "Must not exceed page width” is automatically applied.

  – Must not exceed page width

    In this case, the total width of the footer will not be wider than the page. If necessary, the job ticket and control strip(s) will be positioned one on top of the other on two separate rows.

Footer width must not exceed page width



– Can fill sheet width

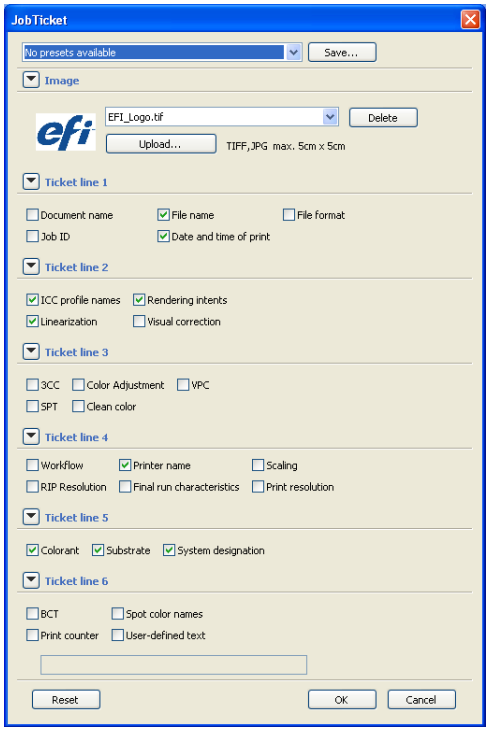
In this case, the job ticket and control strip(s) use up the full width of the available media. If the media is not wide enough to fit job ticket and control strip(s) in a single row, the control strip(s) are automatically placed on a second row under the job ticket

Footer can fill sheet width

- Job ticket

Select the check box to print out a job ticket with your print job. Then click Job Ticket to define which information is included.

Job ticket



Job tickets comprise six different lines. You can choose which information is output with your jobs by selecting the appropriate check boxes. In Job Explorer, the preview displays a generic job ticket only.

By default, line 1 consists of the EFI logo. This is always displayed on the left of the job ticket. However, you can upload any image file in JPEG or TIFF format, e.g. your own company logo. To implement your own image, browse to the chosen file. Then click Upload to Server.

Logo size is limited to a maximum of 5 x 5 cm. If you load a file that exceeds these measurements, it will be scaled proportionally so that either the width or the height is reduced to 5 cm. Images that are smaller than 5 x 5 cm are output in their original size. Logos are always output color managed, providing color management is activated.

Line 6 has room for user-defined information.

- Max. ticket width

  The default width of job tickets is the width of the page, minus the width of selected control strips, which have a higher priority. If too little space is available to display job ticket and control strip in one line, the control strip is printed on a second line underneath. This setting works in conjunction with the settings “Must not exceed page width” and “Can fill sheet width”.

- Max. ticket height

  The default height for job tickets is 5 cm. If a job ticket exceeds the defined ticket height, it is cropped. If job ticket and control strip are positioned one above the other, you can change the ticket height setting to ensure prevent unwanted white space between them.

- Font size

  You can specify any font size for job ticket text. The default font size if 6 pt.

- Distance to job

  Use this setting to define the gap between image and job ticket.

See also:

“Verify tab > Control Strip 1/Control Strip 2” on page 77

Color tab > Color Management pane

- Color management

  Select this check box to make color-management settings and create color-accurate output. If color management is not activated, it is not possible to select any profiles.

- Source profile
  - Use embedded (source) profiles, if available

    This setting ensures that the color properties of the input device are taken into account during job processing. For JPEG, Tiff and PSD file formats, this is true if "Use embedded (source) profiles, if available" is selected. For PDF and PostScript files, it is true if "Use PDF output intent, if available" is selected. This setting overrides the selected source or simulation profile selected on this pane.

    Any images without embedded profiles are processed with the profiles selected in EFI XF. This feature gives you increased scope when determining the quality of your output.

Option	On/Off	Description
Use embedded source profile	On	JPEG, Tiff, PSD: The available embedded source profile is applied; the selected source profile is ignored. Note: Source profiles embedded in PDF and PostScript files are neither applied nor overridden by source profiles selected in EFI XF.
Use embedded source profile	Off	JPEG, TIFF, PSD: The selected source profile is used.

  - CMYK/RGB/Gray/Multicolor source

    Select a source profile from the drop-down list box for each color space. Selecting a source profile ensures that the color space used to create the original document is applied in EFI XF. A source profile can be one provided with EFI XF, your own source profile supplied with your input device or an embedded source profile.

    For "Multicolor source", you can load a 6- or 7-color profile.

    All source profiles must be copied to the Reference folder, otherwise they cannot be detected by EFI XF.

    For PostScript, PDF and EPS/DCS jobs, the following applies: If no simulation profile is selected, the source profile is applied as the simulation profile. If a simulation profile is selected, the source profile is ignored and has no effect.

– Rendering Intent

Select a rendering intent from the drop-down list box for each color space. Choose from the following:

Rendering intent	Description
Absolute colorimetric (paper white)	This rendering intent leaves all colors that lie within the destination color gamut unchanged, thus maintaining color accuracy. If the destination color gamut is smaller than the source color gamut, it may mean that two distinct colors from the source color gamut are mapped to the same color in the destination color gamut. This rendering intent is suitable for creating proofs with paper white simulation. Paper white simulation means that the color of the reference paper is also simulated. For example, if you select the reference profile "ISOnewspaper26v4.icc" in combination with the rendering intent "Absolute colorimetric (paper white)", your image will be printed on a gray background to simulate the color of newsprint. This rendering intent is also applied to a control strip/job ticket as well as to the area between image and crop marks. The effect is not visible in the preview but can be seen in the printout. Paper white simulation is not applied to white space between image and crop marks.
Perceptual	This rendering intent preserves the visual relationship between colors in a way that is perceived natural to the human eye by compressing all colors and scaling them to fit into the available destination color space. Since all colors are affected, even those that would normally lie within the color gamut of the destination color space are compressed — even if they could normally be accurately reproduced. This rendering intent is most suitable for printing photographic images, where having the largest possible color space is more important than a color-accurate print result. It is therefore not recommended for the output of color-accurate proofs.

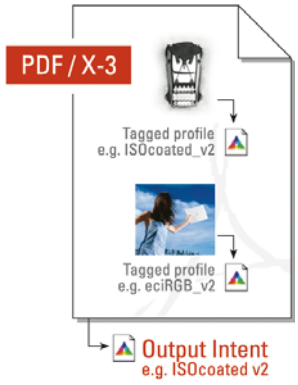
Rendering intent	Description
Saturated	This rendering intent aims to preserve vivid color at the expense of accurate color. The source color gamut is scaled to the destination color gamut, but preserves relative saturation instead of hue. This means that color hues may shift if the destination color space is smaller than the source color space. This rendering intent is designed primarily for business graphics, where bright, saturated colors are more important than the exact relationship between colors (such as in a photographic image).
Perceptual-absolute	This rendering intent was developed by EFI. It combines the advantages of the rendering intent “Perceptual”, with regard to image definition in areas of shadow, with the color accuracy and paper white simulation of the rendering intent “Absolute colorimetric”. With this rendering intent, image data retains its definition in dark areas, i.e. shades of color are still visible in areas of shadow. This rendering intent is particularly suitable for photographers who need to convert a large source color space (RGB) to a smaller destination color space (CMYK).
Relative colorimetric (no paper white)	This rendering intent compares the white point of the source color space with that of the destination color space and adjusts all colors accordingly. All colors that lie within the color gamut of the destination color space are accurately reproduced. Any colors that lie outside the color gamut of the destination color space are replaced by the colorimetrically closest color that can be reproduced. This rendering intent is suitable for creating proofs with no paper white simulation.

Rendering intent	Description
Relative colorimetric with black point compensation/	If the black point of the source color space differs greatly from that of the target color space, you can apply black point compensation on top of the rendering intents “Relative colorimetric” and “Absolute colorimetric”.
Absolute colorimetric with black point compensation	With black point compensation, the full dynamic range of the source color space is mapped to the full dynamic range of the destination color space. However, if the black point of the source color space is darker, contrast is lost during the conversion. Activating black point compensation may cause gray shadows. However, this setting can be applied usefully to darker source black points. Applying black point compensation may give more shadow detail and avoid gamut clipping if the darkest points of the source are darker than the proofing system is able to print. Differences in the black point are compensated for by introducing more deviation between target and proof shadow areas so, although the result will be visually better, the measured color values may not be as good.

- Simulation profile
  - Use PDF output intent, if available

    This setting ensures that if an output intent is embedded in a PDF/X-3 file, it will be applied as a simulation profile.

Output intent in PDF/X-3 files



This setting only has an effect on PDF and PostScript files.

Option	On/Off	Description
Use PDF output intent	On	PDF, PostScript: The available output intent is applied; the selected simulation profile is ignored.
Use PDF output intent	Off	PDF, PostScript: The selected simulation profile is applied. If no simulation profile is selected, depending on the working color space of the RIP, the selected source profile is applied. (See “Working Color Space” on page 56).

– Simulation profile

Select a simulation profile from the drop-down list box to simulate output on a particular printing press.

You can load a simulation profile provided with EFI XF or one supplied, for example, by your printing house. To use your own simulation profile, you must copy it to the Reference folder.

EFI provides a number of additional customized profiles, which you may find useful. You will find these in subfolders of the Reference Additional folder. To use, copy to the Reference folder. Only profiles located in the Reference folder can be selected in EFI XF.

– Rendering Intent

Select a rendering intent from the drop-down list box.

- Advanced settings

– Use full gamut (if input and output color space match)

This setting results in printouts that fully utilize the color gamut of the printer. The output colors are extremely saturated. Since the classic match of source profile to media profile is by-passed, the color characteristics defined in the source profile are not applied.

This setting requires that output device and input device use the same color space. It has no effect if, for example, if you submit a CMYK file to an RGB device and vice versa.

– Convert to grayscale

This setting lets you define the shade of grayscale output without applying an L*a*b* optimization file. Five different steps are available — from a yellowish tint (very warm gray) to a bluish tint (very cold gray). Select the check box and choose a shade of gray from the drop-down list box.

Grayscale variations

– L*a*b* optimization

If you have created an optimization file using Profile Optimizer (component of EFI Color Manager) you can select it from the drop-down list box. Optimization files provide more precise printer adjustment. They have the file extension .3cc and must be saved to the Balance folder.

– Color optimization

The setting “Use black ink only” ensures that any text or diagrams that have been defined as pure black are printed with black ink only. In addition, you can define the percentage of black at which pure black ink will be used. Type the desired percentage in the edit box.

If the option "Use black ink only" is not selected, black will be composed of the available CMYK inks as defined in the applied ICC profiles.

This setting is recommended for the output of grayscale images. It ensures stable prints with no shifts in color.

– Plate compensation

In LinTool/Color Manager you can modify plate characteristics that are often applied to one-bit files. As color management normally relies on receiving linear input data to apply color management properly, there is a need to compensate non-linear plate characteristics of the one-bit files for color-accurate output. The Visual Correction tool of LinTool/Color Manager allows you to enter compensation values manually.

Be aware that that there is no fixed formula for modifying plate characteristics of one-bit files in the Visual Correction tool. However, you can also use the tool to edit input data of any supported contone file format for process and spot colors. In the case of contone file formats, a simple formula is applied, e.g. a 5% increase for the 50% patch will yield 55%.

See also:

“Rendering Intent” on page 70.

Finishing tab > Marks pane

- From the drop-down list box, select whether you want to output crop marks per sheet, per page or per tile:

Edit sheet marks	Prints crop marks for the defined sheet size.
Edit page marks	Print crop marks for each page (document) on a sheet.
Edit tile marks	Pint crop marks around each tile.

- Crop marks

  Activate the check box to enable the settings on this pane.

  The settings you make on this tab can be grouped together and saved in the form of a preset.

  Initially, no presets are available. However, once you have made settings on this pane, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

  From the drop-down list box, select the type of crop marks to be printed. Choose between Standard, Corner, Frame, Tombo or FOTOBA crop marks. Some of the following settings are not available for certain types of crop marks.

  To make changes and overwrite an existing preset make sure that the preset is not selected for any other workflow. Presets can only be overwritten in System Manager. In Job Explorer, you must save your changes under a new name.

- Line Thickness

  Use the edit box to define the thickness of the crop marks.

- Line Length

  Use the edit box to define the length of the crop marks.

- Distance to job

  Use the edit box to define the distance between image and crop marks.

- Bleed

  This setting repositions the crop marks in relation to the image.

  – Cut image

    Select this radio button to crop each edge of your image by a defined margin width, e.g. to eliminate unwanted paper white around an image or to reduce the size of an image.

Bleed: cut image

  – Add frame

    Select this radio button to add white space between image and crop marks.

Bleed: add framee

Bleed is not available for FOTOBA crop marks.

The setting “Distance to job” is also taken into account when you apply this setting, e.g. if you set crop marks at a distance of 1 cm to the job and add a 1 cm frame in the bleed setting, the crop marks will be positioned 2 cm from the image.

Output tab > Basic pane

On this pane, you can make basic print settings.

- Copies

  Type the number of copies you wish to print. If you are printing three copies of a three-page document, the pages will be output in the following order: 1, 1, 1, 2, 2, 2, 3, 3, 3.

  If you prefer to output sorted copies, select the check box. In this case, the pages of your document will be output as follows: 1, 2, 3, 1, 2, 3, 1, 2, 3.

  In a nesting workflow, you define the number of copies in System Manager. If, for example, three copies are defined, each job is imported three times into the nesting. However, the nesting is printed only once.

  In a manual workflow, each job is imported only once into the nesting since “1” is the default number of copies. If you set the number of copies to “3” in Job Explorer, the nesting is printed three times.

- Separations

  Select an option from the drop-down list box to determine how separated files will be output.

  – Merge separations

    Select this setting to combine all color separations and output as one printout.

  – Color separations

    Select this setting to output one printout for each color separation.

  – Grayed separations

    Select this setting to output one grayscale printout for each color separation.

- Invert

  Select this check box to print an inverted image (color negative) of your print jobs.

- Crop image to fit media size

  Here, you can define whether images, that are too big to fit on the selected media size, will be output or not.

  By default, the check box is not selected. If you try and output a job that is too large for the media, a warning message is displayed. The job is not printed. You can overcome the problem, for example, by switching to a different media size, selecting a scaling factor or outputting the image as a tiling.

  If the check box is selected, a job that exceeds the media size is printed. However, the portion of the job that falls outside the media size is cropped. A warning message to this effect is displayed on the File Info pane.

  The job is also not output if the control strip exceeds the media size.

Output tab > Advanced pane

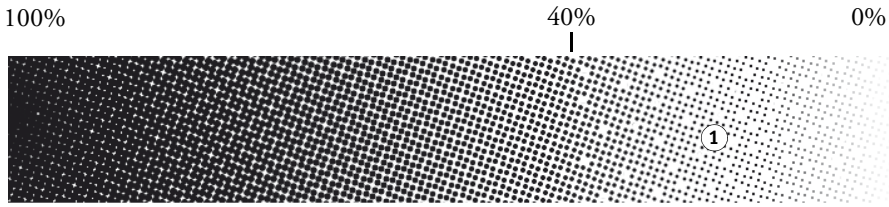
- Final run characteristics

  These settings enable you to simulate print characteristics commonly found in different printing methods. You can choose between:

  – Show missing dots up to

Show missing dots up to

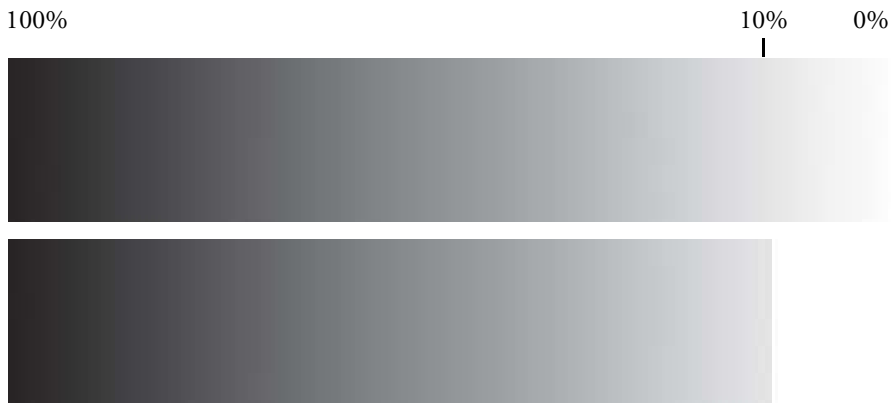
1 Missing dots



This setting simulates the effect that occurs in gravure printing when ink is not evenly transferred from the cylinder. Use the slidebar to define the percent area coverage of missing dots.

  – Define first printable dot

Example of a job with a first printable dot setting of 10%.



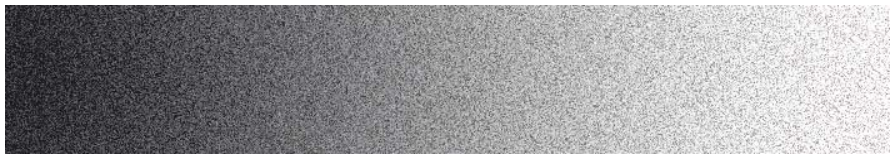
This setting enables you to define where the first printable dot will start. This is particularly useful in flexo printing where the first printable dot may be 10% or higher. Use the slidebar to define the percent area coverage for the first printable dot.

This setting can be applied to contone data but not to halftone data.

– Noise smoothing

Result of noise smoothing

100% 0%



This setting produces an image which more closely resembles output on a printing press. It creates a less smooth effect than an inkjet printout. Use the slidebar to define the amount of noise smoothing.

Output tab > Remote pane

With the settings on this pane, you instruct EFI XF when and where to create a Remoteproof Container during file processing.

A Remoteproof Container consists of a PDF or TIFF file (print file) and a JDF file (settings file). These are combined into a single file with the file extension RPF. A Remoteproof Container contains all the information necessary to create an exact replica of the original file at a remote location.

RPF files can be loaded and processed in any EFI proofing software.

A Remoteproof Container can be created:

- Automatically after printout or, in a Verify workflow, as soon as a control strip has been measured
- Manually, by clicking Create Now in Job Explorer

On creation, Remoteproof Containers can be:

- Uploaded to EFI Web Control Center
  Remoteproof Containers are always saved to the Remote\WCC folder.
- Saved to a defined folder
  If Server and Client are installed on different computers, you can only export to subfolders of the Remote folder. Click Choose and browse to your chosen folder.

You can also define whether or not to save .3cc files to the Remoteproof Container. It is only useful to include such optimization files if you know that the recipient is using the same printer model and the same media, but is not able to create his own .3cc files.

Optimization files are applied at the recipient side as follows:

.3cc file contained in Remoteproof Container?	.3cc file contained in Remote-In workflow?	.3cc file applied
Yes	Yes	From the Remote_In workflow
Yes	No	From the Remoteproof Container
No	Yes	From the Remote_In workflow
No	No	None

- Compression

  Select a compression method from the drop-down list box. You can choose between:

  – None

    This method rules out the possibility of data loss when the file is extracted but, depending on the size of your image data, it may make it necessary to transfer large volumes of data.

  – ZIP

    This method compresses your data and enables it to be extracted in its original form without data loss.

  – JPEG

    This method compresses your data but some information may be lost when it is extracted. However, the losses are hardly visible. With this method you can define the degree of compression: Low, Medium or High.

Verify tab > Control Strip 1/Control Strip 2

A control strip consists of one or more rows of different color patches that are used to obtain color values using a measuring device. It is recommended that you select this setting whenever you want to make color consistency checks.

Control strips and job ticket information are output as a footer. See “Layout tab > Footer pane” on page 63 for footer and job ticket settings.

1 Job ticket
2 Control strip

- Control strip settings
  - Control Strip 1/Control Strip 2

    From the drop-down list box, select a control strip. You can use one of the control strips provided with the software or a control strip of your choice. Control strip files must be saved to the ControlStrip folder. EFI XF can process all supported file formats except separated files; there is no size restriction.

    EFI provides a service for creating customized control strips. Contact proofing-support@efi.com for further information.

    EFI XF supports the use of dynamic wedges for all CMYK jobs. The EFI Dynamic Wedge is a dynamically created control strip that shows you a job's key colors - including spot colors - for verifying, and if required, optimizing their color accuracy. The wedge is unique for each job as each job bears a different set of key colors. Key colors are all the colors that play a major role in a job. For example, if your job is composed mainly of shades of blue, the dynamic wedge will reflect this and will have a high proportion of blue patches.
  - Print with color management

    Deselect the check box if you do not wish to apply color management to the control strip.
  - Use control strip on

    Select “Pages” to output a control strip with your job.

    For nestings, you can output a control strip per page or per nesting. For multi-page documents, the control strip is created for the job as a whole, but not for individual pages.

- EFI dynamic wedge options (control strip 1 only)

  The dynamic wedge settings described below become available only after you:

  – Select the radio button to apply the control strip to “Pages”. You cannot apply a dynamic wedge if “Sheets” is selected.

  – Choose “Dynamic wedge” from the drop-down list box.

  Then, from the appropriate drop-down list boxes, select:

  – The make of measuring device that you will use to measure the color patches

  – The maximum number of color patches for the dynamic wedge

    16, 32 and 64 patches are possible. Fewer patches will be printed if all the job’s key colors can be represented using less than the defined number of patches.

  – Whether the dynamic wedge should consist of process colors, spot colors or a mixture of both

  The preview displays a generic media wedge. The colors extracted from the image are visible only on the Verify tab in Job Explorer and in the printout.

You can output two control strips with your jobs:

- The dynamic wedge for job-specific analysis of key colors
- A Ugra/Fogra or IDEAlliance control strip for ISO 12467-7/8-compliant proof verification.

Also, selecting two control strips gives you the opportunity to output one with color management and one without.

Some output devices with an embedded measuring device can only measure one control strip per job.

See also:

“Layout tab > Footer pane” on page 63

Output device settings

The output devicesettings are available when you select an output device in the layout area.

Device tab > Setup pane

- Name

  Type a name for a new output device or change the name of an already defined output device. It is not possible to change the name of the linearization device.

- Description

  Type a brief description, if required.

- Device type

  Select your printer model from the drop-down list box.

- Profiles are provided with your software and saved to the Profiles folder. If no profiles are located in this folder, an error message to this effect will be displayed when you select a device type and you will not be able to set up your printer.

- Port

  – Print to system printer

    Select this radio button to print to a printer that has already been set up as a system printer on the Server computer. The system printer in this case must be the printer selected on this pane.

  – Print via network

    Select this radio button to print to a network printer.

    Type the IP address of the network printer in the edit box.The printer's TCP/IP address may be a defined name or a series of numbers, e.g. 10.1.149.33. Ask your system administrator if you are not sure of your printer's TCP/IP address.

    Click Test to check that a connection to the printer has been properly established. To test the connection, the printer must be switched on. If you receive an error message, consult your system administrator for advice.

    Select the type of TCP/IP protocol that your printer uses for data transfer.

    Select "RAW on port" if your printer supports RAW printing. Most printers support RAW printing to port 9100. However, please note that this setting depends on the network settings made at the printer and may, therefore, be different.

    Select "LPR queue" if your printer supports LPR printing. Then type the queue name in the edit box. It is normally only necessary to type a queue name if you are printing via a Unix system or a print server with multiple interfaces. Therefore, in most cases, you can leave this edit box blank. Please refer to your printer manual for further information.

  – Print via port

    Select this radio button and choose the name of your printer from the drop-down list box to print to a printer that is connected via USB to the Server computer. The printer must be switched on when you start EFI XF. Otherwise, it will not be automatically detected.

Device tab > Media pane

- Media set

  Select a previously defined combination of print settings from the drop-down list box or save the settings you make on this pane as a media set.

  To create a media set, make your settings on this pane and click Save. A dialog opens in which you define a name for your combination of settings. Specify a name in the edit box and click Save.

- Ink type

  Select the type of ink that is inserted in your printer.

- Media name

  Select the name of the media you will be printing on.

  If you select a media type that is patched to a Device Link profile, EFI XF will indicate this.

  A Device Link profile represents a fixed combination of printer and media type.

  Device Link profiles can be created with EFI Color Manager. They must be patched to the EPL linearization file and a media profile using Profile Connector. This tool is available in EFI LinTool and EFI Color Manager.

  Device Link profiles must be saved to the folder where the media profiles are saved. Otherwise they cannot be detected in EFI XF.

- Calibration set

  This area displays the epl base linearization which is patched to the selected media type. If more than one epl is available, you can select which one you want to use from the drop-down list box.

  By clicking “Catalog” you can display a list of all the epl files available for the selected media name and view the printer conditions under which they were created.

  Click New to open EFI LinTool/EFI Color Manager if you want to create a new base linearization.

  The current printer settings are automatically transferred to the linearization device. In other words, the default or previously made settings of the linearization device will be overwritten.

- Visual correction

  If you have modified your printer’s color reproduction properties using EFI LinTool or EFI Color Manager, select the new linearization file from the drop-down list box. Visual correction files have the file extension .vcc and must be saved to the Balance folder. A selected vcc file is saved as part of a media set. The effect of the applied .vcc file can be seen in the printout, but is not visible in the preview.

- Media length correction

  This feature lets you correct any inconsistency in the length of the printed image. This may occur as a result of the particular combination of printer and media that you are using.

  Normally, job length and printed image length are the same. However, if you discover that your printed image is longer or shorter than it should be, you can adjust the output length.

  The file Lineal_01.ps is provided in the Samples folder for this purpose. The printed image displays a set of ruler markings 0.5 m x 0.5 m. Print out the file and measure the length of the ruler markings. If the measurement is not accurate, you can compensate for the difference by typing the target length and the actual measured length in the appropriate edit boxes.

  This setting is independent of the hardware setting available at the control panel of some printers.

- Source

  Select the type of media feed, e.g. roll or single sheet. This setting is printer-dependent and varies according to the types of media feed and number of media trays installed for your particular printer.

- Media size

  – Source

    Select the source of the paper feed from the drop-down list box.

  – Format

    Select the size of the media inserted in the printer from the drop-down list box.

    If your media size is not listed, you can define a user-defined format. Type the desired height and width in the edit boxes and click Save. A dialog opens to let you define a name. When you close the dialog, your user-defined format is automatically selected.

    To delete, select a user-defined media format and click Delete. It is not possible to delete default media formats.

See also:

"Edit menu" on page 42

Device tab > Special pane

The features on this pane are only available if they are supported by your printer. See your printer documentation for further information.

- Output tray
- Duplex printing
- Autocut feature
- Media suction
- Printer dryer function
- Dry time definition
- Borderless printing

  To achieve borderless printing you must also select the page layout setting “Fit to page size”.

- Control heater temperature at RIP

  EFI XF provides a setting for controlling the heaters of some printer models. This means that you can switch heaters on/off and set the temperature in the software as well as at the printer control panel. The setting is printer-specific and displays only the heater settings available for the selected printer.

  The use of heaters affects color reproduction, so you may need to perform a printer calibration in EFI LinTool/Color Manager. However, before you create a new base linearization, make the desired heater settings for the linearization device first. The selected heater settings are then automatically saved when you create a new base linearization file.

- Print mode

  This setting provides a convenient way to change the resolution and print mode (number of passes) at workflow or job level, without first having to create a new base linearization file and media profile.

  This feature can be useful if you want to output an image in draft quality, where color accuracy is not so important. However, you should be aware that shifts in color can occur. An error message warns you as soon as you select a print mode or resolution that is different from the one in the base linearization.

  To reset the print mode and resolution to the default values of the base linearization file, click Reset to default.

- Calibration set

  Some printers have an internal calibration feature, which is supported by EFI XF. This setting lets you choose whether or not to apply the printer calibration by applying or ignoring the setting made at the printer control panel.

  Whichever setting you select, you should use the same one for linearization/profiling.

- Automatic calibration interval

  This setting enables you to calibrate the printer using the printer's built-in measuring device. Regular calibration, in which the total ink limits are redefined, ensures that the color reproduction of the printer remains constant — from one print to another, as well as between two printers of the same model, irrespective of system variables such as ink level, environment conditions and life of the print head.

  Printer calibration is initiated automatically according to the time interval defined on this pane. Each calibration is valid only for the particular combination of media type and resolution currently selected on the Media pane. After calibration, the result is automatically assigned to the appropriate media profile.

- White ink printing

  Different settings are available for printers that support white ink printing. By selecting white ink you can:

  – Output control strip(s) with a white background

  – Define the amount of white ink coverage

  – Add a percentage of CMYK ink to white

  – Specify an opacity value in percent

  – Define the printing order, i.e. color on white or white on color

MANAGING SYSTEM WORKFLOWS

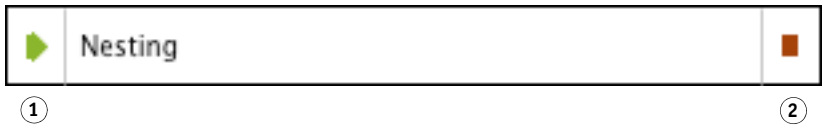
Making changes to system workflows

A fully online system workflow is indicated by green arrows from user through to output device. A red rectangle indicates that the workflow has been interrupted at a certain stage.

To stop a workflow, click on a green arrow in the workflow system. The green arrow changes into a red rectangle to indicate that the workflow has been interrupted.

Setting system workflows online/offline

1 **Online**
2 **Offline**



Occasionally, you may want to make alterations to an existing system workflow, e.g.:

- To add or delete a user
- To change workflow settings
- To connect to a different printer or service an output device

In order to make changes to a system workflow, you must first stop the workflow at the appropriate stage of job processing to prevent jobs from entering a workflow that is temporarily unavailable.

You can stop a system workflow:

- at the user (to prevent a user logging on)
- at workflow entry (to prevent automatic job detection, i.e. hotfolders are no longer monitored)
- at workflow exit (to prevent jobs from being processed by EFI XF. Stopping the workflow at this stage is the equivalent of loading an on-hold job)
- at the output device (to prevent jobs from being printed)

Available menu commands

Context menus are available for users, workflows and output devices which make it easy to manage your system workflows.

User settings

- Connected Workflows

  Choose this command and choose a workflow from the submenu to connect the user to a specific workflow.

- User is online/offline

  This command shows whether a selected user is logged on to EFI XF. In addition, you can use this command to connect or disconnect a user from his workflows.

- Connect to All Workflows

  Choose this command to connect the user to all available workflows.

- Disconnect from All Workflows

  Choose this command to disconnect the user from all workflows.

- New User

  Choose this command to add a new user.

- Delete User

  Choose this command to delete the user.

Workflow settings

- Connected Users

  Choose a user from the submenu to connect him to the workflow.

- Connected Output Device

  Choose an output device from the submenu to connect the workflow to a specific output device. Each workflow can only be connected to one output device.

- Workflow Accepts New Jobs

  Choose this command to switch the workflow online so that jobs can be received from users. If a workflow is already online to users, this is indicated by a check mark.

- Workflow Processes and Prints Jobs

  Choose this command to switch the workflow online/offline to the output device. If a workflow is online to an output device, this is indicated by a check mark. In an offline status, jobs are processed but not submitted to the output device.

- Connect All Users to Workflow

  Choose this command to connect all users to the workflow.

- Disconnect All Users from Workflow

  Choose this command to disconnect all users from the workflow.

- Disconnect Output Device

  Choose this command to disconnect the output device from the workflow.

- Save as Environment

  An environment is a combination of workflow and printer. Choose this command to create a backup copy of your workflow and printer settings.

- New Workflow

  Choose this command to select a workflow template and create a new workflow.

- Delete Workflow

  Choose this command to delete the workflow. The workflow must be completely offline.

Output device settings

- Connected Workflows

  Choose a workflow from the submenu to connect it to the output device.

- Device is Online

  Choose this command to switch the output device online/offline. The output device must be online to output print jobs.

- Linearize Device

  Choose this command to open EFI LinTool/Color Manager and to create a new base linearization. This setting overwrites the device settings of the linearization device and reconfigures it using the settings of the selected output device.

- Re-linearize Device

  Choose this command to open EFI LinTool/Color Manager and to relinearize the selected output device.

- Connect Output Device to All Workflows

  Choose this command to connect all available workflows to the output device.

- Disconnect Output Device from All Workflows

  Choose this command to disconnect all workflows from the output device.

- New Output Device

  Choose this command to add a new output device.

- Delete Output Device

  Choose this command to delete the output device. The output device must first be disconnected from all workflows.

See also:

“Device tab > Special pane” on page 83

Saving and restoring settings

Setting up workflows for your exact needs can be quite time-consuming. For this reason, EFI XF offers you the opportunity to save settings in a backup file.

In EFI XF, there are two types of backups: system configuration and environment settings

- System configuration

  This is useful if you need to reinstall the software at any time. It saves:

  – All user settings

  – All workflow settings, including selected presets, linearization files, spot color tables and profiles.

  – All printer setups

- Environment settings

  This is useful if you output repeat jobs at regular intervals and need to be sure that you use exactly the same settings each time. Environment backups also enable you to provide customers with exact workflow/printer information.

  An environment saves:

  – All workflow settings, including selected profiles, presets, linearization files and spot color tables

  – The printer setup, excluding the port configuration

  You can save an environment for:

  – a workflow selected in System Manager

  – a job selected in Job Explorer

It is possible to import a backed up workflow from EFI eXpress into EFI XF.

TO SAVE SYSTEM CONFIGURATION SETTINGS

1 **From the File menu in System Manager, choose Backup.**

The EFI XF Backup dialog opens.

Dialog EFI XF Backup

2 **Select the check boxes of the items you wish to back up.**

All system configuration settings are automatically saved by default.

3 **Define a backup location.**

System configuration files are saved to two locations: the default Backup folder, and a freely definable destination, e.g. desktop. To define a different destination, click Select and browse to the required location.

4 **Click Save.**

A window opens when the backup has been successfully completed.

5 **Click OK to complete the backup procedure.**

TO RESTORE A SYSTEM CONFIGURATION

1 **From the File menu in System Manager, choose Restore.**

The Backup window opens to display the backup files located in the Backup folder.

If you restore a system configuration after deleting and reinstalling EFI XF, this folder is empty. In this case, click Choose and browse to the location of the second backup file. Unless defined otherwise during the backup procedure, you will find the second file on the desktop of your computer.

2 **Select the backup file to be restored.**

3 **Click OK.**

A window opens when the restore has been successfully completed.

4 **Click OK.**

You need to restart the Server to view your restored system configuration.

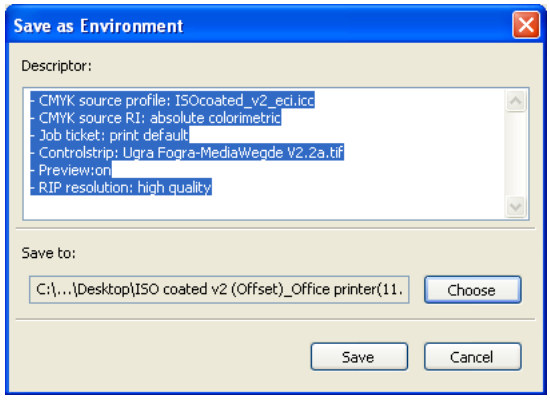
TO SAVE AN ENVIRONMENT

1 **Save a workflow or job environment by:**

- Choosing File > Save as Environment
- In System Manager, right-clicking on a workflow in the layout area and choosing Save as Environment from the context menu, or
- In Job Explorer, right-clicking on a job in the job list and choosing Save as Environment from the context menu

The dialog Save as Environment opens. If you are saving a workflow environment, the workflow settings are displayed. For a job environment, the edit box is empty to enable you to type your own job information.

Dialog Save as Environment



2 **Define a backup location.**

Environment backup files are saved to two locations: the default Environments folder, and a freely definable destination, e.g. desktop. To define a different destination, click Choose and browse to the required location.

3 **Click Save.**

Environment names are assigned automatically by EFI XF. Job environments are made up of the file name and the output device. Workflow environments indicate the workflow name, the output device and the creation date.

If an environment name already exists, you are asked whether you want to overwrite the original file with the new settings.

A window opens when the backup has been successfully completed. Environments files have the file extension xfe.

4 **Click OK to complete the backup procedure.**

TO RESTORE AN ENVIRONMENT

Environments can only be restored in System Manager.

1 **Import an environment by:**

- Right-clicking on an empty part of the layout area and choosing Import Environment from the context menu, or
- Choosing File > Import Environment

The Import Environment window opens to display the backup files located in the Environments folder.

If this folder is empty, click Choose and browse to the location of the second backup file.

2 **Select the backup file to be restored.**

3 **To allow saved files and profiles of the same name to be overwritten, select the check box "Allow overwriting".**

If you leave this check box unchecked, only files with unique names are restored.

4 **Click OK to restore the environment.**

The EFI XF Information window opens when the restore has been successfully completed.

5 **Click OK.**

The restored environment can be seen in System Manager.

- If an appropriate output option license is available, workflow and output device are restored and connected. However, the printer port setting is reset to its default value, so you must set up a connection before you can print.
- If an insufficient number of appropriate output option licenses is available, workflow and output device are restored, but not connected.
- If no appropriate output option license is available, the workflow is restored, but not the output device.

SETTINGS IN JOB EXPLORER

Menus

EFI XF Client (Macintosh only)

- About

  Choose this command to open a window with details of your program version.

- Quit EFI XF Client

  Choose this command to exit EFI XF. The next time you start EFI XF you will automatically be logged on with the same user data.

File Menu

- Import Job

  Choose this command to load a job.

- New Nesting

  Choose this command to create a nesting of one or more loaded jobs.

  By clicking “All Jobs” at the bottom of the Selector, you can create nestings from jobs loaded in different workflows.

- Save

  Choose this command to apply changes you have made to a job. If you do not choose this command, your job settings will not be saved and the job will be processed using the previous settings.

- Save as Environment

  An environment is a combination of workflow and printer. Choose this command to create a backup copy of your workflow and printer settings.

  Info that can be added: In this case, this option is enabled after a particular job in the joblist is selected.

- Print

  Choose this command to save the current settings and start printing.

- Cancel

  Choose this command to cancel processing.

- Login

  Choose this command to display the “Login” dialog. This command enables you to log in under a different user name or to log on to a different Server.

- Logoff and Exit

  Choose this command to log off and exit the EFI XF Client. The next time you start EFI XF the "Login" dialog opens.

- Exit (Windows)

  Choose this command to exit EFI XF. The next time you start EFI XF you will automatically be logged on with the same user data.

Edit menu

Most commands in this menu are also available if you right-click on an image in the preview window.

- Select

  Choose the command “All” to select all the pages of a nesting. Choose “Page Below”/”Page Above” to select the page that was inserted into the nesting immediately before/after the currently selected page. “None” deselects all selected pages.

- Cut

  Choose this command to unplace a selected page from a nesting. The page is saved to the clipboard and can be reinserted using the command "Paste".

- Copy

  Choose this command to copy a selected page from a nesting. The page is saved to the clipboard and can be copied as many times as required using the command "Paste".

- Paste

  Choose this command to insert a page that you have previously copied or removed from a nesting using the command "Copy" or “Cut”.

- Delete

  Choose this command to delete a job, including nested pages. You can also use this command to delete individual copies of an image. However, if you delete the original image, all copies will be deleted.

- Preview

  Choose this command to save the current settings, including those not displayed on the fly, and force a preview of an image. This is useful for workflows for which the setting “Create preview before RIPing” is not activated by default.

- Placed

  Choose this command to place or unplace a page in a nesting. When unplaced, the page is removed from the nesting preview. By selecting the nesting file, you can place or unplace all files in the nesting at once.

- Locked

  Choose this command to set a nested page at its current settings and position on the sheet. A locked page cannot be modified, nor can it be rearranged on the sheet.

- Remove from Nesting

  Choose this command to remove a job from a nesting. A separate job is created in the job list of the same workflow.

- Order

  Choose this command to alter the order of overlapping pages in a nesting. You can move a selected page to the front or back of the stack or move it up or down a level. This function can also be performed on multiple file selections.

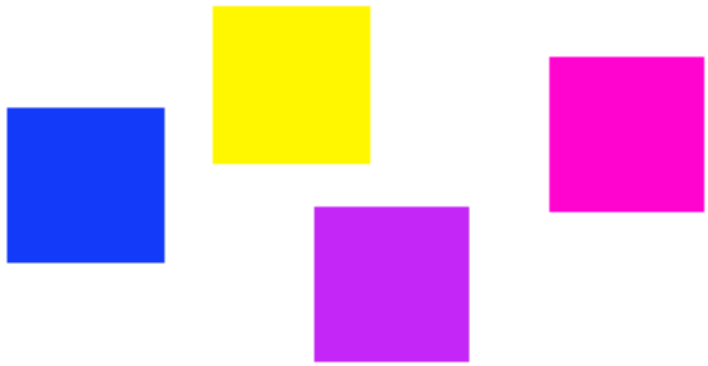
  To select multiple pages, hold down the <Shift> key and press the left mouse button.

- Align

  Choose this command to define an alignment for selected pages in a nesting. Pages can be aligned according to their upper, lower, left or right edges or according to their vertical or horizontal centers.

  To select multiple pages in the preview simultaneously, hold down the <Shift> key. to select multiple pages in the job list, use the <Ctrl> key and press the left mouse button.

Randomly positioned images



Aligned upper edges ...

- Distribute

  Choose this command to distribute selected pages on a nesting. Pages are rearranged evenly on the sheet so that their center points are equidistant from each other. You can distribute pages according to their upper, lower, left or right edges or according to their vertical or horizontal centers. This feature is primarily intended for use in conjunction with the align feature.

  To select multiple pages simultaneously, hold down the <Shift> key and press the left mouse button..

... and horizontal centers distributed

- Scale

  Choose this command to enlarge or reduce the size of an image.

  – No Scaling

    This setting returns a previously scaled image to its default size.

  – Percentual

    Select a scale factor from the submenu.

    The applied scale factor is indicated by a check mark next to the appropriate setting.

    You can also scale an image by selecting it in the preview window and dragging the mouse or using the transform tools.

  – Fit to

    Choose "Sheet", "Sheet Width" or "Sheet Height" from the submenu.

    Scaling to sheet size will enlarge the image to either the width or the height of the media. The image keeps its original proportions and scaling does not exceed the sheet format, i.e. no cropping takes place.

    Scaling to sheet width or sheet height will scale the image to the width or height of the sheet respectively.

  – Scale Proportionally

    Choosing this command enables you to scale the width and height of an image proportionally. Select an image by one of the corner handles and drag the mouse until the required image size is reached.

- Rotate
  - Rotate 0, 90, 180 or 270 degrees

    Choose this command to rotate an image by the selected angle.

    You can also rotate a selected image by moving the cursor next to (but not directly onto) one of the handles. The cursor form changes, enabling you to rotate the image as required. When you release the cursor, the image will automatically snap to the nearest 90 degree angle of rotation. Alternatively, you can use the transform tools.
  - Flip Horizontally

    Select this command to create a mirror image by flipping a selected image on its vertical axis.

    You can also flip an image using the transform tools.
  - Flip Vertically

    Select this command to create a mirror image by flipping a selected image on its horizontal axis.

    You can also flip an image using the transform tools.
- Reset Page

  Choose this command to return an image to its original untransformed state.
- Languages (Windows only)

  Choose this command to change the language in which the user interface is displayed. You must restart the EFI XF Client before the new language takes effect. By default, the language of the operating system is displayed.

  On a Macintosh, you can change the language via the international settings in “System Preferences”.

  To display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports double-byte fonts.
- Measurement System

  Choose this command to define which system of measurement is used in EFI XF. The default setting corresponds with the system of measurement set up in the operating system. However, you can choose between millimeter, centimeter, meter, inch and foot.

- Monitor Profile

  EFI XF provides you with the opportunity to verify color accuracy on a computer screen. This is known as "soft proofing". However, much like the color output of each printer can vary greatly, so each monitor displays color slightly differently. To overcome this problem, it is important that the monitor is regularly calibrated to a certain standard. Monitor calibration consists of two steps:

  – adjusting the brightness and control settings on the monitor itself to set values and

  – creating a monitor profile, which defines the white point, gamma and RGB phosphor settings

  Windows and Macintosh computers provide standard monitor profiles as part of the operating system software. In EFI XF you can select a monitor profile that you have created yourself or one provided with the operating system.

- Copy To

  Choose this command to copy a job from one workflow to another.

- Move To

  Choose this command to transfer a job from one workflow to another.

- JDF Processing

  The sub-command Add Content File enables you to add additional files to a job loaded in a JDF workflow.

See also:

“Transform tools” on page 104

“Keyboard shortcuts” on page 110

“JDF Connector” on page 262

“Adding content files to a JDF job” on page 266

Nesting menu

The commands in this menu are also available if you right-click anywhere outside a nested job in the preview window.

- New Sheet

  Choose this command to add a new sheet to an existing nesting. A sheet is the physical size of the media you have defined either for the printer (Device > Media) or as a sheet (Layout > Sheet).

- Delete Sheet

  Choose this command to delete a sheet from a nesting.To delete the final sheet, select the command Edit > Delete.

- Go To

  Choose this command to scroll through a multi-sheet nesting. You can scroll backward and forward through individual sheets or proceed directly to the first or last sheet of a nesting.

- Refresh

  Choose this command to rearrange the pages of a nesting after you have made changes. This command corresponds to the button of the same name found on the “Nesting” tab of the “Layout” bar.

Tools menu

- Open EFI LinTool

  Choose this command to start EFI LinTool (default tool) — a tool for ensuring your printer’s color consistency.

- EFI XF Uploader

  This command uploads selected icc profiles, spot color tables (bct), optimization files (3cc) and visual correction files (vcc) from, for example, a USB stick to the appropriate program folder. This saves you from having to browse to the folder location to copy the files manually.

- System Manager (users with administrative rights only)

  Choose this command to switch to System Manager.

The Tools menu contains the commands for starting the available add-on modules. Commands for starting Color Manager, Color Verifier, Color Editor and Dot Creator are also available if you have a valid license.

View menu

- Zoom in

  Choose this command to enlarge the size of the preview.

- Zoom out

  Choose this command to reduce the size of the preview.

- Fit to

  Choose this command to modify the preview view.

  – Window

    This setting scales the sheet so that it is completely visible in the preview window.

  – Selection

    This setting scales a selected image or page to the size of the preview window.

  – Actual Size

    This setting scales the sheet and all inserted pages to their actual size.

- Clear Guides

  Guides appear as non-printing lines and help you to layout pages on your nesting sheet. Choose this command to delete guides that you have previously placed.

  You can also delete a guide by dragging it to the ruler. Drag horizontal guides to the horizontal ruler and vertical guides to the vertical ruler.

  To place a guide, you must first display the rulers. From the "View" menu, choose "Visual aids" and select "Rulers" from the submenu.

  To create a horizontal guide, hold down the mouse button on the horizontal ruler and drag to the desired position on the sheet. To create a vertical guide, drag from the vertical ruler. Please note that guides are not saved. When you exit EFI XF, all guides are automatically deleted.

  To move a guide, move the cursor over the guide until the x or y coordinate appears. Then, hold down the mouse button and drag the guide to a new position. Please note that it is not possible to move locked guides.

- Lock Guides

  Choose this command to lock guides in a fixed position.

- Snap to

  Choose this command to ensure precise image alignment. When this command is activated, guides, grid or objects receive a magnetic property which causes images in their proximity to snap to them.

  When “snap to objects” is selected, the setting for “Spacing between nesting elements” is observed.

- Visual Aids

  This command contains a number of sub-commands to help you layout your nesting.

  – Rulers

    Choose this command to show or hide the horizontal and vertical rulers. The unit of measurement used is defined on the "Edit" menu.

    You can change the zero coordinates (0, 0) by pressing and holding down the left mouse button on the top left of the preview window (where the vertical and horizontal rulers intersect) and dragging the mouse to the required position.

    To reset the zero coordinates, double-click on the intersection of the rulers in the top left corner of the preview window.

  – Guides

    Choose this command to show or hide the guides.

  – Grid

    The grid is a set of evenly spaced non-printing horizontal and vertical lines that helps you to layout pages on a sheet. Choose this command to show or hide the grid. The grid spacing is fixed, but adapts automatically according to the selected zoom factor.

  – Tiles

    Choose this command to show or hide tiles of a tiled image.

  – Marks

    Choose this command to show or hide applied crop marks.

  – Page Frame

    Choose this command to draw a black frame around each page on the sheet. You may find this useful to see the page borders, e.g. to check if an object on a page has a lot of white space around it which may be overlapping other images.

  – Overlaps

    Choose this command to check if pages are overlapping. Overlapping pages are indicated by a red frame.

  – Sheet Margins

    Choose this command to display the non-printable margins as defined by the printer's firmware.

  – All

    Choose this command to select all the visual aids on this menu in one step.

  – None

    Choose this command to deselect all the visual aids on this menu in one step.

- Show/Hide Preview

  Choose this command to show/hide the preview window. This command has a toggle effect.

- Show/Hide Selector

  Choose this command to show/hide the Selector. This command has a toggle effect.

- Show/Hide Property Inspector

  Choose this command to show/hide the Property Inspector. This command has a toggle effect.

- Maximize Preview

  Choose this command to display an enlarged view of the preview window. Choose it again to revert to the default Job Explorer window.

? menu (Windows)/Help menu (Macintosh)

- Help

  Choose this command to start the online Help for EFI XF.

- EFI Web Site

  Choose this command to access the EFI homepage.

- EFI Technical Support

  Choose this command to send an e-mail direct to our Support team if you require help with your product.

- EFI XF Server Information

  Choose this command to open a window in which you can view

  – which options (license files) are installed

  – which software versions (including updates) are installed

  This menu command is only enabled if Server and Client are installed on the same computer.

- About

  Choose this command to open a window with details of your program version.

Context menus

Job Explorer has a number of context menus which provide shortcuts to some of the most commonly used menu commands from the “Edit” and “Nesting” menus.

Context menus become available when you right-click on:

- An image in the preview window. The commands are the same as those found in the Edit menu.
- Any area outside an image in the preview window. The commands are the same as those found in the “Nesting” menu.
- Any object in the job list.The commands are as follows::

New Nesting	See “New Nesting” on page 92
Add Job to Nesting	Choose this command to add a new job to an existing nesting.
Remove from Nesting	See “Remove from Nesting” on page 94
Preview	See “Preview” on page 93
Thumbnail Size	The job list displays thumbnail images of all loaded jobs. You can determine the size of thumbnail images via the context menu.
Save	See “Save” on page 92
Print	See “Print” on page 92
Optimize & Print	Choose this command to base the optimization on two control strips simultaneously.
Cancel	See “Cancel” on page 92
Save as Environment	See “Save as Environment” on page 92
Create EFI Remoteproof Container	See “Output tab > Remote pane” on page 76
Normal Priority	Choose this command to set a high-priority job to normal. In this case, the job will be output in the order in which it was received in the job list.
High Priority	Choose this command to send a selected job to the front of the print queue, i.e. if more than one job is printing to the same workflow, a high-priority job will be output before jobs with a lower priority. However, jobs already being processed will be completed first.
Copy to	See “Copy To” on page 97
Move to	See “Move To” on page 97
Delete	Choose this command to delete a selected item.

Hide/Show Property Inspector	Choose this command to show/hide the Property Inspector. This command has a toggle effect.
Close JDF Job	Choose this command to close a completed JDF job. See “Closing a JDF job” on page 267
Rename	Choose this command to rename a nesting, step & repeat or JDF job.

- Any empty area in the job list. The commands are as follows::

Import Job	See “Import Job” on page 92

See also:

“Edit menu” on page 93

“Nesting menu” on page 97

Toolbars

First toolbar

Import Job
Click this button to load a job.

Create Nesting
Click this button to create a nesting of one or more loaded jobs.

Save
Click this button to save the current settings.

Print
Click this button to start printing.

A button for Print & Cut is also available here if you have a valid license.

Delete Job
Click this button to delete the selected job from the job list.

Cancel Printing
Click this button to cancel printing.

Open LinTool
Click this button to start EFI LinTool (default tool) — a tool for ensuring your printer’s color consistency.

Buttons for starting Color Manager, Color Verifier, Color Editor and Dot Creator are also available here if you have a valid license.

Transform Job
Click this button to display the transform tools.

Crop Job
Click this button to display the crop tools.

Job Explorer (this window)
Click this button to display the program window "Job Explorer" where you load and process jobs.

System Manager (for users with administrative rights only)
Click this button to display the program window "System Manager" where you set up system workflows

Second toolbar

Order:
Click the arrow to the right of this button to alter the order of overlapping pages in a nesting. You can move a selected page to the front or back of the stack or move it up or down a level. This function can also be performed on multiple page selections. To select multiple pages simultaneously, hold down the <Shift> key.

Align:
Click the arrow to the right of this button to define an alignment for selected pages in a nesting. Pages can be aligned according to their upper, lower, left or right edges or according to their vertical or horizontal centers. To select multiple pages simultaneously, hold down the <Shift> key.

Distribute:
Click the arrow to the right of this button to distribute selected pages on a nesting. Pages are rearranged evenly on the sheet so that their center points are equidistant from each other. You can distribute pages according to their top, bottom, left or right edges or according to their vertical or horizontal centers. This feature is primarily intended for use in conjunction with the align feature. To select multiple pages simultaneously, hold down the <Shift> key. See also "Sheet" on page 302 and "Page" on page 301.

The remaining buttons on this toolbar vary according to whether the transform tool or the crop tool is selected.

Transform tools

If the transform tool is selected, the following buttons become available on the second toolbar.

Position Image
Use these edit boxes to position an image at precise coordinates. The defined coordinates refer to the top left corner of an image. If multiple pages are selected, the relative position of the pages to each other remains constant.

Width and height
Use these edit boxes to modify the width or height of an image. Enter the values using the system of measurement defined on the Edit menu. If multiple images are selected, the scaling is applied to the image that is nearest to the top left corner of the sheet. All other images are scaled in proportion. To enter a scaling factor as a percentage, click the button "Scale percentually".

Scale Proportionally:
Click this button to ensure that the width and height of your images are scaled proportionally. If you modify the width of an image, the height will automatically change to maintain the original proportions.

Scale Percentually:
If you click this button, you can type in a scaling factor for width and height as a percentage.

Rotatation Angle:
Select an angle of rotation from the drop-down list box. Angles of 0, 90, 180 and 270 degrees are possible.

Flip Horizontally:
Click this button to create a mirror image by flipping a selected image on its vertical axis.

Flip Vertically:
Click this button to create a mirror image by flipping a selected image on its horizontal axis.

Lock:
Click this button to fit a nested page at its current setting and position on the sheet. A locked page cannot be modified, nor can it be rearranged on the sheet.

Reset Transformations:
Click this button to return an image to its original untransformed state.

Crop tools

The crop tools enable you to define and output a specific area of an image, without printing the whole image.

If the crop tool is selected, the following buttons become available on the second toolbar.

Define cropped image size
The edit boxes show the current image size. If you type in new dimensions, the image is cropped along the bottom and right edges.

Define cropped margin width:
Use these edit boxes to crop the top, bottom, left or right margins of an image.

Reset:
Click this button to return an image to its original uncropped state.

See also:

"Cropping" on page 143

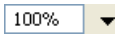
Preview toolbar

Maximize Preview:
Click this button and choose Maximize Preview to display an enlarged view of the preview window. Click it again and chooe Default Preview to revert to the default Job Explorer window.

Visual Aids:
Click this button to access the layout commands available from the Edit menu.

Show job/Show job layout:
Click this button to toggle between previewing a selected image with or without displaying its position on the media.

Zoom Job:
Click this button to zoom in on the preview. Select the tool and click inside the preview window. To deselect the zoom function, click the transform job icon in the first toolbar.



Zoom Factor:
Click the arrow button to increase or reduce the size of the previewed image and select a zoom factor from the drop-down list box. You can also choose to display a preview that equals the size of the preview window, the size of the selected area or the actual size of the image. Alternatively, type a scale factor in the edit box.

Scroll buttons:
These buttons enable you to scroll forwards and backwards through a multi-page document or a multi-page nesting.

See also:

"Visual Aids" on page 100

"Fit to" on page 99

Property Inspector

The Property Inspector of Job Explorer displays the settings made for the workflow in System Manager. In addition, some job-specific settings are possible which override the corresponding workflow settings of the same name for that particular job.

Many of the settings are identical to the settings that have previously been defined for the workflow. Therefore, this section describes only the differences.

Input tab > File Info pane

The File Info pane displays job-specific information, plus any warnings and error messages that affect job processing.

Input tab > Settings pane

On this pane you make settings for PS/PDF, TIFF/IT, Scitex CT/LW or one-bit files. If a job in any other file format is loaded, the Settings pane is not visible. The settings are identical with the settings on the File Formats pane in System Manager.

Layout tab > Job Layout pane

The settings on this pane are identical with the settings of the pane of the same name that are available in System Manager.

See also:

“Layout tab > Job Layout pane” on page 58

Layout tab > Nesting pane

This tab enables users with no administrator rights to define basic settings which affect media consumption, such as rotation and spacing between nesting objects.

All the settings made to nested pages on this tab must be "confirmed" by clicking Refresh. In addition to rearranging the pages in accordance with the new settings, the Refresh button also saves your changes.

See also:

“Layout tab > Nesting pane” on page 60

Layout tab > Step & Repeat pane

This pane has two buttons in addition to the settings of the same name that are available in System Manager.

- Display

  If you create a manual step & repeat in Job Explorer you must click Display for the settings to take effect.

  Step & repeat jobs receive the name “StepAndRepeat”, followed by a consecutive number, e.g. StepAndRepeat_66. You can rename step & repeat jobs by selecting the job and choosing Rename from the context menu.

  Only original images can be selected and edited. Therefore, make sure that your image is scaled to the required size, etc. before performing step and repeat.

  Once you have created a step and repeat, the original image is marked with a lock icon to indicate that the image can no longer be edited.

- Reset

  To make changes to the original image (e.g. scaling, rotation) or to modify step & repeat settings, you must first delete all the copies by clicking Reset.

See also:

"Layout tab > Step & repeat pane" on page 61

Layout tab > Footer pane

The settings on this pane are identical with the settings of the same name that are available in System Manager.

See also:

"Layout tab > Footer pane" on page 63

Color tab > Color Management pane

The Color Management pane lets you activate or deactive color management for individual print jobs. Here you select which profiles. rendering intents and customized color optimization files will be applied during printing.

The same settings are available as in System Manager.

See also:

"Color tab > Color Management pane" on page 65

Finishing tab > Marks pane

The settings on this pane enable you to choose job-specific crop marks. The settings are identical with the settings in System Manager.

See also:

"Finishing tab > Marks pane" on page 72

Output tab > Print pane

The Print pane combines the settings from the Basic and Advanced panes that are available in System Manager. It also enables you to apply a different media set to a selected job. Media sets are created for a specific combination of settings, e.g. for a particular type of media or for a certain type of ink.

In addition to the number of copies of a print job, you can also select a range of pages. Select the radio button "All" to print all pages of a multi-page document to print out only certain pages, select "Page/Sheet" and type individual page numbers. For example, to print pages 2, 6, 10, 11, 12 and 13, type 2,6,10-13.

See also:

"Output tab > Basic pane" on page 73

"Output tab > Advanced pane" on page 75

"Device tab > Media pane" on page 81

Output tab > Special pane

The same settings are available as in System Manager.

See also:

"Device tab > Special pane" on page 83

Output tab > File Output pane

This pane contains settings for creating a Remoteproof Container, as available on the Remote pane in System Manager. In addition, the Create now button is available for manual creation of a Remoteproof Container creation. It lets you create a Remoteproof Container when you are ready.

You will also find the file export settings for print-to-file jobs on this pane. These settings are identical to the settings available on the Setup pane in System Manager.

See also:

"Output tab > Remote pane" on page 76

"Device tab > Setup pane" on page 79

Verify tab > Control Strip 1/Control Strip 2 pane

This pane displays the same settings as in System Manager. If the dynamic wedge setting is selected, the CMYK values of the colors extracted from the job are also displayed in table form, together with any warning messages, such as "out of gamut", when you click Save.

System tab > Server pane

This pane shows the amount of used hard disk space on your computer.

The used disk space should not be allowed to exceed 97.5%; otherwise you will not be able to load and process print jobs in EFI XF.

This tab also displays an overview of the status of all the jobs of the logged on user.

System tab > Device pane

This pane displays the name and type of the connected output device.

EFI XF supports remote printer monitoring for some specific printers and can retrieve certain information from the printer and display it on this pane. On this pane, you can check:

- The current printer status
- Which media is inserted in the printer
- How much ink is left in each of the ink cartridges

See also:

"Device tab > Setup pane" on page 79

Keyboard shortcuts

Key combinations are available in Job Explorer. In the main, they correspond to the shortcuts that you will already be familiar with from popular graphics programs.

In the case of key combinations, many of the shortcuts that can be applied to individual images can also be applied to multiple job selections on a nesting.

Activating options

Function	Function key
Start Color Manager/LinTool	<F2>
Start Color Verifier	<F3>
Start Color Editor	<F4>
Start Dot Creator	<F5>
Start EFI XF Uploader	<F7>

Activating toolbars

Function	Function key
Transform toolbar	<T>
Crop toolbar	<C>
Edit tiling toolbar	<E>
Zoom toolbar	<Z>

General

Function	Key combination
Switch between Job Explorer and System Manager	<F6>
Show context menu for a selected page (“Edit” menu)	Right-mouse click on a page
Show context menu for a selected sheet (“Nesting” menu)	Right-mouse click on a sheet
Show context menu (“View” menu)	<Shift>+right-mouse click on a sheet
Select page	Click on page
Scale page(s) (Crop tool selected)	Click on page handle. Then press <Alt> and drag cursor.
Crop page(s) (Transform tool selected)	Click on page handle. Then press <Alt> and drag cursor.
Rotate page(s)	Click on page edge and drag image. Rotations snap automatically to 90°, 180°, 270° or 360°.
Move job to different workflow	<Alt>+<Ctrl>+<M>
Copy job to different workflow	<Alt>+<Ctrl>+<C>
Invert	• <Ctrl>+<I> • <Apple>+<I>
Reset page	• <Ctrl>+<Shift>+<R> • <Apple>+<Shift>+<R>
Maximize preview window	• <Ctrl>+<Shift>+<M> • <Apple>+<Shift>+<M>
Next page	<Ctrl>+<Page down>
Previous page	<Ctrl>+<Page up>
Go to first page	• <Ctrl>+<Home> • <Apple>+<Alt>+<Page down>
Go to last page	• <Ctrl>+<End> • <Apple>+<Alt>+<Page up>
Show/hide crosshairs for more precise page layout	<Tab>

Page position

Function	Key combination
Move page 0.5 mm on sheet	Arrow keys (← ↑ → ↓)
Move page 10 mm on the sheet	<Shift>+arrow keys (← ↑ → ↓)
Move sheet randomly	<Space bar>+drag mouse
Scroll sheet up/down	• <Page up>/<Page down> • Scroll wheel up/down
Scroll sheet left/right	• <Shift>+<Page up>/<Page down> • <Ctrl>+Scroll wheel up/down
Scroll to top/bottom of sheet	<Home>/<End>
Scroll to left/right edge of sheet	<Shift>+<Home>/<End>

Nesting jobs

Function	Key combination
Select all jobs	• <Ctrl>+<A> • <Apple+<A>
Add page to selection	<Shift>+click on page
Select jobs in a cropped area	Mouse click and drag lasso
Remove page from selection	<Shift>+click on page
Move selected pages	Drag cursor
Remove selected page(s) and copy to clipboard (unplace page)	• <Ctrl>+<X> • Apple+<X>
Delete selected page(s)	<Ctrl>+<Backspace>
Copy selected page(s)	• <Ctrl>+<C> • <Apple>+<C>
Paste selected page(s) from the clipboard	• <Ctrl>+<V> • <Apple>+<V>
Refresh nesting	• <Ctrl>+<Alt>+<R> • <Apple><Alt>+<R>
Add sheet	• <Ctrl>+<Alt>+<+> • <Apple><Alt>+<+>

Function	Key combination
Lock page	• <Ctrl>+<L> • <Apple>+<L>
Unlock page	• <Ctrl>+<Alt>+<L> • <Apple>+<Alt>+<L>

Zoom

Function	Key combination
Zoom in/out	• <Ctrl>+<+>/<> • <Apple>+<+>/> • <Alt>+Scroll wheel
Fit sheet to window	• <Ctrl>+<0> • <Apple>+<0>
Fit to actual size	• <Ctrl>+<Alt>+<0> • <Apple>+<Alt>+<0>
Fit selection to window	• <Ctrl>+<F> • <Apple>+<F>
Fit selection to window and zoom out one step	• <Ctrl>+<Alt>+<F> • <Apple>+<Alt>+<F>
Zoom in two steps	• <Ctrl>+<Space bar>+mouse click • <Apple>+<Space bar>+mouse click
Zoom out two steps	• <Alt>+<Space bar>+mouse click
Zoom into selected area	• <Ctrl>+drag lasso • <Apple>+drag lasso

Rulers, guides and grid

Function	Key combination
Show/hide ruler	• <Ctrl>+<R> • <Apple>+<R>
Set ruler to new zero coordinates	Drag cursor from top left corner of preview window (where vertical and horizontal rulers intersect)
Return ruler to default zero coordinates	Double-click in top left corner of preview window (where vertical and horizontal rulers intersect)

Function	Key combination
Create guide	Drag cursor from ruler
Re-position guide	Select and drag guide to new position
Delete guide	Drag guide and release in ruler (unlocked guides only)
Show/hide guides	• <Ctrl>+<;> • <Apple>+<;>
Lock/unlock guides	• <Ctrl>+<Alt>+<;> • <Apple>+<Alt>+<;>
Show/hide grid	• <Ctrl>+<“> • <Apple>+<“>
Override snap to	<Shift>+drag cursor

PRINTING AND MONITORING PRINT JOBS

EFI XF can process the following formats: PostScript, PDF, TIFF, JPEG, JPEG2000, RAW, EPS, Delta Lists, Scitex CT/LW, TIFF/IT, DCS1/DCS2, RPF and PSD. One-bit file formats are also accepted if the OneBit Option is installed. Files in all other formats may be loaded but receive the job status “Not supported” and cannot be processed.

If the EFI XF Server computer has too little available hard disk space, you will not be able to load and process print jobs in EFI XF. If problems arise, please check the amount of available hard disk space.

See also:

“System tab > Server pane” on page 109

Printing directly from EFI XF

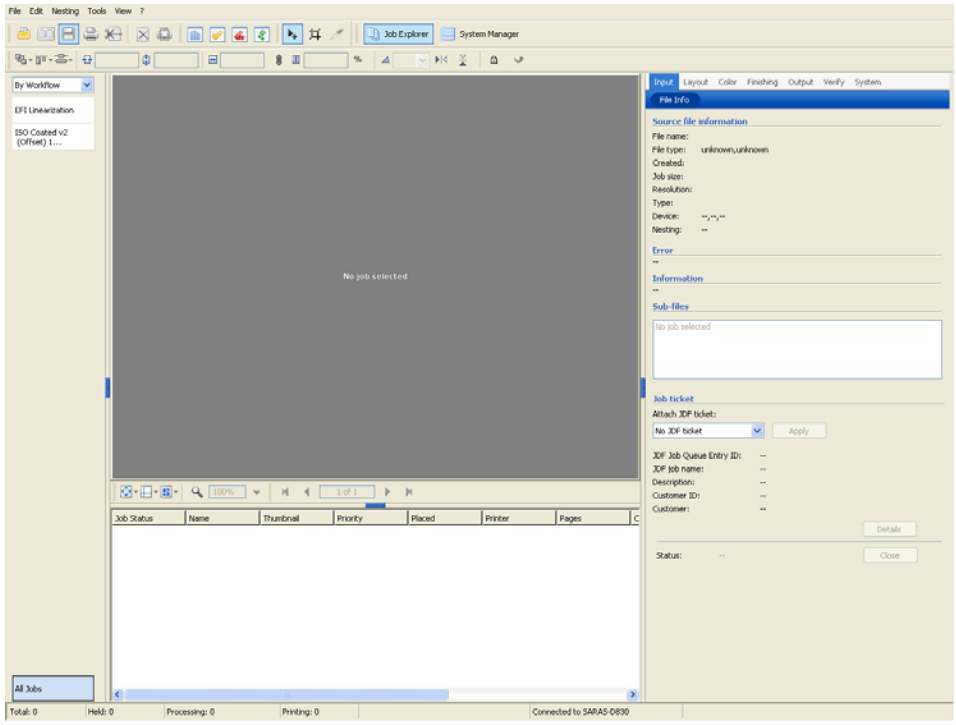
Once a system workflow has been set up, you can print your first job. This section leads you step by step through a practical example of how to obtain your first printout.

TO PRINT DIRECTLY FROM EFI XF

1 **Make sure that a media is loaded in the printer.**

2 **Start EFI XF and display Job Explorer.**

Job Explorer

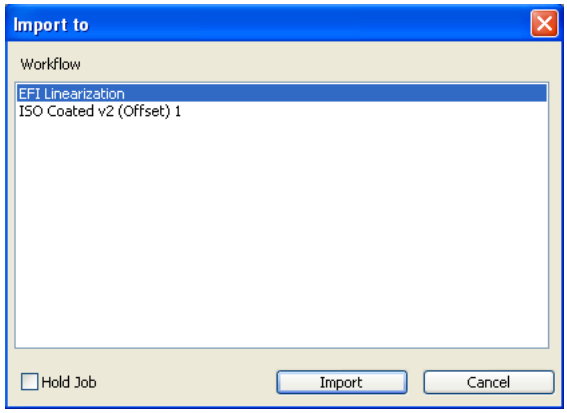


3 **Load a job using one of the following methods:**

- In the toolbar, click Import Job.
- Select File > Import Job.
- Right-click the mouse button in the job list and choose Import Job from the context menu.
- Use the drag-and-drop function to release a file directly in the job list area.

A dialog opens.

Import to dialog



4 **Select a workflow from the list and activate the check box "Hold Job".**

This means that your job is loaded but not automatically processed in EFI XF. This gives you an opportunity to make job-specific settings before output, if required.

If your job can be processed and output exactly according to the workflow settings, leave the check box "Hold Job" unchecked. In this case, your job will be output as soon as it is loaded in EFI XF.

5 **Click Import. Your job is loaded in EFI XF.**

Alternatively, files can also be copied into a defined hotfolder. In this case, the print jobs are automatically loaded in the assigned workflow.

6 **Select your job in the job list.**

Depending on the workflow settings, an image preview may or may not be created and displayed.

7 **Make any required job-specific settings in the Property Inspector.**

Job-specific settings override the workflow settings made in System Manager.

8 **To print your job use one of the following methods:**

- In the toolbar, click Print.
- Select File > Print.
- Right-click the mouse button in the job list and choose Print from the context menu.

See also:

"Settings in System Manager" on page 41

Job Monitor

Job Monitor is a tool used to manage print jobs. It can be installed on an unlimited number of computers and does not require a license.

The displayed information is user-dependent, users see only the workflows to which they have access. However, users with administrative rights can view and manage print jobs of other users printing to the same workflows. Users with user rights only can only see and manage their own jobs.

In Job Monitor you can:

- View all print jobs for all your workflows at once
- View your print jobs according to workflow, status or printer
- Add print jobs to workflows
- Cancel and delete your own print jobs
- Start job processing and printing

TO START EFI JOB MONITOR

1 **Double-click the EFI XF Job Monitor icon.**

Program icon

On Windows computers, this is located on the desktop. On Macintosh computers you will find the icon in the Dock.

If Job Monitor is installed on the same computer as the EFI XF Server, the application starts. If Job Monitor and EFI XF Server are installed on different computers or if the EFI XF Server is not running, the Login window opens.

Login window

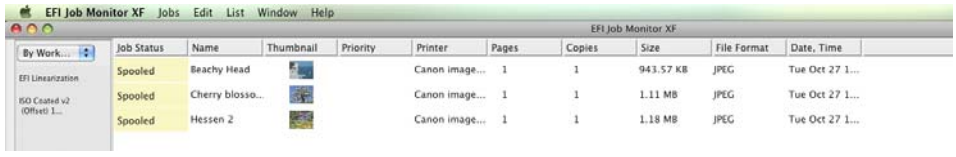
2 **Make sure that the EFI XF Server is running. Then, log in with the same user name and password that you use to log in to the EFI XF Client.**

3 **Select the IP address of the Server computer.**

A list of all available EFI XF Servers in your sub-network is displayed with IP address in the drop-down list box. You can also type in manually the IP address of an EFI XF Server. Ask your system administrator if you are not sure which TCP/IP address to use.

The Job Monitor window opens.

Job Monitor window



Menus

EFI XF Job Monitor menu (Macintosh only)

- About

  Choose this command to open a window with details of your program version.

- Quit EFI Job Monitor XF

  Choose this command to exit Job Monitor. The next time you start EFI XF you will automatically be logged on with the same user data.

Jobs menu

- Import Job

  Choose this command to load a print job in Job Monitor.

- Print

  Choose this command to start printing a selected print job.

- Cancel Printing

  Choose this command to cancel printing of a selected print job.

- Delete Job

  Choose this command to delete a print job.

- Login

  Choose this command to display the "Login" dialog. This command enables you to log in under a different user name or to log on to a different Server.

- Logoff and Exit

  Choose this command to log off and exit Job Monitor. The next time you start Job Monitor the "Login" dialog opens.

- Exit (Windows only)

  Choose this command to exit Job Monitor. The next time you start EFI XF you will automatically be logged on with the same user data.

Edit menu (Windows only)

- Languages

  Choose this command to change the language in which the user interface is displayed. You must restart Job Monitor before the new language takes effect. By default, the language of the operating system is displayed.

  On a Macintosh, you can change the language via the international settings in "System Preferences".

  Please note that to display one of the supported Asian languages on a PC, EFI XF must be running on an operating system that supports double-byte fonts.

List menu

- View

  Choose this command to expand or collapse the Job Monitor window. In a collapsed state, only the available workflows are displayed in the Selector area. In an expanded state, the job list is also visible.

? menu (Windows)/Help menu (Macintosh)

- EFI Web Site

  Choose this command to access the EFI homepage.

- About (Windows only)

  Choose this command to open a window with details of your program version.

Printing via Job Monitor

Job Monitor provides users with an easy way to submit print jobs to EFI XF from any computer that does not have Client software installed.

TO PRINT JOBS WITH JOB MONITOR

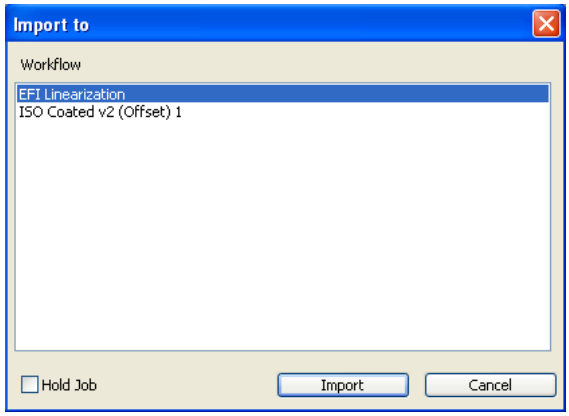
1. **Make sure that a media is loaded in the printer.**
2. **Start Job Monitor and log on to an EFI XF Server.**
3. **Highlight a workflow in the Selector area.**

4 **Load a job using one of the following methods:**

- Select Jobs > Import Job and navigate to your file.
- Right-click the mouse button in the job list and choose Import Job from the context menu.
- Use the drag-and-drop function to release a file directly in the job list area.

A dialog opens.

Import to dialog



If you load a job without previously selecting a workflow in the Selector area (e.g. if all print jobs or only those for a particular printer or with a certain status are displayed), a dialog opens with a list of available workflows. Select a workflow from the list and click Import.

If you activate the check box “Hold Job” your jobs will be loaded in EFI XF but will not be processed. Job processing must be started manually.

Your job is processed according to the workflow settings and output on the printer.

Printing via a hotfolder

A hotfolder enables users, who do not have EFI XF installed on their computers, to copy print jobs to a centrally located folder on the network.

All jobs placed in the hotfolder are loaded and processed in EFI XF according to the settings for the particular workflow.

Workflows printing via the same hotfolder may not necessarily be configured identically. This can result in unsatisfactory color results if the workflow settings are different or if a different printer is connected. See also "Input tab > General pane" on page 51 for more information on load balancing.

TO CREATE A HOTFOLDER

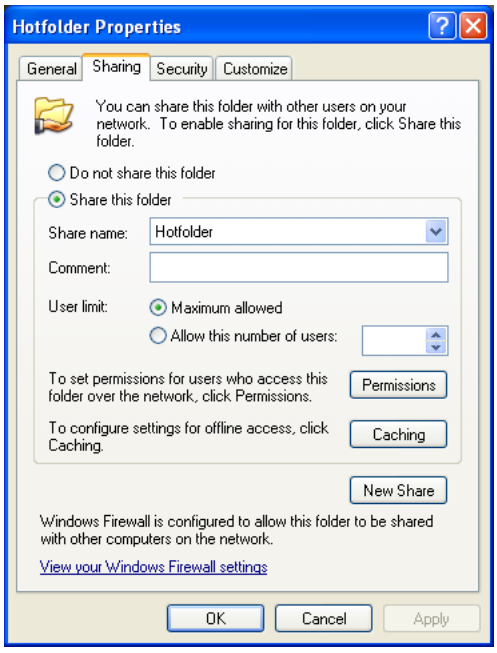
1. **In System Manager, select a workflow.**
2. **Set the workflow offline by clicking on the green arrows at workflow entry.**
3. **On the Input tab, open the General pane and define a hotfolder.**

If the EFI XF Server is installed on Windows, please observe the following:

- The EFI XF Server runs on Windows as a service. To enable EFI XF to communicate with hotfolders via the network, you need to assign network access rights for the EFI XF Server by creating a user with administrative rights.
- The user must be given read/write privileges and be logged on:
  - on the computer with the EFI XF Server
  - on the computer with the hotfolder

- In a network environment, you need to set up a folder containing one subfolder. The folder must be set up as a shared folder for the network: Right-click the folder and choose Properties from the context menu. On the Sharing tab, select "Share this folder" and define a share name. Click Permissions and assign full read/write privileges. The subfolder can then be used as the hotfolder.

Setting up folder sharing in Windows XP



- In EFI XF browse to the hotfolder via My Network Places.

Do not select a folder that has been mapped as an internal link.

TO PRINT VIA A HOTFOLDER

- **Copy print jobs manually into a hotfolder or**
- **Set up a hotfolder as a virtual printer. This enables you to submit jobs directly from an application.**

The loaded jobs are processed according to the workflow settings.

See also:

“Hotfolder” on page 51

“Setting up the computer on which the graphics application is installed” on page 137

“Windows login rights” on page 289

Unidriver

The Unidriver printer driver enables you to print directly to EFI XF workflows from any application.

Unidriver can be installed as often as required on any Windows or Macintosh OS X computer located in a network environment. Each installation is set up for a specific EFI XF Server and allows one named user to print to his or her workflows.

Although it is easy to alter the user/server settings, you may find it more convenient to install additional versions of the Unidriver on one computer, e.g. to enable the same user to send print jobs to a different Server version of EFI XF.

If you try and set up two printers with the same name, EFI XF will automatically add a consecutive number to the name.

Windows

Installing Unidriver for Windows

You will find the Unidriver application on the software DVD in the Tools and Other folder.

TO INSTALL UNIDRIVER

1. **Copy the contents of the PC folder to the computer on which the application is installed.**
2. **Double-click on the file "Unidriver.exe" and extract the contents to a chosen location on your computer. The setup procedure starts automatically.**

   If the setup does not start automatically, open the Unidriver folder and then the subfolder Driver_Installer and double-click on the application file "setup.exe". The EFI XF 4.1 Unidriver Setup window opens.
3. **Click Next and follow the on-screen instructions until the window Name Your PS Printer opens.**
4. **Type a name for the EFI XF printer.**

   It is advisable to use a name that can be easily identified when selecting Unidriver in the print command of the application.
5. **Click Next and continue to follow the on-screen instructions.**
6. **Click Finish to complete the installation.**

Logging on to EFI XF

Before you can print from an application, you must first log on to EFI XF in Unidriver.

TO LOG ON TO EFI XF

1 **Proceed as follows:**

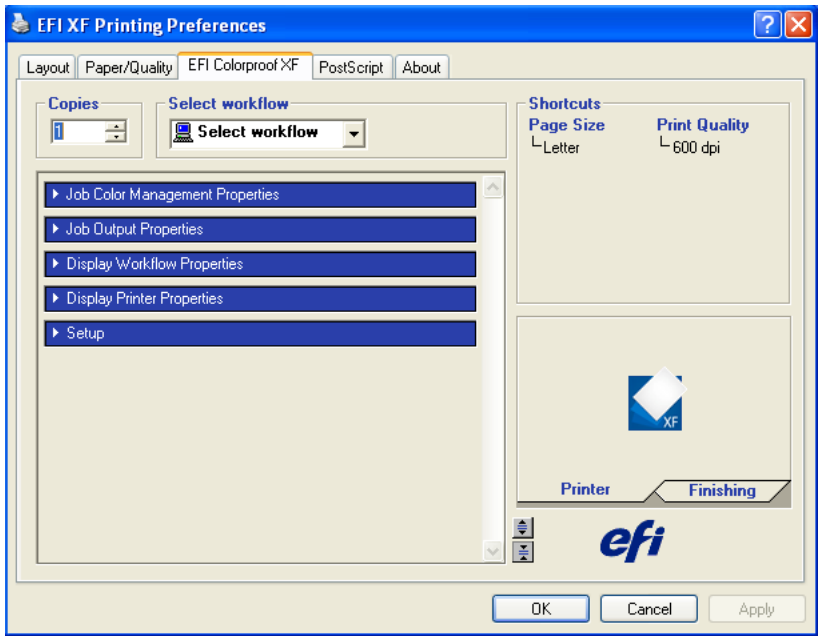
- Windows 2003:
  Select Start > Settings > Printers.
- Windows XP:
  Select Start > Printers & Faxes.
- Windows Vista:
  Select Start > Control Panel > Hardware and Sound > Printers.
- Windows 7:
  Select Start > Control Panel > Hardware and Sound > Devices and Printers.

2 **Right-click the EFI XF printer and choose Printing Preferences from the context menu.**

A message informs you that you need to enter the Server login information in Setup. This message appears because the printer driver is not yet logged on to EFI XF. To log on with your user data, continue with the following steps.

3 **Click OK to open the EFI XF Printing Preferences window. The EFI XF tab is selected. It consists of five blue bars.**

EFI XF Printing Preferences



4 **Click the Setup bar and type a user name and password (as defined in EFI XF). Then type the IP address of the Server computer.**

You must set up a connection to EFI XF in order to access your workflows. Otherwise, it is not possible to print.

5 **Click Apply to log on with your user data.**

6 **Click OK and close all windows.**

It is important that you access Unidriver as described above in order to log on to EFI XF. All other printer settings can be made by opening the Unidriver window directly from the application, as described in the following section.

If you would like to predefine a workflow for Unidriver, open the EFI XF Printing Preferences window again and select a workflow from the pull-down menu.

Printing

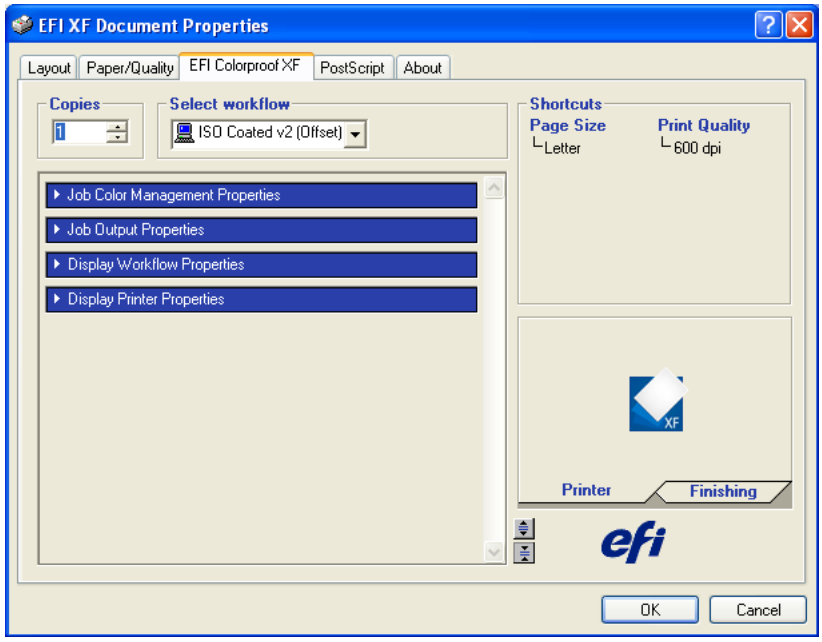
It is advisable to make all required workflow settings in EFI XF. Be aware that any settings you make in Unidriver, e.g. number of printed copies, overwrites the equivalent setting in EFI XF.

TO OPEN UNIDRIVER FROM ANY WINDOWS APPLICATION

1 **In the application, select the print command. Then select the Unidriver printer from the drop-down list box and click Properties, Printing Preferences or similar, depending on which application you are printing from.**

The Document Properties window opens.

EFI XF Document Properties



If an error message informs you that you need to enter the server login information in Setup, click OK and follow the steps in the previous section to log on to EFI XF.

2 **From the drop-down list box, select the workflow. If required, you can check the settings made for the workflow by clicking in turn on each of the blue bars.**

3 **Click OK to exit Unidriver and start printing.**

Making changes to the Unidriver setup

You can change Unidriver settings at any time. See “Logging on to EFI XF” on page 126.

Macintosh

Installing Unidriver for Macintosh

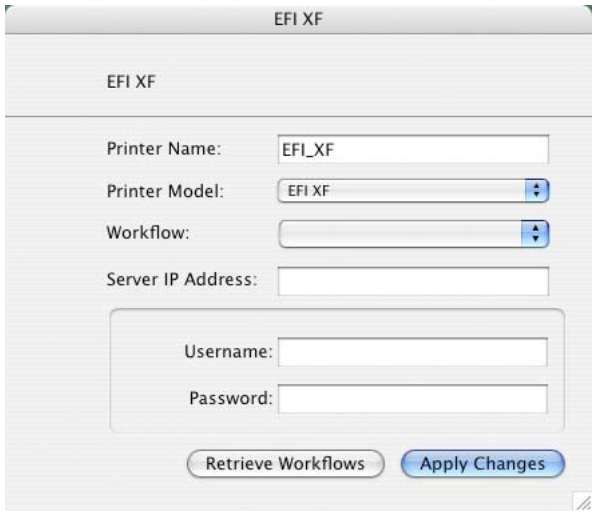
You will find the Unidriver application on the software DVD in the Tools & Other folder.

TO INSTALL UNIDRIVER

1 **Copy the contents of the appropriate folder (PC or Mac) to the computer on which the application is installed.**

2 **Double-click on the application file "EFI XF Unidriver" and follow the on-screen instructions until the EFI XF window opens.**

EFI XF window



3 **Type a name for the Unidriver printer.**

It is advisable to use a name that can be easily identified when selecting a printer in the print command of the application.

4 **Type the IP address of the EFI XF Server computer. Then type the user name and password (as defined in EFI XF).**

You must set up a connection to the EFI XF Server in order to access your workflows. Otherwise, it will not be possible to print.

5 **Click Retrieve Workflows to add the EFI XF workflows to which you have access to the drop-down list box “Workflow”.**

6 **Click Apply Changes to log on with your user data and close the window.**

7 **Click Quit to complete the installation or click Continue to repeat the installation for additional users or servers.**

Printing

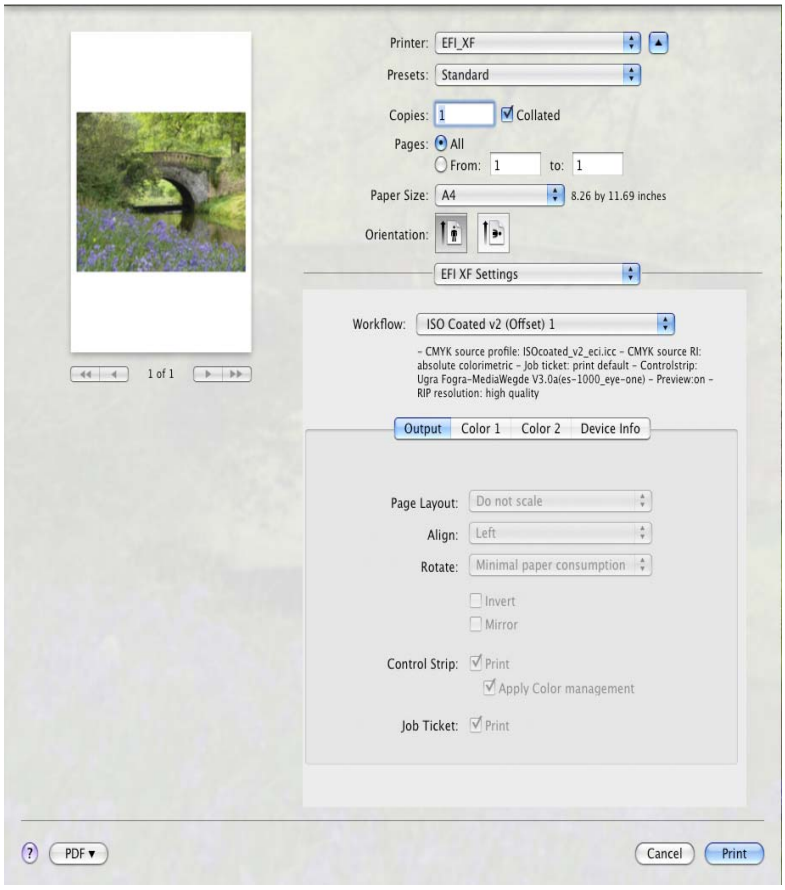
It is advisable to make all required workflow settings in EFI XF. Be aware that any settings you make in Unidriver, e.g. number of printed copies, overwrites the equivalent setting in EFI XF.

TO OPEN UNIDRIVER FROM ANY MACINTOSH OS X APPLICATION

1 **In the application, select the print command. From the pop-up menu "Printer", select the Unidriver printer. Then click Advanced.**

This button may or may not be available, depending on which application you are printing from.

Advanced settings



2 **From the pop-up menu, select "EFI XF Settings". The Unidriver window opens.**

3 **From the pop-up menu "Workflow", select the EFI XF workflow to which you want to print. If required, you can check the settings made for the workflow by clicking in turn on each of the four tabs.**

4 **Click Print to exit Unidriver and start printing.**

Making changes to the Unidriver setup

You can change Unidriver settings at any time.

TO MAKE CHANGES TO THE PRINTER DRIVER SETUP

1. **In the Printer Setup Utility, select the Printing tab and hightlight the EFI XF printer in the printer list.**
2. **Click Open Print Queue to open the print dialog.**
3. **In the toolbar, click Utility.**

   The EFI XF Setup dialog opens, in which you can make your desired changes.

Virtual printing

To print straight from an application, you need to set up EFI XF as a virtual printer. This requires you to make certain settings in EFI XF and on the computer on which the graphics application is installed. When EFI XF has been correctly set up as a virtual printer, you can select it in the print dialog of the graphics application.

Installed protocols according to operating system

Whether or not EFI XF is visible as a printer in the network is controlled by protocol drivers. If no protocol driver is installed, it may not be possible for EFI XF to communicate with the computer on which the application is installed. Ensure that the necessary protocol is installed before setting up EFI XF as a virtual printer.

The table below illustrates which protocols are supported by which operating systems.

Protocols supported by operating system	Windows 2003 Server/ Windows 2008 Server	Windows XP	Windows Vista/ Windows 7	Macintosh OS X
AppleTalk	Yes*	Yes*	Yes*	Yes
TCP/IP	Yes*	Yes*	Yes*	Yes
SMB**	Yes	Yes	Yes	No

* The Windows service needs to be installed.

** SMB stands for Server Message Block. It is a protocol for sharing files, printers, serial ports, and communications abstractions between computers.

The following tables show whether the virtual printer will be available to the user depending on which protocol is installed.

Protocols installed on Windows XP/Vista/7 Client computer	**Prints to EFI XF installed on:**			
	Windows 2003 Server/ Windows 2008 Server	**Windows XP**	**Windows Vista/ Windows 7**	**Macintosh OS X**
AppleTalk	No	No	No	No
TCP/IP	Yes	Yes	Yes	Yes
SMB	Yes	Yes	Yes	No

Protocols installed on Windows 2003 Client computer	**Prints to EFI XF installed on:**			
	Windows 2003 Server/ Windows 2008 Server	**Windows XP**	**Windows Vista/ Windows 7**	**Macintosh OS X**
AppleTalk	Yes	No	No	No
TCP/IP	Yes	Yes	Yes	Yes
SMB	Yes	Yes	Yes	No

Protocols installed on Macintosh OS X Client computer	**Prints to EFI XF installed on:**			
	Windows 2003 Server/ Windows 2008 Server	**Windows XP**	**Windows Vista/ Windows 7**	**Macintosh OS X**
AppleTalk	Yes	Yes	Yes	Yes
TCP/IP	Yes	Yes	Yes	Yes
SMB	Yes	Yes	Yes	No

Protocols installed on Macintosh OS 9 Client computer	Prints to EFI XF installed on:			
	Windows 2003 Server/ Windows 2008 Server	Windows XP	Windows Vista/ Windows 7	Macintosh OS X
AppleTalk	Yes	Yes	Yes	Yes
TCP/IP	No	No	No	No
SMB	No	No	No	No

Setting up AppleTalk for Windows XP

An EFI AppleTalk driver is provided for users of Windows XP Professional and Windows XP Home operating systems.

To enable a Macintosh computer and a Windows XP Server computer to communicate via AppleTalk, the EFI AppleTalk driver must first be installed as a protocol on the Windows XP computer. The EFI AppleTalk driver supports all Apple Macintosh OS up to Mac OS 9 and all versions of Mac OS X.

TO INSTALL THE APPLETALK DRIVER

1. **From Control Panel, double-click Network connections. Then, right-click the LAN or high-speed Internet connection and choose Properties from the context menu to open the Local Area Connection Properties window.**
2. **On the General tab, click Install.**

   The Select Network Component Type window opens.
3. **Double-click Protocol.**

   The Select Network Protocol window opens.
4. **Click Have Disk and navigate to the netefiatalk.inf file located in the EFI AppleTalk Driver folder of your current EFI XF installation.**

   During installation, you may be requested to load the netefiatalk.sys file. You will find it located in the same folder.
5. **Click Open to install the printer driver, and follow the on-screen instructions.**
6. **After installation, return to the Local Area Connection Properties window, and display the properties of the newly installed EFI AppleTalk driver. Make sure that your current network card is displayed and that a valid AppleTalk zone is selected.**
7. **Close all windows and restart your Windows computer.**

Please read the following carefully. It may help to prevent problems when using the EFI AppleTalk driver.

- When you have successfully installed the EFI AppleTalk driver, make sure that a physical network card and a valid AppleTalk zone are selected. If there is no AppleTalk zone available on your network or if you are using a cross-link cable to connect the PC with the Macintosh, please also enter the properties of the EFI AppleTalk driver. The EFI AppleTalk driver is directly connected to your network card and requires certain information about it. Selecting the properties enables the driver to get access to this information.
- Make sure to restart your Windows XP computer after installing the EFI AppleTalk driver. If you do not perform a restart, EFI XF will not be able to detect the newly installed driver.
- When you have restarted your Windows XP computer, EFI XF can run a font download spooler and also set up hotfolders as AppleTalk printers if the AppleTalk spooler is enabled. If you want to perform a font download, it is recommended that you do so before you set up a hotfolder as an AppleTalk printer.
- The EFI AppleTalk driver is not compatible with any Microsoft AppleTalk protocol. Although no Microsoft AppleTalk protocol is available for Windows XP, it is strongly recommended that you uninstall any Microsoft AppleTalk protocols before using the EFI AppleTalk driver.

Setting up EFI XF

To print straight from an application, you must first make certain settings in EFI XF.

Setting up EFI XF as a virtual printer

To set up EFI XF as a virtual printer the TCP/IP or SMB protocols must be installed on the computer.

TO SET UP A VIRTUAL PRINTER

1. **In System Manager, set the workflow offline.**
2. **On the Input tab, open the General pane.**
3. **Define a hotfolder.**
4. **Select the check box "Create Virtual Printer" and define a printer name in the edit box.**

   This is the name that will be displayed in the print dialog of the application.
5. **Click Save to save the workflow.**
6. **Set the workflow online.**

7 **Make sure that the virtual printer is set up for printer sharing in the operating system.**

- Windows:
  In Printers and Faxes, right-click the virtual printer icon and select Properties from the context menu. Click the Sharing tab and make sure that the radio button “Share this printer” is selected. Select also “List in the directory” to ensure that the printer can be seen by other users on the network
- Macintosh:
  In Print & Fax, check that the virtual printer is displayed and selected. Make sure that the check box for sharing the printer is selected.

Once you have set up EFI XF, certain settings are needed on the computer on which the graphics application is installed. See “Setting up the client computer for TCP/IP or SMB printing” on page 137 for further information.

See also:

“Hotfolder” on page 51

“Printing via a hotfolder” on page 123

“Setting up AppleTalk for Windows XP” on page 133

“Setting up the computer on which the graphics application is installed” on page 137

Setting up EFI XF as an AppleTalk spooler

To set up EFI XF as an AppleTalk spooler, the AppleTalk protocol must be installed on the computer. AppleTalk is a protocol used by Macintosh computers. Define an AppleTalk spooler only if your graphics application is installed on a Macintosh and you want to use the AppleTalk protocol.

AppleTalk is not supported by Windows XP. If EFI XF is installed on this operating system, you need to install the EFI AppleTalk driver first. Alternatively, try setting up a connection using the TCP/IP protocol instead.

TO SET UP AN APPLETALK SPOOLER

1 **In System Manager, set the workflow offline.**

2 **On the Input tab, open the General pane.**

3 **Define a hotfolder.**

4 **Select the check box "Enable AppleTalk Spooler" and define a printer name in the edit box.**

This is the name that will be displayed in the print dialog of the application. If you do not enter a name, the default name “*workflow name* on *computer name*” is used.

5 **Set the workflow online.**

6 **Click Save to save the workflow.**

7 **Make sure that the AppleTalk spooler is set up for printer sharing in the operating system.**

TO SETUP UP THE APPLETALK SPOOLER FOR PRINTER SHARING IN WINDOWS

1. **Select Start > Printers and Faxes.**
2. **Double-click Add Printer and click Next.**
3. **In the dialog Local or Network Printer, select "Local printer attached to this computer." Then click Next.**
4. **In the dialog Select a Printer Port, select "Use the following port." Then select a port from the drop-down list box and click Next.**
5. **In the dialog Install Printer Software, select the printer manufacturer EFI. Then select EFI XF from the printer list and click Next.**
6. **In the dialog Use Existing Driver, select Have Disk and click Next.**
7. **In the dialog Install From Disk, click Browse and browse to the Windows PPD for Windows XP which is located in the Modules folder.**
8. **Double-click the EFI_PRINT.inf file. Then click OK.**
9. **In the dialog Install Printer Software, select the EFI XF printer in the printer list and click OK.**
10. **In the dialog Use Existing Driver, select "Keep existing driver (recommended)" and click Next.**
11. **In the dialog Name Your Printer, type a name.**

    This is the name that will be displayed in the print dialog of the graphics application.
12. **Specify whether you want to set up EFI XF as the default printer and click Next.**
13. **In the dialog Printer Sharing, make sure that EFI XF is set up as a shared printer. Then click Next..**
14. **In the dialog Locations and Comment, define the location and capabilities of the EFI XF printer, if required. Then click Next.**
15. **In the dialog Print Test Page, output a test page, if required.**
16. **Click Finish.**

TO SETUP UP THE APPLETALK SPOOLER FOR PRINTER SHARING ON MACINTOSH

1. **In System Preferences, double-click Print & Fax.**
2. **On the Printing tab, click the plus (+) button to open the Printer Browser dialog.**
3. **Click More Printers.**
4. **From the pull-down menu, select "AppleTalk".**
5. **From the pull-down menu, select your AppleTalk zone.**
6. **Select the AppleTalk spooler in the printer list and click Add.**

7 **Click the Sharing tab and make sure that the check box "Share these printers with other computers" is selected.**

Ensure also that the check box next to the AppleTalk spooler is selected.

8 **Close all dialogs.**

Once you have set up EFI XF, certain settings are needed on the computer on which the graphics application is installed. See "Setting up the client computer for AppleTalk printing" on page 140 for further information.

See also:

"Hotfolder" on page 51

Setting up the computer on which the graphics application is installed

Before you can start printing, you must set up EFI XF as a printer on the computer on which the graphics application is installed. This documentation gives details of how to set up the Windows XP and Macintosh OS X 10.5 operating systems. Other operating systems may be slightly different.

See also:

"Printing from an application" on page 141

Setting up the client computer for TCP/IP or SMB printing

Follow the steps below to set up the Client computer on which the graphics application is installed.

EFI XF WINDOWS SERVER/WINDOWS APPLICATION

EFI XF installed on:	Windows XP
Graphics application installed on:	Windows XP

In Windows, EFI XF automatically creates a shared printer that can be used like any other shared printer.

1 **Select Start > Printers & Faxes.**

2 **Click "Add a Printer" and click Next.**

3 **Select the radio button for adding a network printer and click Next.**

4 **Select "Find a printer in the directory" and click Next.**

5 **Type the name of the EFI XF printer and click Find Now.**

If the printer is not found, make sure that it is correctly set up to be listed in the directory. See "Setting up EFI XF as a virtual printer" on page 134 for further information.

6 **Double-click the EFI XF printer in the list.**

7 **Define whether you want to set up EFI XF as the default printer and click Next.**

8 **Click Finish.**

You can now select EFI XF as a printer in your graphics application.

EFI XF MACINTOSH SERVER/MACINTOSH OS X APPLICATION

EFI XF installed on:	Mac OS X 10.5
Graphics application installed on:	Mac OS X 10.5

In Macintosh OS X, EFI XF automatically creates a shared printer which can be used like any other shared printer. No further steps are necessary and you can select EFI XF as a printer in your graphics application..

EFI XF WINDOWS SERVER/MACINTOSH OS X APPLICATION

EFI XF installed on:	Windows XP
Graphics application installed on:	Mac OS X 10.5

1 **In System Preferences, double-click Print & Fax.**

2 **Click the plus (+) button.**

3 **On the Windows tab, select first the domain and then the Windows computer on which EFI XF is installed.**

The Windows login dialog appears.

4 **Type your user name and password required to access the EFI XF computer and click Connect.**

5 **On the Windows tab, select the name of the virtual printer.**

6 **From the pull-down menu Print Using, choose Other and browse to the EFI XF ppd. Then click Open.**

7 **On the Windows tab, click Add.**

The virtual printer is added to the list of available printers. You can now select EFI XF as a printer in your graphics application.

If you experience difficulty printing via this method, you may be able to get round the problem by adding your Windows login details to the print command, as described below.

8 **On Macintosh, start the Web browser and type http://localhost:631. Then press <Enter>.**

The Common UNIX Printing System window appears.

9 **Select the Printers tab.**

10 **Scroll down to the virtual printer that you added in Print & Fax and click Modify Printer.**

11 **In the window Modify Printer, click Continue.**

12 **In the window Device for, click Continue.**

13 **In the window Device URI for, add your Windows login data to the device URI as follows:**

Old: smb://computername:139/virtualprintername

New: smb://username:password@domain/computername:139/virtualprintername

The user name and password are saved but are not visible to any user on the network.

14 **Click Continue.**

15 **In the window Make/Manufacturer for, select EFI from the printer list and click Continue.**

In the window Model/Driver for, select EFI XF from the list and click Modify Printer.

EFI XF MACINTOSH SERVER/WINDOWS APPLICATION

EFI XF installed on:	Mac OS X 10.5
Graphics application installed on:	Windows XP

1 **Open Control Panel and select Printers and Faxes.**

2 **Select "Add a printer" and click Next.**

3 **Select the radio button for adding a network printer and click Next.**

4 **Select the radio button for connecting to a printer on the Internet or on a home or office network.**

5 **Fill in the text input field URL by entering the IP address of the Macintosh server computer and the port number 631.**

For example: http://*xx.xxx.xx*.x:631/printers/EFIXF (where *xx.xxx.xx.x* stands for the IP address of the Macintosh computer on which EFI XF is installed.

6 **Click Next.**

7 **Click Have Disk and browse to the netefiatalk.inf file located in the Modules folder.**

8 **Open the PPD folder.**

9 **Open the folder for your operating system and double-click on the file *.inf to select it.**

10 **Follow the on-screen instructions to proceed with the printer driver installation.**

EFI XF is added to the list of available printers and can be selected in your application.

See also:

"Setting up AppleTalk for Windows XP" on page 133

Setting up the client computer for AppleTalk printing

Before performing the steps in the following sections, make sure that EFI XF has been set up as a virtual printer.

EFI XF MACINTOSH SERVER/MACINTOSH OS X APPLICATION

EFI XF installed on:	Mac OS X 10.5
Graphics application installed on:	Mac OS X 10.5

1. **Copy the Macintosh PPD from the installation folder to the following location on the hard disk of the computer on which the application is installed: Macintosh HD:Library:Printers:PPDs:Contents:Resources.**
2. **Make sure that EFI XF is started.**
3. **In System Preferences, click Print & Fax.**
4. **Click the plus (+) button.**
5. **On the AppleTalk tab, select your AppleTalk zone.**
6. **From the printer list, select the EFI XF printer.**

   This is the AppleTalk spooler name defined in EFI XF.
7. **Click Add.**

   EFI XF is added to the list of available printers and can be selected in your application.

EFI XF MACINTOSH SERVER/MACINTOSH OS 9 AND MAC OS X CLASSIC MODE APPLICATION

EFI XF installed on:	Mac OS X 10.5
Graphics application installed on:	Mac OS X Classic Mode Mac OS 9

1. **Copy the Macintosh PPD from the installation folder to the following location on the hard disk of the computer on which the application is installed: System extensions:Printer descriptions.**
2. **Make sure that EFI XF is started.**
3. **Open the Chooser.**
4. **Make sure that AppleTalk is active.**
5. **Select a LaserWriter 8 printer.**

   A list of PostScript printers is displayed.
6. **Select the EFI XF printer.**

   This is the AppleTalk spooler name defined in EFI XF.

7 **Click Create.**

A dialog for selecting a PPD for your printer opens.

8 **Double-click the Macintosh PPD for EFI XF.**

If the PPD file is grayed out and cannot be selected, use a Macintosh OS 9 shareware application such as FileTyper or FileXaminer to correct the file type and change it to text format.

9 **Close the Chooser.**

EFI XF is added to the list of available printers and can be selected in your application.

EFI XF WINDOWS XP SERVER/MACINTOSH OS X APPLICATION

EFI XF installed on:	Windows XP
Graphics application installed on:	Mac OS X 10.5

In Windows, make sure that print services for Unix are selected. You will find this setting in Control Panel > Add or Remove Programs > Add/Remove Windows Components. In the Windows Components Wizard, select “Other Network File and Print Services” and click Details. Then select the check box “Print Services for Unix” and click OK. In the Windows Components Wizard, click Next and follow the on-screen instructions to install additional Windows components.

1 **In System Preferences, click Print & Fax.**

2 **On the Printing tab, click the plus (+) button to open the Printer Browser dialog.**

3 **Click More Printers.**

4 **From the pull-down menu, select AppleTalk.**

5 **From the pull-down menu, select your AppleTalk zone.**

6 **From the printer list, select the EFI XF printer and click Add.**

EFI XF is added to the list of available printers and can be selected in your application.

Printing from an application

To print directly from an application, EFI XF must already be set up correctly as a virtual printer or AppleTalk spooler.

TO PRINT FROM AN APPLICATION

1 **Start EFI XF.**

If EFI XF is set up for TCP/IP or SMB printing and the program is not started, EFI XF is not available as a printer in the application. For AppleTalk printing, you can select the printer in the graphics application; however, an error message informs you that the printer is currently not available.

2 **Open the image file in the application in which it was created and select the print command.**

3 **From the pop-up menu, select the EFI XF printer, and make any desired settings in the print dialog.**

Be aware that any settings you make in the print dialog, e.g. number of printed copies, overwrites the equivalent setting in EFI XF.

4 **Click OK.**

The job is sent to EFI XF and appears in the job list.

When printing directly from an application on roll media or a user-defined media size, the printable media length is restricted to slightly less than two meters. To overcome the problem, try using the drag-and-drop function to load your job directly in EFI XF.

See also:

"Virtual printing" on page 131

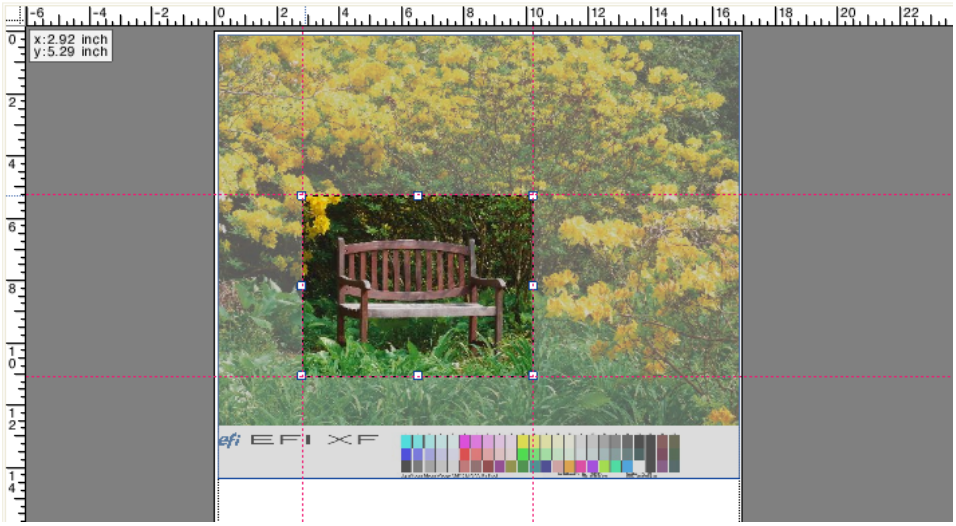
CROPPING

To crop an image, you must first activate the crop tool in the toolbar.

Crop Job button

Then, hold down the mouse button and drag the cursor to create a crop box. Guide lines and the snap-to function can help you to specify an exact area.

Selecting an area to crop



TO REPOSITION A SELECTED CROP BOX

- **Hold down the Alt key and drag the cursor or**
- **Enter new dimensions in the appropriate edit boxes. The toolbar has two edit boxes for defining and displaying the height and width of a crop box.**

TO RESIZE A SELECTED CROPPED IMAGE

- **Position the cursor on a node along an edge of the image and drag the cursor or**
- **Use the edit boxes in the toolbar to type in new values.**

TO CANCEL A SELECTED CROP AREA

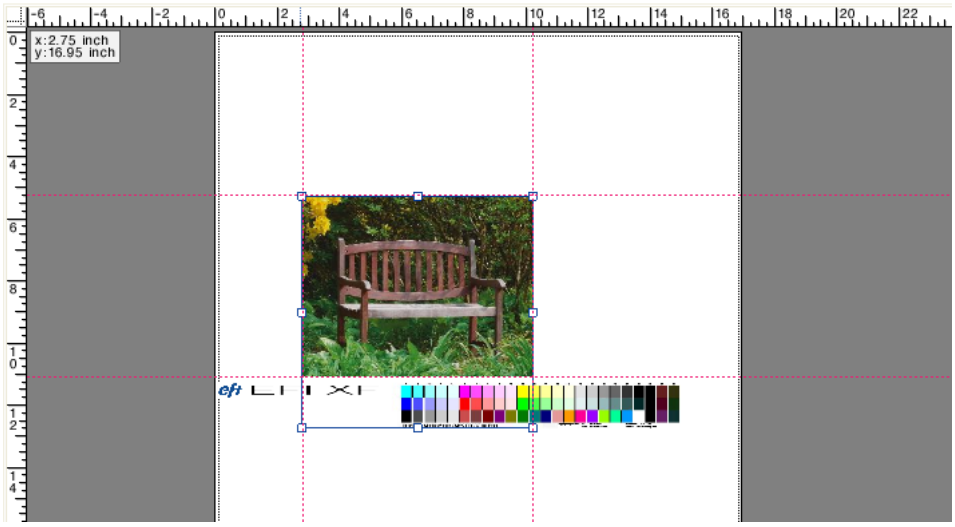
- **Press the Esc key or**
- **Click the Reset button to return the image to its original state or**
- **Hold down the right mouse button and choose Cancel crop from the context menu (Windows) or**
- **Hold down <Ctrl> and choose Cancel crop from the pop-up menu (Macintosh)**

When you are satisfied with the size and position of the crop box, proceed as follows to crop the image:

- Press <Enter> or
- Click the mouse button twice or
- Hold down the right mouse button and choose Apply crop from the context menu (Windows)
- Press <Ctrl> and choose Apply crop from the pop-up menu (Macintosh)

In the case of images with crop marks, the crop marks are reapplied to the newly cropped area.

Cropped image



If, after cropping, you are unhappy with the result, you can uncrop the image by clicking Reset.

See also:

"Crop tools" on page 105

NESTINGS

What are nestings?

The nesting feature in EFI XF enables you to output any number of files collectively as one single print job.

There are two types of nestings: automatic and manual. Automatic nesting is defined for a specific workflow in System manager. It ensures that all jobs processed via that workflow are printed out as part of a nesting job. If a workflow is not set up for automatic nesting, nestings of chosen jobs can be compiled manually in Job Explorer.

In a workflow set up for automatic nestings, jobs are output as soon as, but not before, a defined state has been reached. EFI XF arranges them in the nesting in accordance with the workflow settings and outputs them automatically. This gives users the freedom to submit non-urgent print jobs at any time.

If a workflow is not set up for automatic nesting, you can create so-called manual nestings. This gives you full control over which images are grouped together and how they are arranged on a nesting and also lets you perform job-specific changes to images before printing.

Each nested job can be assigned individual color management settings, e.g. profiles, spot color tables, etc.

It is possible to output nestings as tiles by first defining a sheet size that is bigger than the media size set up for the printer and then creating a tiling.

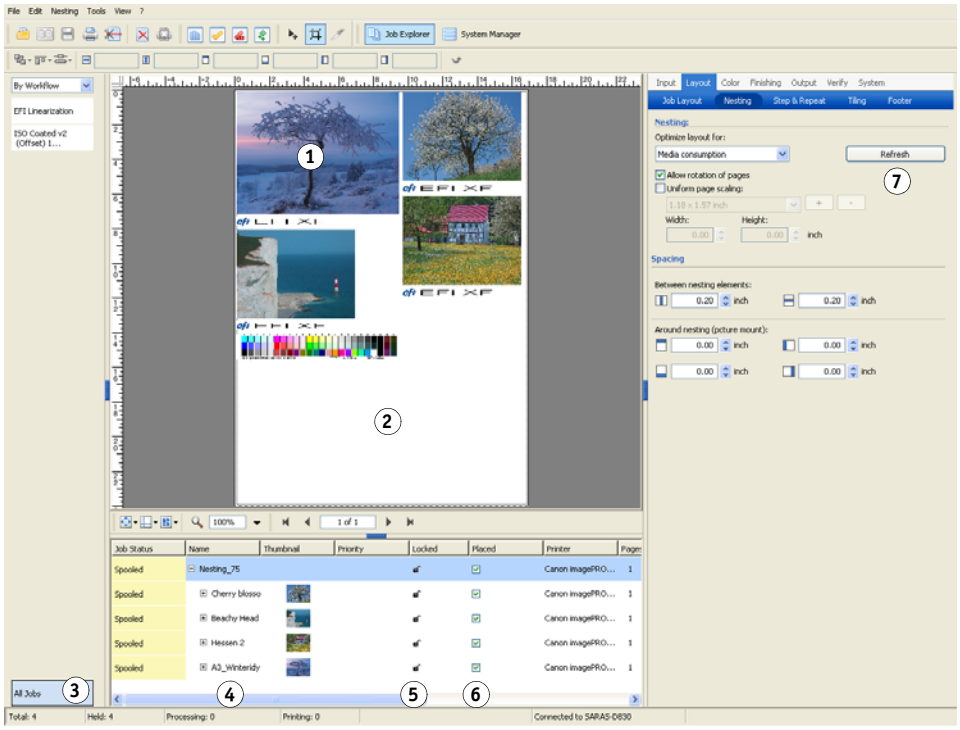
See also:

“Color tab > Color Management pane” on page 65

“Tiling” on page 156

User interface

User interface



1	Page on a nesting. Pages can be in any supported file format.
2	A nesting sheet represents the output size. If the defined sheet size exceeds the maximum media size supported by the selected printer, the nesting can be output as a tiling.
3	Click to display all loaded jobs. This enables you to create nestings of jobs from different workflows.
4	Tree view of job list.
5	Sets a page at its current settings and position on the sheet. A locked page (closed padlock) cannot be modified, nor can it be rearranged on the sheet. To make modifications, the page must first be unlocked (open padlock). It is possible to lock single pages of a multi-page document. Clicking the padlock icon locks and unlocks an image.
6	Places or unplaces a page. When unplaced, the page is removed from the nesting preview and is also not output if the job is submitted to the printer. A green check mark indicates that all subfiles are placed; a gray check mark indicates that some, but not all, subfiles are placed.
7	Saves your changes to the nesting. All images are rearranged according to the current settings made on the Nesting pane and the preview is updated.

Creating nestings

In System Manager, you can set up automatic nesting workflows. All jobs loaded in EFI XF are automatically nested.

In Job Explorer, you can create manual nestings of selected jobs.

Automatic nestings

In a workflow set up for automatic nestings, printing starts automatically as soon as one of the following criteria has been reached:

- The defined length of time has elapsed since the last job was loaded.

  This setting has priority over the other auto-nesting settings, e.g. a nesting will be printed after the set period even if the minimum percentage of the sheet or line has not been filled.
- The defined percentage of the sheet area has been filled
- The defined percentage of a line has been filled

TO CREATE A WORKFLOW FOR AUTOMATIC NESTING

1. **Log on to EFI XF as a user with administrative rights.**
2. **In System Manager, click the Layout tab and open the Nesting pane.**
3. **Select the "Nesting" check box.**
4. **Make the rest of your settings on the Nesting pane.**

   When you load a job, EFI XF automatically creates a nesting and outputs it according to the workflow settings.

   In an automatic nesting workflow, you do not normally have the chance to perform job-specific settings before job processing starts. There are two ways round this problem:

   - In Job Explorer, cancel job processing
   - In System Manager, set the workflow offline at workflow exit

   When you are satisfied with your changes, click Print to restart job processing.

   See also:

   "Layout tab > Nesting pane" on page 60

   "Copies" on page 73

   "Making changes to system workflows" on page 85

Manual nestings

If you are not printing to an automatic nesting workflow, you can compile your own manual nestings and output them when you are ready.

TO CREATE A MANUAL NESTING

1 **In Job Explorer, load one or more jobs as “hold” jobs.**

In the case of jobs loaded via drag and drop or via a hotfolder, the loaded jobs are processed according to the workflow settings. To create a nesting of jobs loaded in this way, you may have to cancel job processing or set the workflow offline at workflow exit.

2 **Create a nesting by selecting one or more jobs in the job list and:**

- Clicking Create Nesting in the toolbar, or
- Choosing New Nesting from the context menu, or
- Choosing File > New Nesting

A nesting is created. The jobs are visible in the preview. Nesting jobs receive the name "Nesting", followed by a consecutive number, e.g. "Nesting_42". You can rename nesting jobs by selecting the job and choosing Rename from the context menu.

By clicking “All Jobs” at the bottom of the Selector, you can create nestings from jobs loaded in different workflows. Select the required jobs, choose the New Nesting command and, in the window that opens, select the workflow in which to create the nesting.

3 **On the Layout tab, open the Nesting pane and make your required settings.**

4 **Click Refresh to ensure that all the jobs are placed and arranged in the nesting in accordance with the defined settings.**

All manually made settings are undone when you click Refresh. You can prevent this by locking images. A locked page (closed padlock) cannot be modified, nor can it be rearranged on the sheet.

Jobs that are bigger than the defined sheet size cannot be placed.

See also:

“Copies” on page 73

“Layout tab > Nesting pane” on page 107

Editing nestings

Adding jobs to a nesting

You can add jobs to an existing nesting by:

- Selecting the nesting job and choosing Add Job to Nesting from the context menu, or
- Dragging and dropping an image from the job list onto the nesting job

Jobs that are added appear in the list of nested jobs, but are not initially visible in the preview.

To view newly added jobs, select the check box “Placed”. This setting is located next to the job in the job list.

To rearrange newly added jobs, select the nesting job. On the Layout tab, open the Nesting pane and click Refresh. All images are rearranged according to the current settings made on the Nesting pane and the preview is updated.

Adding/deleting sheets

Nestings do not necessarily have to be output on a single sheet or roll. You can add new sheets equivalent to the size of the original by choosing Nesting > New Sheet.

Similarly, you can delete the selected sheet by choosing Nesting > Delete Sheet.

Removing jobs from nestings

You can remove a job that you no longer want to output as part of the nesting by right-clicking on a nested job in the job list and choosing Remove from Nesting from the context menu. The job remains in the job list but is no longer part of the nesting.

EFI XF CONTROL

What is EFI XF Control?

During installation of the Server software, a button is created in the system tray on the lower right of the computer desktop (Windows) or in the Dock (Macintosh). This button represents EFI XF Control, a tool used to control the Server.

EFI XF Control icon

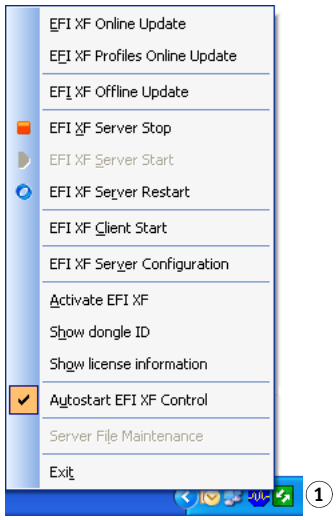
EFI XF Control consists of a number of menu commands, which are accessed by

- Right-clicking the EFI XF Control button (Windows)
- Holding down <Ctrl> and clicking the EFI XF Control button (Macintosh).

Available features

EFI XF Control

1 EFI XF Control icon



EFI XF Online Update

EFI provides users with the opportunity to download software updates from the EFI website.

It is recommended that you regularly search for and install all updates to ensure that your software is always up to date.

Online updates are only possible on the Server computer. If your Server computer does not have Internet access, you can obtain software updates from your EFI dealer and install them using the menu command "EFI XF Offline Update".

If you want to check which updates are installed on your computer, choose EFI XF Server Information from the ? menu (Windows) or from the "Help" menu (Macintosh). A list of currently installed updates is displayed on the Installed XF Updates tab. This command is only available if Server and Client are installed on the same computer.

TO UPDATE YOUR SOFTWARE

1. **Exit all applications.**
2. **Select EFI XF Online Update to start the updater application.**
3. **Select the appropriate check box if you want to save a copy of the update files after installation.**

   Files downloaded via EFI XF Online Update are saved to the EFI XF application folder and deleted after installation. If you select the check box, a copy of the update files is created outside the application folder.

4. **Then click Next.**

   An application with a list of currently available software updates opens. The window indicates which update files are available and also gives information regarding file size and version number.

5. **Select the check boxes of the updates you wish to install and click "Next".**

   The update files are downloaded to your computer and EFI XF is updated. If you opted to save a copy of the update files, a folder EFI Downloads is created on your desktop. In the case of Macintosh updates, the files are downloaded to the Tools folder.

6. **Follow the on-screen instructions to complete installation and restart your computer.**

   The next time you start each EFI XF Client, an application starts which automatically updates the Client and options. Click Install to install the new files.

EFI XF Profiles Online Update

EFI provides users with the opportunity to download additional or improved media profiles from the EFI website.

It is recommended that you regularly search for and install all updates to ensure that your software is always up to date.

Online updates are only possible on the Server computer. If your Server computer does not have Internet access, you can obtain profile updates from your EFI dealer and install them using the menu command EFI XF Offline Update.

TO INSTALL NEW MEDIA PROFILES

1. **Exit all applications.**
2. **Select "EFI XF Profiles Online Update" to start the updater application. Then click Next.**
3. **Select the tab for your printer manufacturer. (Asian users should select "EFI Asia" for all printers.)**
4. **Select the check box for your printer model to install all available profile updates.**

   Clicking the plus sign next to the printer model enables you to select profiles for specific media.
5. **Click Add profiles to save your profile selection.**
6. **Select the tab Selected Profiles and then click Update now.**
7. **Follow the on-screen instructions to complete installation.**

EFI XF Offline Update

If your computer does not have Internet access, software updates and media profiles can be obtained from your EFI dealer or downloaded from the EFI website from a different computer. When you have saved the software updates or profiles on your computer, use this menu command to install them.

EFI XF Server Stop/EFI XF Server Start/EFI XF Server Restart

Choose this command to stop, start or restart the EFI XF Server.

EFI XF Client Start

Choose this command to start EFI XF from the system tray. This command is only available if Client and Server are installed on the same computer.

EFI XF Server Configuration (Windows only)

The EFI XF Server runs on Windows as a service. By default, the login rights are defined for the local computer. This means that EFI XF is not able to communicate with folders located in a network environment. This may present problems, for example, if you wish to print jobs via a hotfolder. In this case, you need to assign network access rights for the EFI XF Server.

See also:

"Printing via a hotfolder" on page 123

Activate EFI XF

Choose this command to generate and install a new license file. When you install a license in this way, it takes approximately one minute for the license to be detected by the EFI XF Server.

See also:

"Licensing" on page 32

Show dongle ID

Choose this command to display your dongle ID. This number is required to download a license file from the EFI website. You can copy the dongle ID to the clipboard and paste it when you generate a license file.

Show license information

Choose this command to show the expiration date of your license. This command is applicable only to users with a restricted license.

Autostart EFI XF Control (Windows)/Open at Login (Macintosh)

By default, EFI XF Control will be started automatically whenever you turn on your computer. The command has a check mark next to it.

Choose this command to remove the check mark if you do not want EFI XF Control to be started automatically. In this case, you can start the tool manually when required, as follows:

- Start > All Programs > EFI > EFI XF > EFI XF Control (Windows XP/Vista/7)

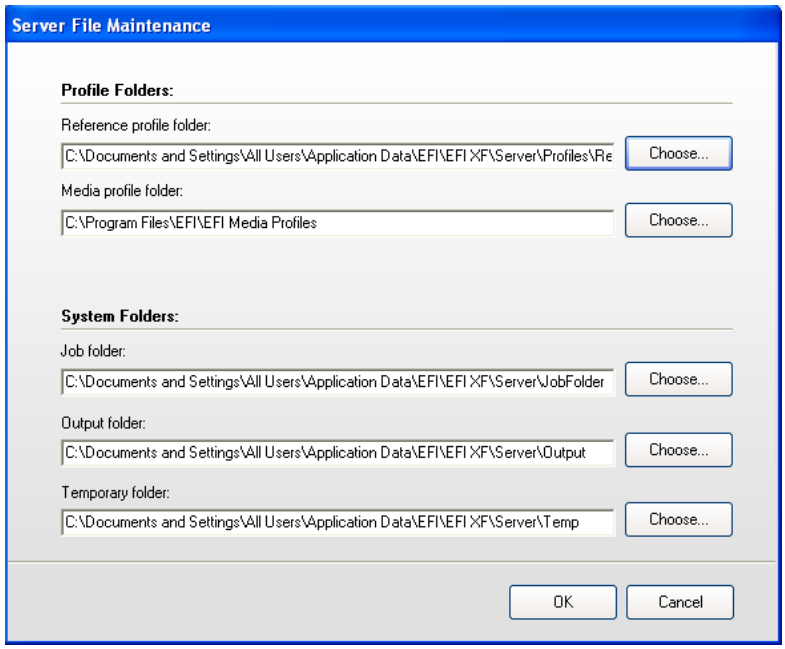
  In Windows Vista/7, make sure that you have administrator privileges.
- Start > Programs > EFI > EFI XF > EFI XF Control (Windows 2003)
- HD > Applications > EFI XF > Server > EFI XF Control (Macintosh)

Server File Maintenance

This setting is enabled only when the EFI XF Server is not running.

Choose this command to redefine the path to important Server folders. You can define a new location for media profiles, reference profiles, the JobFolder, output files and temporary files, including CPSI and APPE files. As an example, you might prefer to save media profiles on a different partition on the computer to save space on the C drive.

Server File Maintenance dialog



Exit (Windows)/Quit (Macintosh)

Choose this command to exit EFI XF Control. To restart, select:

- Start > All Programs > EFI > EFI XF > EFI XF Control (Windows XP/Vista/7)

  In Windows Vista/7, make sure that you have administrator privileges.
- Start > Programs > EFI > EFI XF > EFI XF Control (Windows 2003)
- EFI XF Control > Open (Macintosh)

PRODUCTION OPTION

The Production Option is available as an add-on module.

What production tools are available?

The Production Option provides the following:

- A tiling function to enable you to print an image, which would normally exceed your printer's maximum print size, by breaking it into parts (tiles) for printing. The tiles are pieced together after printing to produce an oversize poster or banner, etc.
- An extended step & repeat feature with which to achieve many different and interesting patterns.
- Simple color adjustment tools.

Production Option settings

If you have a license file for the Production Option, EFI XF is extended as follows:

In System Manager:

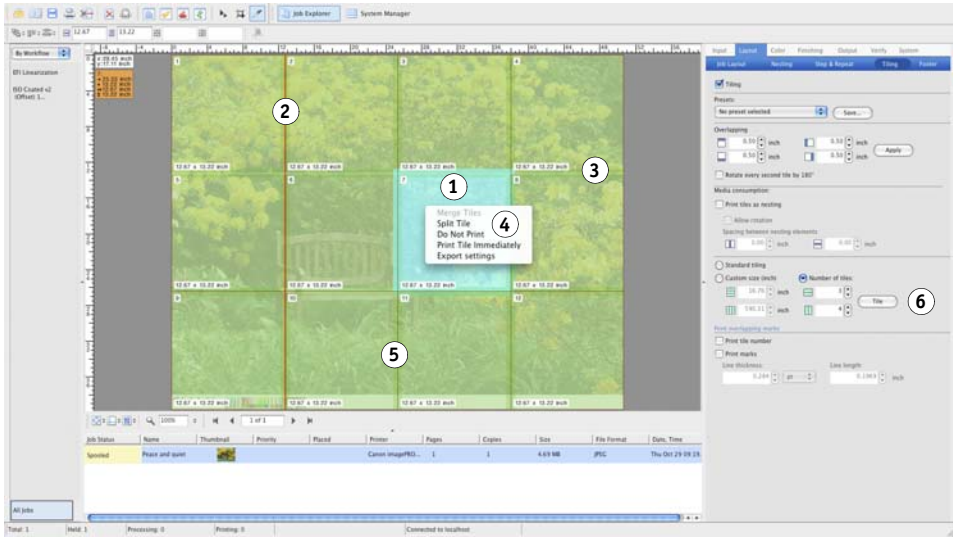
- The Tiling pane is added to the Layout tab
- Additional settings become available on the Step & Repeat pane of the Layout tab.
- The Color adjustment pane is added to the Color tab

In Job Explorer:

- The Tiling pane is added to the Layout tab
- Additional settings become available on the Step & repeat pane of the Layout tab
- The Color adjustment pane is added to the Color tab
- Special tiling tools become available in the toolbar

Tiling

User interface



1	A selected tile is displayed in turquoise.
2	A selected tile edge is displayed in red
3	Tile edges can be locked in a fixed position. Locked tile edges are displayed in gray.
4	Individual tiles can be omitted from the print job by selecting the appropriate command from the context menu.
5	Tiles can be output with overlapping to make it easier to piece them together after printing.
6	Saves your changes and creates a tiling in accordance with the settings made on this tab.

Tiling toolbar

When you install a license for the Production Option, the tiling button is added to the first toolbar. It is enabled whenever a tiling is previewed. Clicking this button displays the tiling tools in the second toolbar.

Tiling button

The following tiling tools are available:

Width and height:
Use these edit boxes to modify the width or height of an image. Enter the values using the system of measurement defined on the Edit menu.

Move tile edge:
You can use these edit boxes to help you define an exact tile size and position.

Lock tile edge:
Click this button to lock a selected tile edge in its current position.

Tiling pane

The following settings are available on the Tiling pane of the Layout tab:

- Tiling

  Select this check box to activate the tiling function.

  The settings you make on this pane can be grouped together and saved in the form of a preset.

  Initially, no presets are available. However, once you have made settings on this pane, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

  To make changes and overwrite an existing preset make sure that the preset is not selected for any other workflow. Presets can only be overwritten in System Manager. In Job Explorer, you must save your changes under a new name.

  In Job Explorer, “flexible tiling” is possible. Flexible tiling permits you to define individual tile sizes. These can be saved as flexible tiling presets and applied to other tiling jobs.

  Deselect the check box to undo a previously created tiling. This is necessary if you need to modify the original job file.

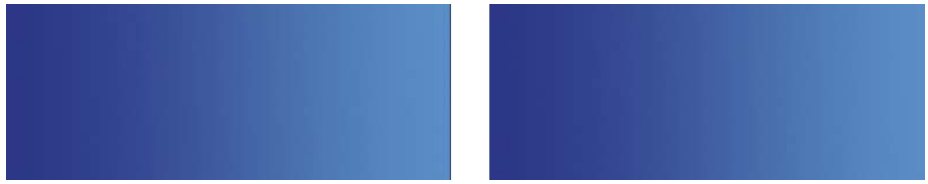
  It is possible to use tiling in combination with step & repeat or nesting.

- Overlapping

  Here you can type in values for the margin of overlapping. Printing with overlapping can help you to piece your tiles together after printing. Overlapping values can be defined for top, bottom, left and right margins. The Apply button in Job Explorer enables you to change overlap margins without resetting the tiling.

- Rotate every second tile by 180°

No tile rotation



Tile rotation

By selecting this check box, you can minimize inconsistencies in the color density, which may occur when using grande-format printers with UV inks.

Using this function can lessen the effect of color deviances in large areas of a single color (e.g. blue sky). Rotating every other tile by 180° can help create an invisible seam when piecing tiles together, as illustrated in the diagram.

- Media consumption

  The following settings are available to make better use of the available space on the media and thus reduce media consumption:

  – Print tiles as nesting

  – Allow rotation

  – Spacing between nesting elements

  Nested tiles are not visible in the preview.

- Standard tiling

  Select this radio button to use the standard tile size. The standard tile size is calculated based on the media size defined for the output device and on the settings for overlapping made above.

- Custom size

  Select this radio button and use the edit boxes to define the width and height of a custom tile size. The smallest tile size is one square inch.

- Number of tiles

  Select this radio button to define the number of rows and columns of tiles.

- Tile (Job Explorer only)

  After you have defined tiling settings, click this button to tile the selected job.

  Clicking this button again after a tiling has been created resets the tiling and undoes any flexible tile settings you have made.

- Print overlapping marks

  The following additional settings are available if you have defined overlapping margins. Tile numbers and marks are printed outside the actual tile area so as not to mar the image.

  – Print tile number

    With this setting, each tile is printed with a consecutive number. This helps you piece them together in the right order after output.

  – Print marks

    To output marks for overlapping tiles, select the check box and type in values for line length and line thickness in the appropriate edit boxes. This setting enables more precise tile alignment when piecing the image together after output.

Overlapping tiles

Tile numbers and overlapping marks are only seen in the printout. They are not visible in the preview window of Job Explorer. However, the print area of each tile is smaller when one of these settings is defined.

Marks for tiles have nothing to do with crop marks and it is not necessary to make any settings on the Marks pane. However, with the exception of FOTOBA crop marks, if you have previously selected a type of crop mark and defined a distance to job, the print marks made on this pane will be applied on top of these settings.

Creating a tiling

The maximum tile size is the same as the media size defined for the connected output device, whereby the hardware margins of the printer are taken into account. However, user-defined tile sizes are also possible.

See also:

"Tiling pane" on page 157

Setting up an automatic tiling workflow

Automatic tiling can be set up for any workflow. It ensures that any jobs that exceed the media size defined for the printer are automatically output as tiles.

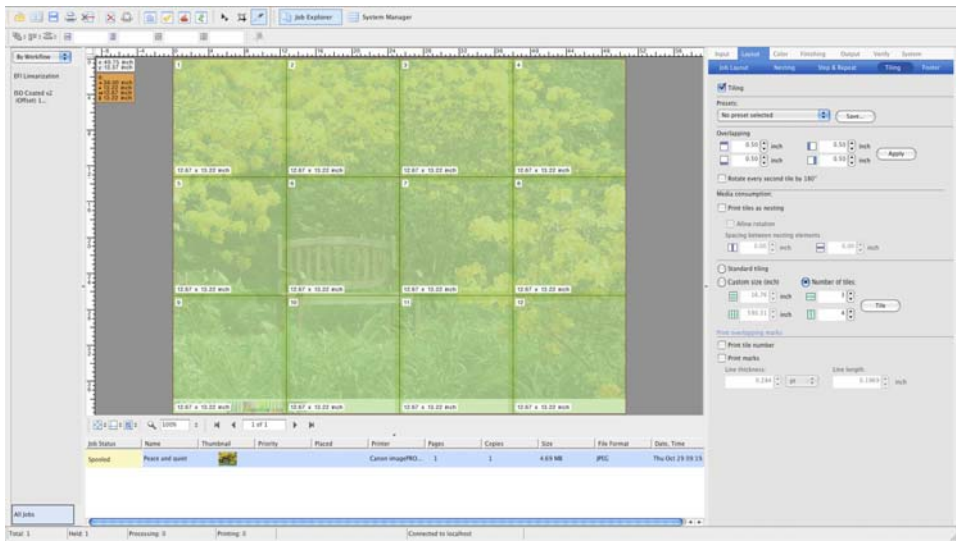
TO SET UP AN AUTOMATIC TILING WORKFLOW

1. **In System Manager, select a workflow. Then select the Layout tab.**
2. **On the Job Layout pane, select a sheet size.**

   You can use the media size set up for the printer or select a default or custom sheet size.
3. **On the Tiling pane, select the check box "Tiling".**
4. **Make any other tiling settings you require.**
5. **Click Save to create a tiling preset.**
6. **Go to Job Explorer and import a job.**

   A tiling is automatically created according to the settings.

Automatic tiling workflow



In an automatic tiling workflow, the tiling settings are automatically applied to all jobs. However, by importing a file as a “hold job”, you can modify the tiling settings for individual jobs, as required.

Manual tiling

If a workflow is not set up for automatic tiling, you can still output a single job, a nesting job or a step & repeat job as a tiling if it exceeds the size of the media defined for the printer.

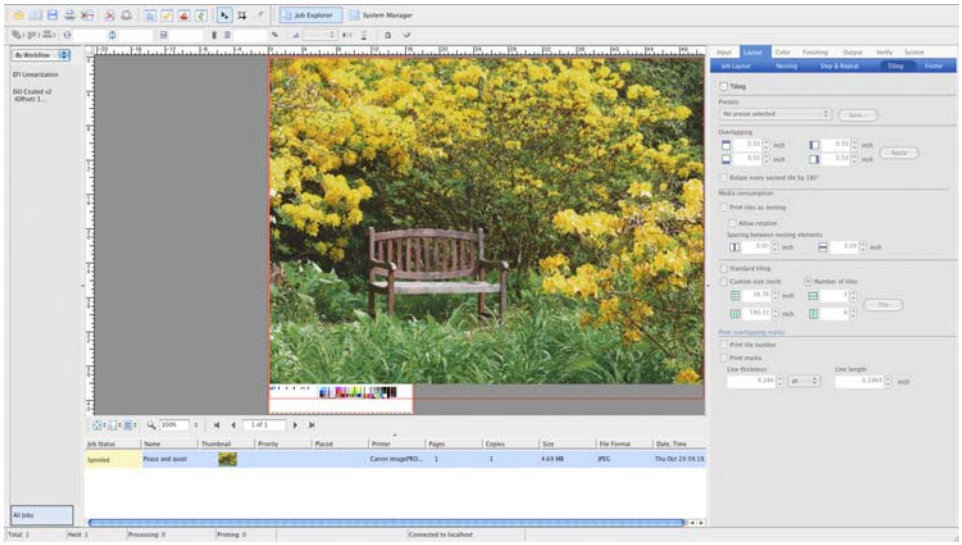
TO CREATE A MANUAL TILING

1 **Go to Job Explorer and load a job as a “hold job” in any workflow.**

2 **Select a single job, a nesting job or a step & repeat job in the job list.**

The preview displays the image in relation to the selected media format.

Loading a tiling job



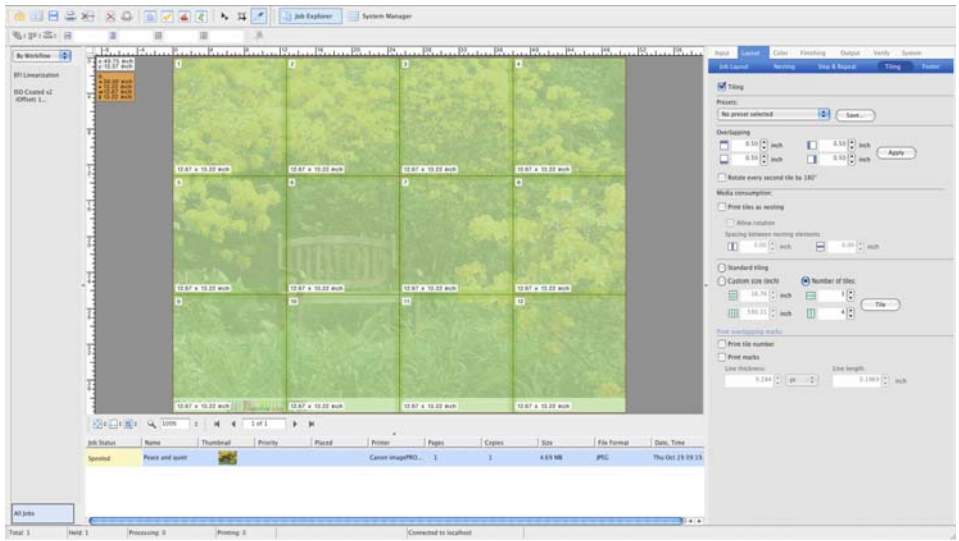
3 **On the Layout tab, open the Tiling pane.**

4 **On the Tiling pane, select the check box “Tiling”.**

5 **Make any other required tiling settings on this pane and click Tile.**

A tiling is automatically created according to the settings.

Loading a tiling job



It is possible to switch backward and forward between the tiling and transform toolbars, if required.

Working with tilings

Selecting multiple tiles

There are two different ways to select a multiple number of tiles.

TO SELECT RANDOM TILES

1 **In Windows, press and hold down the <Ctrl> key (Windows). On Macintosh, press <Apple> + <Ctrl>.**

2 **Click the mouse button on the individual tiles to be selected.**

TO SELECT CONSECUTIVE TILES

1 **Press and hold down the Shift key.**

2 **Click the mouse button on the first tile to be selected.**

3 **Click the mouse button on the last tile to be selected.**

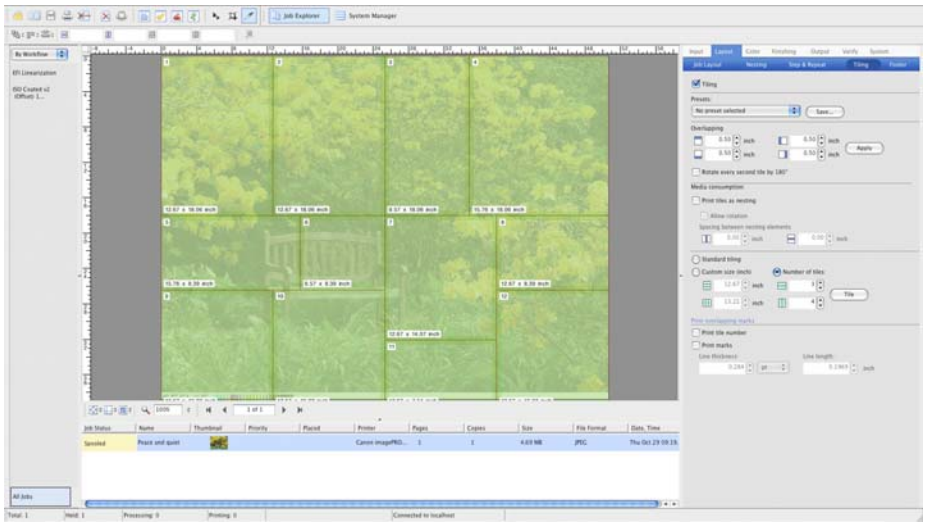
Changing tile sizes

Before printing a tiling, you may wish to resize tiles to avoid awkward joins in your image, such as down the middle of a face.

There are several ways to change tile sizes:

- You can change the size of an entire row or column of tiles.
- You can change the size of individual tiles. However, certain restrictions are in place so that, for example, it is not possible to create a file that would result in the partial resizing or negative overlapping of other tiles.

Flexible tile sizes



TO CHANGE TILE SIZES

When you alter the size of one tile, the size of adjacent tiles is increased or reduced accordingly.

You can alter the size of a selected tile by typing exact dimensions in the edit boxes located in the tiling toolbar. Alternatively, you can use drag and drop to move tile edges, as follows:

1 **Move the cursor over a tile edge until it changes form.**

2 **Select the tile edge as follows:**

- To select the edge of a row of tiles, press and hold down the mouse button. This affects the size of the whole row or column of tiles.
- To alter the edge of any individual tile, press Alt and then press and hold down the mouse button. This permits so-called “flexible tiling”. It enables you to change the size of an individual tile.

The selected tile edge changes to bright red and the tools in the tiling toolbar become enabled.

3 **Drag the cursor to the required position.**

The current cursor position is displayed in the preview window to help you pinpoint the exact coordinates of the edge more easily. Alternatively, you can type exact horizontal or vertical values in the appropriate edit boxes of the tiling toolbar.

Reducing the size of one tile may cause an adjacent tile to stretch until it exceeds the dimensions of the selected media size. In this case, a new tile is automatically created. You can remove unwanted tiles created in this way by dragging the edge out of the tiling.

Fixing a tile edge at its current position

You can fix a tile edge at its current position by:

- Selecting a tile edge and clicking the padlock button in the toolbar
- Right-clicking a tile edge and choosing the appropriate command from the context menu.

Merging tiles

When you select two or more consecutive tiles, the command Merge Tiles becomes enabled in the context menu. This command lets you combine two or more tiles into one by deleting a tile edge. However, it is not possible to merge tiles whose combined size would exceed the selected media size.

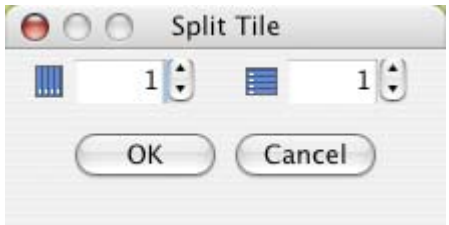
See also:

"Selecting multiple tiles" on page 162

Splitting tiles

When you click on a tile, the command Split Tile becomes enabled in the ccontext menu. Choosing this command opens a dialog in which you can define a horizontal and vertical number of equal sized tiles. The smallest permitted tile size is 1 square inch.

Flexible tile sizes

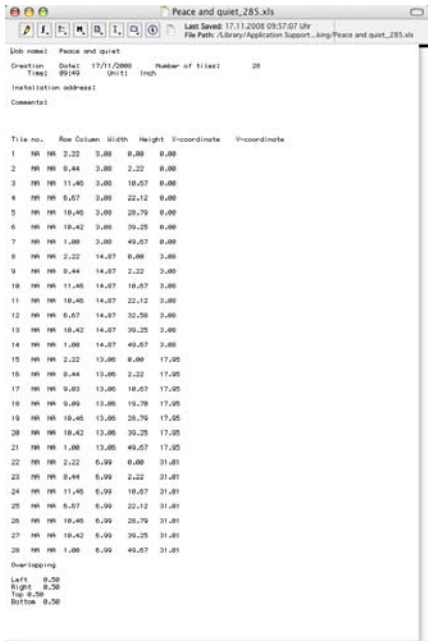


Click OK to apply the setting.

Exporting tile settings

You can save the width, height and x/y coordinates of each tile as well as overlapping information to Excel format. Right-click on a tile and choose Export settings from the context menu. The tile settings are exported in the measurement system set up in the Edit menu.

Exporting tiling settings



The specification sheet can be a useful aid to installation crews who have the task of piecing the printed tiles together.

Hiding tiles

You can temporarily untile a previewed image by choosing View > Visual Aids > Tiles. This setting removes the tiling from the preview. It does not delete the tiling. To preview the tiled image again, reselect the command. Alternatively, click the Transform Job button.

Printing

To print a whole tiling job, select the print command from the File menu.

In addition, EFI XF lets you:

- print selected tiles immediately
  (e.g. to reprint individual tiles without having to redo the whole job)
- omit selected tiles from the print job
  (e.g. to avoid printing parts of tilings that are not needed when pieced together, such as those covering window areas)

You will find the appropriate commands in the context menu that is displayed when you right-click a tile.

You can output tiles as a nesting to save media consumption.

See also:

"Media consumption" on page 158

Step & repeat

The step-and-repeat pane on the Layout tab enables you to create multiple copies of a file and output as one print job. With the Production Option, the following additional settings become available which make it possible to achieve many different and interesting patterns.

- Step Offset

  Use this setting to define the amount of horizontal or vertical shift from one image to the next. Select the appropriate radio button for horizontal or vertical offset. Then type the required amount of offset in the combo box. The illustration shows a horizontal offset of 50%. Images are printed so that pattern repeats can be aligned seamlessly.

Horizontal shift

- Mirror every 2nd

  Select a check box to flip a row and/or column of images. The illustration shows the mirror function applied to both rows and columns.

Horizontal and vertical mirroring

Once the step-and-repeat function has been applied, it is not possible to make further changes to the original image. This is indicated by a lock icon. To make changes to the original image (e.g. scaling, rotation), you must first delete all the copies by clicking Reset.

Additional color management settings

Color tab > Color adjustment pane

The following settings are available:

- Color adjustment

  Select this check box to activate and edit the settings on this pane. If the check box is not selected, no color adjustments are possible. Any settings made previously will not be applied during printing.

  In Job Explorer, you can compare your color adjustments with the original colors by activating and deactivating this check box.

  The settings you make on this pane can be grouped together and saved in the form of a preset. Initially, no presets are available. However, once you have made settings on this pane, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

  To make changes and overwrite an existing preset make sure that the preset is not selected for any other workflow. Presets can only be overwritten in System Manager. In Job Explorer, you must save your changes under a new name.

- Apply color adjustment to control strip

  This setting lets you choose whether to apply color adjustments not only to your image but also to a selected control strip.

  Color adjustments cannot be applied to dynamic wedges.

  If you simply want to check the general stability of the printer, there is no need to apply color adjustments to the control strip. In this case, you can leave the setting unchecked.

  However, if you wish to check color consistency and ensure that the same color adjustments have been applied to different jobs, you should activate the check box to make certain that the printed control strip has the same color properties as the image. This ensures that you receive reliable color values when measuring the control strip.

- Slidebars CMYK/RGB

  Use the slidebars or edit boxes to add or subtract color for CMYK or RGB images. In Job Explorer, EFI XF automatically recognizes the color space of an imported image and disables the color channels that are not required.

  These settings are not available if your print job contains spot colors. Nor can color corrections be applied to CMYKRGB or CMYKOG files.

- Brightness/Contrast/Saturation

  Use the slidebars or edit boxes to adjust the brightness, contrast and saturation of your images. These settings are applied to the color adjustments defined above.

- Blur/Sharpen

  Use the slidebar or edit boxes to blur or sharpen your images.

Color tab > Color management pane

The following additional setting is available in the drop-down list box “Color optimization”:

- Clean colors

  The function of “Clean colors” is to cleanse process and secondary colors of any impure color which has been added in color management during the conversion from RGB to CMYK.

  The setting is intended primarily for banner and poster production. It ensures that your printouts are output in vivid and saturated colors, but without affecting critical color areas such as grays, skin tones and spot colors.

  Selecting “Clean colors” enables the threshold settings. There are two settings: “Automatic cleaning” and “Manual cleaning”. In Automatic mode, EFI XF provides optimal values based on the selected printer, media and profiles. The Manual setting lets you define the percentage at which impure color is removed. It is recommended that you use Automatic mode.

- Clean colors and solid black > 99%

  This setting is a combination of the settings “Clean colors” and “Use black ink”. Whereas “Clean colors” is applied only to process and secondary colors (which does not include black), this setting ensures that black ink (e.g. text) is also cleaned.

COLOR VERIFIER OPTION

Color Verifier is a color checker tool. It enables you to measure and compare two different sets of color values to ensure that color accuracy is maintained.

The software is extremely flexible and can be used to check the color accuracy of the following different output combinations:

- Profile-to-proof
- Proof-to-proof
- Proof-to-print
- Print-to-print
- Profile-to-print

Comparing profile-to-proof is one of the most useful applications for Color Verifier. For example, in a normal everyday situation, you can compare the color values of a proof that has been created on your printer with those of the profile that simulates the printing press used for the final print run. If the measured color values are a good match, this indicates that the proof lies within the defined tolerances and therefore reproduces the printing process correctly.

The measured values can be saved, so that the information can be dispatched easily, e.g. via e-mail, to verify the print quality. This makes Color Verifier ideal for use in both in-house as well as in remote environments.

Please be aware that it is not possible to process grayscale or L*a*b* files in Color Verifier.

ISO support

Color Verifier supports the following latest norms:

- ISO 12647-7 defines general proofing requirements for offset printing and all digital printing technologies.
- ISO 12647-2 (second edition) defines the latest standards for offset printing.

Color Verifier is, therefore, an indispensable tool for:

- achieving Fogra Proof Certification
- creating an ISO 12647-7 compliant proof

The following ICC profiles and characterization data sets are provided:

Reference profile	Characterization data set	TIL
ISOcoated_v2_eci.icc	FOGRA 39L	330%
ISOcoated_V2_300_eci.icc	FOGRA 39L	300%
SC_paper_eci.icc	FOGRA 40L	270%

The following two offset reference characterization data sets are provided:

Media wedge/IT8 chart	Characterization data sets
Ugra/Fogra media wedge 2.2a Ugra/Fogra media wedge 3.0a	Fogra39_MKCheck.it8 and Fogra40_MKCheck.it8
IT8.7/4	Fogra39L_IT8.74.it8 and Fogra40L_IT8.74.it8
IT8.7/3	Fogra39_IT8.73.it8 and Fogra40_IT8.73.it8
ECI2002	Fogra39_ECI2002.it8 and Fogra40_ECI2002.it8

See also:

“Program folders” on page 15

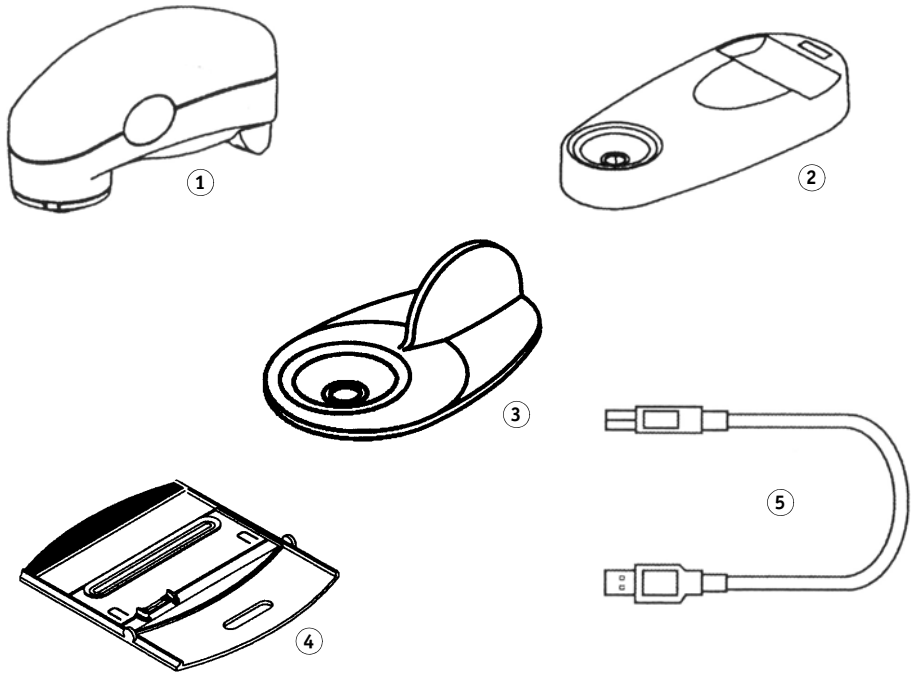
Scope of delivery

Color Verifier is available as an add-on module for EFI XF (with or without the ES-1000 measuring device).

If you have purchased an ES-1000 measuring device with the Color Verifier software, check that you have received all the items illustrated.

Scope of delivery

1 **ES-1000**
2 **Calibration plate with white reference**
3 **Patch guide**
4 **Backer board with strip guide**
5 **USB cable**



Please note that a number of additional items are shipped with the ES-1000, which are not required for Color Verifier.

The ES-1000 measuring device and the calibration plate with white reference each have a serial number. The serial numbers of the respective devices must match; otherwise a correct calibration is not possible.

Make sure to follow the instructions regarding installation and maintenance.

See also:

"ES-1000" on page 208

Starting Color Verifier

To start Color Verifier:

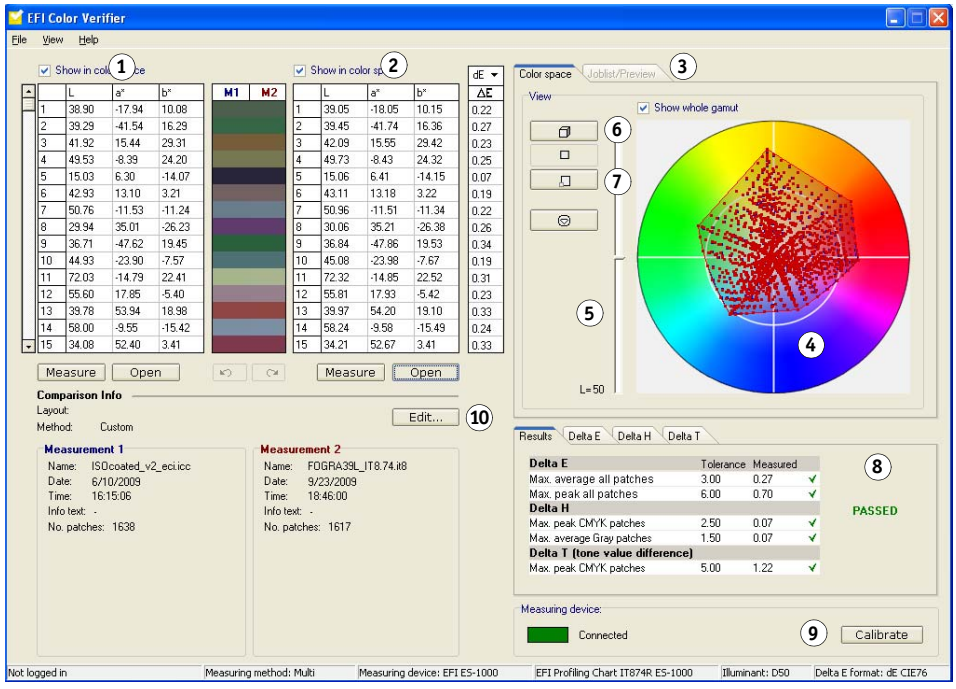
- Choose Tools > EFI Color Verifier
- In the toolbar of EFI XF, click “EFI Color Verifier” to launch the application.

Program icon

User interface

Program window

User interface



1	Displays the first set of loaded or measured color values.
2	Displays the second set of loaded or measured color values for comparison.
3	Displays a list of jobs received from EFI XF.

4	2D view of color values. When you move the mouse cursor over a color, the corresponding value is highlighted in the M1/M2 table and in the color wheel. The appropriate delta E value is also highlighted.
5	The 2D view represents a cross-section of the L*a*b* color space. Using the slide bar, you can shift the cutting plane to show the a*b* dimensions for a particular L* value.
6	3D view. To rotate the 3D image, hold down the mouse button on the color wheel and move the cursor.
7	Enlarge 2D/3D view. In the 3D view, you can change the display settings.
8	Results area. Shows whether the measured values for delta E and paper white are within the defined values. Additional tabs show whether the measured values for delta E and paper white are within the tolerances defined for each color channel.
9	Establishes a connection to the measuring device.
10	In the “Preferences” dialog you define measurement settings.

Preferences dialog

To open the Preferences dialog:

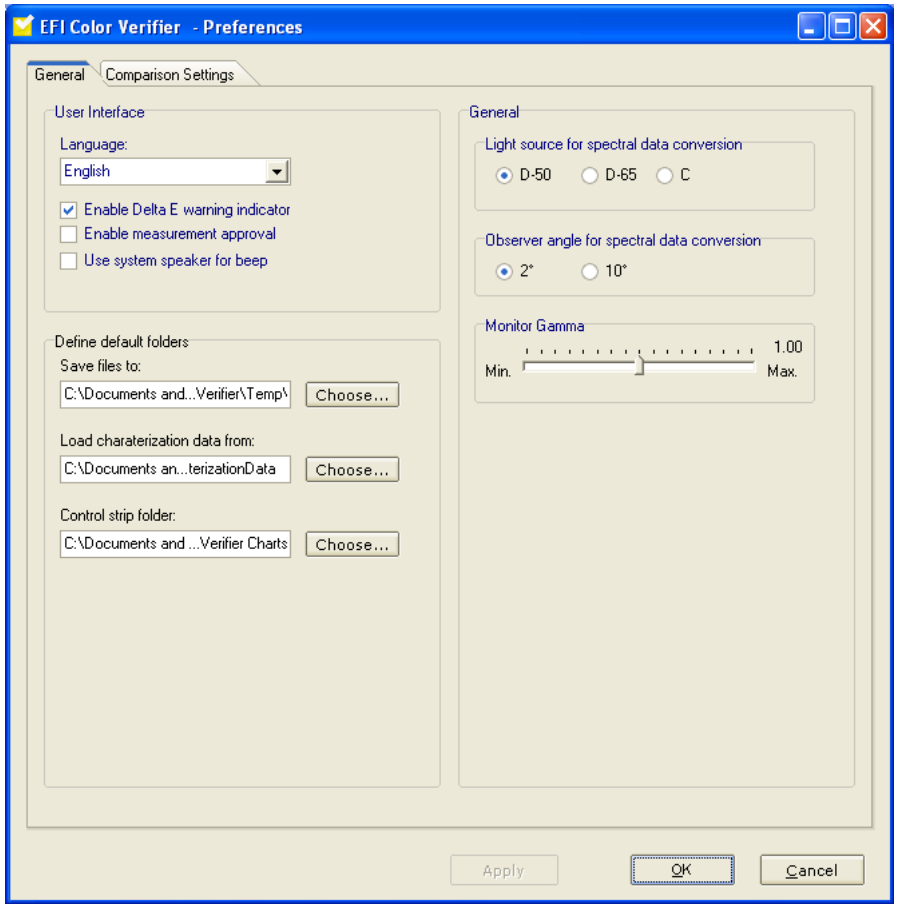
- Click Edit in the program window
- From the File menu, choose Preferences

Most of the settings in the Preferences dialog apply only if you are using Color Verifier as a stand-alone tool. If Color Verifier is incorporated into an EFI XF workflow, you make the equivalent settings in System Manager. The settings are transferred to Color Verifier with the job and displayed in the Preferences dialog.

The Preferences dialog consists of two tabs. The first pane is concerned with general settings. On the second pane you define the parameters necessary to check and verify color accuracy.

General tab

General tab



- User interface
  - Language (Windows only)

    Choose this command to change the language in which the user interface is displayed. By default, Color Verifier is displayed in the language selected during installation.

    On a Macintosh, you can change the language via the international settings in "System preferences".
  - Enable Delta E warning indicator

    When you select this check box, the amount of deviation from the defined tolerance values is illustrated in the delta E table. The following color code is used:

Color	Delta E value
White	The color patch is within the permitted tolerance.
Yellow	The color patch exceeds the permitted average tolerance but is within the defined maximum tolerance value.
Red	The color patch exceeds the defined maximum tolerance value and causes a "not passed" result.

  - Enable measurement approval

    This setting enables you to verify measurement readings that are not within the defined tolerance values. In this case, the job is displayed in Job Explorer with the job status "Verified".

    This setting has no functionality in the stand-alone version of the software.
  - Use system speaker for beep

    By default, EFI XF uses the beep tone from the operating system. If you deselect this check box, the beep tone from the measuring device is used instead.
- Define default folders
  - Save files to

    Click Choose to change the default folder in which to save your files.
  - Load characterization data from

    Click Choose to change the default folder from which to load characterization data files.
  - Control strip folder

    Click Choose to change the default folder from which to load control strip files, e.g. if you prefer to use custom control strips that are saved to a different folder.

- General
  - Light source for spectral data conversion

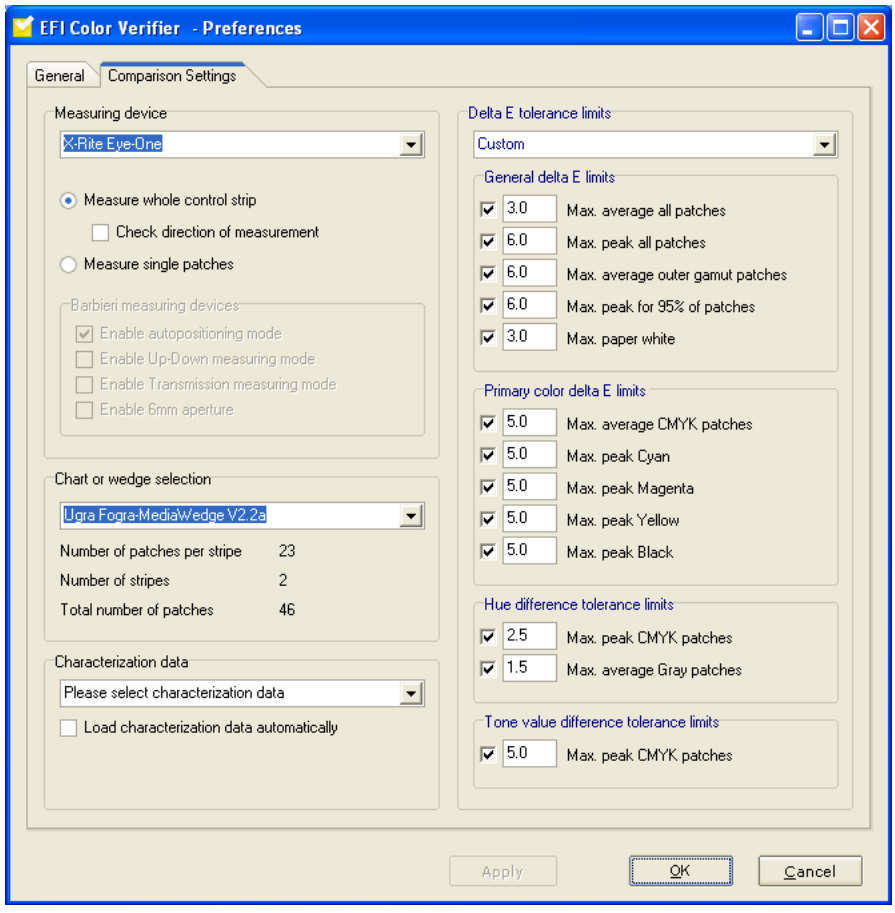
    Here you make the light (illuminant) setting for the conversion from spectrophotometric values to L*a*b*. Choose between D-50, D-65 and C.
  - Observer angle for spectral data conversion

    Here you define the angle for the conversion from spectrophotometric values to L*a*b*. 2° is the default setting, but 10° is sometimes used in the packaging or textile industry.
- Monitor gamma

  Select the gamma setting. The gamma setting adjusts how the M1 and M2 readings appear on your computer screen.

Comparison Settings tab

Comparison Settings tab



- Measuring device

  Select your measuring device from the drop-down list box.

  This setting acts as a filter and ensures that only those charts and media wedges available for a particular device are listed. It is also possible to select custom control strips from a defined folder.

  – Measure whole control strip

    Select this radio button to measure all the color patches of the selected control strip. If you also select the check box “Check direction of measurement”, the colors are measured according to the direction in which the measuring device is moved, i.e. from left to right or from right to left. However, this feature is not supported for all measuring devices. If this check box is not selected, the control strip color values are always displayed as if the measurement had been read from left to right.

  – Measure single patches

    Select this radio button to measure the color values of individual color patches

- Barbieri measuring devices

  Additional measuring mode settings are available if you use a Barbieri SpectroLFP or Spectro Swing measuring device. The settings are:

  – Enable autopositioning mode

  – Enable up-down measuring mode

  – Enable transmission measuring mode

  – Enable 6mm aperture

- Chart or wedge selection

  Select a profiling chart or a media wedge for measuring or comparison purposes. Only those charts and media wedges available for the selected measuring device are listed. It is also possible to select custom control strips from a defined folder. See “General tab” on page 174 for further information.

  Once you have selected a chart or media wedge, Color Verifier displays information regarding the layout and number of color patches.

  If you are using a DTP20 measuring device, you are required to measure a TID patch before measuring the control strip. In most cases, this patch is printed out automatically with your print job. However, if you select an Ugra Fogra media wedge, you will need to print the TID patch separately. The file “-TIDforMKV20XP-V2.tif” is provided in the Tools folder for this purpose.

- Characterization data

  If you have selected a Ugra/Fogra media wedge or an ISO IT8.7/4 or ISO 12647-7 profiling chart, you can load it8 characterization data from the drop-down list box. The check box lets you specify that the characterization data is loaded automatically.

- Delta E tolerance Limits

  Here you define delta E, delta H (hue) and delta T (tone value) tolerances. Although the tolerance limits are specified for ISO 12647-7 (digital proofing), they apply equally to ISO 12647-2 (offset printing).

  Delta T tolerances can only be measured for the primary colors, e.g. 100% cyan or 50% magenta. It is not possible to calculate delta T values for colors composed of a mixture of cyan, magenta, yellow and black.

  – ISO 12647-7 Contract Proof "Media Wedge"

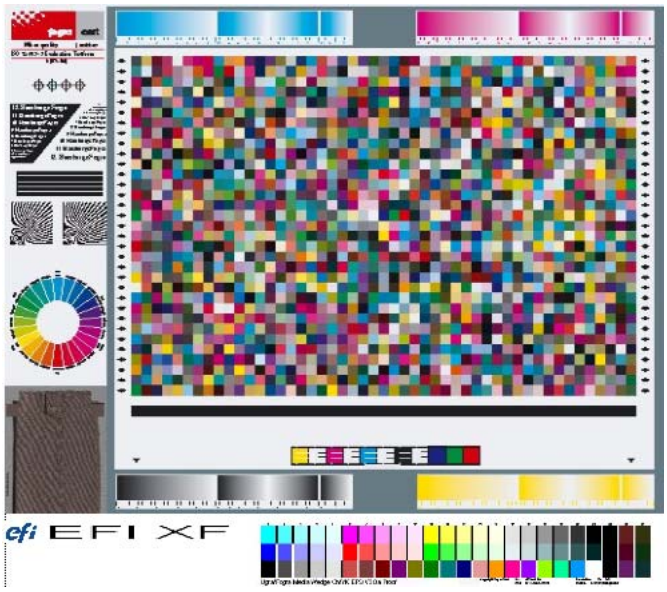
    This option sets the CMYK tolerance limits to the following specifications for the Fogra media wedge:

Tolerance limits for	Setting	Tolerance limit
General delta E limits	Max. average all patches	3.0
	Max. peak all patches	6.0
	Max. paper white	3.0
Primary color delta E limits	Max. average CMYK patches	5.0
	Max. peak Cyan	5.0
	Max. peak Magenta	5.0
	Max. peak Yellow	5.0
	Max. peak Black	5.0
Hue difference tolerance limits	Max. peak CMYK patches	2.5
	Max. average Gray patches (from CMY)	1.5

– ISO 12647-7 Contract Proof “Chart”

This option sets the CMYK tolerance limits to the following specifications, as defined by ISO 12647-7 (used for FograCert applications):

Fogra IT8.7/4 chart



Tolerance limits for	Setting	Tolerance limit
General delta E limits	Max. average all patches	4.0
	Max. average outer gamut patches	4.0
	Max. peak for 95% of patches	6.0
Tone value difference tolerance limits	Max. peak CMYK patches	5.0

– ISO 12647-8 Validation Print “Media Wedge”

This option sets the CMYK tolerance limits to the following specifications in accordance with the ISO 12647-7 definitions:

Tolerance limits for	Setting	Tolerance limit
General delta E limits	Max. average all patches	3.0
	Max. peak all patches	8.0
	Max. paper white	3.0
Primary color delta E limits	Max. average CMYK patches	5.0
	Max. peak Cyan	5.0
	Max. peak Magenta	5.0
	Max. peak Yellow	5.0
	Max. peak Black	5.0
Hue difference tolerance limits	Max. peak CMYK patches	2.5
	Max. average Gray patches (from CMY)	1.5

– ISO 12647-8 Validation Print “Chart”

This option sets the CMYK tolerance limits to the following specifications, as defined by ISO 12647-7 (used for FograCert applications):

Tolerance limits for	Setting	Tolerance limit
General delta E limits	Max. average all patches	4.0
	Max. average outer gamut patches	4.0
	Max. peak for 95% of patches	6.0
Tone value difference tolerance limits	Max. peak CMYK patches	10.0

– G7 Contract Proof “Media Wedge”

This option sets the CMYK tolerance limits to the following specifications for G7-compliant analysis of the ISO 12647-7-compliant media wedge, such as the IDEAlliance control strip:

Tolerance limits for	Setting	Tolerance limit
General delta E limits	Max. average all patches	1.5

– Custom

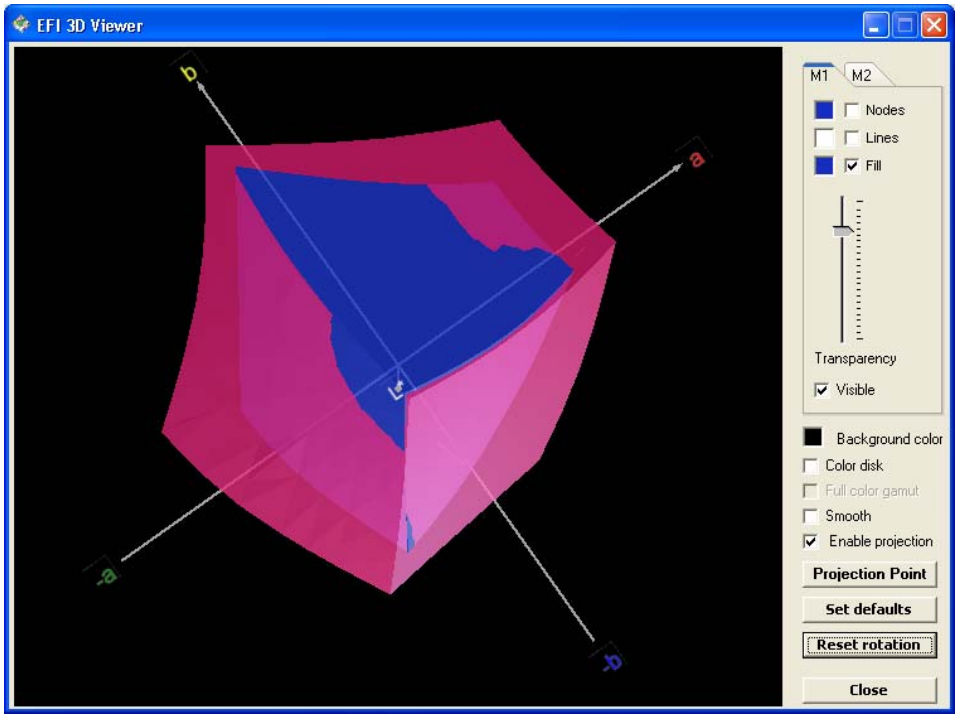
Using this setting you can define your own tolerance limits for delta E, delta H hue differences and delta T tone differences. Check boxes are available with which you specify which tolerances you want to evaluate.

If any of the measurements lie outside the specified range of tolerance, Color Verifier will indicate that the result is not satisfactory.

EFI 3D Viewer

To open EFI 3D Viewer, first display a 3D view, then click Enlarge 3D view. In EFI 3D Viewer you can define the following settings:

3D Viewer



- M1/M2

  Click on the appropriate tab to define the settings for displaying your M1 or M2 measurement values.

- Nodes

  Select this check box to display the nodes of the individual color measurements. The color in which the nodes are displayed is indicated in the area next to the check box. To alter the default color, double-click on the colored area and select or define a color in the Color dialog.

- Lines

  Select this check box to connect the nodes of the individual color measurements. The color in which the lines are displayed is indicated in the area next to the check box. To alter the default color, double-click on the colored area and select or define a color in the Color dialog.

- Fill

  Select this check box to display the represented color space as a solid form. The color in which the solid form is displayed is indicated in the area next to the check box. To alter the default color, double-click on the colored area and select or define a color in the Color dialog.

- Transparency

  This slidebar allows you to define the degree of transparency for M1 or M2 values.

- Visible

  Select this check box to show or hide the pictorial diagram of M1 or M2 values. This setting has the same effect as the check boxes “Show in color space”.

- Background color

  Click the colored area to open the Color dialog and select or define the background color of EFI 3D Viewer.

- Color disk

  When this check box is selected, the color disk is displayed in EFI 3D Viewer. Deselect this check box to hide the color disk.

- Full color gamut

  Select this check box to apply the full color gamut to the displayed measured values. This setting overrides the “Fill” setting made in this dialog. It is only available in conjunction with the setting “Smooth”.

- Smooth

  Select this check box to smooth the edges of the displayed measured values.

- Enable projection

  Select this check box to activate the Projection point button.

- Projection Point

  Click this button to open a dialog in which you can define an L*a*b* value to be compared with M1 or M2. The defined node is displayed in EFI 3D Viewer. If the color lies outside the depicted color gamut, a line is drawn to illustrate the point to which the color would be mapped.

- Set defaults

  Click this button to return all the settings in this dialog to their default values.

- Reset rotation

  Using this setting rotates the 3D view to the same angle of rotation as the 2D view, i.e. it displays an a*b* view of the color gamut.

- Close

  Click this button to close EFI 3D Viewer.

Menus

EFI Color Verifier (Macintosh only)

- About EFI Color Verifier

  Choose this command to open a window with details of your program version.

- Login

  Choose this command to display the Login dialog. This command enables you to log in under a different user name or to log on to a different Server.

- Preferences

  Choose this command to open the Preferences dialog.

- Quit EFI Color Verifier

  Choose this command to exit Color Verifier. If you have not previously saved your settings, you will be prompted to do so before the program closes.

File menu

- Open M1

  Choose this command to load the first set of values, e.g. a reference profile or a JDF or CSV file.

  This menu command corresponds to the Open button for measurement 1.

- Open M2

  Choose this command to load the second set of values, e.g. a reference profile or a JDF or CSV file.

  This menu command corresponds to the Open button for measurement 2.

- Save

  Choose this command to save the displayed readings.

  Your settings are saved in CSV format. A CSV file can be opened and edited in any spreadsheet application.

  When you choose this command, the folder you defined as the data folder is automatically opened.

- Add data to JDF

  Choose this command to add the currently displayed readings to an already existing JDF file contained in an EFI Remoteproof Container. You can save multiple sets of measurements to a JDF or CSV file.

  It is not possible to create a new JDF file using this command. Your settings can only be added to an already existing file.

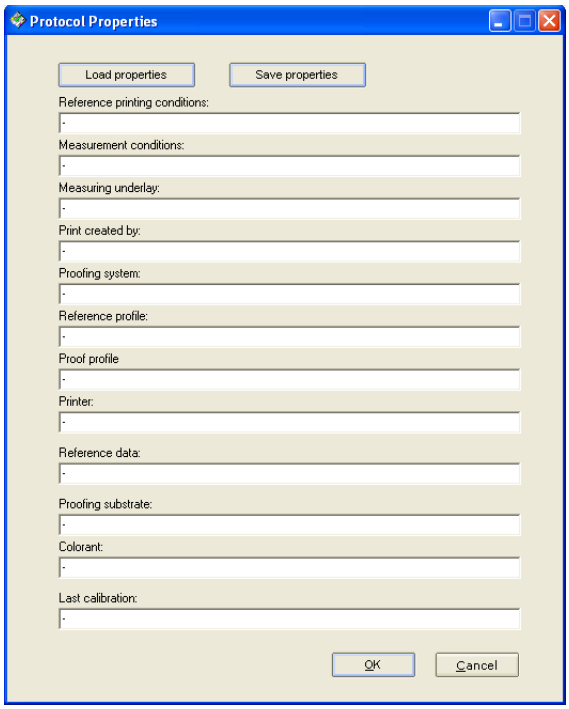
  You must have EFI XF installed on the computer in order to access a JDF file.

- Print
  - Screenshot

    Choose this command to print an image of the current program window.
  - Protocol

    Select Protocol to print an overview of the achieved tolerances and print conditions. When you choose this command, a dialog opens. Complete the form by adding job-specific information.

Printed protocol



The printed protocol consists of a table comparing the reference and measured data of each color patch and CMYK gradation curve diagrams depicting all reference and measured points along the curve.

The protocol contains ISO 12647-7/8-compliant information.

  - Label

    Choose Label to print out labels on any output device. When you choose this command, a window opens which displays the measured results. The label contains ISO 12647-7/8-compliant information.

Label and protocol properties can be saved in .prt format to the defined data folder. You can reload saved properties by clicking the appropriate button.

- Printer setup (Windows)/Page Setup (Macintosh)

  Choose this command to select a printer and make the desired printer settings. The printer you set up is the one used to print screenshots, protocols and labels.

- Login (Windows only)

  Choose this command to display the Login dialog. This command enables you to log in under a different user name or to log on to a different Server.

- Preferences

  Choose this command to open the Preferences dialog.

- Exit (Windows)/Quit (Macintosh)

  Choose this command to exit Color Verifier. If you have not previously saved your settings, you will be prompted to do so before the program closes.

See also:

"Analyzing the results" on page 203

View menu

- Color space

  With this command you select in which color space the measured readings will be displayed.

  Choose between RGB, L*a*b*, XYZ, CIELCH or Density. L*a*b* is the default color space setting for this command.

  "Density" is only available for selection if you have already measured and displayed color values. In a color-accurate proof, the displayed density values are comparable with the density values obtained during a production run. However, be aware that the density values of individual inkjet inks are not comparable with the density values of printing inks. This is because, for example, the cyan ink used in offset printing is different from the cyan ink used in an inkjet printer.

  This function is also available via the context menu. To display the context menu, right-click the tables with the displayed M1 and M2 color measurements.

- Delta E format

  With this command you select the color space in which the tolerance, i.e. the color deviation, between the two loaded sets of color values will be displayed. The tolerance is expressed as delta E values.

  Choose between CIE L*a*b*, CMC, CIE 94 and CIE 2000 tolerancing.

  This command is also available via the context menu. To display the context menu, right-click the delta E table.

Help menu

- Help (Windows)/EFI Color Verifier Help (Macintosh)

  Choose this command to access online help.

- EFI Web Site

  Choose this command to access the EFI homepage.

- EFI Technical Support

  Choose this command to send an e-mail direct to our Support team if you require help with your product.

- About (Windows only)

  Choose this command to open a window with details of your program version.

Color Verifier settings in EFI XF

If you have purchased Color Verifier as an add-on module, the program windows System Manager and Job Explorer are extended as follows:

- a program icon appears in the toolbar

Program icon

- Additional settings become available on the Verify tab in the property inspector.

System Manager

Verify tab > Control Strip 1/Control Strip 2

The settings you make on the Control Strip panes are transferred with the job to Color Verifier and displayed in the Preferences dialog.

- Verify

  Select this check box to incorporate Color Verifier into your workflow. When selected, print jobs are automatically sent to Color Verifier during job processing to enable you to check the color consistency of your printouts.

- Characterization data

  Here you select a reference that represents the target color values you want to achieve. When you measure the control strip, the color values are measured against the tolerances defined by the reference. Depending on the type of control strip you select, different references are possible.

Type of control strip	Target colors of reference			
	Reference profile	Measurement saved to EFI Remoteproof Container (RPF)	SWOP/GRACoL	Fogra characterization data
EFI Color Verifier Chart	x	x	—	—
IDEAlliance ISO 12647-7	x	—	x	—
Ugra Fogra-MediaWedge	x	—	—	x

The table below shows which Fogra characterization data to use for which reference profile.

Characterization data	Reference profile
Fogra 27L	ISOcoated.icc
Fogra 29L	ISOuncoated.icc
Fogra 30L	ISOuncoatedyellowish.icc
Fogra 31L	ISOcofcoated.icc
Fogra 32L	ISOcofuncoated.icc
Fogra 39L	ISOcoated_v2_eci.icc/ ISOcoated_v2_300_eci.icc
Fogra 40L	SC_paper_eci.icc
Fogra 41L	PSO_MFC_paper_eci.icc
Fogra 42L	PSO_SNP_paper_eci.icc
Fogra 43L	PSO_Coated_NPscreen_ISO12647_eci.icc
Fogra 44L	PSO_Uncoated_NPscreen_ISO12647_eci.icc
Fogra 45L	PSO_LWC_Improved_eci.icc
Fogra 46L	PSO_LWC_Standard_eci.icc
Fogra 47L	PSO_Uncoated_ISO12647_eci.icc

Characterization data	Reference profile
IFR26L.txt	ISOnewspaper26v4.icc/eci2002
IFRA30L.txt	ISOnewspaper30v4.icc/eci2002
IFRA26S.txt	ISOnewspaper26v4.icc/it8.7/3
IFRA30S.txt	ISOnewspaper30v4.icc/it8.7/3
PSR_LWC_PLUS_V2	PSR_LWC_PLUS_V2_PT.icc
PSR_LWC_STD_V2	PSR_LWC_STD_V2_PT.icc

If you are comparing proof-to-proof, proof-to-print or print-to-print, select “None”. This is because you need to measure two different printouts to obtain the desired values.

This setting is not available for dynamically created media wedges.

- Comparison method

  Here you specify the target tolerances for your printout. EFI XF provides target tolerance values for the following recognized standards:

  – the ISO 12647-7 Contract Proof Media Wedge

  – the ISO 12647-8 Validation Print Media Wedge

  – the G7Contract Proof Media Wedge

  Depending on whether or not the color values of the measured control strip lie within the defined tolerances, your printout will be awarded the mark “passed” or “not passed”.

  Alternatively, by selecting “Custom”, you can overwrite the predefined values in the table with your own target values.

  For dynamic wedges you have to define custom target tolerances.

- Delta E Format

  With this command you select the color space in which the tolerance, i.e. the color deviation, between the two loaded sets of color values will be displayed. The tolerance is expressed as delta E values.

  dE is the default setting for all predefined comparison methods. If you switch to any other delta E format, the comparison method changes automatically to “Custom” to enable you to define your own target tolerances.

- Print label

  Once you have obtained comparison results, you can print them out as a label. The label includes all the necessary ISO 12647-7/8-compliant information. You can print out the label automatically whatever result is achieved. Alternatively, by selecting the check box "Print only if verification results passed", you can specify that a label will only be printed if all measured results are within the defined tolerances and a "pass" is achieved.

  This setting is only available for certain printers with integrated measuring device. You must select an appropriate Ugra Fogra media wedge for your printer.

See also:

"Color tab > Color Management pane" on page 65

"Control strip settings" on page 78

"Delta E tolerance Limits" on page 178

"Delta E format" on page 186

"Label" on page 206

Job Explorer

Verify tab > Control Strip 1/Control Strip 2

Color values evaluated in Color Verifier are sent back to EFI XF and displayed on the Control Strip 1/Control Strip 2 panes. The results indicate whether the readings lie within the tolerances defined in System Manager.

The following settings are available:

- Verify control strip name

  This setting enables you to choose which control strip will be measured and verified in Color Verifier. If two control strips are attached to the job, you can define whether one or both are sent to Color Verifier. If neither check box is selected, the job is not sent to Color Verifier after printing.

- Target tolerances

  The results of the color accuracy check are transferred from Color Verifier and displayed in table form. At the same time, the Optimize and Verify buttons are enabled.

  – Optimize

    Clicking Optimize adjusts the control strip colors of the reference profile to those of the media profile. It is not possible to optimize images to which color adjustments or the clean colors setting have been applied.

    During optimization, a 3cc optimization file is created and applied to the selected job. The optimization file can be selected for other jobs and workflows, if required.

    The context menu command Optimize & Print is available if your job contains two control strips and you wish to base the optimization on both simultaneously.

  – Verify

    Click this button to start Color Verifier and load the current job data. This button is available only for jobs in a verify workflow, for which a color strip is selected.

    If the job has already been measured, clicking Verify will start Color Verifier to enable you to recheck the measured values.

Implementing Color Verifier in EFI XF

Color Verifier can be used:

- To achieve Fogra Proof Certification
- To create an ISO 12647-7-compliant proof
- To verify color consistency

TO SET UP A COLOR VERIFIER WORKFLOW

The following steps describe only the settings that are concerned with verifying color accuracy. You can, of course, make additional settings to suit your own particular workflow requirements.

1 **In System Manager, create a new workflow.**

A number of default workflow templates are available that are already set up with all the settings necessary for a basic verifier workflow. If you wish to set up your own verifier workflow from scratch, make sure that the workflow is set up with the following settings.

2 **On the Layout tab > Footer pane:**

- From the drop-down list box, select “Edit page footer”.

3 **On the Verify tab > Control Strip 1/Control Strip 2 panes:**

- From the drop-down list box “Control Strip”, select a control strip.

  EFI XF lets you select two different control strips. For example, you could output one dynamic wedge and one Ugra/Fogra media wedge, or one Ugra/Fogra media wedge with color management and one without.

  If you select “Dynamic wedge”, you must also:

  – Select which measuring device you will use

  – Define the required number of color patches and

  – Specify whether the dynamic wedge should consist of process colors, spot colors or a mixture of both

- Select the check box “Verify”.
- From the drop-down list box “Characterization data”, select a reference that represents the target color values you want to achieve. See also “Characterization data” on page 188 for further information.
- From the drop-down list box “Comparison method”, specify the target tolerances for your printout. You can select predefined target tolerances or define your own. If you have selected a dynamic wedge, you must define your own target tolerances. See also “Comparison method” on page 189 for further information.
- From the drop-down list box “Delta E Format” define how delta E should be calculated.

  You can choose between “dE” (default), “dE94”, “dE2000” and “CMC”.

4 **On the Output tab > Remote pane:**

- Select the radio button “Automatically” or “Manually” if you wish to save job settings and color measurement results to an RPF file. RPF files contain all the color management settings essential to ensure that color consistency is maintained when the same job is output at different locations.

5 **Save the workflow.**

TO PROCESS A JOB IN A COLOR VERIFIER WORKFLOW

1 **Load a job**

If the workflow is set up to output two control strips or Ugra/Fogra media wedges, you can define whether one or both will be used to verify color accuracy in Color Verifier. Go to the Verify tab > Control Strip 1/Control Strip 2 pane in Job Explorer, and select or deselect the check box “Verify control strip name” accordingly.

2 **Print the job.**

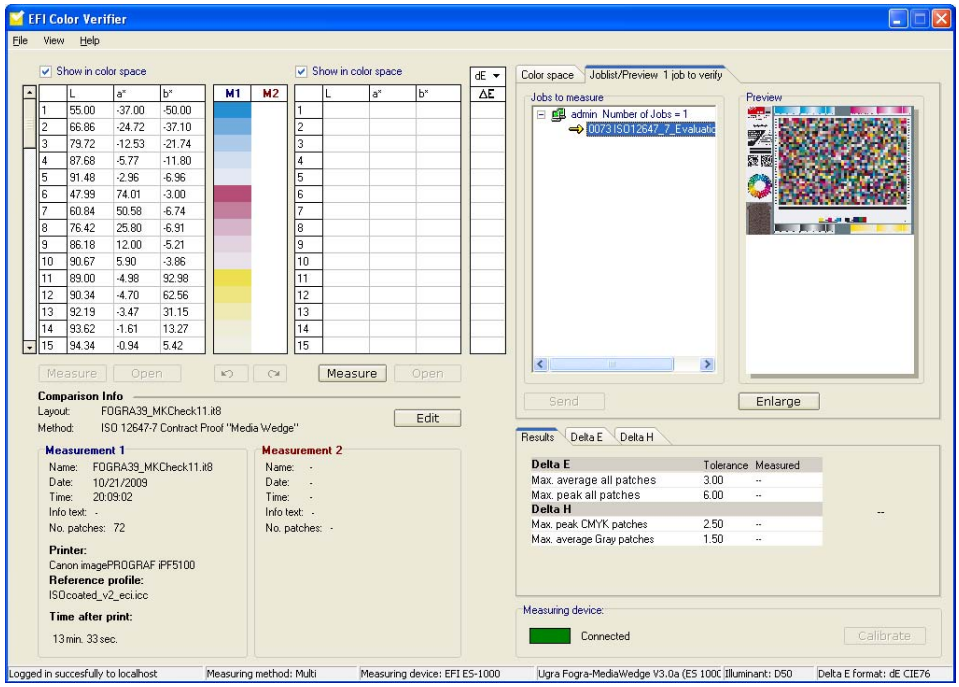
After printing, the job file is automatically submitted to Color Verifier.

3 **Start Color Verifier.**

The printed job is displayed on the Job List/Preview tab.

4 **On the Job List/Preview tab, expand the job file and double-click the job file.**

Color Verifier with job loaded from EFI XF



Jobs submitted to Color Verifier from EFI XF are composed of a job ID and the job name, e.g. “0071 Hessen2”.

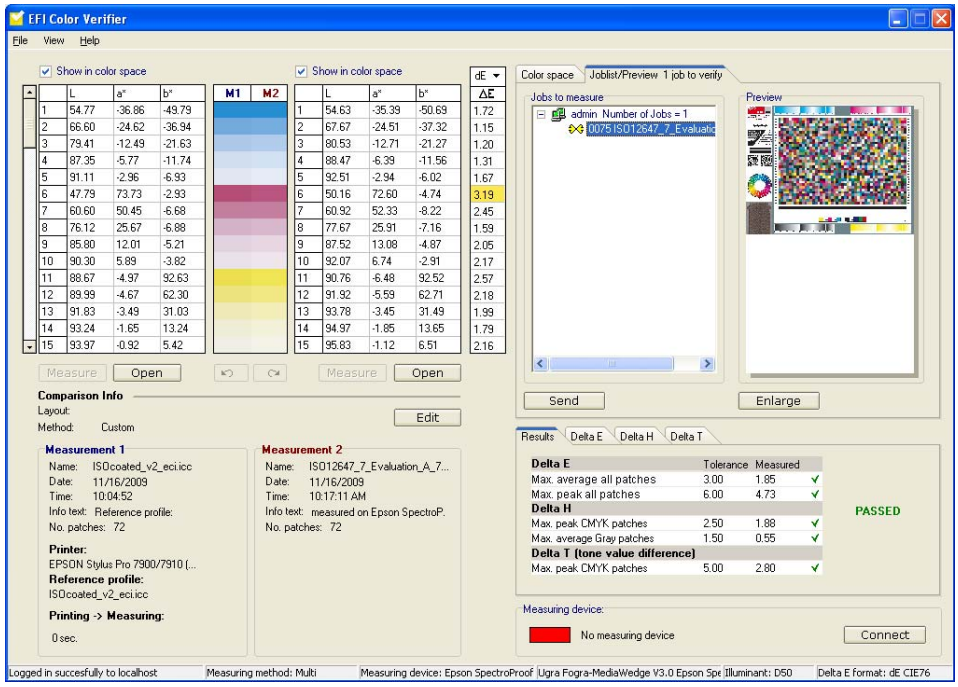
If you are comparing color results with those defined by a reference profile or Fogra characterization data, the appropriate target color values are loaded automatically as M1 values.

5 Measure the control strip that was printed out as part of the job.

If the workflow is set up to compare color values with a reference, the measured readings are displayed in the M2 table and the results of the comparison are displayed in the “Results” area.

If the workflow is set up to compare proof-to-proof, proof-to-print or print-to-print, the measured readings are displayed in the M1 table. You now need to measure the second proof or print. The second set of measured results is displayed in the M2 table and the results of the comparison are displayed in the “Results” area.

Color Verifier with measured results



6 Compare the sets of results.

In the “Results” area, the job is marked as “passed” or “not passed”. A passed result indicates that the color accuracy has been verified and this result can be sent back to EFI XF.

In certain circumstances, you may wish to verify the color accuracy of a job with a “not passed” status, e.g. if the delta E values were only marginally exceeded. In this case, you can “force” a verified result by selecting the check box “Enable measurement approval” in the Preferences dialog of Color Verifier.

7 **Click Send to transmit the results back to EFI XF.**

The results are displayed in Job Explorer on the Verify strip pane(s).

If the color values were approved in Color Verifier, the job is displayed as “Verified”.

If the delta E values were not within the defined tolerances, the job is displayed as “Verification failed”. In this case, you can optimize the results by clicking Optimize and then repeating the procedure.

TO OUTPUT A COLOR-ACCURATE REPLICA AT A REMOTE LOCATION

If a verifier workflow has been set up to create an EFI Remoteproof Container, a file with the extension RPF is created. It contains not only the job itself but all the color management information from the job as well, such as spot color tables and profiles (but no media profiles). This information enables the recipient of an RPF file to output a color-accurate replica of the original at a remote location.

Please be aware that the most accurate results are achieved if the same printer model and media are used to create original and replica. Color accuracy is further enhanced if both printers are optimally calibrated.

1 **Set up a workflow in EFI XF.**

A default workflow template “Remote In” is available that is already set up with all the settings necessary to process an RPF file correctly.

However, if you prefer to set up your own workflow, make sure that it includes the following settings:

- On the Verify tab > Control Strip 1 pane, select the“Verify” check box.
- On the Input tab > General pane, select the radio button “Use color management settings of the remote job”.

  This ensures that the original color management settings, including the reference profile, are automatically selected when you load the job.

2 **Load the RPF file in EFI XF.**

3 **Print the job.**

After output, the job is automatically submitted to Color Verifier.

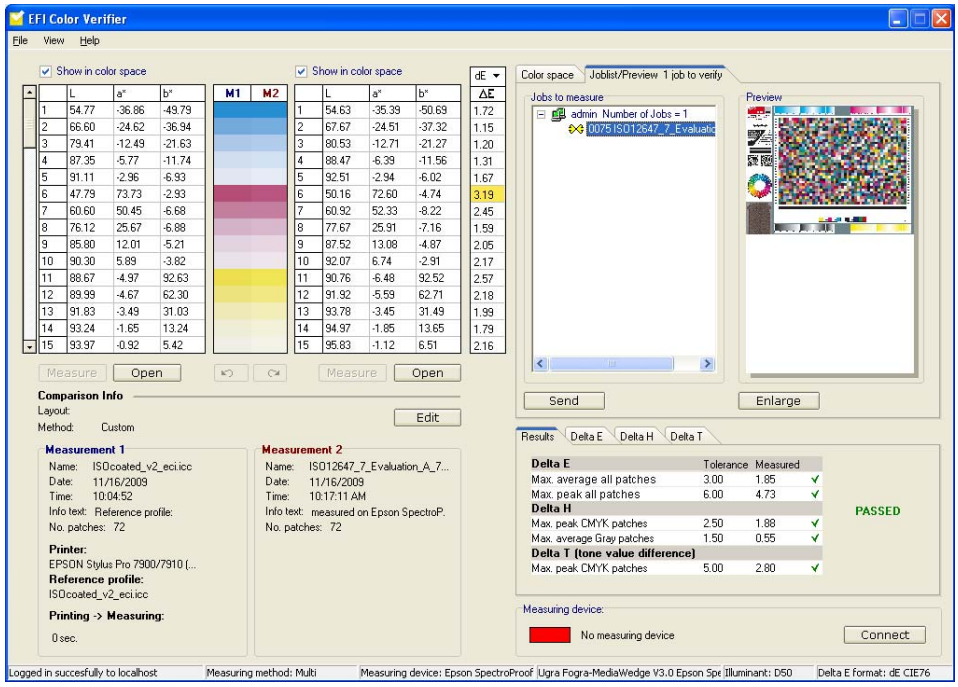
4 **Start Color Verifier.**

The printed job is displayed on the Job List/Preview tab.

5 On the Job List/Preview tab, expand the job file and double-click the job file.

The color values from the RPF file are displayed as the M1 values

Color Verifier with Job List/ Preview tab



6 Measure the control strip that was printed out as part of the job.

The measured values are displayed in the M2 table and the results of the comparison are displayed in the “Results” area.

7 Compare the sets of results.

In the “Results” area, the job is marked as “passed” or “not passed”. A passed result indicates that the color accuracy has been verified and this result can be sent back to EFI XF.

In certain circumstances, you may wish to verify the color accuracy of a job with a “not passed” status, e.g. if the delta E values were only marginally exceeded. In this case, you can “force” a verified result by selecting the check box “Enable measurement approval” in the Preferences dialog of Color Verifier.

8 Click Send to transmit the results back to EFI XF.

The results are displayed in Job Explorer on the Verify strip pane(s). At the same time, the EFI Remoteproof Container is updated with the new measurement data.

If the color values were approved in Color Verifier, the job is displayed as “Verified”.

If the delta E values were not within the defined tolerances, the job is displayed as “Verification failed”. In this case, you can optimize the results by clicking Optimize and then repeating the procedure.

See also:

"Layout tab > Footer pane" on page 63

"Output tab > Remote pane" on page 76

"Verify tab > Control Strip 1/Control Strip 2" on page 187

"Analyzing the results" on page 203

"ES-1000" on page 208

Practical examples of how to use Color Verifier

This section contains some practical examples of how to use Color Verifier. Ugra/Fogra media wedges and IT8.7/4 profiling charts are provided with the software for this purpose.

Achieving Fogra Proof Certification

The following use cases give three examples of how to perform a profiling chart analysis. This is required by the Fogra in order to achieve Fogra Proof Certification.

To receive Fogra Proof Certification, certain criteria must be met:

- The job ticket selected in EFI XF must contain details of:
  - The name of the proofing software,
  - Colorant
  - Type of substrate
  - Printing condition to be simulated
  - Color profiles used
  - Time and date of printout
- The protocol/label must contain details of the date of the last printer calibration
- The delta E and delta T values of the IT8.7/4 profiling chart must be within the definied tolerances.
- The delta E and delta H values of the Ugra/Fogra media wedge must be within the defined tolerances.

Use case 1: Measuring the IT8.7/4 random profiling chart

Verification method:	By measurement
Measuring device:	Any If you are using an X-Rite iSis or SpectroScan, follow the instructions for use case 2.
M1:	IT8.7/4 random profiling chart
M2:	Fogra IT8.7/4 characterization data

TO VERIFY COLOR CONSISTENCY

1 **Print one of the random IT8.7/4 profiling charts for your measuring device.**

Separate charts are provided for each measuring device.

2 **Print the file ISO12647_7_Evaluation_A.pdf.**

The Fogra requires this printout (and not the IT8.7/4 profiling chart) in order to issue a Fogra Proof Certification. It is important, therefore, that you print the FograCert chart immediately before or after you print the IT8.7/4 chart to ensure identical color values.

3 **Connect your measuring device to your computer.**

4 **Start Color Verifier.**

5 **Open the Preferences dialog and make the following settings:**

- Under “Measuring device”, select your measuring device.
- Under “Chart or wedge selection”, select the IT8.7/4 profiling chart that you printed.
- Under “Delta E tolerance limits” select ISO 12647-7 Contract Proof “Chart”.

6 **For M1: Click Measure and measure the random IT8.7/4 profiling chart that you printed out in step 1.**

7 **For M2: Click Open and load a Fogra characterization data set, e.g. Fogra39L_IT8.74R.it8 (for ISOcoated_v2_eci.icc).**

You will find the file located in the IT8_CharacterizationData folder.

In “Fogra39L_IT8.74R.it8”, the “R” stands for “random”.

8 **Analyze the results.**

For Fogra Proof Certification you now need to print and measure a media wedge.

See also:

“Achieving an ISO 12647-7 compliant proof” on page 200

“Analyzing the results” on page 203

Use case 2: Measuring the IT8.7/4 visual profiling chart

Verification method:	By measurement
Measuring device:	X-Rite iSis or SpectroScan
M1:	IT8.7/4 visual profiling chart
M2:	Fogra IT8.7/4 characterization data

TO VERIFY COLOR CONSISTENCY

1. **Print the file ISO12647_7_Evaluation_A.pdf.**

   The Fogra requires this printout in order to issue a Fogra Proof Certification.

2. **Connect your measuring device to your computer.**

3. **Start Color Verifier.**

4. **Open the Preferences dialog and make the following settings:**

   - Under “Measuring device”, select your measuring device.
   - Under “Chart or wedge selection”, select the visual IT8.7/4 profiling chart “ISO12647_7_Evaluation_A.it8”.
   - Under “Delta E tolerance limits” select ISO 12647-7 Contract Proof “Chart”.

5. **For M1: Click Measure and measure the IT8 visual profiling chart ISO12647_7_Evaluation_A.it8.**

6. **For M2: Click Open and load a Fogra characterization data set, e.g. Fogra39L_IT8.74.it8 (for ISOcoated_v2_eci.icc).**

7. **Analyze the results.**

   For Fogra Proof Certification you now need to print and measure a media wedge.

Use case 3: Comparing loaded IT8.7/4 data

Verification method:	By loading a reference
Measuring device:	n/a
M1:	ICC profile or a CVS file
M2:	Fogra IT8.7/4 characterization data

TO VERIFY COLOR CONSISTENCY

1. **Start Color Verifier.**
2. **Open the Preferences dialog and select for the delta E tolerance limits ISO 12647-7 Contract Proof "Chart".**
3. **For M1: Click Open and load the ISO IT8.7/4 profiling chart or a CVS file.**
4. **For M2: Click Open and load a Fogra characterization data set, e.g. Fogra39L_IT8.74.it8 (for ISOcoated_v2_eci.icc).**

   You will find the file located in the CharacterizationData folder.
5. **Analyze the results.**

   For Fogra Proof Certification you now need to print and measure a media wedge.

   See also:

   "Achieving an ISO 12647-7 compliant proof" on page 200

   "Analyzing the results" on page 203.

Achieving an ISO 12647-7 compliant proof

This section contains three examples of how to perform a media wedge analysis. This is required by the Fogra in order to achieve Fogra Proof Certification.

To create a compliant proof, the following criteria must be met:

- The job ticket selected in EFI XF must contain the information as detailed above for Fogra Proof Certification.
- The delta E and delta H values of the Ugra/Fogra media wedge must be within the defined tolerances.

Use case 1: Measuring a ISO 12647-7-compliant media wedge

Verification method:	By measurement
Measuring device:	Any
M1:	Ugra/Fogra media wedge (v2.2/v3.0) or any ISO 12647-7-compliant media wedge
M2:	Fogra MK10/MK11 reference data

TO VERIFY COLOR CONSISTENCY

1. **Make sure you have a printout which contains an ISO 12647-7-compliant media wedge.**
2. **Connect your measuring device to your computer.**
3. **Start Color Verifier.**
4. **Open the Preferences dialog and make the following settings:**
   - Under “Measuring device”, select your measuring device.
   - Under “Chart or wedge selection”, select the media wedge that you printed.
   - Under “Delta E tolerance limits” select ISO 12647-7 Contract Proof “Media Wedge”.
5. **For M1: Click Measure and measure the media wedge.**
6. **For M2: Click Open and load a Fogra characterization data set, e.g. Fogra39.it8 (for ISOcoated_v2_eci.icc).**
7. **Analyze the results.**

   See also:

   “Analyzing the results” on page 203

Use case 2: Comparing a Ugra/Fogra media wedge with FOGRA MK 10 reference data

Verification method:	By loading a reference
Measuring device:	n/a
M1:	Ugra/Fogra media wedge (v2.2/v3.0)
M2:	Fogra MK10/MK11 reference data

TO VERIFY COLOR CONSISTENCY

1. **Start Color Verifier.**
2. **Open the Preferences dialog and select for the delta E tolerance limits ISO 12647-7 Contract Proof "Media Wedge".**
3. **For M1: Click Open and load the Ugra/Fogra media wedge.**
4. **For M2: Click Open and load a Fogra characterization data set, e.g. Fogra39.it8 (for ISOcoated_v2_eci.icc).**
5. **Analyze the results.**

   See also:

   "Analyzing the results" on page 203

Use case 3: Measuring a Ugra/Fogra media wedge

Verification method:	By measurement
Measuring device:	Any
M1:	Ugra/Fogra media wedge (v2.2/v3.0)
M2:	Fogra MK10/MK11 reference data

TO VERIFY COLOR CONSISTENCY

1. **In EFI XF, set up a Color Verifier workflow.**
2. **On the Verify tab > Control Strip 1 pane, make the following settings:**
   - From the drop-down list box "Control Strip 1", select a Ugra/Fogra media wedge.
   - Select the check box "Verify".
   - From the drop-down list box "Characterization data", select a Fogra characterization data set, e.g. Fogra39.it8 (for ISOcoated_v2_eci.icc).
3. **Output a print job with the selected media wedge.**

   When it has been printed, the job is automatically submitted to Color Verifier for verification.
4. **Connect your measuring device to your computer.**

5 **Start Color Verifier.**

6 **Open the Preferences dialog and make the following settings:**

- Under “Measuring device”, select your measuring device.
- Under “Chart or wedge selection”, select the media wedge that you printed.

7 **Go to the Job List/Preview tab and double-click the job to measure.**

8 **For M1: Click Measure and measure the media wedge.**

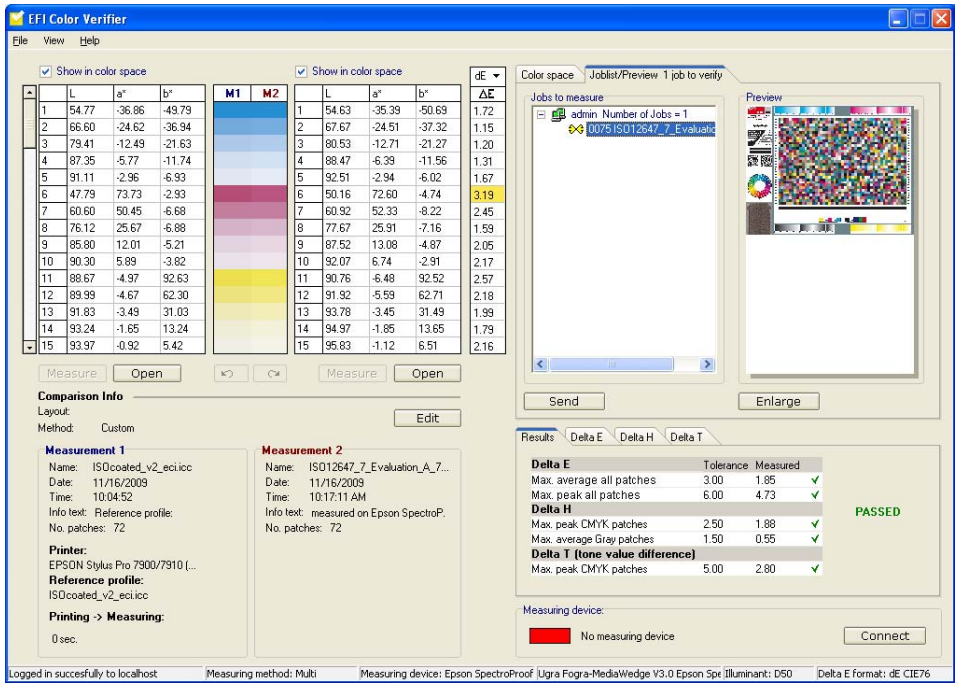
9 **For M2: Click Open and load a Fogra characterization data set, e.g. Fogra39.it8 (for ISOcoated_v2_eci.icc).**

10 **Analyze the results.**

Analyzing the results

Once you have obtained M1 and M2 values, the evaluated results are displayed in Color Verifier.

Color Verifier with Job List/ Preview tab



- Sorting result order

  If you have measured an ECI2002 random chart and want to evaluate it against a visually layouted IT8.7/4 chart, you can rearrange the display order of the IT8.7/4 color patches for easier comparison. Right-click on one of the tables and choose Sort as reference data from the context menu. All non-ECI2002 values are ignored and the visually layouted IT8.7/4 color patches are rearranged so that they match the order of the random chart.

  By sorting as reference data", you can compare any combination of IT8.7/4 chart and Fogra media wedge that is selected as the control strip because only the Fogra media wedge data is taken into account. Similarly, this setting enables you to use the test form ISO12647_7_Evaluation_A.pdf to verify printing conditions whose characteristic data are only available as ECI2002 and not as IT8.7/4.

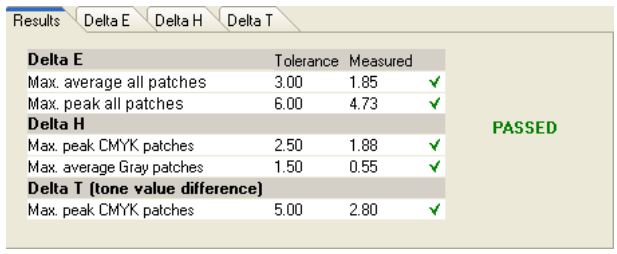
- Results area

  The Results tab contains a summary of the overall result. If any of the measurements lie outside the specified range of tolerance, Color Verifier indicates a result of "Not passed".

  A check mark indicates that the overall measurement is within the tolerance limit. A cross warns you if some or all the measurements exceeded the maximum tolerance values.

  Pointing the mouse in the Results area displays the corresponding color patch in the M1/M2 tables.

Results summary



The Delta E, Delta H and Delta T tabs contain a detailed breakdown of the results and show exactly which color measurements were unsatisfactory for the primary colors.

The number of tabs displayed depends on the delta tolerances you defined in the EFI XF Client. For example, if you selected an ISO 12647-7 media wedge or G7, delta T values are not used. If you measure a dynamic wedge, only delta E values are evaluated.

Delta E results

Results | Delta E | Delta H | Delta T

Primary color max. peak delta E

	Tolerance	Measured	
Cyan	5.00	1.72	✓
Magenta	5.00	3.19	✓
Yellow	5.00	2.57	✓
Black	5.00	1.08	✓
White	3.00	2.38	✓
CMYK	5.00	2.14	✓

If you are using Color Verifier as a stand-alone tool and selected ISO 12647-7 Contract Proof "Chart" or ISO 12647-8 Validation Print "Chart" in the Preferences dialog, you can also compare delta T values.

- Delta E table

  In the delta table showing the achieved tolerances, you can use the drop-down list box in the table heading to switch between displaying delta E, delta H and delta T values.

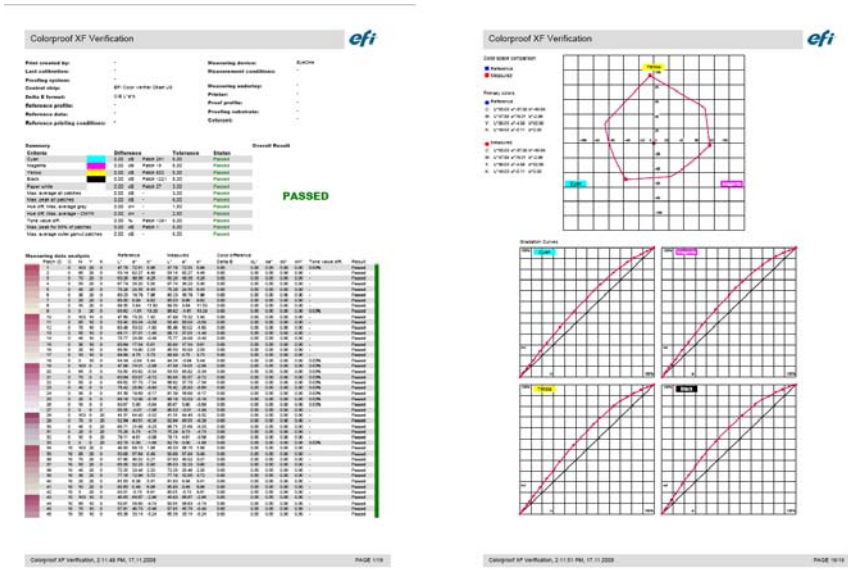
Delta E table

dE ΔE	dH ΔH
4.19	13.08
5.38	1.18
5.00	1.53
3.64	0.58
6.44	2.11
11.97	9.45
16.21	12.48
22.63	7.84
16.49	4.09
14.74	2.05
10.44	0.35
10.38	2.27
16.25	0.63
11.50	0.53
8.48	2.06

- Protocol

  The printed protocol includes ISO-12647-7-compliant information. It also displays CMYK gradation curve diagrams depicting all reference and measured points along the curve.

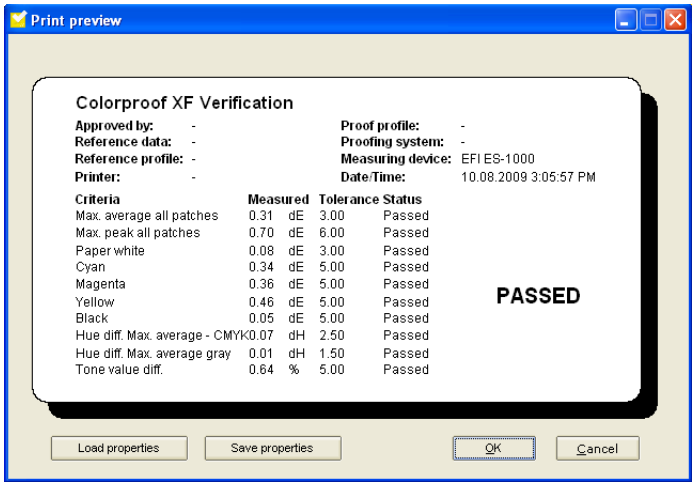
Printed protocol



- Label

  The label includes additional ISO-12647-7-compliant information.

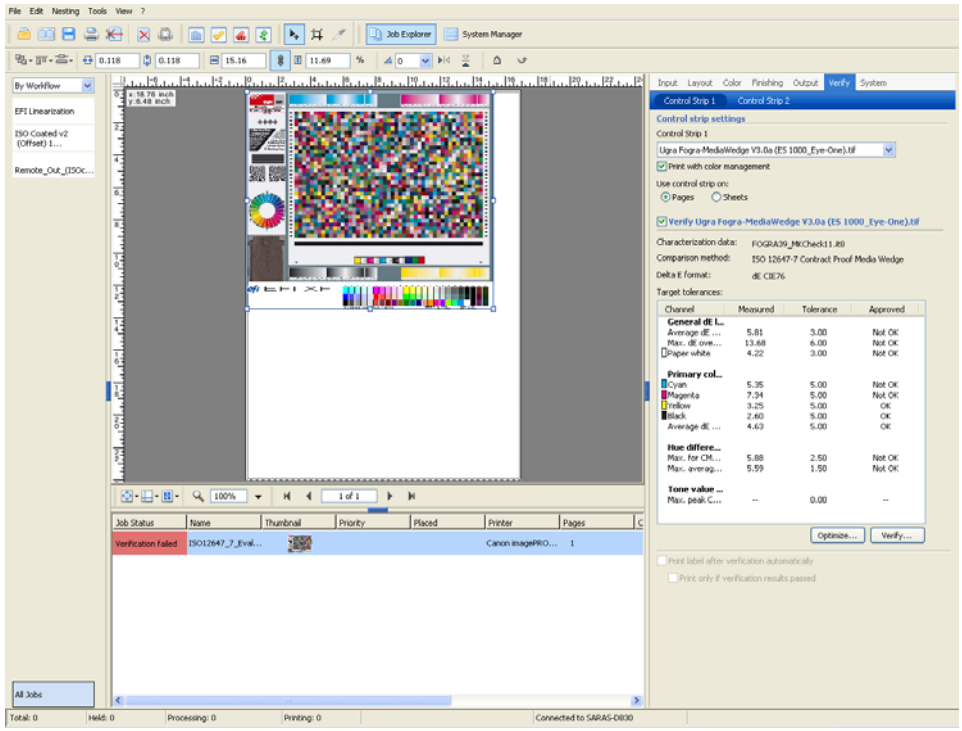
Label



Evaluating the results in EFI XF

Once a job is sent back to EFI XF from Color Verifier, the status of the job in the job list changes to “Verified” or “Verification failed” and the achieved results are displayed on the Verify tab.

Evaluating the results in EFI XF



If the job has the status “Verification failed”, it means you need to optimize the profile. You can do this by clicking Optimize on the appropriate Verify Strip tab for the control strip. This causes a 3cc optimization file to be created and applied to the job. Afterwards, you have to reprint the job and repeat the verify procedure in Color Verifier.

If you have output your job with two control strips, it is only possible to optimize one of them. Once one control strip has been optimized, the Optimize button on the other Control Strip pane is dimmed. If you wish to optimize using both control strips, you can do so by selecting the job in the job list and choosing Optimize & print from the context menu.

It is not possible to optimize jobs to which color adjustments or the clean colors setting have been applied.

ES-1000

EFI provides an ES-1000 measuring device which can be purchased with the Color Verifier Option. The following sections contain information on how to connect, use and look after your ES-1000 measuring device.

See also:

"Scope of delivery" on page 171

"USB devices" on page 291

TO CONNECT THE ES-1000

1. **Insert one end of the USB cable into the USB interface on the back of the ES-1000.**
2. **Insert the other end of the USB cable into a free USB port on your computer or to a USB hub that features a separate power supply.**

   Your system detects that a new hardware device has been connected.
3. **Follow the on-screen instructions to install the device driver.**

   You will find the device driver in the Tools folder.

How to measure with ES-1000

This section describes how to obtain color measurements using the ES-1000 measuring device shipped with Color Verifier.

For this exercise, you require a proof printed with a control strip.

It is only possible to measure control strips that are supported by Color Verifier.

TO MEASURE WITH ES-1000

1. **Make sure that the ES-1000 is properly connected to your computer.**
2. **Place the ES-1000 on the calibration plate.**
3. **Start EFI Color Verifier and check that "Connected" is displayed in the in the "Measuring device" area of the program window.**

   If an error message appears, check the cable connections. Then, open the Preferences dialog and make the following settings on the Comparison Settings tab:

   - Under "Measuring device", select first your measuring device and then the radio button "Measure whole control strip".
   - Under "Chart or wedge selection", select the control strip to be measured.
4. **Place your proof on a sheet of blank white paper.**

   This prevents a colored surface shimmering through the printout and affecting the color measurements.

5 **Place the scanning ruler on your proof so that the metal rod is facing away from you and the open slit is placed directly over the control strip.**

6 **In the "Measuring device" area of the program window, click Calibrate.**

This enables the Measure and Open buttons. EFI Color Verifier displays "Calibrated" when your measuring device is ready for measuring.

7 **Click Measure.**

There are two Measure buttons, one for M1 and one for M2 values.

8 **Measure the colors in your proof, as follows:**

- Place the measuring lamp of the ES-1000 in the open slit of the scanning ruler so that it is slightly to the left or right of the control strip.
- Hold down the button on the left side of the ES-1000.

  Do not release the button until the measuring process has been completed. If you let go of the button, the measuring process will be aborted.
- Move the ES-1000 smoothly and at an even pace from one side of the color strip to the other.

When the control strip has been successfully measured, the readings are automatically displayed.

If you select the measuring method "Measure single patches" in the Preferences dialog, place the ES-1000 on the color in your proof whose color value you wish to determine. Then press and release the button on the left side of the measuring device. The color reading is automatically displayed.

Safety instructions

The following safety instructions must be observed to avoid risk to the operator:

- Do not use the ES-1000 in environments where explosion hazards exist.
- Do not subject the ES-1000 to strong electromagnetic radiation.
- Do not use the ES-1000 in environments with temperatures in excess of 40°C or less than 10°C.
- Do not try to dismantle the ES-1000 for any reason. Unauthorized dismantling of the equipment will void any warranty claims.
- Do not store the ES-1000 in environments with temperatures in excess of 70°C or less than -20°C.
- Do not spill liquids on the ES-1000.
- Do not drop the ES-1000 in liquids.

The following warnings must be observed when operating the ES-1000. Failure to heed these warnings can cause damage to the equipment.

- The ES-1000 should be used on a stable surface, and should not be exposed to sunlight or moisture.
- The ES-1000 must be protected from chemical agents, corrosive vapors, strong vibration and mechanical impact.
- Use original accessories and spare parts only.

Maintenance

The following warnings should be observed in your day-to-day handling of the ES-1000. Failure to do so may result in data loss and operating anomalies.

- The plastic housing of the ES-1000 may be cleaned with soap and water on a damp cloth.
- The ES-1000 must be transported in its original packing to avoid damage.
- Clean the white ceramic tile with isopropyl alcohol on a soft clean cloth.

Service

It is important that you observe the following:

- Do not try to dismantle the ES-1000 for any reason. Unauthorized dismantling of the equipment will void all warranty claims.
- The measuring lamp in your ES-1000 should only be replaced by a trained service engineer at a certified service center.
- If you experience problems whilst using your ES-1000 that you cannot resolve with the information in this manual, please contact EFI Support.

See also:

"EFI Support" on page 292

Declaration of conformity

The undersigned, representing the following manufacturer,

Gretag-Macbeth AG
Althardstrasse 70
CH-8105 Regensdorf

herewith declares that the product

ES-1000™

is in conformity with the provisions of the following EC directives (including all applicable amendments)

EN 61326-1 (1997) + A1 (1998) Emission
EN 61326-1 (1997) + A1 (1998) Immunity

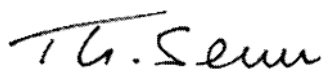
and that the standards and/or technical specifications referenced have been applied.

Last two digits of the year in which the CE marking was affixed: 01

CH-8105 Regensdorf
March 12, 2001

Th. Senn
Vice President

Th. Senn
Vice President



Warranty conditions

EFI warrants this product against defects in material and workmanship for a period of twenty-four (24) months from the date of sale, if not specified otherwise. During such time EFI will either replace or repair at its discretion defective parts free of charge. (Consumable parts are not covered.)

This warranty shall not apply to any goods supplied hereunder which after shipment are damaged, altered in any respect, or subjected to negligent treatment.

EFI's sole and exclusive obligation for breach of the above warranties shall be the repair or replacement of any part, without charge, which within the warranty period is proven to EFI's reasonable satisfaction to have been defective.

Repairs or replacement by EFI shall not revive an otherwise expired warranty, nor shall the same extend the duration of a warranty.

EFI shall in no event be liable for losses or costs to Buyer in manufacturing, or for Buyer's overhead, other expenses, lost profits, goodwill, or any other special, indirect, consequential, incidental or other damages to persons or property resulting from a breach of any of the foregoing warranties.

There are no other warranties, either express or implied, which extend beyond the warranties set forth herein. The express warranties contained herein are in lieu of all other warranties, express or implied, including, but not limited to, the implied warranty or merchantability and fitness for a particular purpose or application. No representations or statements not expressly set forth herein shall be binding upon EFI as a warranty or otherwise.

To obtain warranty service, you must take the Product, or deliver the Product freight pre-paid, in either its original packaging or packaging affording an equal degree of protection, to an authorized EFI branch office. Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

ES-1000 Warranty/Repair Form

Warranty Claim Repair Order

Serial number Date of sale:

....

Error description:

.....

.....

.....

.....

User's name and address:

.....

.....

.....

.....

.....

E-mail address:

.....

Town/Date: Signature:

....

Color Editor Option

Color Editor is available as an add-on module. It was developed to ensure that spot colors in your print jobs are correctly processed.

A spot color is a specially mixed ink that is applied on the printing press, as opposed to a mix of CMYK inks which make up process printing. Spot colors can be produced in a much more vibrant range of colors than can be created from mixing process colors. As an example, they are often used to print company logos.

Many different companies produce spot colors, together with a set of swatch books that show printed examples of these colors.

How are spot colors managed in EFI XF?

Color Editor manages spot colors in two different types of table:

- An internal table, which ensures the reproduction of predefined spot colors of different leading manufacturers. The internal spot color table cannot be edited. It is read-only.
- BCT files which contain user-defined spot colors in CMYK/OG/RGB and/or L*a*b* format.

Before spot colors can be output as spot colors, they must be defined and saved in a spot color table (bct file). When the bct file is loaded in EFI XF, the spot colors are automatically processed correctly. You can create a bct file per job or save all spot colors in one bct.

Non-defined spot colors are also managed in a file called missing.tab which, like bct files, is saved in the Spotcolor folder. The missing.tab file is created automatically when an unknown spot color is detected.

When defining a spot color in Color Editor, you can choose whether or not to merge spot colors from the missing.tab. Merging spot colors ensures that the names of all spot colors detected in a job are correctly transferred to Color Editor for definition.

Missing.tab saves the names of spot colors, but not their defined color values. All spot colors in the missing.tab file have a default L*a*b* value of 80, -70, 70.

If you do not want to merge all the spot colors that have ever been detected in EFI XF, you can delete the missing.tab file. A new missing.tab file is automatically created the next time you load a job with spot colors. In this way, you can create a missing.tab file that is job-specific.

Spot color settings in EFI XF

If you have purchased Spot Color Option as an add-on module, the program windows System Manager and Job Explorer are extended as follows:

- a program icon appears in the toolbar

Program icon

- an additional pane, Spot Colors, appears on the Color tab of property inspector

System Manager

Input tab > File Formats pane

The following workflow setting is available on the File Formats pane of the Input tab:

- In-RIP Separation
  - Enable/Disable/Force

    If your print job already contains RIP settings, e.g. from an external RIP or from a DTP program, you can choose whether these will be applied.

    Select "Disable" to print all composite or in-RIP separated jobs as composite files. Separated files will still be processed as separated.

    Select "Enable" to apply all available in-RIP information to print jobs. If no such information is detected in the print job, files are automatically output as composite.

    PostScript files must contain not only details about color separations (process colors and spot colors), they also require start code information. This start code may be missing from PostScript files created by certain types of RIPs. In this case, the in-RIP information cannot be properly interpreted and the file will be output as composite.

    If you select "Force", all files are processed as separated files.

Color tab > Spot Colors pane

The following workflow settings are available on the Spot Colors pane:

- Input handling

  This setting gives you more control over how CMYK and multicolor print jobs are handled in EFI XF. You can use this setting to define which source profile is applied.

  When processing multicolor jobs with print information in multiple channels, it is recommended that you use PostScript format whenever possible.

  The following settings are available:

  – Automatic

    With this setting, EFI XF analyzes which color channels are present in incoming print jobs and automatically applies the appropriate RGB, CMYK or multicolor source profile selected on the Color management pane.

    In the case of multicolor PostScript jobs, the selected multicolor source profile is applied as the input profile. However, the channel names in print job and profile must match each other exactly. The following table summarizes how different input jobs are handled:

Job	Multicolor input profile	Applied profile
CMYK	-	CMYK
CMYKOG	CMYKOG	CMYKOG
CMYKOGB	CMKYOG	CMYKOG (B simulated via EFI Color Editor)
CMYKRGB	CMYKOG	CMYK (RGB simulated via EFI Color Editor)

    If you have defined spot colors in the Spot Color Option, remember to set the search priority on the Spot Colors pane to look for CMYK colors first.

    In the case of multicolor TIFF jobs, only the number of color channels is important, not the colors themselves, i.e. to process a print job with seven channels, you require any multicolor source profile with seven colors. The print job is always processed using the colors of the multicolor profile. For example, if the source profile is CMYKRB, the print job is processed using CMYKRB. If the source profile is CMYKOG, the same print job is processed using CMYKOG.

  – Force CMYK

    This setting forces EFI XF to apply always the selected CMYK source profile, e.g. a multicolor print job will also be processed using the CMYK source profile.

    This setting is not applied to RGB and gray print jobs, which are always processed according to the appropriate source profiles selected on the Color management pane.

In the case of multicolor PostScript jobs, the additional colors, e.g. OG or RGB, are treated as spot colors. If the colors are not defined in the Spot Color Option, an error message reports that unknown spot colors have been detected. The following table summarizes how different input jobs are handled:

Job	Applied profile
CMYK	CMYK
CMYK**OG**	CMYK (**OG** simulated via EFI Color Editor)
CMYK**OGB**	CMYK (**OGB** simulated via EFI Color Editor)
CMYK**RGB**	CMYK (**RGB** simulated via EFI Color Editor)

In the case of multicolor TIFF jobs, print jobs are output as CMYK; the multicolor channels are lost. This setting could be usefully applied, for example, if the fifth and sixth channels contain information that you do not want to print out, e.g. guides, masks or outline paths. Selecting "Force CMYK" does away with the need to remove such information from the open file before printing.

– Force Multicolor

This setting ensures that, regardless of the number of color channels, the selected multicolor source profile is always applied to multicolor print jobs. The number of channels in the multicolor profiles determines how the print job is identified. For example, if the multicolor profile has six channels, incoming jobs are treated as six-channel jobs.

Please note that RGB and gray jobs are not affected by this setting.

In the case of PostScript jobs, if the colors in the print job do not match the colors of the multicolor profile, additional channels are treated as spot colors, missing channels are left empty. The following table summarizes how different input jobs are handled:

Job	Multicolor input profile	Applied profile
CMYK	CMYK**OG**	CMYK**OG**
CMYK	CMYK**RGB**	CMYK**RGB**
CMYK**OG**	CMYK**RGB**	CMYK**RGB** (**O** simulated via EFI Color Editor)
CMYK**RGB**	CMKY**OG**	CMYK**OG** (**RB** simulated via EFI Color Editor)

If you have defined spot colors in the Spot Color Option, remember to set the search priority on the Spot Colors pane to look for CMYK colors first.

In the case of TIFF jobs, if the print job has seven channels and the multicolor source profile has only six, the seventh channel is lost during job processing.

- Spot Color Settings
  - Custom Spot Color Library

    Select a spot color table that contains your previously defined spot colors from the drop-down list box. Spot color tables must be saved to the Spotcolor folder.
  - Search Priority

    Here you define the order in which spot colors are searched for.

    Spot colors can be defined in both the CMYK, CMYKOG, CMYKRGB and L*a*b* color spaces; they may also be included in the internal table or embedded in the source file. EFI XF uses the first instance of each spot color according to the specified search order.

    You define the search order via the drop-down list boxes:

Internal	Searches the integrated table of predefined spot colors of leading spot color manufacturers.
L*a*b*/CMYK(OG/RGB)	Searches for spot colors as defined in Color Editor.
Source file	Searches for spot colors defined in the CMYK color space in the application and embedded in the source file. If you search by source file, EFI XF detects embedded spot colors and displays them in Job Explorer as "known".
None	This setting enables you to deactivate the spot color search feature.

- Print unknown spot colors as warning color

  Select this check box if you wish undefined spot colors to be output in a distinctive shade of orange. This makes them immediately recognizable in the printout.

  Orange is the default color. However, you can output unknown spot colors in a different color by changing the CMYK values in the appropriate edit boxes.

  If you click Default, the values are reset to: C=0, M=50, Y=100, K=0.

Job Explorer

An additional pane, Spot Colors, is available on the Color tab.

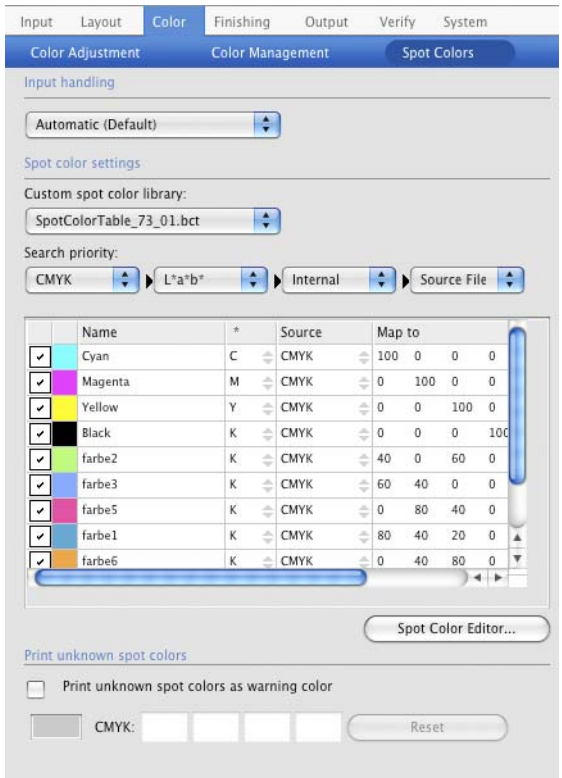
The settings on this tab become enabled as soon as you load a job that contains spot colors, so that you can determine how they will be handled during job processing.

The available settings are identical to the workflow settings found in System Manager. In addition, this pane identifies which colors are contained in a selected print job.

Process colors and spot colors are listed with details of whether they are known or unknown. This enables you to check whether spot colors will be processed correctly without first having to print the job.

By unchecking the check box next to a process color or spot color, you can instruct EFI XF to exclude that color from the printout.

Spot Colors pane



How spot colors will be handled in EFI XF depends on the settings that have previously been made for the workflow. For example, the workflow settings may specify that unknown spot colors should be replaced with a default color.

However, to print color-accurate spot colors, they must first be defined in a spot color table.

When spot colors have been defined, they are saved as a spot color table. The spot color table has to be selected in EFI XF. A spot color table can be applied to:

- all print jobs in a workflow.
- individual print jobs. In this case, select a spot color table on this pane and click Save in the toolbar. The spot color table selected on this tab overrides the spot color table selected for the workflow in System Manager.

Spot color tables must be saved to the Spotcolors folder. Otherwise, they cannot be selected in EFI XF.

See also:

"Custom Spot Color Library" on page 218

Starting Color Editor

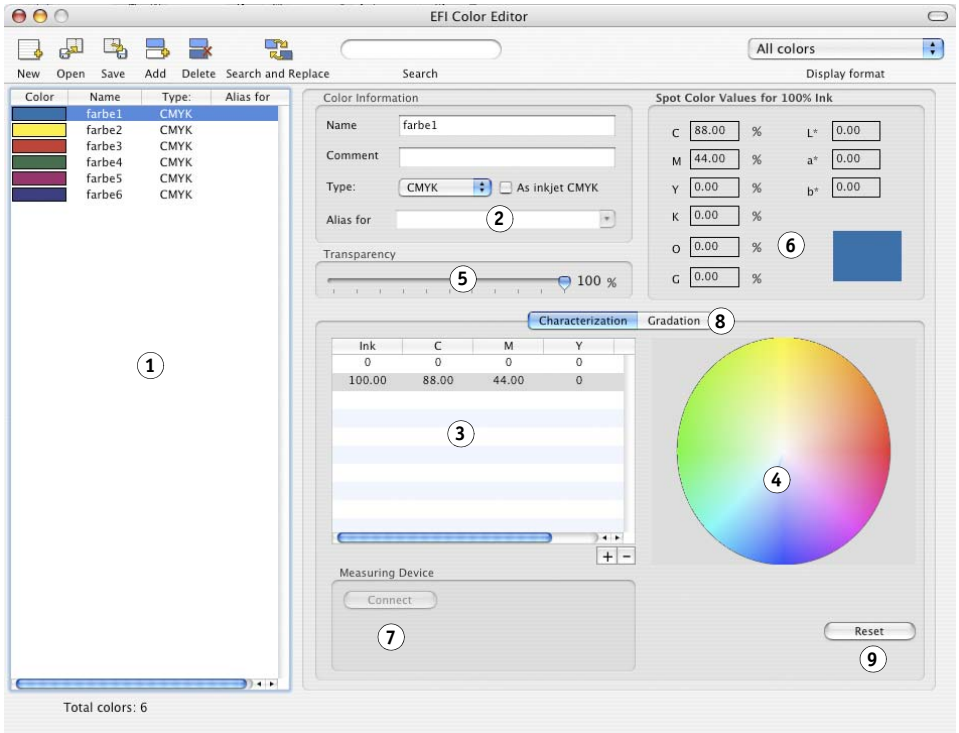
To start Color Editor:

- Choose Tools > EFI Color Editor
- In the toolbar, click EFI Color Editor

Program icon

User interface

User interface



1	List of spot colors defined in spot color table.
2	Area for specifying the name and color space in which the spot color will be defined.
3	Characterization table for defining continuous tones between 0% and 100%.
4	Diagram depicting color space and brightness of input values. Can be rotated to provide 3D view.
5	Scroll bar for defining the transparency (opacity) setting.
6	Area displaying 100% color values and color patches.
7	Multi-functional button. Creates a connection to a measuring device if the L*a*b* color space is selected. Also used to start/stop a measuring process.
8	Opens the Gradation tab for modifying the lightness setting along the gradation curve.
9	Resets the orientation of the diagram to its original position. The color values are not affected.

Menus

The menu bar contains the following commands:

EFI Color Editor (Macintosh only)

- About EFI Color Editor

  Choose this command to open a window with details of your program version.

- Quit EFI Color Editor

  Choose this command to close Color Editor.

File menu

- New

  Choose this command to open a new spot color table.

- Open

  Choose this command to open a dialog, from which you can navigate to the spot color table you want to open.

- Import

  Choose this command to open a dialog, from which you can navigate to the spot color table you want to import, e.g. add to an already loaded spot color table.

- Show Internal

  Choose this command to display the integrated spot color table of well-known spot color manufacturers. Some printers allow you to insert additional ink containers with spot colors. These spot colors are also managed in the internal table and can be selected from the end of the list. This setting ensures that the printer ink is used and color management for that color is by-passed during job processing.

- Save

  Choose this command to save the changes you have made to the loaded spot color table.

- Save As

  Choose this command to save the changes you have made to the loaded spot color table under a new name.

- Exit (Windows only)

  Choose this command to close Color Editor.

Edit menu

- Add Color

  Choose this command to add a new color to a spot color table. This function is also available via the context menu.

- Delete Color

  Choose this command to delete a selected spot color. This function is also available via the context menu.

- Search and Replace

  Choose this command to open a dialog in which you can search for and replace the name of a spot color. This function is also available via the context menu.

- Overprint Settings

  Choose this command to open a dialog for making global overprint and gamma settings that apply to all the spot colors in your spot color table.

Measuring Device menu

Color Editor supports many different measuring devices. Choose your measuring device from the submenu.

Help menu

- Help (Windows)/EFI Color Editor Help (Macintosh)

  Choose this command to start the online Help.

- About EFI Color Editor (Windows only)

  Choose this command to open a window with details of your program version.

Toolbar

The toolbar contains the following buttons and functions:

New:
Click this button to create a new spot color table.

Open:
Click this button to open an existing spot color table.

Save:
Click this button to save your spot color table.

Add:
Click this button to define a new spot color. This function is also available via the context menu.

Delete:
Click this button to delete a spot color from the spot color table. This function is also available via the context menu.

Search and Replace:
Click this button to open the "Search and Replace" dialog. This function is also available via the context menu.

Search:
Use this edit box to search for a specific spot color. Type in the name of the required color and press <Enter>.

Display format
Use this drop-down list box to select the color space(s) in which you wish to display your spot colors.

Defining spot colors

If EFI XF detects a spot color that has not been defined, an error message is displayed and job processing is aborted.

Spot colors of supported spot color manufacturers (Pantone, HKS, TOYO, DIC) are managed in the internal spot color table. These colors are automatically recognized in EFI XF and do not have to be defined if:

- the name used in the graphics application in which the file was created matches exactly the spot color name defined by the spot color manufacturer
- the search priority in EFI XF is set to include the internal spot color table

To process jobs containing unknown spot colors, you must either:

- define the spot colors in EFI XF or
- instruct EFI XF to replace non-detected spot colors with a warning color

---

TO DEFINE SPOT COLORS FOR AN INCOMING JOB

If you load a job with a spot color that has not previously been defined, EFI XF reports an error and job processing is aborted. You must define the spot color on the Spot Color pane before the job processing can continue.

1 **On the Color tab, open the Spot Colors pane.**

The names of detected colors (process and spot colors) are listed in the spot color definitions table. For non-defined spot colors, the "Source" column displays "Unknown".

It is possible that missing spot colors have previously been defined in an existing spot color table. If this is the case, simply select the appropriate bct file from the drop-down list box. To check that the spot colors have been correctly recognized, make sure that the job is selected in the job list and refresh the preview. if the preview is displayed correctly, you can go on to output the job. To define new spot colors, continue with the steps below.

2 **In the "Source" cell of an unknown spot color, click on the arrow to open the drop-down list box.**

Choose from CMYK/RGB/OG, L*a*b*, a spot color manufacturer or PRINTER.

If your printer allows you to insert additional ink containers with spot colors, you can select PRINTER. This setting ensures that the printer ink is used and color management for that color is by-passed during job processing.

The setting CUSTOM, fixes the color at its current values, thus preventing it from being modified.

Alias enables you to "map" one color to another. You would use this setting, for example, if the spot color used for your company logo has been defined in the graphics application under two diferent names. To apply this setting, the spot color table must already contain at least one user-defined CMYK or L*a*b* spot color.

3 **In the "Map to" column, define the color values of your spot color.**

For CMYK/RGB/OG and L*a*b* settings, type in the color values for the appropriate color space.

For a pre-defined color of a spot color manufacturer, click the down arrow and select the appropriate color from the drop-down list box. For example, you can use this setting to quickly map a spot color that has been incorrectly named in the graphics application.

Creating a link to a pre-defined color of a spot color manufacturer

	Name	*	Source	Map to			
✔	Cyan	C	CMYK	100	0	0	0
✔	Magenta	M	CMYK	0	100	0	0
✔	Yellow	Y	CMYK	0	0	100	0
✔	Black	K	CMYK	0	0	0	100
✔	farbe2	K	PANTONE	PANTONE RED 032 C			
✔	farbe3	K	PANTONE	PANTONE DS 264-1 U			
✔	farbe5	K	CMYK	0	80	40	0
✔	farbe1	K	CMYK	80	40	20	0
✔	farbe6	K	CMYK	0	40	80	0

If you chose "Alias", click the down arrow and select another spot color from the same spot color table. This creates a link between the two colors. Any changes you make to one spot color are automatically applied to the linked color also. The drop-down list box is empty if no spot colors are available to map to.

If you chose "PRINTER", select the ink slot in which the spot color is installed.

4 **In the toolbar, click Save to apply the defined colors to the loaded file and to refresh the preview.**

A spot color table with the new spot color definition is created.

5 **If the preview is displayed correctly, you can go on to output the job.**

Spot colors defined in the property inspector are job-specific. If you want the spot colors to be detected in all jobs, you must load the spot color table in System Manager.

Spot colors can be further edited in Color Editor by clicking the Spot Color Editor button. When you click this button, Color Editor automatically opens the selected bct file. In Color Editor you can define continuous tones and the degree of transparency.

TO DEFINE OR EDIT A SPOT COLOR IN COLOR EDITOR

1 **In the toolbar, click EFI Color Editor to launch Color Editor.**

In the dialogs that open, define whether you want to:

- Create a new spot color table
- Create a new spot color table with spot color names merged from the missing.tab file
- Add spot colors to an existing spot color table

  It is only possible to select one spot color table for each workflow. Therefore, consider adding new spot colors to an already existing table to ensure that all spot colors are detected.

2 **To add a new spot color to an existing spot color table, click Add a spot color. Alternatively, to create a new spot color table, proceed directly to the next step.**

3 **In the edit box, type a name for your spot color.**

The name you define must match the name used in the application in which the file was created.

4 **Add any comments, if required.**

5 **From the drop-down list box, select the spot color type. You can choose between:**

- L*a*b*
- CMYK, L*a*b*/CMYK, CMYKOG or CMYKRGB
  When you select one of these settings, a check box "As InkJet CMYK(OG/RGB)" becomes available. Select this setting to output your spot color using the full color gamut of the connected inkjet printer, as defined by the selected media profile. If you leave this setting unchecked, your spot color will be output using the smaller color gamut of the printing press, as defined by the selected reference profile.

  If you define a spot color in the CMYKOG or CMYKRGB color space, it is recommended that you use the color gamut of the connected ink jet printer. This setting is enabled by default and ensures that pure orange and green or pure red, green and blue printer inks are used.

  Defining a spot color in L*a*b*/CMYK enables you to search for the color in both color spaces on the Spot Colors pane of the EFI XF Client.

- Alias
  "Alias" enables you to "map" one color to another.

  You would use this setting, for example, if the spot color used for your company logo is a Pantone color but has been defined in the graphics application under a different name.

  To "map" a spot color to an internal spot color, you must first display the internal spot color table. To do so, select the appropriate command from the File menu.

6 Use the slide bar to define the percentage of transparency.

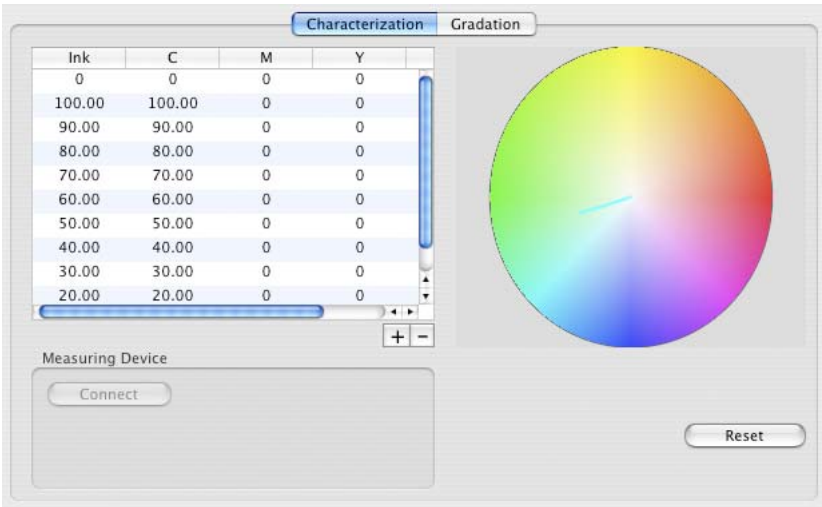
In Color Editor, transparency refers to the translucency of a defined spot color. The opposite of translucency is opacity, which means light resistant. In other words, a transparency value of 0% is equal to an opacity value of 100% and vice versa.

Therefore, if you define a spot color that is 100% transparent, any colors that lie underneath the spot color will shimmer through. If a spot color is defined with a transparency value of 0%, any background colors beneath the spot color will not be visible.

7 Click the Characterization tab.

The characterization table with color values for 0% and 100% inks is displayed.

Characterization table



8 **Type in the full-tone (100%) color values of your spot color in the selected color space(s).**

CMYK color codes can be purchased from your spot color manufacturer. To obtain L*a*b* values, you may first need to measure a printed patch of the spot color using a measuring device.

You can view your spot color:

- As a color patch in the "Spot Color Values for 100% Ink" area
- In the 3D diagram

  The 3D diagram depicts the 0% (white point) and the 100% value of your spot color.

  By holding down the left mouse button and dragging the cursor, you can rotate the 3D diagram to assess your spot color from any chosen angle.

9 **Define color gradients for your spot color, as described in the following steps.**

If you do not need color gradients, proceed directly to step 13 to save your spot color table.

10 **On the Characterization tab, click the plus (+) button to add an empty row to the table.**

If no empty row is available, click the plus (+) button below the table. To type values, double-click in a table cell.

If you do not know the precise color gradient values for a color defined in the L*a*b* color space, you can use a supported measuring device to measure a printed color patch of the required color. To do this, first connect your measuring device to the USB port of your computer. Then click Connect and follow the on-screen instructions to calibrate your measuring device.

Make sure that the L*a*b* color space is selected. Otherwise the Connect button will not be enabled.

When your device is ready, measure a color patch. The color values are automatically entered in the table.

The 0% value in the table represents the color of the media. Initially, it displays the unmeasured value for pure white. However, by following the described procedure, you can measure the L*a*b* values of the paper white. This enables spot color values to be converted for use with different media and ensures that color accuracy can be maintained on any color substrate.

11 **Type the percentage of ink and the color values. Then press <Enter>.**

12 **If necessary, repeat step 10 to define additional continuous tones.**

13 **Click Save to save your spot color table.**

Spot color tables are saved by default to the Spotcolor folder. Only spot color tables saved to this folder can be loaded in EFI XF.

When the spot color table is loaded in EFI XF, the spot colors are automatically processed correctly in your print jobs.

TO OUTPUT NON-DEFINED SPOT COLORS

Occasionally, you may wish to output jobs without defining unknown spot colors first. EFI XF enables you to replace these colors with a warning color which makes them easily recognizable in the printout.

You can define a warning color in System Manager to apply to a workflow or in Job Explorer to apply to individual jobs.

1 **On the Color tab, open the Spot Colors pane.**

2 **Select the check box "Print unknown spot colors as warning color".**

The default warning color is bright orange but you can define your own warning color by typing CMYK values in the appropriate edit boxes. You can reselect the default warning color at any time by clicking Reset.

3 **To see the effect, load a job with an unknown spot color.**

The unknown spot color is displayed in the warning color:

- In the table of spot color definitions
- In the preview

Editing spot colors

Modifying the gradation

In theory, the color gradation from 0% to 100% should be linear. However, in practice this is not always the case.

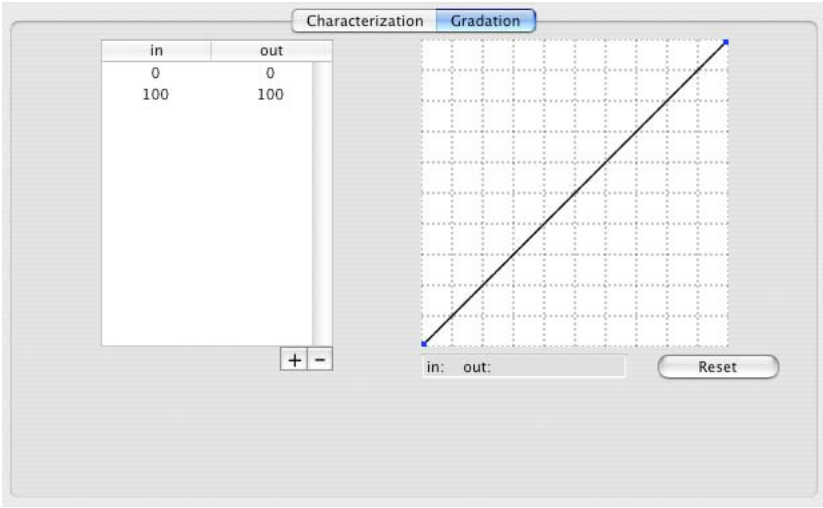
If you are printing your spot color at, for example, 50% and ascertain that the color is too bright or too pale in the printout, you can remedy the problem by adding or subtracting color at the 50% mark along the gradation curve.

This setting should only be performed by experienced users.

TO COMPENSATE FOR NON-LINEAR GRADATIONS

1 **Click the Gradation tab.**

Gradation tab



2 **To modify the strength of color, click a point along the curve to define a node — the coordinates of the current cursor position are displayed below the gradation curve to help you locate the correct point.**

By selecting the defined node and dragging the mouse to the required position, you can influence the color. Drag the mouse upward to add more color, or downward to substract color.

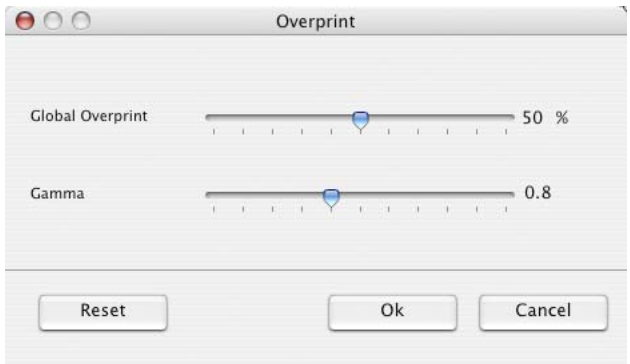
Alternatively, you can type the required coordinates directly in the table.

3 **Click Save to save the setting to your spot color table.**

Modifying the overprint and gamma values

To open the Overprint dialog, select Edit > Overprint Settings.

Gradation tab



The settings in the Overprint dialog are used to simulate the overprint behavior of spot colors with other spot colors or process colors, e.g. black.

- Global overprint

  Use the “Global Overprint” slidebar to define how two or more colors will behave when printed on top of each other.

  When printed individually, colors are unaffected by this setting.

  A higher setting will result in a darker printout. For example, an overprint value of 100% means that the colors will be completely added to each other — something that is not possible on a proper printing press.

  A lower setting will result in lighter printouts. This is because colors appear more opaque and hide parts of other colors.

- Gamma

  Use the “Gamma” slidebar to modify the dot gain simulation for overprinting spot colors. The setting is applied to areas with a mixture of spot colors and process colors or to areas consisting of more than one spot color. It lets you define non-linear behavior for overprinting.

  A value of less than 1 will result in a darker output, whereas a value of greater than 1 will produce lighter colors. The default setting is 0.8.

  When you have finished making your changes, click Ok to save your changes and close the dialog.

  The settings you make for gamma and overprinting apply globally to all the colors in the selected color table. Therefore, to apply settings to specific spot colors only, you will need to create separate spot color tables.

See also:

“User interface” on page 221

Searching for and replacing spot colors

To open the Search and Replace dialog, select Edit > Search and Replace.

Search and Replace dialog

Here you can replace one spot color name with another.

- Find color

  Type the name of the color you wish to search for and replace.

- Replace with

  Type the new color name.

Color Editor will search for “part” names. For example, if you wish to replace the spot color name “Deep Sea Green” with “Deep Sea Blue”, you would search for “Green” and replace it with “Blue”.

To search for full color names only, select the check box “Match full color name”.

Use the buttons Replace or Replace All to rename your spot colors. If you select the check box “Confirm replacement”, a message will appear when Color Editor finds a match. To replace a color, click Yes in the dialog.

When you have completed making your changes, click Close. Then click Save to save your changes.

Deleting spot color tables

To delete a spot color table, you must physically remove the bct file from the Spotcolor folder.

LinTool/Color Manager Option

EFI linearization and profiling tools

Color reproduction is device-dependent, i.e. if you output the same file on two different devices, you will usually get two different sets of colors. Even two printers of the same model may show slight differences in their output.

To overcome this problem, the ICC (International Color Consortium) has developed a recognized standard for color management systems to allow uniform cross-device color reproduction. This standard is based on a series of profiles which control color reproduction from image creation to image output.

EFI XF provides two different tools which give you full control over the color properties of your printer and printouts.

What is LinTool?

LinTool is a standard component of EFI XF. This tool has been especially designed to let you linearize your printer to ensure that you obtain consistent color-accurate results from your inkjet printer at all times.

All printer linearizations that you perform with LinTool are based on color values measured and displayed in the L*a*b* color space.

With LinTool, you receive a comprehensive set of tools with which to:

- Create a base linearization for your printer
- Return the printer to its original state by modifying its color reproduction properties using a measuring device
- Return the printer to its original state by modifying its color reproduction properties by visual correction
- Optimize an ICC profile to a specific reference profile
- Modify non-linear plate characteristics of one-bit files and a pre-linearization for all other file formats
- Patch the printer linearization file to a media profile and/or Device Link profile for implementation in EFI XF.

What is Color Manager?

Color Manager is a profiling tool that is available as an add-on module and thus requires a special license. It supplements the LinTool feature of EFI XF and provides you with additional tools with which to:

- Create your own media profiles
- Create your own reference profiles
- Create your own Device Link profiles
- Edit the white point of a media or reference profile

System Manager settings

During program installation, a default linearization workflow and a default linearization device are created in System Manager. All print jobs that you submit from EFI LinTool/EFI Color Manager are processed via this system workflow.

The default linearization workflow ensures that no profiles are applied during printing. Thus, all linearization files processed via this workflow are non-color-managed. This is important as all the color measurements you perform during printer linearization or profiling must be based purely on the printer's own color reproduction properties.

Any settings you make for the default linearization workflow will be ignored when jobs are submitted from LinTool or Color Manager. You can, however, use this workflow perfectly normally to output other, color-managed print jobs.

Before you can launch LinTool or Color Manager, you must first set up the default linearization device for your printer.

See also:

"Output device settings" on page 79

"Linearize Device" on page 87

Starting LinTool/Color Manager

To start LinTool/Color Manager:

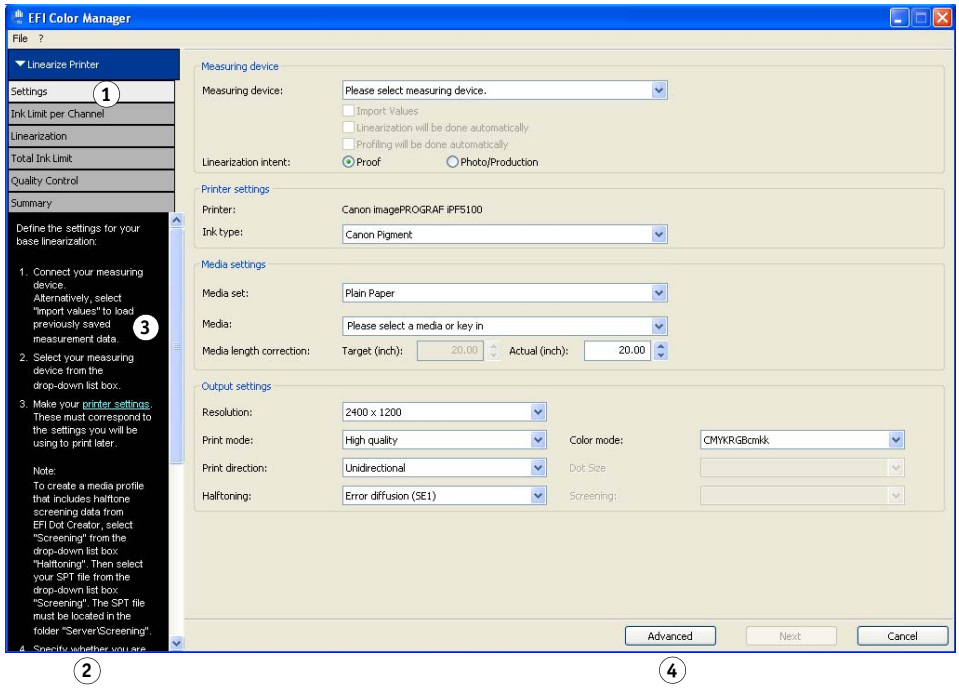
- Choose Tools > EFI LinTool/EFI Color Manager
- In the toolbar, click EFI LinTool/Color Manager

Program icon

User interface

The structure of the program windows is the same for all tools. Each program window leads you step by step through the individual stages of the procedure.

User interface



1	The main program steps appear in each dialog. The colors of the buttons indicate what stage of the procedure you have reached: Blue indicates the current tool and completed steps. White indicates the current step. Gray indicates steps that have not yet been performed.
2	The Wizard area leads you step by step through the actions to be performed in each dialog. The software will not allow you to proceed to the next dialog until you have successfully completed all the steps in the current dialog. You may, however, return to previous dialogs to make changes or check your settings. In this case, you must repeat all the subsequent steps in the procedure.
3	Hyperlinks are integrated into the Wizard text. Click on these to reveal additional information pertinent to the current step.
4	Advanced dialogs are available for some steps. These are not essential but are available for experienced users who wish to finetune certain settings.

Menus

- EFI Color Manager menu (Macintosh only)
  - About

    Choose this command to open a window with details of your program version.
- File menu

  This menu contains commands for loading or saving files (e.g. a media profile, a base linearization, the measurements of an IT8 chart or a visual correction file) pertaining to the current step.

  With the “Close” command you exist EFI Color Manager.
- ? menu (Windows)/Help menu (Macintosh)
  - About (Windows only)

    Choose this command to open a window with details of your program version.
  - Help

    Choose this command to start the HTML online Help for EFI LinTool/EFI Color Manager.

How does color management in EFI XF work?

Profiles

To obtain color-accurate printouts in accordance with the ICC standard, EFI XF uses three types of ICC profiles — media profiles, simulation (reference) profiles and source profiles.

Media profiles

The media profile describes the color reproduction properties of the printer model you are using, based on the type of media, the type of ink and the resolution settings on your printer.

When you select a particular type of media, resolution and ink, EFI XF automatically chooses the correct media profile for these settings.

Simulation (reference) profiles

The simulation profile describes the color reproduction properties of the printing machine you wish to simulate on your inkjet printer. A set of generic profiles is provided with your software.

Source profiles

The source profile describes the color reproduction of the input device. CMYK source profiles describe the color gamut of a printing press. They provide a reliable way to predict the color results of a production run on a traditional printer. RGB source profiles ensure high-quality output in vivid colors. They do this by maintaining the larger RGB color gamut during job processing.

Linearizations

Base linearization

A base linearization forms the basis for the media profile. It contains details of the quantities of color, under which the media profile was created, i.e. the color values necessary to achieve the maximum density of color while, at the same time, using as little ink as possible.

The base linearization determines the physical characteristics of how ink and media work together and optimizes these characteristics for profiling.

A base linearization is assigned ("patched") to each media profile and is loaded automatically with the media profile.

A set of generic base linearization files is provided with your software.

Printer re-linearization

The color reproduction of your printer may change over a period of time. Performing a printer re-linearization enables you to re-adjust the color densities and return the printer to the original state used to generate the media profile.

A printer re-linearization can be performed using a measuring device (spectrophotometer) or visually. However, whereas a measuring device produces exact results, a visual printer re-linearization is based purely on manual adjustments and should therefore only be performed as an emergency measure by experienced users.

Working with LinTool/Color Manager

When to perform a printer re-linearization

You will need to perform a printer re-linearization in the following instances:

- If you are using a media profile that was not created on your exact printer, e.g. the media profiles provided with EFI XF for your printer model. Even mass-produced printers of the same model display slightly different color properties which may result in certain color deviances. These deviances can be corrected by performing a printer re-linearization. Performing a printer re-linearization ensures that the color reproduction of your particular printer matches that of the reference printer used to create the base linearization and media profile.

- After changing the print head. Replacing printer parts can affect the color properties of your printer.
- If you notice that your proofs no longer match earlier proof results. Performing a printer re-linearization ensures that the color reproduction of your printer remains constant.

As a general rule of thumb, it is a good idea to perform a printer re-linearization approximately every two weeks.

Tips

The following tips are intended to help you when working with LinTool/Color Manager:

Printing charts	When printing linearization charts, make sure that the setting "Do not scale" is selected. It is essential that all linearization charts are printed in their original size in order to avoid problems when measuring the charts later on.
Media size	Make sure that you use at least an A3 sized substrate (11 x 17 inches). This size is required to print the linearization charts.
Printing to a file format	When printing to a file format is selected, the tools "Create media profile" and "Re-linearization by measurement" are not available.
Use of different measuring devices	It is not possible to edit a base linearization that was originally created with a different measuring device. If an error message to this effect appears, you will need to create a new base linearization.
Creating visual linearization and plate compensation files	When Server and Client are installed on different computers, you can save the correction files to any location. However, in order to load them in EFI XF, you must first copy them to the Balance folder.
Best Eye, ES-1000, eye-one	If you are using one of these measuring devices, it is important that you use the scanning ruler to ensure a 2 mm gap between measuring lamp and media.
X-Rite DTP 20	This measuring device has to be calibrated before use by measuring a so-called TID measuring strip. If you are measuring the Ugra/Fogra media wedge, you have to print the TID measuring strip separately. You will find the file "TIDforMKW20XP-V2.tiff" in the Tools folder.
DTP41T	If you are using the measuring device DTP41T, you will require an A1 sized substrate (23 x 33 inches) to print the charts.

ONEBIT OPTION

The OneBit Option was developed to enable you to process one-bit files that have been produced by an imagesetter, a platesetter or a digital print solution in the pre-press industry.

To create one-bit files, these output devices have an integrated RIP which converts PostScript and PDF files into screen dots. The screen dot information is saved in the form of one-bit TIFF files — one file for each color separation.

The following one-bit file formats are supported: Tiff G4, Tiff G3, Packbit, LZW compressed Tiff, uncompressed Tiff, Presstek, Huffman, PCX, Len, Harlequin, Pagebuffer, Founder, DSC1/DCS2 (copy-dot format).

Since these files have already been RIPed once by an external RIP, the integrated RIP of EFI XF is not applied during one-bit-file processing. The necessary screen information (e.g. screen dot shape and size, screen ruling) is simply extracted from the one-bit file when the digital proof is printed.

Therefore, digital proofs that are output with the OneBit Option are not only color accurate, but also give a true screen representation of the final print run.

This makes the OneBit Option an ideal tool with which to check, for example, for possible moiré patterns or rosettes.

It is recommended that you do not use a laser printer to output one-bit files. This is because of the different screening methods. Applying both laser screening and one-bit screening to a print job makes it impossible to create high-quality proofs. Laser printers are, therefore, only suitable for creating imposition proofs.

OneBit Option settings

If you have a license file for the OneBit Option, EFI XF is extended as follows:

In System Manager:

- The File formats pane of the Input tab is extended to include settings specific to one-bit files.

In Job Explorer:

- The Settings pane of the Input tab displays one-bit file settings and enables you to choose a job-specific proofing method.

System Manager

The following settings are available on the File formats pane to define how incoming one-bit files will be handled in the workflow:

- Waiting time for job completion

  This setting defines the time span, during which EFI XF waits for incoming one-bit files that belong to a particular print job. Once this time span has elapsed, the software assumes that all one-bit files have been received and starts printing.

- Number of one-bit files in a job

  This setting defines the number of one-bit files that belong to a particular job. EFI XF waits until the defined number of color separations has been received before completing the print job.

  This prevents jobs from being automatically printed as soon as the time-out period has elapsed, but before all the one-bit files have been received.

  Similarly, it also ensures that printing will commence as soon as all one-bit files have been received, thus avoiding unnecessary idle time.

- Sub-directory for each job

  This setting defines whether you want a sub-directory to be created for each job. You must select this option if your one-bit files were created by a RIP solution that automatically generates sub-directories for saving one-bit files.

- File name contains the name of the color separations

  This setting ensures that EFI XF correctly recognizes the job name and all color separations that belong to each print job.

  Select from the drop-down list box the file naming convention used by the RIP solution that created the one-bit files. Alternatively, you can type in your own variable. Make sure that you choose a syntax that is generic for all the files that you want to process.

  By default, EFI XF analyzes file names from right to left, whereby the file extension is not taken into account.

  The available character strings contain the following variables:

%j	This variable represents the job name.
%c	This variable represents the name of the color separation.
%f	This variable stands for “ignore”. It is most often used to instruct EFI XF to ignore consecutive numbers (e.g. film numbers) which are automatically added to the file name by some RIP solutions. By inserting a figure, you can define the number of characters to be ignored, e.g. %4f.

For example, you might have two one-bit jobs, as follows:

1357_bestbrochure_(cyan).tif
1358_bestbrochure_(magenta).tif
1359_bestbrochure_(yellow).tif
1360_bestbrochure_(black).tif

01_efiflyer_(cyan).tif
02_efiflyer_(magenta).tif
03_efiflyer_(yellow).tif
04_efiflyer_(black).tif

In this case, you would type the file name syntax “%f_%j_(%c).tif” in the combo box.

This instructs EFI XF to:

– Process files which use an underscore as the separator

– Process files whose color separation names are set in parenthesis

– Ignore all characters in the file name to the first underscore (when read from right to left)

- Analyze file name from left to right

By default, EFI XF analyzes file names from right to left. However, in some cases it may be preferable to read file names from the left.

For example, you might have two one-bit jobs, as follows:

bestbrochure-(cyan)-00157.tif
bestbrochure-(magenta)-00158.tif
bestbrochure-(yellow)-00159.tif
bestbrochure-(black)-00160.tif

efiflyer-(cyan)-01-00.tif
efiflyer-(magenta)-02-00.tif
efiflyer-(yellow)-03-00.tif
efiflyer-(black)-04-00.tif

In this case, you would type the file name syntax “%j-(%c)-%5f.tif” in the combo box.

This instructs EFI XF to:

– Process files whose job name is separated from the name of the color separation by a dash

– Process files whose color separation names are set in parenthesis

– Ignore all characters in the file name after the second dash (when read from left to right)

- Extract color separation from file header

  If you select this setting, the color information is extracted from the file header (information contained in the one-bit file itself) instead of from the file name of the one-bit file.

  This setting is useful if the individual color separations cannot be identified in the name of the one-bit files — some RIP devices do not save the color separation as part of the file name.

  If you are using the Macintosh version of EFI XF, you may find that the file name is truncated at 32 characters, making it impossible to identify the color separation. In this case, using this setting may be a convenient way to get round the problem. Alternatively, you can rename the files before loading in EFI XF.

- Proofing method

  – Imposition proof

    Select this radio button if you want to make a final check before going to press.

    Please note that imposition proofs are not color accurate. This setting should, therefore, be used only to check the content and completeness of the elements of the printing copy.

  – Contract proof

    Select this radio button to create a color-accurate screen proof.

    Contract proofs are color managed. For this reason, they are often seen as a binding color contract between customer and printing house. A contract proof is usually the final proof created before going to press.

  – Contract proof with sharp dots

    Select this radio button to create a color-accurate screen proof.

    As speed is an important factor, the print quality is slightly lower than that of a standard contract proof.

Job Explorer

The Settings pane of the Input tab displays the workflow settings made in System Manager. You can choose a job-specific proofing method, if required..

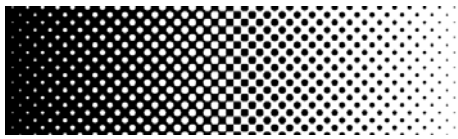
DOT CREATOR OPTION

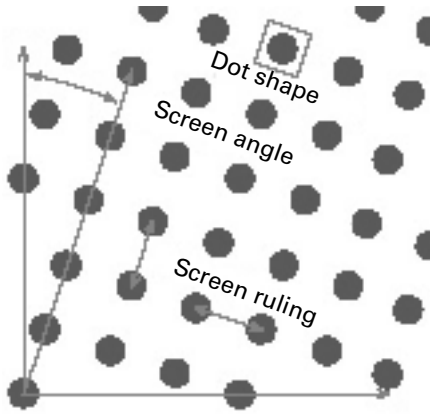
Dot Creator is available as an add-on module. It enables you to create halftone screens from continuous-tone data.

Continuous-tones are difficult to output satisfactorily on conventional printing presses. This is because, unlike photography, differences in lightness cannot be directly reproduced in offset printing. Printed paper either has color or it does not. It is not possible to print “just a little color”.

Halftone screening is the name of the process used to overcome this problem. Here, color is represented by rows of dots, whereby the size of each dot and the distance between them can be varied to depict different color densities. The larger the dots and the closer the distance between them, the darker the reproduced color tone.

Halftone screening



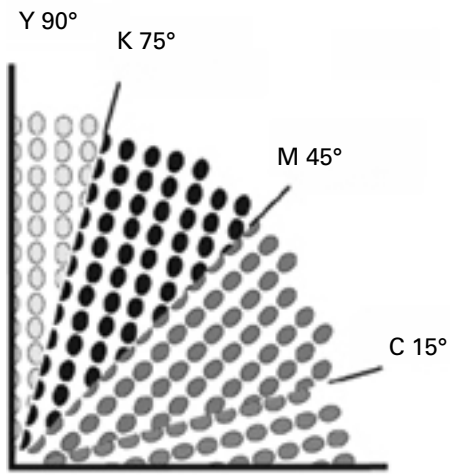


How does Dot Creator work?

Moiré prevention

One halftone screen is created for each of the four process colors cyan, magenta, yellow and black. Light inks are not supported. Each halftone screen is then rotated and printed at a different angle to prevent moiré patterns appearing. The usual print order is: cyan, magenta, yellow, black.

Screen angles



Moiré patterns can occur as a result of an unfavorable combination of print resolution and screen ruling, e.g. if two halftone screens with only slightly different screen rulings are superimposed or if they are rotated by only slightly different angles. The screen angles C 15°, M 45°, K 75° and Y 90° or 0° produce the best results.

EFI Dot Creator provides settings for defining screen ruling, screen angle and dot shape for each color channel as well as a feature for automatic prevention of moiré effects.

Screened printouts without moiré patterns are generally only possible with screen ruling of up to 150 lpi.

Color management

during conventional inkjet proofing, the printer driver receives color information from the color management module (CMM) and outputs the job using all the available printer inks.

However, for screened output, EFI XF sends color information for the four process colors only. Thus, it is not possible to output screening files of jobs that have already been color managed. Colors, including spot colors, are reproduced from CMYK inks by printing ink dots next to or on top of each other.

By default, all spot colors are screened using the screen ruling for black. However, you can change this later in Job Explorer, if required.

Composite and separated output

Screening files can be used for both composite and for separated output.

- Composite output

  Composite output provides a more accurate simulation of printing technologies that use wide screen ruling.

  During composite output, all colors (process and spot colors) are printed on one page. Colors are printed on top of each other according to a defined screen ruling. This method can be used, for example, to simulate silk-screen screening on conventional inkjet printers.

- Separated output

  Separated output can replace traditional image setter technologies that use wide screen rulings, e.g. in the silk-screen industry.

  During separated output, each color channel is printed on a different page. All colors (process and spot colors) are reproduced in shades of gray. This method can be used to print on transparent dot film media using a conventional inkjet printer.

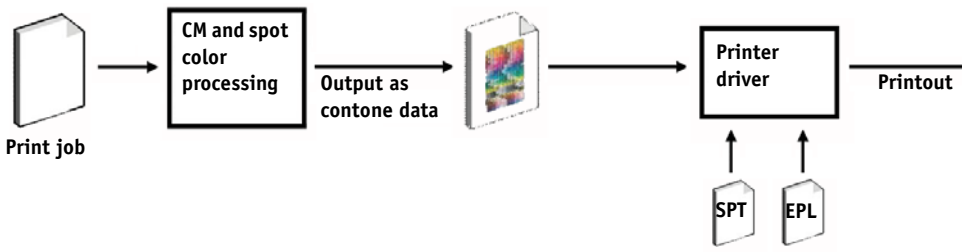
Screening methods

EFI XF supports two types of screening methods — v1 and v2.

- v1 screening

  Using the v1 method, the screening file is applied to the output data. The printer driver processes the screening file and creates the output data. This means that the paper white simulation and full tones are also screened.

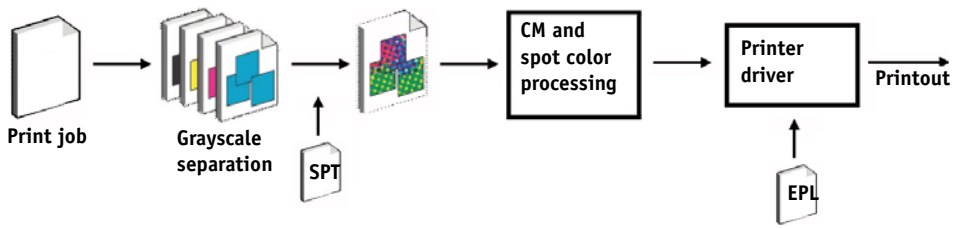
v1 workflow



- v2 screening

  With the v2 method, the screened file is applied to the input data. The input data is separated into grayscales, then the SPT file creates the screened data. Thereafter, the separated files are treated the same as one-bit files. For v2 screening you require the OneBit option.

v2 workflow



This method of screening permits higher screen rulings and does not screen paper white simulations or full tones.

Please observe the following when applying the v2 screening method:

- Input files must be in the CMYK color space. v2 screening cannot be applied to RGB or L*a*b* data.
- The screening and printer resolution must be the same.
- It is not possible to create an EFI Remoteproof Container with v2 screened print jobs.

Comparison of v1 and v2 screening

The table below compares the two screening methods:

	v1	v2
AM screening — achievable screen ruling	100 lpi (with certain screen settings)	Up to 150 lpi (depending on the printer configuration)
Screening settings definable for each color in print job	Yes. Spot colors can be linked to one of the screening settings for C, M, Y or K. The default setting is black.	Yes. Spot colors can be linked to one of the screening settings for C, M, Y or K. The default setting is black.
Output	Composite printout in pure inkjet CMYK screening	Composite printout includes screening for each color in print job.
Screen dot	Pure inkjet dot	Color-managed dots. Use of light inks.
Color accuracy	By overprinting of pure inkjet dots	By overprinting of color-managed dots
Paper white simulation	Screened	Contone

	v1	v2
Full-tone reproduction	Screened	Contone
Support of contone printer mode	No	Yes
Linearization/profiling	New linearization and profiling using the screening file necessary	Can be patched to any existing EPL, as long as the screening resolution is the same as the printer resolution.
Speed	-	Up to 50% slower than v1
Dot sharpness	-	Slightly less sharp than v1

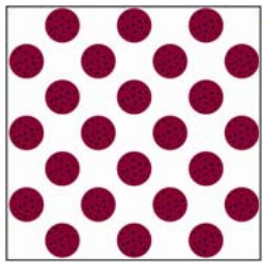
The differences in output are illustrated in the following diagram.

30% spot color dot

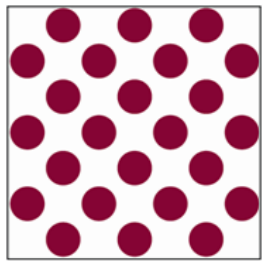
v1

Pure inkjet CMYK. Color management via overprinting of pure inkjet dots.

Color accurate, but different screening



Printing press



v2

Color-managed dots. Norm and light color. Color management via inkjet halftoning.

Color accurate, with same screening

Implementation in EFI XF

EFI XF uses different methods to implement v1 and v2 screening.

Method v1 requires you to create a new media profile that incorporates the screening file. For method v2 you can “patch” the screening file to an existing base linearization and media profile. The only requirement is that the screening file and the base linearization must be created for the same printer resolution.

The EFI XF Server applies v1 or v2 screening automatically, based on an internal evaluation of the incoming data.

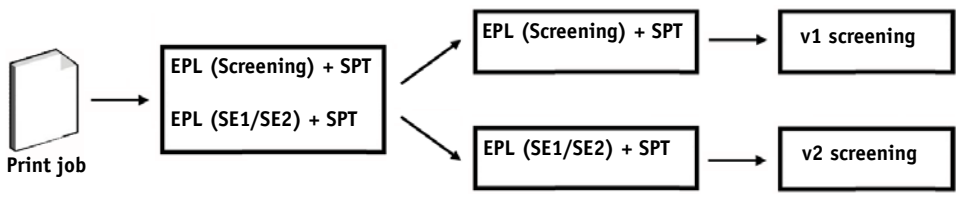
The v1 screening method is applied if the Server detects:

- a base linearization file created for the halftoning method “Screening”
- an attached SPT screening file

The v2 screening method is applied if the Server detects:

- a base linearization file with the halftoning method Error diffusion (SE1) or Stochastic screening (SE2)
- an attached SPT screening file

v1/v2 screening in EFI XF



Starting Dot Creator

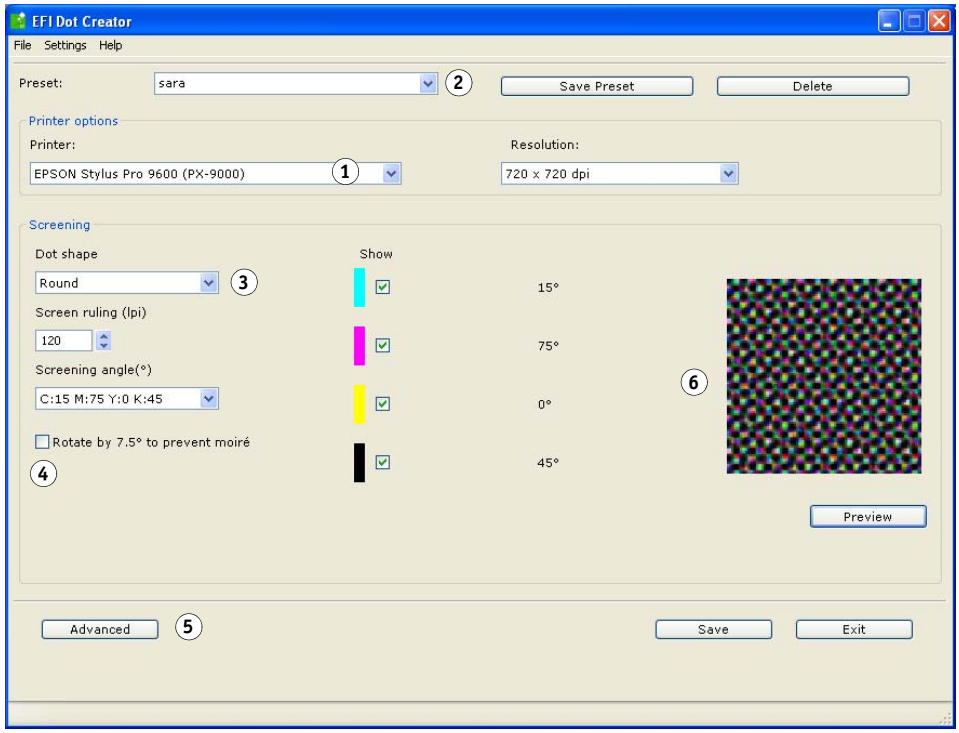
To start Dot Creator:

- Choose Tools > EFI Dot Creator
- In the toolbar, click EFI Dot Creator

Program icon

User interface

User interface



1	List of printers supported in EFI XF.
2	Drop-down list box for selecting groups of defined screen settings.
3	Settings for defining dot shape, screen ruling and screen angle.
4	Check box to reduce moiré effect
5	Opens an advanced dialog to enable individual screen rulings and screen angles for each color channel.
6	Preview of the halftone screen, based on the settings made.

Menus

The menu bar contains the following commands:

EFI Dot Creator (Macintosh only)

- About EFI Dot Creator

  Choose this command to open a window with details of your program version.

- Quit EFI Dot Creator

  Choose this command to close EFI Dot Creator.

File menu

- Load SPT file

  Choose this command to load a previously saved SPT file with screening and resolution settings.

- Preview

  Choose this command to create a preview of the screen settings.

- Save

  Choose this command to save the screen settings you have made in EFI Dot Creator.

- Save as

  Choose this command to save the changes you have made under a new name.

- Exit (Windows only)

  Choose this command to close EFI Dot Creator.

  In the Macintosh version of the software, you will find the command in the EFI Dot Creator menu.

Help menu

- Help

  Choose this command to start the online Help.

- About EFI Dot Creator (Windows only)

  Choose this command to open a window with details of your program version.

Additional settings in EFI XF

If you have a license file for Dot Creator, EFI XF is extended as follows:

- a program icon appears in the toolbar

Program icon

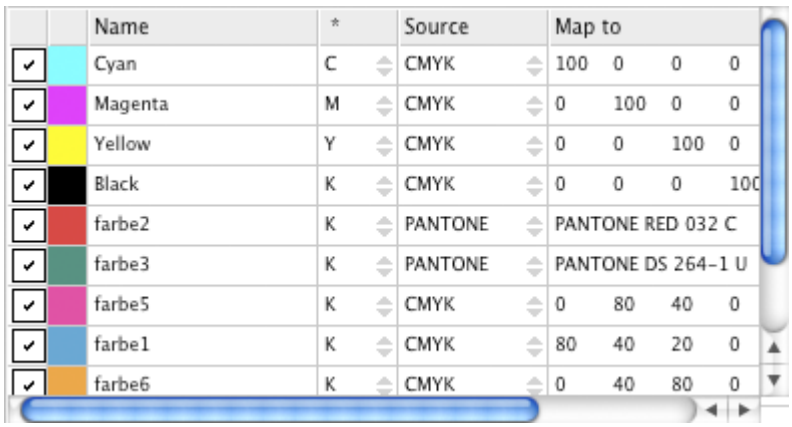
- In EFI LinTool or EFI Color Manager:

  In the program window for creating a base linearization, an additional drop-down list box becomes available when you select the halftoning mode “Screening”. This drop-down list box contains all the halftone screening files that have been created in EFI Dot Creator for the printer and resolution selected on this tab.

- If you have a license file for the Spot Color Option:

  In Job Explorer, the spot color table shows which screen angle will be used for each color. The default setting for spot colors is black, but you can select the screen angle of any other process color from the appropriate drop-down list box.

Spot Colors tab



	Name	*	Source	Map to			
✔	Cyan	C	CMYK	100	0	0	0
✔	Magenta	M	CMYK	0	100	0	0
✔	Yellow	Y	CMYK	0	0	100	0
✔	Black	K	CMYK	0	0	0	100
✔	farbe2	K	PANTONE	PANTONE RED 032 C			
✔	farbe3	K	PANTONE	PANTONE DS 264-1 U			
✔	farbe5	K	CMYK	0	80	40	0
✔	farbe1	K	CMYK	80	40	20	0
✔	farbe6	K	CMYK	0	40	80	0

This setting is useful if you are outputting separated gray films on a transparent media.

Creating halftone screens

EFI Dot Creator provides you with three industry-standard settings for screen angles:

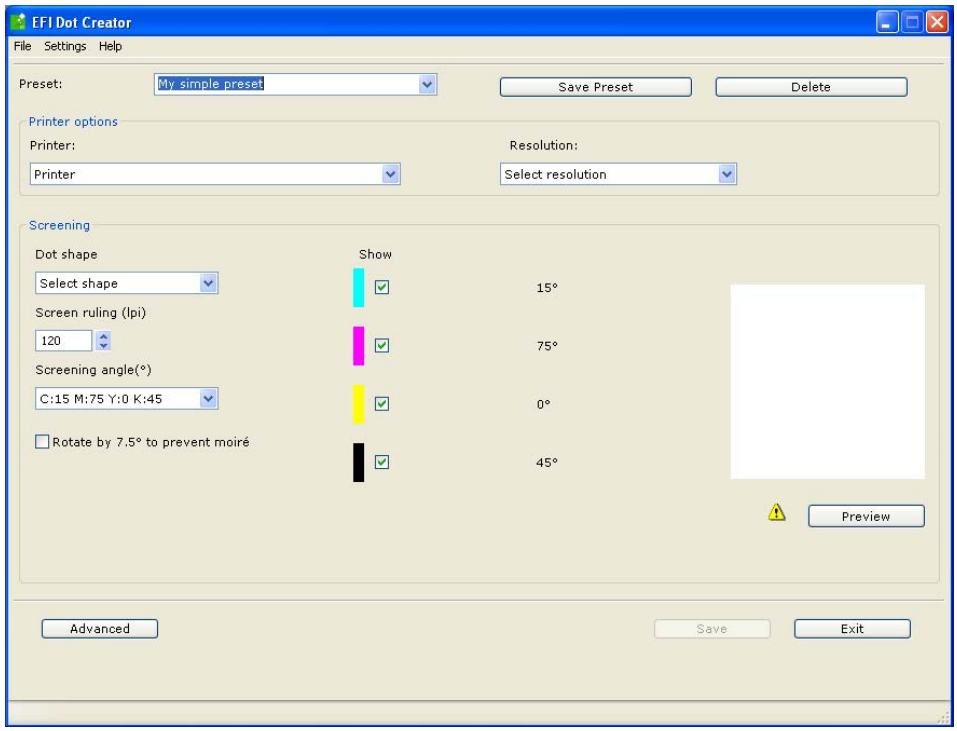
- C=15, M=75, Y=0, K=45
- C=8, M=51.5, Y=27, K=75
- C=18.4, M=71.6, Y=0, K=45

You can create halftone screens based on one of these settings or, alternatively, define your own customized screen angles for each color channel.

TO CREATE A HALFTONE SCREEN BASED ON PREDEFINED SCREEN ANGLES

1 **Start EFI Dot Creator.**

Program window



2 **From the drop-down list box, select a halftone printer.**

It is not possible to implement screening files for contone printers.

3 **From the drop-down list box, select a resolution.**

4 **From the drop-down list box, choose one of the following dot shapes: round, diamond, square, line, ellipse.**

5 **Select a screen ruling and a screen angle.**

6 **Select the check box "Rotate by 7.5 ° to prevent moiré" if you want to rotate all screen angles by 7.5° counter-clockwise.**

This setting simulates the screen angles commonly used in flexographic printing.

7 **Click Preview to display a preview.**

8 **In the edit box "Preset", define a name for your settings and click Save Preset.**

The group of settings becomes available for selection from the drop-down list box "Preset".

9 **Click Save to create an SPT file and save your settings to the Screening folder.**

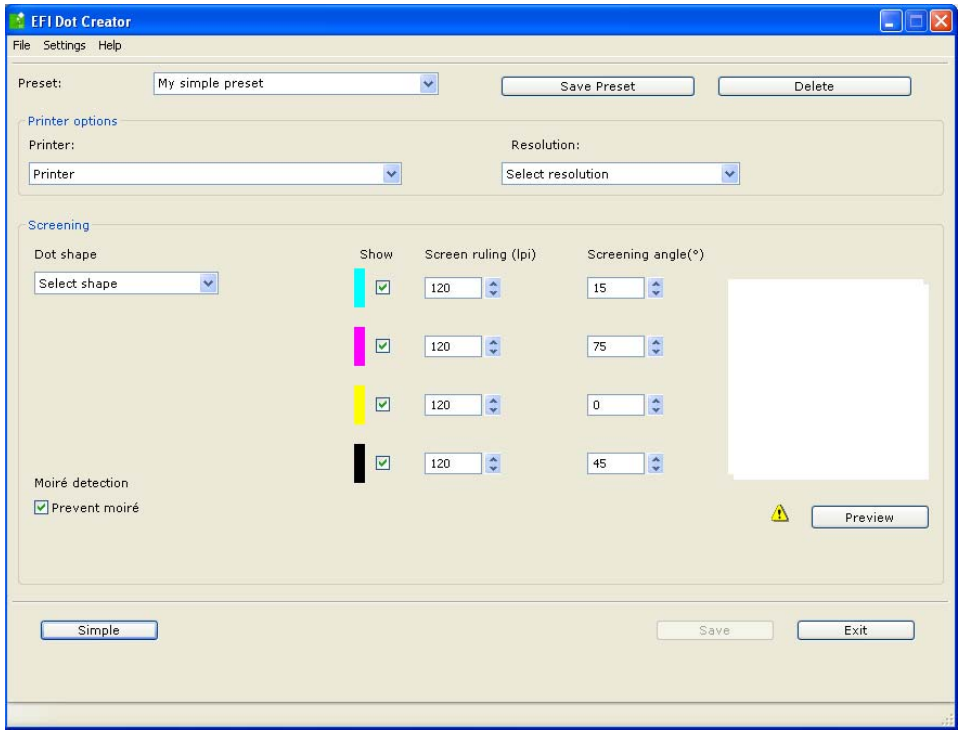
The SPT file contains the defined screening and resolution settings. It can be loaded in Color Manager.

TO CREATE A HALFTONE SCREEN BASED ON SELF-DEFINED SCREEN ANGLES

1 **Start EFI Dot Creator.**

2 **Click the Advanced button to open the Advanced dialog.**

Program window with advanced settings



3 **From the drop-down list box, select a halftone printer.**

It is not possible to implement screening files for contone printers.

4 **From the drop-down list box, select a resolution.**

5 **From the drop-down list box, choose one of the following dot shapes: round, diamond, square, line, ellipse.**

6 **Select the check box "Prevent moiré", if required.**

When this feature is selected, EFI Dot Creator assesses the risk of moiré patterns and modifies the settings accordingly.

7 **Type a screen ruling and a screen angle for each process color.**

8 **Click Preview to display a preview.**

You can determine whether all or selected colors are previewed by selecting or deselecting the appropriate check boxes in the “Show” column.

9 **In the edit box “Preset”, define a name for your settings and click Save Preset.**

The group of settings becomes available for selection from the drop-down list box “Preset”.

10 **Click Save to create an SPT file and save your settings to the Screening folder.**

The SPT file consists of the defined lpi value and the set resolution. It can be loaded in Color Manager.

See also:

“Additional settings in EFI XF” on page 251

“Implementing halftone screens in EFI XF” on page 254

Implementing halftone screens in EFI XF

When you have created a screening file, you need to implement it in EFI XF. There are two ways to implement screening files:

- Method v1 requires you to create a new media profile that incorporates the screening file. To apply the v1 screening method you need to create a media profile based on a base linearization with screening file.
- Method v2 enables you to “patch” a screening file to an existing base linearization and media profile. The only requirements are that:
  - the screening file and the base linearization have been created for the same printer resolution
  - the base linearization was created for the halftoning method error diffusion (SE1) or stochastic screening (SE2).

TO CREATE A MEDIA PROFILE BASED ON A BASE LINEARIZATION WITH SCREENING FILE

The following steps describe how to create a media profile using Color Manager. If you do not have a license for Color Manager, you can create a media profile using any third-party profiling software. After creating, patch the media profile to the EPL linearization file using LinTool.

Make sure that the screening file is saved to the Screening folder before proceeding.

1 **Connect a measuring device.**

2 **In EFI XF, make sure that the linearization device is correctly set up. Then start Color Manager.**

3 **Start the tool “Create Base Linearization” and make the following settings in the Settings dialog.**

4 **Select the connected measuring device.**

5 **Select the type of ink inserted in the printer.**

6 **Make your media settings.**

- Select a media type that best matches your media.
- Select the name of an existing media or type a unique name.

7 **Make your output settings.**

- Make sure that you select exactly the resolution with which the screening file was created.

  If the resolution does not match, Color Manager will not find the screening file.

- Select "Screening" as the halftoning method.

  When you select "Screening", the color mode switches automatically to CMYK. At the same time, the "Screening" setting becomes enabled and all halftone screen files for the selected resolution are autoamtically available in the drop-down list box.

  If no screening files are visible, check that you have selected the correct resolution.

- Select the screening file from the drop-down list box.

8 **Follow the on-line instructions given in the wizard to create a base linearization for your printer.**

9 **Create a media profile, based on the base linearization.**

You can now implement your profile in EFI XF.

TO PATCH MEDIA PROFILE AND BASE LINEARIZATION

1 **From LinTool or Color Manager, start the tool "Profile Connector".**

2 **In "Printer linearization", click Select and browse to the base linearization file.**

This may be a base linearization file you have created for a new media profile or an existing base linearization file.

3 **Type the name of the media.**

This is the name that will appear for selection in EFI XF. Define a custom name if you do not want to overwrite an existing media.

4 **In "Dot Creator Screening", click Select and browse to the screening file you created.**

5 **In "Connect to profiles", select the check box "Media profile". Then click Select and browse to the media profile.**

6 **Click OK to finish.**

You can now implement your profile in EFI XF.

TO IMPLEMENT A MEDIA PROFILE WITH SCREENING DATA IN EFI XF

1 **Start EFI XF, open System Manager and highlight your output device.**

2 **On the Device tab, open the Media pane.**

- Select the same ink type that was used to create the EPL linearization file in LinTool/Color Manager.
- From the drop-down list box “Media name”, select the name defined in LinTool/Color Manager.
- From the drop-down list box “Calibration set”, select the EPL base linearization file that is linked to the SPT screening file.

For v1 screening, the screening file you created in Dot Creator is displayed in the properties list, along with the halftoning method Screening. For v2 screening, you see the screening file and the halftoning method error diffusion (SE1) or stochastic screening (SE2).

EFI XF detects automatically, based on the halftoning method used to create the base linearization, whether to apply v1 or v2 screening.

3 **Click Save to save your settings as a media set.**

4 **Save the workflow settings.**

All your print jobs will now be output at the defined screen angles. Halftone screens can be applied to all jobs except one-bit files.

You can check which screen angles are applied to each color in Job Explorer. The Spot Colors pane of the Color tab displays all the detected process and spot colors of a selected print job.

By default, the screen angle for black is applied to spot colors. However, you can select the screen angle of any other process color from the drop-down list box.

See also:

“Screening methods” on page 245

“Implementation in EFI XF” on page 248

FILE OUTPUT OPTION/GRAVURE OUTPUT OPTION

Print-to-file options

One license file enables you to set up a maximum of five file output/gravure output devices.

What is the File Output Option?

The File Output Option was developed to enable you to print to a number of different file formats.

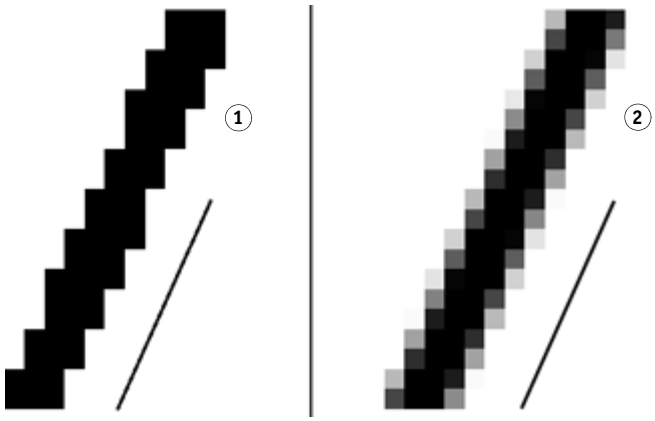
What is the EFI Gravure Output Option?

This add-on option enables you to create separated grayscale TIFF files with automatic anti-aliasing. Anti-aliasing is the term used to describe the removal of jagged edges to give the appearance of smoother edges and higher resolution.

It works by taking into account how much an ideal edge overlaps adjacent pixels. The aliased edge simply rounds up or down with no intermediate value, whereas the anti-aliased edge gives a value proportional to how much of the edge was within each pixel. The effect of applying anti-aliasing is illustrated in the diagrams.

Anti-aliasing

1 **Without anti-aliasing**
2 **With anti-aliasing**



Printing to file

If you have a license file for an output-to-file option, EFI XF is extended as follows:

In System Manager, additional device type settings become available on the Setup pane of the Device tab. When a print-to-file device type is selected, additional export settings can be made which are pertinent to the output file.

Here you:

- define where to save your files
- select a device link and simulation profile
- select a compression method. You can choose between “None”, “ZIP” and “JPEG”.
- select a print resolution
- specify whether the resolution setting should be ignored for non-PostScript files

In Job Explorer, you will find these settings on the File Output pane of the Output tab.

TO PRINT TO FILE

1 **Create a new output device.**

2 **On the Device tab, make the required settings on the Setup pane to define a name and select the device type.**

In this case, you must select an EFI file output format from the drop-down list box. File output settings have the format “EFI *xxx* Output”, where *xxx* stands for the file type.

3 **Define an export path to the folder in which the output files will be saved.**

4 **Select the check box “Use Device Link profile”, if required, and choose a profile from the drop-down list box.**

This setting is not available for gravure output.

5 **Select a simulation profile.**

This setting is not available for gravure output.

6 **Select a compression method, if required.**

Which types of compression are available depends on the file format you are printing to.

7 **Specify a resolution, if required.**

This setting is not available for gravure output.

8 **Select the check box to keep the input resolution of non-PostScript files, if required.**

This setting is useful, for example, if you want to convert a set of digital files to a single color space without affecting the resolution (size) of the original images.

This setting is not available for gravure output.

9 **Set up a system workflow and save your settings.**

See also:

“Compression” on page 77

JAPANESE FONTS

EFI XF is automatically installed with two Japanese printer fonts: Heisei-Mincho-W3 and Heisei-KakuGo-W5. Both are CID-formatted, low-res fonts. Additional double-byte fonts can be purchased from third-party providers. However, please note these must also be low-res.

To use the Japanese fonts, you must install the appropriate license and set up EFI XF for AppleTalk printing.

TO INSTALL JAPANESE FONTS FROM A THIRD-PARTY PROVIDER

1 **Follow the instructions for installation provided with your third-party Japanese fonts.**

Generally speaking, you install the fonts on a Macintosh OS 9 computer in the same AppleTalk network as EFI XF. During the installation, you may be required to select the EFI XF printer. Make sure that you select the correct AppleTalk spooler name.

It is not possible to install double-btye fonts by copying them directly to the CPSI\fonts folder. You may need to use Adobe's Fonts downloader to do this.

2 **When the font download has been completed, restart EFI XF.**

3 **To print using low-res Japanese fonts, choose Start Font Download from the System menu.**

Activating font download converts EFI XF to a low-res printer.

See also:

"Licensing the software" on page 33

"RIP Resolution" on page 51

"Setting up EFI XF as an AppleTalk spooler" on page 135

FIERY OPTION

The Fiery Option was developed to enable you to print directly from EFI XF to any EFI Fiery output device.

One license file enables you to set up a maximum of five output devices.

Fiery Option settings

If you have a license file for the Fiery Option, EFI XF is extended as follows:

In System Manager, the device type “EFI Fiery” becomes available on the Setup pane of the Device tab.

Printing to an EFI Fiery output device

It is recommended that you do not perform any job settings at the Fiery Command WorkStation.If you make job-specific settings at the Fiery Command WorkStation, the color management settings from the Fiery Command WorkStation are applied on top of the color management settings from EFI XF. The result is non-accurate color output.

TO SET UP AN EFI FIERY OUTPUT DEVICE

1 **Create a new output device.**

2 **On the Device tab, make the required settings on the Setup pane to define a name and select the device type.**

In this case, you must select “EFI Fiery” from the drop-down list box.

If you do not want to print directly to an EFI Fiery output device, you can save your print jobs to PDF format instead by selecting “EFI PDF Output” from the drop-down list box.

3 **Set up a connection to your printer.**

The default setting for the Fiery Option is "Print to file". However, you can change this setting and output print jobs to a network printer, if preferred.

To output via a Fiery Command WorkStation, type the IP address of the EFI Fiery output device. Then, select the radio button “LPR. queue” and type a queue name: “Print”, “Hold” or “Direct”. Some versions of Fiery Command WorkStation also support printing via port 9100.

4 **Define an export path to the folder in which the output files will be saved.**

This setting is disabled if you select any printer connection other than “Print to file”.

5 **Select a compression method, if required.**

You can choose between “None", "ZIP" and "JPEG".

6 **On the Media pane, make media and print settings to be applied to your print job.**

The source setting is set by default to “Automatic”. If you have set up to output via a Fiery Command WorkStation, it is possible to select duplex mode for the printer on the Special pane.

EFI XF provides a generic media profile for the Fiery Option. However, to achieve high-quality results, it is recommended that you create your own media profiles using Color Manager.

When defining a name for a customized media profile in Color Manager, it is important to ensure that the device is easily identifiable. This is because all Fiery output devices are selected as “EFI Fiery” on the Setup pane. Therefore, the media profiles for all EFI Fiery devices are displayed on the Media pane.

7 **Set up a system workflow and save your settings.**

See also:

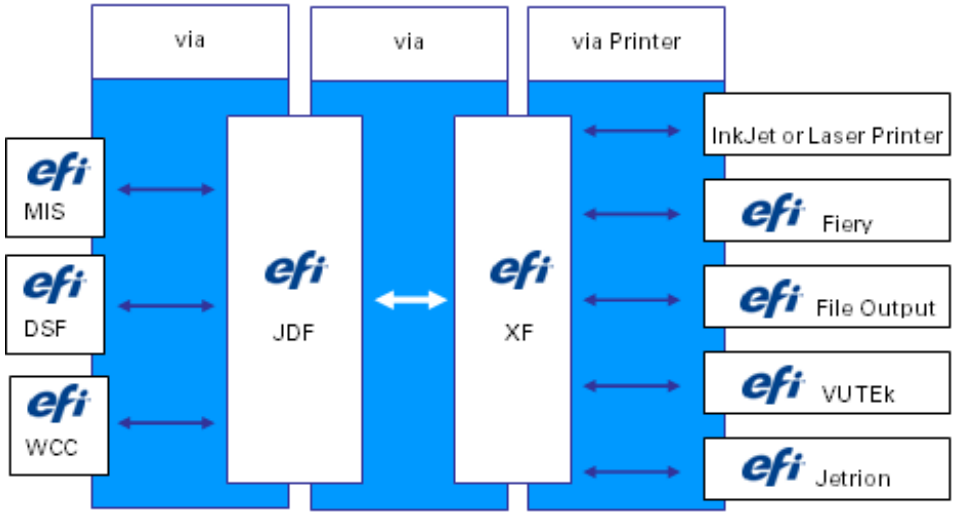
“Compression” on page 77

“Printing and monitoring print jobs” on page 115

JDF CONNECTOR

JDF Connector is shipped as part of the standard scrope of delivery. It enables you to integrate EFI XF into a JDF workflow by establishing bidirectional communication between EFI XF and other EFI JDF-compliant applications, such as EFI MIS and EFI DSF, or applications from third-party manufacturers, such as Adobe Acrobat.

JDF connectivity



Installing JDF Connector

JDF Connector is provided as a separate tool on the installation DVD. If you did not install it when you installed EFI XF, you can do it now.

JDF Connector must be installed on a computer on which the EFI XF Server is also installed.

TO INSTALL JDF CONNECTOR FOR WINDOWS

1. **Insert the installation DVD into the DVD-ROM drive.**
2. **Click the Install icon.**
3. **Select the Modify radio button and click Next.**
4. **Select the JDF Connector check box.**

   If an EFI XF Server is not already installed on your computer, make sure that the Server check box is also selected.
5. **Click Next and follow the on-screen instructions to complete the installation.**

TO INSTALL JDF CONNECTOR FOR MACINTOSH

1. **Insert the installation DVD into the DVD-ROM drive.**
2. **Click the Install icon and follow the on-screen instructions until you come to the Installation Type dialog.**
3. **Select the JDF Connector check box.**

   If an EFI XF Server is not already installed on your computer, make sure that the Server check box is also selected.
4. **Click Install and follow the on-screen instructions to complete the installation.**

   JDF Connector runs as a service. It starts up automatically whenever the EFI XF Server is started. If the Server is not running, the JDF connection is interrupted.

Supported file formats

The following JDF/JMF file formats are supported:

- MIME package
- JDF/JMF with content (URL)
- JDF/JMF without content

See also:

"Adding content files to a JDF job" on page 266

"Assigning JDF tickets to jobs loaded in XF" on page 267

Setting up a JDF connection

PNI software

To use JDF Connector with EFI Print MIS products, e.g. EFI PrintSmith or EFI Hagen, you need to install and set up the PNI (PrintNet Integrator) software provided with your EFI product. See the instructions given in the user documentation of the EFI product for further information.

The PNI software enables you to select the IP address of the EFI Print MIS product in EFI XF.

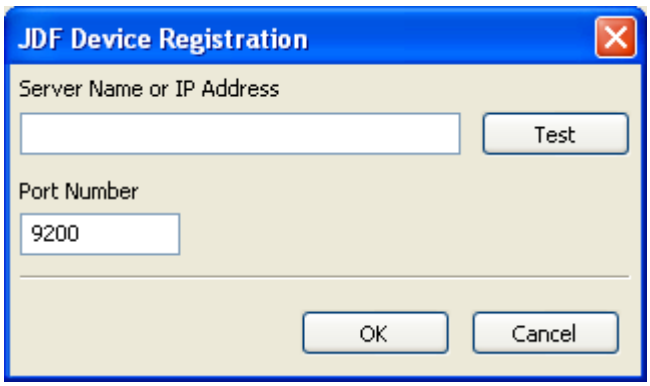
PNI is not required to integrate EFI XF into a JDF workflow using EFI Web Control Center, EFI Digital StoreFront or Adobe Acrobat.

JDF settings in EFI XF

JDF Connector does not have its own user interface. To set up a JDF workflow you make certain settings in System Manager.

- JDF Device Registration

JDF device registration



This setting is available in the Edit menu. It is needed to set up a JDF connection to JDF-compliant EFI Print MIS products, e.g. EFI PrintSmith or EFI Hagen. Make sure that the PNI software is correctly installed before making this setting.

To set up a JDF connection, type the IP address and port number of the workstation on which the PNI software is installed in the appropriate edit boxes. The default port number is 9200 in http mode and 12443 when running as https. You can check that the connection has been established by clicking Test.

- JDF Communication

You activate JDF communication on the General pane of the Input tab. Selecting the check box makes the workflow accessible from other JDF devices.

Before setting up a JDF connection, make sure that:

– The workflow name and the output device name do not contain any spaces or special characters

– The workflow is connected to a valid output device

The setting “Close printed jobs automatically” is available if you do not need to write additional information, such as the number of waste printouts, etc., to the JDF file before closing. The number of good printouts is automatically transmitted back to the JDF-compliant application.

JDF jobs in EFI XF

Loading JDF jobs in EFI XF

The following job information must be entered in the JDF-compliant application before submitting the job:

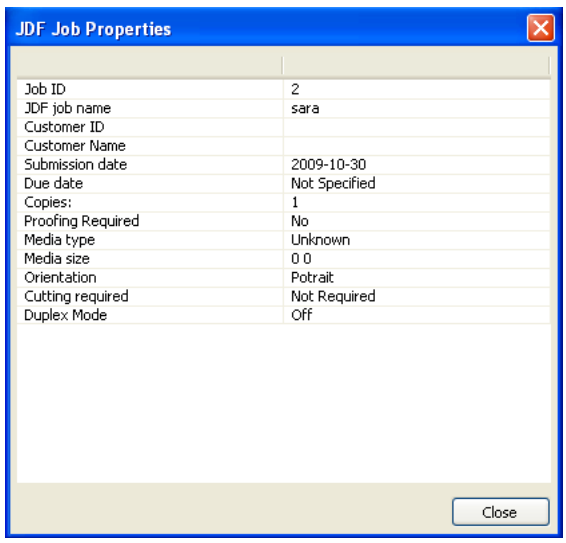
- Job ID
- Customer ID, name, info

Furthermore, the JDF may also include the following information:

- Content or URL to the content
- Job name
- Job description
- Media size
- Orientation
- Number of printouts

When the job is loaded in EFI XF you can view this information by clicking Details on the File Info pane.

JDF device registration



JDF jobs submitted to EFI XF are loaded in the job list as follows:

JDF job with no content file, i.e. empty	Loaded in Job Explorer as a nesting job.
JDF job with single content file	Loaded in Job Explorer as a non-nesting job.
JDF job with multiple content files	Loaded in Job Explorer as a nesting job.

Job names are retained from the application. If a JDF job is submitted without a job name, it receives the default job name “JDF job”, followed by a consecutive number, e.g. “JDF job_67”.

By clicking on the plus (+) sign next to the job name, you can expand the JDF job to display the content files.

In the job list window, the ”JDF Status” column displays the current job status. The following status are possible:

Status	Meaning
Receiving	The JDF job is being loaded.
Received	The JDF job is ready for printing.
Not complete	The loaded JDF job has no content. You must add a content file before job processing can continue.
Completed	Job processing has been completed. This status is only displayed if “Close printed jobs automatically” is not selected for the workflow. Otherwise, jobs are deleted automatically from the job list as soon as they have been output.

A JDF job loaded in the job list is processed according to the workflow settings.

This means that, in an automatic workflow set up to close JDF jobs automatically after printing, no user intervention is possible.

Editing JDF jobs in EFI XF

In a normal situation, JDF jobs submitted to EFI XF are processed as soon as they are enter the job list. Therefore, if you need to edit a JDF job in EFI XF, make sure that you set up the workflow as a “hold” workflow. Once you have made your required changes, you can start printing manually.

Adding content files to a JDF job

It is not possible to add content to JDF jobs consisting of one single file.

You can add content files to JDF jobs that were submitted to EFI XF with no content or with multiple content by:

- Right-clicking on a JDF job and choosing Add Content File from the context menu, or
- Choosing Edit > JDF Processing > Add Content File

The Import Job window opens. You can add a file in any format supported by EFI XF.

You can also add files to a JDF job by assigning a JDF ticket to a file you want to add to a JDF job. See “Assigning JDF tickets to jobs loaded in XF” on page 267.

Content files added in EFI XF are neither automatically placed nor arranged on the media. Therefore, you need to:

- Select the “Placed” check box for each file before it can be processed and
- Rearrange the images on the media to avoid overlapping. To arrange images, select the JDF job. Then go to the Nesting tab and click Refresh.

Assigning JDF tickets to jobs loaded in XF

In MIS-controlled environments, it is often desirable to track jobs regardless of how they are submitted to EFI XF.

For each JDF job loaded in EFI XF from a JDF-compliant application, a JDF ticket is created. However, occasionally you may need to load a job by another means, such as directly from a graphics application. This is necessary, for example, if the image is in a format that is not supported by the JDF-compliant application. In this case, you can send an empty JDF job to EFI XF and add the image as a content file by assigning a JDF ticket.

TO ASSIGN A JDF TICKET TO A JOB

1. **In the job list, select the job to be added to the JDF job.**
2. **Display the Input > File Info pane.**
3. **From the drop-down list box, select the JDF number of the JDF job and click Apply.**

   The job is moved and becomes part of the JDF job.

Removing content files from a JDF job

You can remove a content file from a JDF job by right-clicking on a content file and choosing Delete from the context menu.

Closing a JDF job

If the setting “Close printed jobs automatically” is selected for the workflow, JDF jobs are deleted automatically from the job list as soon as processing has been completed, i.e. after job output or, if Color Verifier is implemented in the workflow, after job verification.

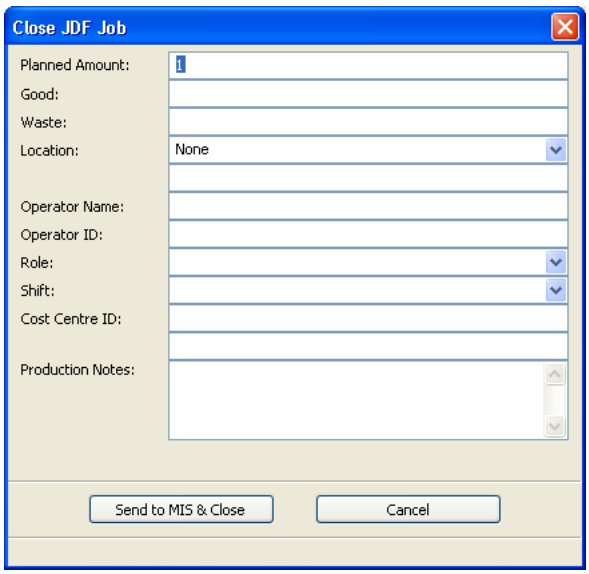
If JDF jobs are not closed automatically, they remain in the job list until you close them manually. Only jobs with the status “Completed” can be closed.

You can close a JDF job by:

- Right-clicking on a JDF job and choosing Close JDF Job from the context menu, or
- Selecting a JDF job and clicking Close on the File Info pane of the Input tab.

When you select the Close command, the following dialog opens:

Close JDF job dialog



Here you type in auditing details relating to the job. You must give details of the number of good printouts and the number of waste printouts to close the job. All other information is optional.

Click Send to MIS & Close to transmit the job back to the JDF-compliant application and to delete the job from the job list.

PRINTING TO VUTEK PRINTERS

Licenses

You can use a VUTEk license to set up any two output devices, e.g. two proofing devices, one VUTEk and one proofing device, or two VUTEK devices.

The same licenses can also be used to configure the default linearization device. However, please note that it is not permitted to exceed the maximum number of two different output devices all together. In other words, you may set up the linearization device for either of the two output devices already selected. However, a separate license is required if you wish to print to a third device type.

Additional settings in EFI XF

On the Special pane of the Device tab, you can select to output print head control bars with each job. A control bar is made up of stripes for each of the available printer inks. It ensures that ink keeps flowing through all the ink nozzles, thus helping to prevent blockages.

Settings are available for defining:

- the width of each color stripe
- the distance between each color stripe
- the distance between control bar and job
- the position of the control bar relative to the job

Print head control bar

The preview displays a generic control bar only. It is not a true view of all the colors available for the connected output device.

Printing to a VUTEk printer

When you print to a VUTEk printer, EFI XF automatically assigns a job name. The following is an example of a job name:

220_TestforVutek_66_T1_P2_3360_8c.rtl

Job names are composed of the following components:

1	A three-digit consecutive number between 000 and 999 (e.g. 220). The number is increased automatically for each successive job. You can reset the number back to 001 by choosing “Reset Unique Number of RTL Files” from the System menu of System Manager.
2	The original file name (e.g. TestforVutek)
3	The job ID from EFI Fiery XF (e.g. 66)
4	The tile number, assuming the tiling function has been applied to the print job. The number "T1" stands for "no tiling".
5	The page number (e.g. "P2")
6	The printer model (e.g. "3360" stands for UltraVu II 3360 EC)
7	The color mode (e.g. 8c)

TO SET UP A VUTEK PRINTER IN EFI XF

1. **Create a new output device.**
2. **On the Device tab, make the required settings on the Setup pane to define a name and select a VUTEk printer.**

   The setting “Print to file” is automatically selected. This is because EFI XF automatically converts all print jobs to rtl format and saves them to the specified folder before submitting them to the VUTEk printer.
3. **Define an export path to the folder in which the output files will be saved.**
4. **On the Media pane, make media and print settings to be applied to your print job.**

   EFI provides generic profiles for use with VUTEk printers. However, you can use your own profiles, if preferred. Please note that ICC and epl files must be saved to the EFI Media Profiles folder in order to be detected in EFI XF.

   You can create a new base linearization file for your printer by clicking “New” to start EFI LinTool/EFI Color Manager. The add-on module EFI Color Manager also provides a full set of tools with which to create your own paper profiles.

5 **Set up a system workflow and save your settings.**

It is not recommended that you specify a print resolution when printing to a VUTEk printer. Considerable discrepancies can result, as the print resolution is already defined by the selected color profile and is also dependent on the selected printer.

See also:

"Output device settings" on page 79

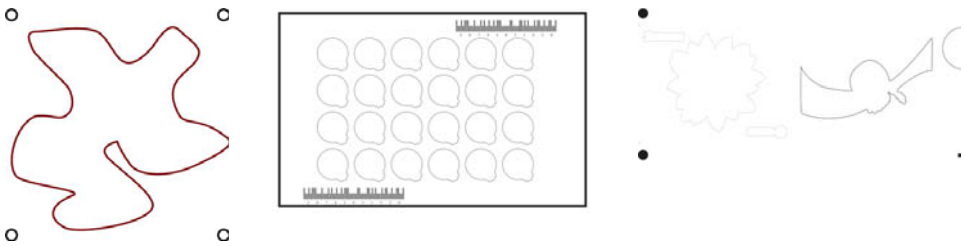
"Managing system workflows" on page 85

"Printing and monitoring print jobs" on page 115

CUTTING OPTIONS

With an appropriate cutting license, you can process and save to file complex, irregular cutting paths defined in any popular graphics application for trimming with a built-in or auxilliary cutter or print and cut plotter.

Contour cutting marks



Contour cutting can be applied to all EPS and PDF print jobs. It allows you to:

- Extract cut contours
- Nest multiple images with cut contours
- Generate a cut frame around an image when contour data cannot be extracted, e.g. from a TIFF image

Forced in-RIP separation should be applied in EFI XF to EPS files.

You must have the Spot Color Option installed on your computer, as otherwise no files with contour cut data can be processed (if the cut information is defined as a spot color).

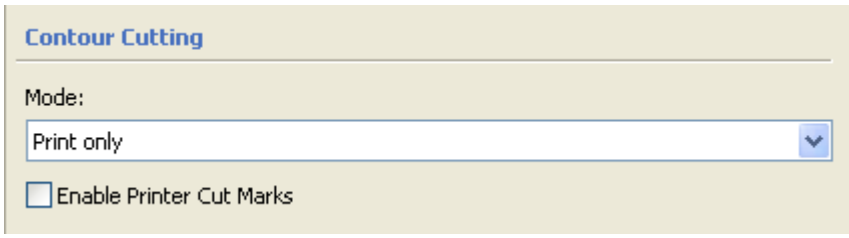
Contour markings are not visible in the printout.

Available licenses

Two types of cutting licenses are available for EFI XF.

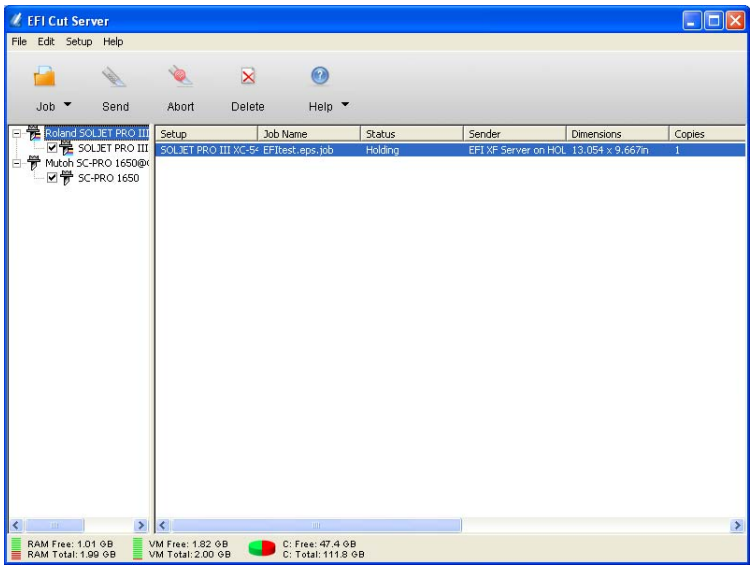
- The Print & Cut option embodies printing and cutting for a range of manufacturer-oriented print-and-cut devices. If you have an appropriate device, it enables you to:
  - Print only
  - Print and cut in one output step
  - Print and cut in two output steps (e.g. printing, laminating, cutting with one device)
  - Cutting only (e.g. colored substrate)

Contour Cutting settings on the Special tab of EFI XF



- The Cut Server Option enables you to:
  - Start and use the Windows-only application EFI Cut Server.
  - Set up a maximum of two different cutters in EFI XF and run simultaneously up to four instances of EFI Cut Server that are installed on different computers.
  - Select different cut mark types in EFI XF.

EFI Cut Server



Before you can process cut files you first need to install EFI Cut Server from the installation DVD. Then, you must start the application once to connect to the installed license. To start EFI Cut Server, double-click the program icon on your desktop.

EFI Cut Server program icon

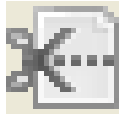
The EFI Cut Server Login dialog opens. From the drop-down list box, select the IP address of the computer on which the EFI Cut Server license is installed in the FlexLM folder.

Additional settings in EFI XF

If you have an Cut Server license or an XF Print & Cut Option license:

- A program icon appears in the toolbar of Job Explorer

Program icon



- An additional pane, Cutting, appears on the Finishing tab
- Additional device-specific settings become available on the Special pane in System Manager

Settings in System Manager

The following settings are available on the Cutting pane of the Finishing tab:

- Send to cut server after printing (available with Cut Server license only)

  Select this check box to send the contour cut data to an auxilliary cutter device according to the cut settings defined on this tab.

- Presets (available with Cut Server license only)

  The settings you make on this tab can be grouped together and saved in the form of a preset. Initially, no presets are available. However, once you have made settings on this pane, you can save them under a defined name. The preset becomes immediately available for selection from the drop-down list box.

  To make changes and overwrite an existing preset make sure that the preset is not selected for any other workflow. Presets can only be overwritten in System Manager. In Job Explorer, you must save your changes under a new name.

- Cut device (available with Cut Server license only)
  - Device manufacturer

    Select the manufacturer of your device from the drop-down list box.
  - Device type

    Select the cutter device type available for the selected device manufacturer.
  - Cut marks type

    Select which type of cut marks to use. Only those types of cut marks available for the selected device manufacturer are listed. The most commonly used cut mark type is preselected.
- Cut data export path (available with Cut Server license and Print & Cut Option)

  Click Choose to define where you want to save contour cutting files. The following contour cutting files are created during job processing:
  - A *.cut file and an *.ai file (for i-cut®) (an *.ai file is created for i-cut level 2 only)
  - An *.ai file (for print and cut devices)
  - An *.ai file and an xml job ticket (for cut server data export)

  The files are saved to the following default locations:
  - Export folder for RTL files (for VUTEk printers)
  - Output folder (for all non-VUTEk printers)
  - Cut server hotfolder

    If the Cut Server Option and the EFI XF Server are installed on the same computer, and if the setting “Send to cut server after printing” is selected, the cut data export path is automatically selected.

    If the Cut Server Option and the EFI XF Server are installed on different computers, you need to manually select the path to the hotfolder defined in the Cut Server Option. You do this by clicking Choose on the Finishing pane and browsing to the hotfolder.

- Contour cutting (available with Cut Server license and Print & Cut Option)
  - Extract contour path from EPS/PDF

    Select the check box to specify that the contour information is extracted from the EPS or PDF print job and to enable additional settings on this tab. If you do not select this check box, the *.ai file contains only a cut frame around the particular job, even if it is a PDF or EPS print job.
  - Contour colors

    The list box contains a global list of available default contour types that are commonly used in the industry. These are automatically detected by EFI XF.

    If the cutting path was defined using a spot color with one of the default contour color names, the print job can be output.

    If the cutting path was defined with a spot color that does not match any of the default contour color names, you must first define it EFI XF. Otherwise, an error message is displayed during job processing to indicate that the contour is an unknown spot color.
  - Add color/Delete color

    The plus (+) and minus (-) buttons enable you to add and delete user-defined contour colors. When you click the plus (+) button a new row appears in the table of global contour colors. Use the edit box to type in the name of the contour color. Take care to use the same name as defined in the application. Then, press <Enter> to save.

    Contour colors created in this way are added to the global list and are available for all workflows. Once you have defined a contour color, the cut data can be extracted to file.

    You can delete user-defined contour colors by selecting the color in the list and clicking the minus (-) button. It is not possible to delete the default contour colors.

Settings in Job Explorer

On the Cutting pane in Job Explorer, contour colors can be selected but not defined.

- Print jobs containing the default contour spot colors are processed automatically and cut data is extracted to file. Print jobs containing non-default contour colors that have previously been defined in System Manager are also processed automatically and cut data is extracted to file.
- If your print job contains non-default contour colors that have not previously been defined in System Manager, the colors are detected and displayed in the list box.

  In this case, you need to select the contour color from the table to prevent the cutting contour being output as composite with the rest of the print job.
- Contour colors selected in Job Explorer are not added to the global list in System Manager.

- The program icon in the toolbar of Job Explorer enables you to:
  - Re-print jobs and re-send contour cut data to the Cut Server (using the Cut Server Option).
  - Cut/re-cut a job that has already been printed and prepared for cutting (if the print and cut device is connected to the selected workflow).

  The same setting is available via the context menu when you click the right mouse button on a job in the job list.

Working with contour cutting files

This section provides information on how to process files with contour cut information in EFI XF.

Contour cutting template

A contour cutting template is provided to help you set up workflows with predefined settings for outputting print jobs with i-cut contour cut marks.

Setting up a print and cut workflow

The following settings are necessary to output jobs via EFI Cut Server or to a print and cut device.

TO SET UP CONTOUR CUTTING FOR A PRINT AND CUT DEVICE

1. **Create a new workflow in the EFI XF Client.**
2. **On the Finishing tab > Cutting pane, select the check box "Extract contour path from EPS/PDF".**
3. **Create a new output device.**
4. **On the Device tab > Special pane, select a contour cutting mode.**

   Depending on the setting you make, print jobs are processed as follows:

Print only	Prints the job, but does not cut the contour data.
Print & Cut	Prints the job and cuts the contour data.
Cut only	Cuts the contour data, but does not create a printout.

TO SET UP CONTOUR CUTTING WITH EFI CUT SERVER (WINDOWS ONLY)

1 **Create a new workflow in the EFI XF Client.**

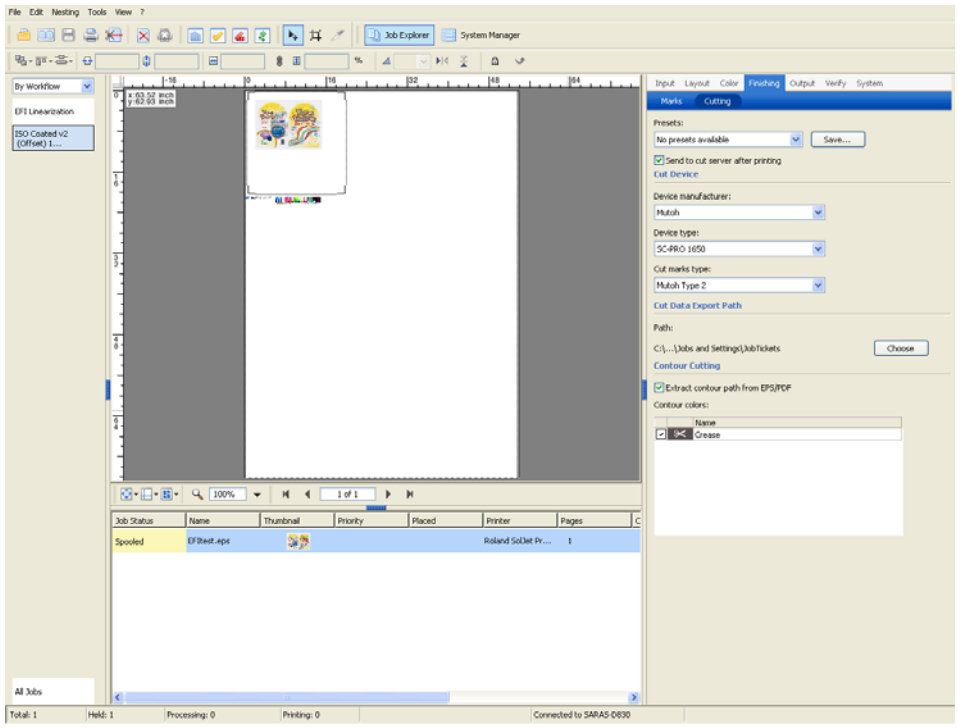
2 **On the Finishing tab > Cutting pane:**

- Select the check box “Send to cut server after printing”.
- Select appropriate cut marks for the cutter device.
- Make sure a cut contour export path is defined.
- Select the check box “Extract contour path from EPS/PDF”.

Processing cut files

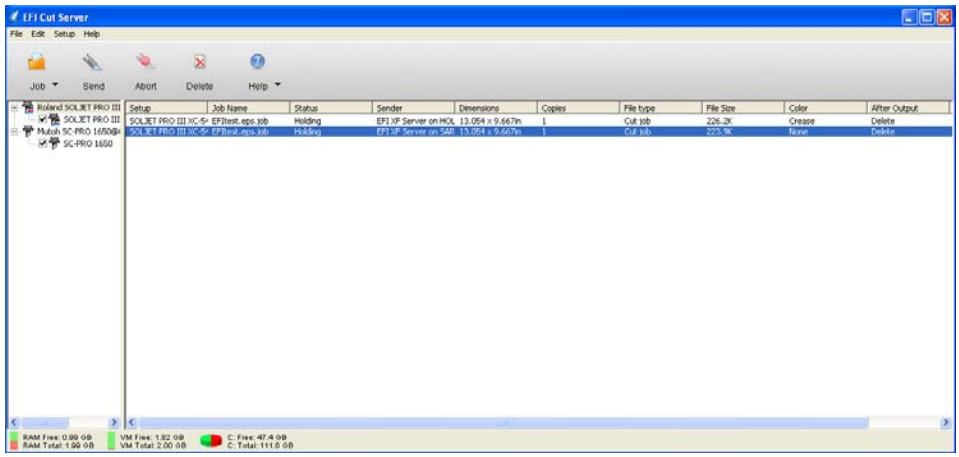
When you have set up the workflow, you can load and process a job in EFI XF.

Contour cut job in EFI XF



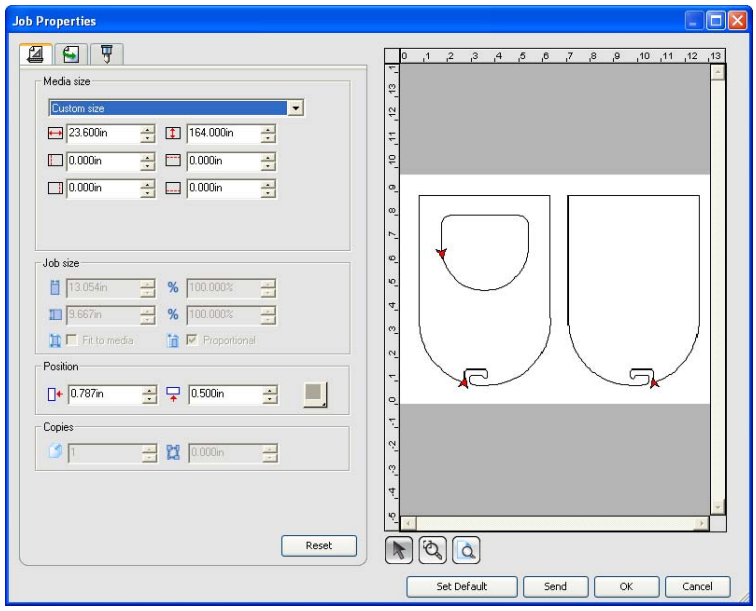
Once the job has been printed, the contour cut data becomes available as a separate job in EFI Cut Server.

Contour cut job in EFI Cut Server



By double-clicking on a job in EFI Cut Server you can display the job properties.

Job properties in EFI Cut Server



Tips and tricks

Preparing contour cutting files in the application

In order to process images with contour cut information, observe the following when creating the source file in the graphics application:

- The contour must be defined as a separate layer.
- The contour must be defined in a spot color.

  The following set of default contour spot colors commonly used in the industry are provided in EFI XF:

  – Regmark
  – Crease
  – Kiss Cut
  – Laser Cut
  – Pen Plot
  – Router Cut
  – Score
  – ContourCut

  EFI XF automatically detects separated files created with any spot color with one of these names.

  If the contour is saved under a non-default name, you must define it in EFI XF. This enables in-RIP separation which makes it possible for the contour information to be exported as a separated file. If in-RIP separation is not enabled, the contour layer is simply output as part of the composite print job in accordance with the setting defined for the handling of unknown spot colors.

  For EPS files, in-RIP separation must be set to “Force”. Also, when processing PS-based files, it is not possible to use the RGB working color space in conjuction with contour cutting marks.

Removing visible contour markings from the printout

Normally, contour markings are not visible in the printout. However, occasionally, the contour may be seen as a white outline. This is because the overprinting attribute of most contours is set to knock out and not to overprint.

Result of knock-out setting

In this case, you need to open the file in an external application such as Enfocus PitStop and set the overprinting setting to overprint.

Correct setting in Adobe Illustrator

The following illustration shows the effect of applying the overprint setting.

Correct setting in Adobe Illustrator

Excluding cutting data from the printout

In some instances, you may wish to remove entirely all evidence of cutting data from a print job. You can do this by deselecting the check box “Extract contour path from EPS/PDF” on the Cutting pane. This ensures that no cutting file is created.

If you do not want the cutting contour to be printed as part of the composite printout, deselect the contour color on the Spot Colors pane.

Deselecting contour colors

		Name	*	Source	Map to			
✓	✂	Crease	K	CMYK	0	0	0	100
✓		Cyan	C	CMYK	100	0	0	0
✓		Magenta	M	CMYK	0	100	0	0
✓		Yellow	Y	CMYK	0	0	100	0
✓		Black	K	CMYK	0	0	0	100

Workflow examples

The following table illustrates some examples of how EFI XF behaves when certain jobs are loaded.

Defined cut path colors in EFI XF	Colors included in job	Defined cut path colors in the job	Behavior
Cut Kiss Cut Cut Through	Cyan Magenta Yellow Black	Kiss Cut	The job is output without error.
Cut Kiss Cut Cut Through	Cyan Magenta Yellow Black PANTONE 130 CV	Kiss Cut	The job is output without error.
Cut Kiss Cut Cut Through	Cyan Magenta Yellow Black		If the the process colors are not defined as spot colors, the job is output but no cut data is extracted.
Cut Kiss Cut Cut Through	Cyan Magenta Yellow Black PANTONE Hexachrome Blue	Dieline	Depending on the spot color definitions, the job is output. However, no cut data is extracted.
Cut Kiss Cut Cut Through	Cyan Magenta Yellow Black	Kiss Cut Cut	Multiple contour colors are detected and can be selected on the Cutting pane in Job Explorer.

TROUBLESHOOTING

If you encounter problems while working with EFI XF, try performing the suggested solutions. If the problem still persists, please contact EFI Support.

Server/Logging on

I cannot see the Server user interface? How can I log in?

Cause:	The Server runs as a service, so it has no user interface. All actions are initiated in the Client software.
Remedy:	To start the Client, click the program icon on the desktop (Windows) or in the Dock (Macintosh).

I am working with Windows XP, SP 2. The Server does not accept any connection from a Client. What can I do in this case?

Cause:	A firewall is set up during the installation of Service Pack 2.
Remedy:	Unlock ports 50005 - 50025. Please refer to Windows help for further information.

Although I am able to log on to EFI XF successfully, I cannot see any users, workflows or output devices.

Cause:	A firewall is set up during the installation of Service Pack 2.
Remedy:	Unlock ports 50005 - 50025. Please refer to Windows help for further information.

When I try and log on, I get the error message “The user 'admin' is unknown. Please make sure that you type in the correct name.”

Cause: The file usr_0000.xml may be missing.

Remedy: In the Tickets folder, search for the file usr_0000.xml.

If you find the usr_0000.xml file, cut and paste it to a destination outside the Tickets folder. Then restart the Server. A new usr_0000.xml file is automatically created.

If the usr_0000.xml file is missing but you find a usr.0000.bak file, restart the Server. During Server restart, a new usr_0000.xml is automatically created.

If you cannot find either a usr.0000.xml or a usr.0000.bak file, contact EFI Support for a new usr.0000.xml file. When you receive the file, copy it to the Tickets folder.

The start screen opens briefly and then closes. Why is this?

Cause: This behavior occurs because Microsoft Windows XP SP2 uses the Data Execution Prevention (DEP) feature to help prevent damage from viruses and from other security threats.

Remedy: Deactivate Data Execution Prevention for EFI XF as follows:

1. **Right-click on My Computer and choose Properties from the context menu.**
2. **In the System Properties dialog, select the Advanced tab.**
3. **Click the Settings button for performance.**
4. **In the Performance Options dialog, select the Data Execution Prevention tab.**
5. **Select the radio button “Turn on DEP for all programs and services except those I select:”. Then click Add and navigate to the Client folder.**
6. **Select all the application files with the extension *.exe and add them to the list of programs which are not affected by DEP.**
7. **Then add all the application files located in the Server folder in the same way.**

See also:

“Logging on to an EFI XF Server” on page 21

Licensing

The license file downloaded from the activation website cannot be installed.	
Cause:	The downloaded license file may have the wrong file extension.
Remedy:	Check the file extension of the license file. Licenses with the extension *.txt are not recognized in EFI XF. Change the file extension from txt to lic. If the file extension is not visible, go to Control Panel > Folder Options, select the View tab and make sure that the setting “Hide extensions for known file types” is not selected.

There is no valid license	
Cause:	EFI XF Control may not be running.
Remedy:	Make sure that EFI XF Control is online before trying to log onto the Client. Right-click the EFI XF Control icon and choose EFI XF Server Start from the context menu.
Cause:	One or more Windows services required by EFI XF may not be running.
Remedy:	In Control Panel, go to Administrative Tools > Services. Check that the following services are started: • EFI License Manager • EFI XF Server • DebugLog If necessary, select the service that is currently not running and click “Restart the service”.
Cause:	The dongle is not recognized.
Remedy:	Connect the dongle to a different USB port. To check whether the dongle is recognized, right-click on the EFI XF Control icon and choose Show dongle ID from the context menu.

Cause: The license file may have been generated for an incorrect dongle ID.

Remedy: Make sure that the right dongle ID is shown in the license file(s) of the purchased options.

To check the dongle ID, right-click the EFI XF Control icon and choose Show dongle ID from the context menu.

To verify the dongle ID of the license, open the license file in a text editor (e.g. Wordpad).

Check that the license file contains the following information:

- The name of the Server computer
- The dongle ID

Cause: If you are updating from an earlier version of the software, the licenses from that version may have been deleted from the FlexLM folder.

Remedy: EFI XF requires the license files from all earlier versions in addition to the upgrade license. If necessary, reinstall previously removed licenses via the Activate EFI XF command of EFI XF Control.

You can check which licenses are installed by selecting EFI XF Server Information from the ? menu (Windows) or from the Help menu (Macintosh). You must have a license for at least one Server, one Client and one Output Option M.

Cause: The system date and time may not be set up correctly.

Remedy: Check the BIOS setting in Windows.

Cause: The license files may not be detected.

Remedy: Try reinstalling all the license files. With the exception of the file default.lic, remove all license files from the FlexLM folder and then reinstall each file separately via EFI XF Control.

Make sure to install via EFI XF Control. Do not simply copy license files to the FlexLM folder.

You are unable to set up or connect any more output devices

Cause: You are trying to set up or connect an output device. However, you do not have enough Output Option licenses.

Remedy: Purchase an additional Output Option license.

See also:

"Licensing the software" on page 33

Printing

Invalid page height	
Cause:	The information from the bounding box is not taken into account.
Remedy:	In System Manager, highlight the workflow. On the Input tab, open the File formats pane and select “Calculate page size”.

Linearization cannot be processed	
Cause:	A corrupt epl is being applied.
Remedy:	In System Manager, check the media set selected for the output device. Open the epl file in Profile Connector, a tool provided with EFI LinTool/ Color Manager, and make sure that the name of the selected ICC profile matches that of the attached ICC profile. If this does not help, try repatching the epl and the icc profile in Profile Connector.

Command Error	
Cause:	Some printers can be used with two different types of ink (e.g. Ultrachrome Photo and Matte). The error message occurs if the type of ink selected in EFI XF does not match the type of ink inserted in the printer.
Remedy:	Make sure that you select the right type of ink for the output device. The black ink cartridge lets you identify the type of ink being used. Make the correct ink type setting on the Media pane of the Device tab.

I am unable to load any jobs. Why?	
Cause:	You may not have enough valid printer/output licenses.
Remedy:	To check whether you have enough licenses, proceed as follows: **1 In System Manager, disconnect all workflows from all output devices.** **2 Highlight the linearization device.** **3 On the Device tab, open the Setup pane and choose “First select a valid device type” from the drop-down list box.** **4 Save the settings for the linearization device.** **5 Connect one workflow to one output device.**

6 **In Job Explorer, try and load a job.**

If you are still not able to load a job, ensure that the amount of used disk space does not exceed 95%. If necessary, free up additional space on the hard disk.

During job processing a bco file is created in the default Output folder. You can reduce the amount of hard disk space required by EFI XF during job processing by redefining this path, e.g. to a folder on a different drive, as follows:

7 **Stop the Server.**

8 **Open the Tickets folder.**

9 **In a text editor, open the file sys_0000.xml**

10 **Search for the line beginning <Print type= and type in a new path.**

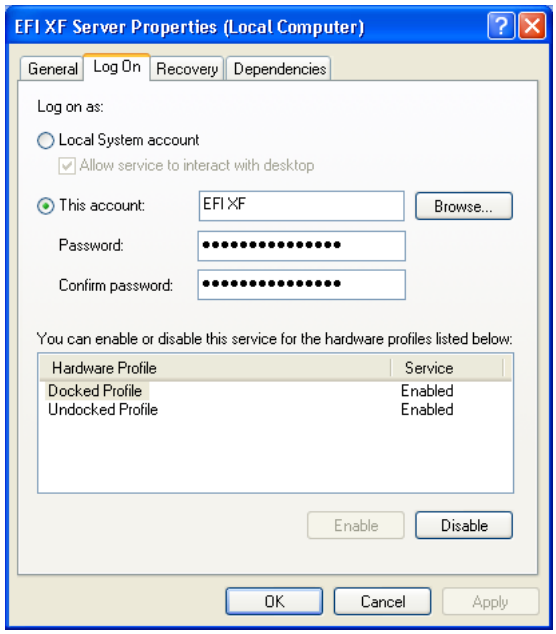
Cause: The dongle may have become unplugged from the computer while the Server is still running.

Remedy: Make sure the dongle is properly inserted.

I have set up a hotfolder in a network, but submitted jobs do not appear in the job list. What is the problem?

Cause: The EFI XF Server runs on Windows as a service. By default, the login rights are defined for the local computer. This means that EFI XF is not able to communicate with folders located in a network environment. This may present problems, for example, if you wish to print jobs via a hotfolder.

Windows login rights



Remedy: You need to assign network access rights for the EFI XF Server.

See also:

"EFI XF Server Configuration (Windows only)" on page 153

Color management

Initialization of CMM failed

Cause: This could be a wrong setting on the Color management tab or the media profile may be corrupt.

Remedy: Check the color management settings defined for the workflow. Check also the quality settings made for the output device.

Media profiles

I am trying to use a media profile that I have received from a supplier. Why is the name not available for selection in EFI XF?

Cause: A media profile must always be "patched" to an epl file in order to be available for selection in EFI XF.

Remedy: Make sure that the media profile has been"patched" to an epl file using Profile Connector. This tool is a standard component of EFI LinTool/ Color Manager.

I have created a media profile, but why is it not available for selection in EFI XF?

Cause: The profile may not be saved under a unique name, making it difficult to recognize in the list of available media profiles.

Remedy: It is recommended that you create a base linearization for a unique media name, so that the profile can be more easily found in EFI XF.

Cause: The epl file is not saved in the Profiles folder.

Remedy: Make sure that the epl file and the ICC profile are saved in the EFI Media Profiles folder.

Why do I receive the error message "Selected profile is invalid"?

Cause: The media profile may not be correctly "patched" to the epl file. Only media linked to an epl file are listed on the Media pane for the output device. If the media is not listed, it could be because EFI XF is not able to detect the epl.

Remedy: Make sure that the media profile has been correctly "patched" to an epl file using Profile Connector. This tool is a standard component of EFI LinTool/Color Manager.

On the Color Management pane, check the profile selection for the workflow.

Add-on modules

Color Manager, Color Verifier, Color Editor or Dot Creator will not launch in Windows 2003 Server/Windows XP

Cause: Data Execution Prevention may be deactivated.

Remedy: Activate Data Execution Prevention. Proceed as follows for Windows XP (the settings may vary slightly if you are using Windows 2003):

1. **Right-click on My Computer and choose Properties from the context menu.**
2. **In the System Properties dialog, select the Advanced tab.**
3. **Click the Settings button for performance.**
4. **In the Performance Options dialog, select the "Data Execution Prevention" tab.**
5. **Select the radio button "Turn on DEP for essential Windows programs and services only".**

One-bit tiff error in EFI XF "Unknown spot colors detected"

Cause: The syntax is not correct for the naming of the one-bit tiff.

Remedy: On the File formats pane, select the check box "Extract color separation from file header".

USB devices

When I connect my USB measuring device to the computer, I am requested to install the device driver. Should the device driver not be detected automatically?

Cause: Occasionally the device driver may not be detected automatically when you connect the USB device to the computer.

Remedy: The device drivers are installed automatically with the software.

If the wizard prompts you to install the device driver from DVD, display the contents, browse to the USB Measurement Devices folder and select the appropriate device driver.

Why is my USB device not being detected?

Cause: The device driver may not be installed.

Remedy: Install the device driver as follows:

1. **Right-click on My Computer and choose Properties from the context menu.**
2. **On the Hardware tab, click Device Manager.**
3. **Search for Universal Serial Bus controllers.**
4. **Expand the list and search for the device that is not detected. Non-detected devices appear with a question mark next to them.**
5. **Right-click on the device entry and choose Update Driver from the context menu.**
6. **Download and install the current driver by selecting the recommended setting.**

   Alternatively, a list of manufacturer homepages is provided with EFI XF in the Tools and Other folder.

EFI Support

If you run into difficulties while working with EFI XF and you cannot find the solution in this manual, please contact your reseller or distributor for technical assistance. To find the contact details for your region visit http://www.efi.com/bestcolor and click on the Support tab.

Make sure to provide the following information when contacting your reseller or distributor:

- Version name and release number of your software
- License information
- Printer model
- Operating system with version number

Any additional hardware and software you may have installed (e.g. ISDN boards, virus scanners, etc.)

EFI Bestcolor Knowledge Center

EFI has set up an online knowledge center to supplement the information found in this user manual. The EFI Bestcolor Knowledge Center is filled with useful information and tips on working with EFI XF. Therefore, if you are having trouble getting to grips with a certain feature of EFI XF, please visit our website at:

http://www.efi.com/bestcolor

and click on the quick link “User Forum”.

Online user forum

The online forum is open to all users of EFI XF. It enables you to post questions related to any area of EFI XF directly to members of the EFI team. Furthermore, it permits open discussion with other forum members and thus provides an ideal platform for communicating with other users. To register as a forum member visit our website at:

http://proofingforums.efi.com

UNINSTALLING

This section describes how to uninstall EFI XF, the media profiles and Unidriver. The dialogs may vary slightly, depending on the application you are uninstalling.

TO UNINSTALL VIA WINDOWS CONTROL PANEL

Use the procedure below to uninstall EFI XF, media profiles or Unidriver.

1 **Open Control Panel.**

2 **Proceed as folows:**

Windows XP: Double-click Add or Remove Programs.

Windows Vista/7: Double-click Programs\Programs and Features.

Windows 2003/2008: Double-click Software.

3 **In the list of installed programs, select the application you want to uninstall and click Remove (Windows XP and Windows 2003) or Uninstall (Windows Vista and Windows 7).**

4 **Follow the procedure for your operating system for removing programs.**

Make sure to restart your computer before reinstalling.

TO UNINSTALL VIA WINDOWS SETUP PROGRAM

Use the procedure below to uninstall EFI XF or media profiles.

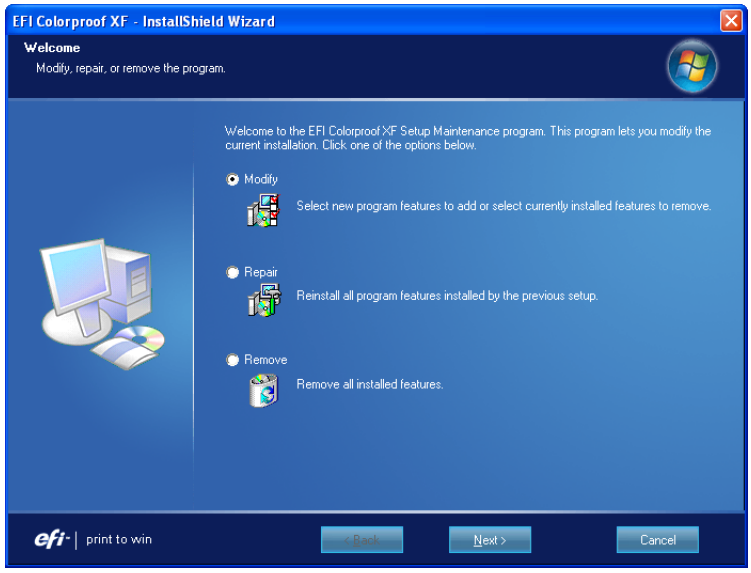
1 **Insert the software DVD into the DVD-ROM drive.**

The start screen starts automatically. If the start screen does not appear, double-click the Start.exe file located on the DVD.

2 **Click Install EFI XF to start installation.**

The Welcome dialog opens:

Welcome dialog



3 **Click Remove and follow the on-screen instructions to complete uninstallation.**

Make sure to restart your computer before reinstalling.

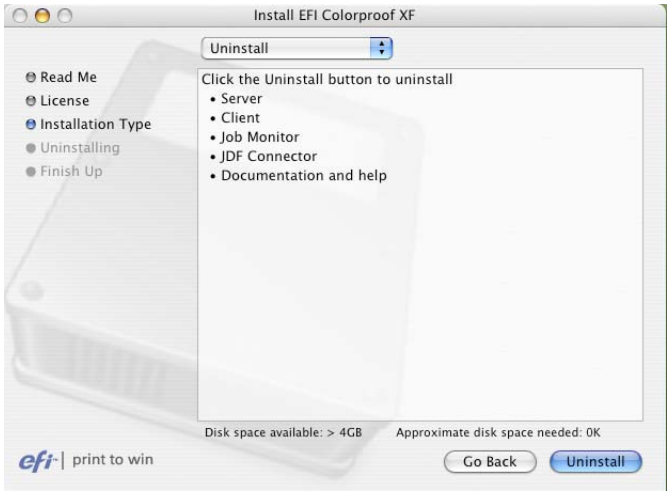
TO UNINSTALL VIA MACINTOSH SETUP PROGRAM

Use the procedure below to uninstall EFI XF or media profiles.

1 **Insert the software DVD into the DVD-ROM drive.**

2 **Double-click the program icon to start the setup procedure and follow the on-screen instructions until you come to the Installation Type dialog.**

Welcome dialog



3 **From the pop-up menu, select "Uninstall".**

4 **Click Uninstall and follow the on-screen instructions to complete the procedure.**

Make sure to restart your computer before reinstalling.

TO UNINSTALL VIA MACINTOSH UNIDRIVER SETUP PROGRAM

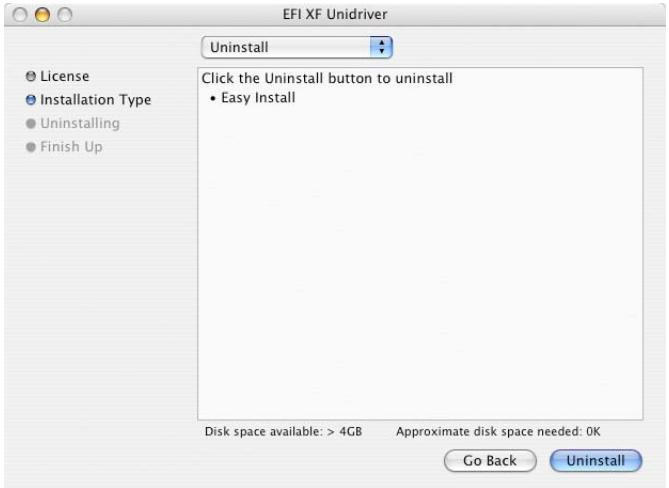
Use the procedure below to uninstall Unidriver.

1 **Insert the software DVD into the DVD-ROM drive.**

2 **Double-click Tools & Other and open the Unidriver/Mac folder.**

3 **Double-click the EFI XF Unidriver file to start the setup procedure and follow the on-screen instructions until you come to the Installation Type dialog.**

Welcome dialog



4 **From the pop-up menu, select "Uninstall".**

5 **Click Uninstall and follow the on-screen instructions to complete the procedure.**

GLOSSARY

This glossary gives a brief explanation of the terms used in this manual.

Base linearization

Printers do not work in a linear fashion and achieve their maximum color density at approximately 50%. As a result, test charts for creating profiles do not have differentiated color patches for the upper chromatic values.

A base linearization makes the density curve of the printer linear (input value = output value), thus creating an important basis for ICC-compatible color management.+

C

Color temperatur of 6,774 Kelvin, which corresponds to daylight.

CIE 94

A tolerancing system utilizing three-dimensional ellipsoids as containers for color acceptance. CIE 94 is similar to CMC but lacks some of the hue lightness adjustments. CIE 94 colors have 95% agreement with color differences as our eyes see them. CIE 94 is used predominantly in the paint and coatings industry.

CIELAB

A color model based on the model proposed by the Commission Internationale d'Eclairage (CIE) in 1931 as an international standard for color measurement. In 1976, this model was refined and named CIELAB. L*a*b* color is designed to be device-independent and perceptually uniform. L*a*b* color consists of a luminance or lightness component (L*) and two chromatic components: the a* component (from green to red) and the b* component (from blue to yellow).

CIELCH

A color space similar to CIELAB, which uses cylindrical coordinates of lightness, chroma, and hue angle instead of rectangular coordinates.

CMC

A tolerancing system based on CIELCH. It portrays colors as three-dimensional ellipsoids and represents colors as they are interpreted by the human eye. CMC colors have 95% agreement with color differences as our eyes see them. CMC is used predominantly in the textile industry.

Compensation of plate characteristic

A function to linearize a non-linear plate characteristic of one-bit files before they are processed in color management. This enables the use of media profiles that are based on linear continuous-tone data.

To produce a color-accurate proof from non-linear plate characteristics calculated into the one-bit files requires a media profile that is based on the IT8 target using the non-linear one-bit files.

csv

A file format for saving color measurement results in Color Verifier. A csv file can also be opened and edited in any spreadsheet application.

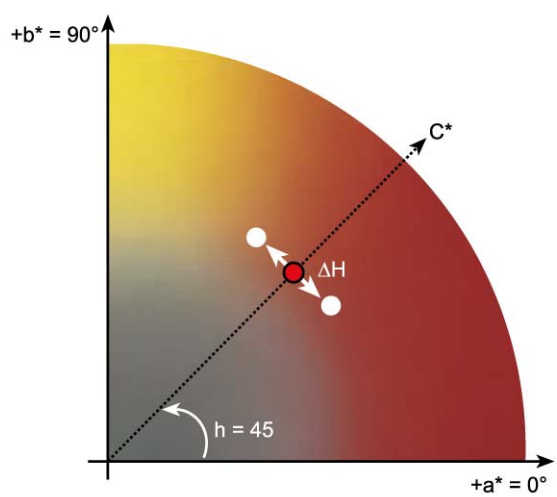
Delta E

The mathematically calculated distance in the CIE L*a*b* color space between two colors. Delta E is used to check total color tolerances in a color-amangement environment.

Delta H

The difference in hue. In a color wheel, hue is defined by the angle between two colors.

Delta H



See also Hue

Delta T

The ISO 12647 norm defines delta T purely as a colorimetric value for dot gain — unlike the dot gain commonly referred to in printing houses, which is composed of an optical part (light trapping) and a mechanical part (dot spread).

Dot gain can only be measured using pure primary colors. If, for example, the full-tone color Cyan is output on an inkjet printer to simulate offset printing, it will not have the CMYK value 100, 0, 0, 0, but will also contain a percentage of magenta, yellow and black.

Device link profile

A Device Link profile represents a fixed combination of printer and media type.

Device Link profiles can be created with EFI Color Manager. They must be patched to the EPL linearization file and a media profile using Profile Connector. This tool is available in EFI LinTool and EFI Color Manager.

Dot gain

See Tone value

EFI Remoteproof Container

The file format used to send the image file and settings from one location to another. The EFI Remoteproof Container consists of a pdf file (print file) and a jdf file (settings file), which are compressed into a single file, the so-called EFI Remoteproof Container with the file extension RPF.

Final Page

A third file that is often produced in addition to CT and LW files during TIFF/IT file creation. A final page file contains information extracted from the CT and LW files and ensures that:

- CT and LW files are clearly recognizable as belonging to the same print job
- photos are always correctly positioned at the right coordinates in the final output file

A final page is essential if you are printing a job with a photo that is not positioned in the top left corner of the page.

Gamma

The ratio of the contrast range between original and reproduction. A gamma value of 1 means that the original and copy proof have the same contrast range.

Halftone screening

A process by which a continuous-tone image is converted into a pattern of regularly spaced dots. The individual dots all have the same density, but vary in size. The color tone of a printed area is dictated by the size of the printed dots — the larger the dots, the darker the reproduced color tone.

Hue

The dominant wavelength of a color. A color system, or model, measures color by hue, saturation and luminance. The hue is the predominant color, such as yellow or green, the saturation is the color intensity, and the luminance is the brightness.

jdf

Job Definition Format. A file format used in the graphics industry to standardize communication between the individual pre-press, print and further processing stages.

The jdf file contains all the settings made in an EFI proofing product that affect color reproduction, including print resolution and media.

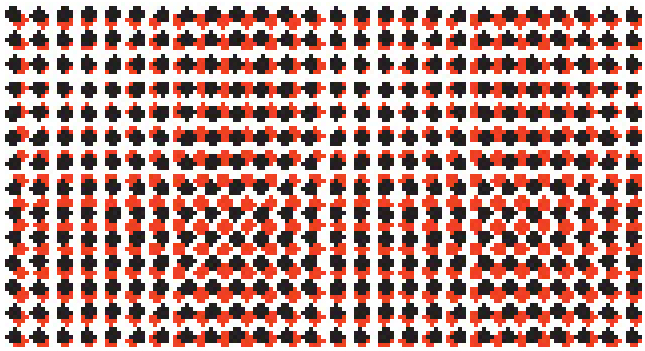
L*a*b*

See CIELAB

Moiré

An interference pattern caused by incorrect selection of halftone screen angles relative to each other. Moiré can be minimized by keeping a 30-degree angle between the separate halftone screens. However, with a total of four colors and 90 degrees of angle to play with, this is not possible. To overcome this issue, yellow — the lightest and least visible color — is often positioned only 15 degrees away from cyan and the halftone angles are rotated 7.5 degrees from the vertical axis.

Moiré pattern



Page

Image on a nesting. Pages can be in any supported file format. For multi-page documents, each page is nested and previewed.

pdf

Portable Document Format. A method of formatting documents in such a way that they can be viewed and printed on multiple platforms using the freely available Adobe Acrobat Reader™.

Printer relinearization

A process to re-adjust the color densities and return the printer to the original state used to generate the base linearization.

Quantity of color

A process to define the maximum quantity of ink for each ink channel and so prevent colors from becoming oversaturated and »bleeding«.

RGB

The additive color system used in digital cameras and computer monitors where red, green, and blue light is captured separately and then combined to create a full color image.

Tone value

The amount that an ink halftone dot expands when applied to the surface of a media, causing darker tones or stronger colors. This is usually a factor of the type of press and the absorbency of the media.

For example, screen printing increases density by about 15%, so an image with a 50% black fill would appear as approximately 65% balck after printing.

Screen angle

The degree of rotation at which a halftone screen is printed. Each element in a four-color separation must be photographed through a screen that has been placed at a specific angle in order to eliminate moiré patterns when the colors are superimposed. Precise alignment is necessary and the order in which the color separations are printed can also affect the finished print image.

See also Halftone screening and Moiré

Screen ruling

The number of lines per centimeter or per linear inch in a halftone screen. The higher the screen ruling, the smaller the dot size and the smoother the tonal changes will appear to the eye.

See also Halftone screening

Sheet

Sheet refers to thedefined output size of a nesting. It can be equal to, or smaller or larger than the media size defined for the output device. If the defined sheet size exceeds the maximum media size supported by the selected printer, the nesting can be output as a tiling.

System workflow

A system workflow consists of a user, workflow and output device. It refers to all work processes from file input by a user to file output on a specified printer.

TIFF/IT

When image data is saved to TIFF/IT format, the pixel data of a job is saved to two different files:

- The CT (continuous tone) file describes low resolution and half-tone data (e.g. photos). A CT file may also be created for each separated spot color.
- The LW (line work) file describes high resolution text or line graphics.

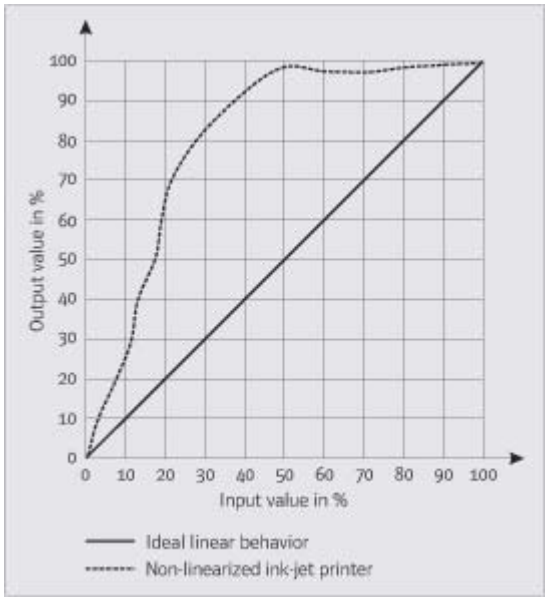
In order for the print job to be output, these files have to be combined back together.

Total ink limit

The total ink limit describes the point at which a printer attains its maximum color density.

Most inkjet printers do not increase color density in a linear fashion. In many cases, the maximum color density is achieved at approx. 50%, as illustrated in the graph.

Total ink limit



White point

In printing, the white point describes the whiteness of the paper. In colorimetric terms, the white point is defined as the chromaticity of a white light source or other emissive object. The white point may be expressed in terms of correlated color temperature or chromaticity coordinates.

XYZ

A device-independent color model developed by CIE (Commission Internationale de l'Eclairage), in which RGB values are mathematically transformed into a system that uses x, y and z as coordinates. While x and z values have no specific perceptual correlation, the y value represents brightness (luminance).

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