enfocus PITSTOP SERVER 2020

Reference Guide

03 - 2020

enfocus

Contents

1. About the Enfocus PitStop Server documentation.....7

2. Understanding Enfocus PitStop Server.....8
2.1. About Enfocus PitStop Server.....8
2.2. Enfocus PitStop Server and Enfocus Switch.....8
2.3. The Enfocus PitStop Server CLI.....9

3. Installing and activating PitStop Server.....11
3.1. Installing Enfocus PitStop Server.....11
3.1.1. Installing PitStop Server from DVD.....11
3.1.2. Installing PitStop Server from the Enfocus website.....11
3.2. Activating PitStop Server.....12
3.2.1. Activating PitStop Server (traditional license).....12
3.2.2. Activating a subscription ID (subscription).....21
3.3. Getting Support.....23
3.3.1. What to do in case of problems.....23
3.3.2. Finding support information.....23
3.3.3. Reporting a problem.....24

4. Starting and exiting PitStop Server.....25
4.1. Starting PitStop Server.....25
4.1.1. Running the Watchdog as a service on Windows.....25
4.1.2. Running the Watchdog as a daemon on Mac.....26
4.2. Exiting PitStop Server.....27

5. Looking at the Enfocus PitStop Server Work Area.....28
5.1. The Lock Settings button.....28
5.1.1. Locking PitStop Server.....28
5.1.2. Unlocking PitStop Server.....28
5.2. The PitStop Server Hot Folder tab.....29
5.3. The PitStop Server Progress tab.....30
5.4. The PitStop Server History tab.....30
5.5. The Hot Folder Editor.....31
5.5.1. Displaying the Hot Folder Editor dialog.....32
5.5.2. Using the Hot Folder Editor.....32
5.6. The PitStop Server Menu.....33
5.6.1. File menu.....33
5.6.2. Edit menu.....33
5.6.3. Hot Folder menu.....33
5.6.4. Progress menu.....34
5.6.5. History menu.....34

5.6.6. Window menu....35
5.6.7. Dashboard....35
5.6.8. Help menu....36

6. Working with hot folders....37
6.1. What are hot folders?....37
6.1.1. Hot folders defined....37
6.1.2. Hot folder workflow illustrated....37
6.1.3. Main rules for valid hot folders....38
6.2. What is processing?....39
6.2.1. Processing defined....39
6.2.2. Action Lists and Preflight Profiles: required "fuel" for processing....39
6.2.3. Process results....40
6.3. Types of folders....41
6.3.1. Organizing your Enfocus PitStop Server work environment....41
6.3.2. Base folder....41
6.3.3. Input Folder....41
6.3.4. Folders for original documents....42
6.3.5. Folders for processed documents....42
6.3.6. Output folders for non-PDF files....42
6.3.7. Folders for reports....42
6.4. Managing hot folders....43
6.4.1. Creating a hot folder....43
6.4.2. Editing a hot folder....43
6.4.3. Duplicating a hot folder....43
6.4.4. Deleting a hot folder....44
6.4.5. Exporting a hot folder....44
6.4.6. Importing a hot folder....44
6.5. The hot folder status....45
6.6. The hot folder priority....46

7. Setting up hot folders....47
7.1. Setting up a hot folder....47
7.2. Hot Folder Properties: General....47
7.2.1. Enabling a hot folder....48
7.3. Hot Folder Properties: Folders....48
7.3.1. Creating a folder structure....49
7.3.2. Editing a folder structure manually....50
7.3.3. Switching between absolute and relative paths....51
7.4. Hot Folder Properties: Processing....52
7.4.1. Subfolder Processing....52
7.4.2. Report Generation....52
7.4.3. Optimization on save....54
7.4.4. File Name....54

7.5. Hot Folder Properties: Flattening....55
7.5.1. About transparency flattening....55
7.5.2. Setting up transparency flattening....56
7.5.3. Flattening category: options....56
7.6. Hot Folder Properties: Action Lists and Preflight Profile....60
7.6.1. Adding one or more Action Lists to a hot folder....60
7.6.2. Adding a Preflight Profile to a hot folder....61
7.6.3. Where Can I Find Action Lists and Preflight Profiles?....61
7.7. Hot Folder Properties: Smart Preflight....62
7.7.1. Applying a Variable Set....63
7.7.2. Enabling the use of a Job Ticket....63
7.8. Hot Folder Properties: Certified PDF....64
7.8.1. Changing the Certified PDF status of an incoming PDF....64
7.8.2. Certified options....65
7.9. Hot Folder Properties: Color Management....65
7.10. Hot Folder Properties: Fonts....65
7.11. Hot Folder Properties: E-mail Notification....66
7.11.1. Setting up e-mail notifications....66
7.12. Hot Folder Properties: Summary....67

8. Running jobs through PitStop Server....68

9. Monitoring active jobs....69
9.1. Sorting the active jobs....69
9.2. Pausing all active jobs....69
9.3. Resuming all active jobs....69
9.4. Cancelling active jobs....69

10. Viewing finished jobs in the History tab....71
10.1. Managing the History List....71
10.1.1. Filtering the History....71
10.1.2. Deleting jobs from the list....72
10.2. Exporting the History....73
10.3. Viewing statistics....73
10.4. Special Events Log....73

11. Setting the Enfocus PitStop Server Preferences....74
11.1. Setting the Measurement Units....75
11.2. Setting the Language....75
11.3. Setting the Folders....76
11.4. Setting the Processing preferences....77
11.5. Setting the File Cleanup preferences....77
11.6. Setting your Font preferences....78
11.7. Setting your Color Management preferences....78
11.8. Setting your E-Mail preferences....79

11.9. Setting your Personal Info ... 79
11.10. Setting the Update Preferences ... 80

12. Using Action Lists ... 81
12.1. Where to find Action Lists in PitStop Server ... 81
12.2. Editing an Action List ... 83
12.3. Creating an Action List ... 83
12.4. Exporting an Action List ... 84
12.5. Importing an Action List ... 85
12.6. Duplicating an Action List ... 85
12.7. Removing an Action List ... 85

13. Preflighting and Checking PDF Documents ... 86
13.1. What is preflighting? ... 86
13.1.1. Preflighting defined ... 86
13.1.2. Preflight Profiles ... 86
13.1.3. Preflighting in Enfocus PitStop Server ... 87
13.2. Where to find Preflight Profiles in PitStop Server ... 88
13.2.1. The Preflight Profile Panel ... 88
13.2.2. The Enfocus Preflight Profile Editor ... 90
13.3. How to create and edit a Preflight Profile ... 92
13.3.1. Creating and editing a Preflight Profile ... 92
13.3.2. Locking a Preflight Profile with a password ... 108
13.4. Smart Preflight ... 109
13.4.1. About Smart Preflight ... 109
13.4.2. Getting started with Smart Preflight ... 110
13.4.3. Setting up Smart Preflight ... 111
13.4.4. Using Smart Preflight variables in Action Lists ... 127
13.4.5. Troubleshooting for Smart Preflight ... 128

14. Working with Certified PDF documents ... 131
14.1. Understanding Certified PDF ... 131
14.1.1. PDF workflow concept ... 131
14.1.2. A conventional PDF workflow ... 133
14.1.3. The Certified PDF workflow ... 133
14.1.4. What is an Enfocus Certified PDF document? ... 135
14.2. Starting a Certified PDF workflow ... 135
14.2.1. Setting the personal information ... 135
14.2.2. Starting a Certified PDF workflow for a PDF document ... 136
14.3. Adding a session comment ... 136
14.4. Checking Certified PDF files ... 137
14.4.1. Checking the Certified PDF status of a PDF ... 137

15. Managing fonts ... 139
15.1. Types of fonts and their usage ... 139

15.1.1. Types of fonts ... 139
15.1.2. Standard 14 fonts ... 139
15.1.3. PostScript Type 1 fonts ... 140
15.1.4. PostScript Type 3 fonts ... 141
15.1.5. TrueType fonts ... 141
15.1.6. Multiple Master fonts ... 142
15.1.7. OpenType fonts ... 142
15.1.8. Composite fonts ... 143
15.2. PDF font substitution ... 144
15.2.1. Finding exact font names ... 144
15.3. Embedding versus subsetting fonts ... 145
15.3.1. Embedding fonts ... 145
15.3.2. Subsetting fonts ... 145
15.4. Embedding missing fonts ... 146
15.4.1. About embedding missing fonts ... 146
15.4.2. To embed missing fonts ... 146

16. Managing color ... 147
16.1. About color management ... 147
16.2. Color models ... 147
16.2.1. The RGB color model ... 147
16.2.2. The CMYK color model ... 147
16.2.3. The grayscale model ... 148
16.3. Color gamuts and color spaces ... 148
16.3.1. Color gamut: device-related subset of the color spectrum ... 148
16.3.2. Device-dependent color ... 149
16.3.3. Device-independent color ... 149
16.4. Rendering intents ... 149
16.4.1. Rendering intents to remap colors ... 149
16.4.2. Perceptual remapping ... 150
16.4.3. Saturation remapping ... 150
16.4.4. Relative colorimetric remapping ... 151
16.4.5. Absolute colorimetric remapping ... 151
16.5. Using Color Management in Enfocus PitStop Server ... 152
16.5.1. Working with ICC profiles ... 152
16.5.2. Using ICC profiles in Enfocus PitStop Server ... 152
16.5.3. Disabling color management ... 154
16.6. Spot colors ... 155
16.6.1. About spot colors ... 155
16.6.2. Unambiguously defined spot colors ... 155
16.6.3. Converting spot colors to the equivalent CMYK process colors ... 156

17. Third-Party License Information ... 157

18. Copyrights ... 171

1. About the Enfocus PitStop Server documentation

The complete PitStop Server documentation consists of multiple parts.

Part	Description/location
Reference Guide	Describes the PitStop Server features in detail. *http://www.enfocus.com/manuals/ReferenceGuide/PS/20/enUS/home.html*
Action List Library Action List Manual	*http://www.enfocus.com/en/support/downloads/pitstop-action-lists* *http://www.enfocus.com/manuals/Extra/Actions/20/home.html*
Preflight Profile Library	*http://www.enfocus.com/en/support/downloads/pitstop-preflight-profiles*
Solution Articles	*https://www.enfocus.com/en/support/known-issues-and-solutions*
Customize Report Templates	Describes how you can customize Preflight Report templates, e.g. add a company logo, change the header or colors used in the Report, ... *http://www.enfocus.com/manuals/Extra/CustomReportTemplate/20/home.html*
Preflight Report Help	*http://www.enfocus.com/manuals/Extra/PreflightReportHelp/20/home.html*
Movies	*http://www.youtube.com/enfocuscommunity*
End User License Agreement	Menu bar: **Help** > **License Agreement (PDF)**

2. Understanding Enfocus PitStop Server

2.1. About Enfocus PitStop Server

Enfocus PitStop Server is a stand-alone and hot folder based application. It allows you to easily set up and manage PDF based workflows.

Hot folders defined

An Enfocus PitStop Server hot folder is a collection of dedicated folders for batch PDF processing. You create such folders on the hard disk of your computer or on a network drive. Enfocus PitStop Server automatically processes PDF documents that arrive in a given input folder of this hot folder and places the processed files based on the result accordingly in the specified output folder. The original PDF document and the preflight results can be saved in the same or a different folder, depending on whether processing was successful or not.

The hot folder's input folder is an **active** folder: Enfocus PitStop Server will monitor the input folder of a hot folder at regular intervals and will, upon arrival of a PDF document in this input folder, start the appropriate automatic action.

Hot folders are **interlinked** folders. You use the Hot Folder Editor to create the links between the folders of a hot folder: you specify the path the PDF documents have to follow as they are processed.

Components

Enfocus PitStop Server consists of a number of components, amongst which the PitStop Server application, and the PitStop Server Watchdog. Enfocus PitStop Server can process in the background, even after closing the PitStop Server application.

- The **PitStop Server** application is the actual user interface. It allows to define and edit hot folders, monitor active jobs, and view the job history. Note that files can be processed even when the user interface is closed, thanks to the second component: the Watchdog.
- The **PitStop Server Watchdog** is an application that ensures that all necessary software components to process files are running. If a component hasn't started, or has quit for any reason, the PitStop Server Watchdog will launch or relaunch this software component.

Note: OS permissions can impose restrictions on editing hot folders. While this may be helpful in some cases you must ensure that the PitStop Server Watchdog user and the user who edits hot folders have full permissions.

2.2. Enfocus PitStop Server and Enfocus Switch

To be able to use the PitStop Server functionality in Switch, Enfocus has developed two PitStop Server configurators:

- **PitStop Server**: Preflights and processes PDF files in an automated way. Note that only single files (so no job folders) can be processed.

- **PitStop Server PDF2Image**: Renders PDF files to images, either as a whole or split into separations. Note that the configurator can also handle Switch metadata attached to the PDF.

These configurators are automatically installed with PitStop Server and overwrite any previous versions of this configurator (e.g. older versions installed with Switch). This way, the configurators are always up-to-date.

If PitStop Server is running while processing jobs through the *PitStop Server configurator* in Switch, the PitStop Server user interface can be used to check the Switch jobs. Just like for the regular hot folder jobs, you can:

- Check which files are being processed (in the *Hot Folder tab*) or have been processed earlier (in the *History tab*).
- Follow up on the job progress e.g. of large files (in the *Progress tab*).
- Generate statistics (*via the Statistics button in the History tab*).

Important: Switch jobs (called *rush* jobs) take priority over regular hot folder jobs. This is also the case for CLI jobs (See *The Enfocus PitStop Server CLI* on page 9). In the PitStop Server UI, Switch and CLI jobs can be recognized by the following icon: .

Compatibility

- The **PitStop Server configurator** included in the installer of PitStop Server is compatible with **Switch 12 and later**. Previous versions of Switch use an old, built-in configurator, which remains valid, but will not be updated automatically via PitStop Server.
- The **PitStop Server PDF2Image** configurator is compatible with **Switch 12 update 3 and later** (for users who have purchased the Configurator Module) or with **Switch 13 and later** (for users who have both PitStop Server and Switch but no Configurator Module).

Want to know more?

The *Switch* documentation can be found on the Enfocus website: *http://www.enfocus.com/en/support/manuals/switch-manuals*.

2.3. The Enfocus PitStop Server CLI

PitStop Server CLI is the command-line interface of PitStop Server. It is part of the standard PitStop Server release, and allows to integrate the PitStop technology with any other application.

If PitStop Server is running while processing files through the CLI, the PitStop Server user interface can be used to check the CLI jobs. Just like for the regular hot folder jobs, you can:

- Check which files are being processed (in the *Hot Folder tab*) or have been processed earlier (in the *History tab*).
- Follow up on the job progress e.g. of large files (in the *Progress tab*).
- Generate statistics (*via the Statistics button in the History tab*).

Important: CLI jobs (called *rush* jobs) take priority over regular hot folder jobs. This is also the case for Switch jobs (See *Enfocus PitStop Server and Enfocus Switch* on page

8). In the PitStop Server UI, Switch and CLI jobs can be recognized by the following icon: .

In addition to file processing, the PitStop Server CLI allows you to render the pages of a PDF to images, either as a whole or split into separations. This functionality is not yet available in the standard product. Switch users however can make use of this functionality through the Enfocus PitStop Server PDF2Image configurator.

Want to know more?

The PitStop Server CLI documentation can be found on the Enfocus website: *http://www.enfocus.com/en/support/manuals/pitstop-server-manuals*.

3. Installing and activating PitStop Server

Before you can start using PitStop Server, you must:

1. *Install the application*, either from the Enfocus website or from a DVD.
2. *Activate the application*.

Once installed and activated, *you can start the application*.

3.1. Installing Enfocus PitStop Server

Installers

In previous versions of PitStop Server, there was a 32-bit installer for Windows. As of PitStop 2020, there's only a 64-bit installer available.

System requirements

The system requirements are displayed during the installation process, and can also be found *on the Enfocus website under Support*.

3.1.1. Installing PitStop Server from DVD

1. Insert the Enfocus DVD into your DVD drive.
2. In Microsoft Windows, the flash movie will start automatically if the AutoPlay function is enabled for that DVD drive. On Mac OS, you need to open the DVD, and double-click the "Start" flash movie.
3. A flash movie will guide you to the installer.
4. Follow the installation instructions on your screen.

After installing Enfocus PitStop Server, it can be advisable to lock Enfocus PitStop Server using a password. For more information, refer to *The Lock Settings button* on page 28.

3.1.2. Installing PitStop Server from the Enfocus website

1. Go to the PitStop Server product page on the Enfocus website (*www.enfocus.com*).
2. Download the Enfocus PitStop Server installer from the site.
3. Start the appropriate installer.
4. Follow the installation instructions on your screen.

After installing Enfocus PitStop Server, it can be advisable to lock Enfocus PitStop Server using a password. For more information, refer to *The Lock Settings button* on page 28.

3.2. Activating PitStop Server

Before you can start working with PitStop Server, you must activate the product.

The procedure depends on the license type you've bought:

- In case of a **traditional, perpetual license**, you have to activate the product key you received at the time of the purchase. Refer to *Activating PitStop Server (traditional license)* on page 12.
- In case of a **subscription**, you have to activate your subscription ID to start your contract term. Refer to *Activating a subscription ID (subscription)* on page 21.

  Note that subscription licenses are not available for Japanese and Chinese.

Enfocus ID

For most Enfocus products, you need an Enfocus ID. This is a free account that is used for all communication with Enfocus. You can create one through the *the Account section* on the Enfocus website (clicking the **Get an Enfocus ID** link).

3.2.1. Activating PitStop Server (traditional license)

After installing Enfocus PitStop Server, you can activate it from the PitStop Server dialog. This dialog pops up automatically when using Enfocus PitStop Server for the first time. If it is not opened automatically, you can open it yourself. Refer to *Opening the About Enfocus PitStop Server dialog* on page 12.

You now have two options:

- If you want to try the application before you buy it, you can **activate a trial version**. This version remains active for 30 days.
- If you have purchased the application, you should **activate your permanent license**.

There are several **methods** to activate Enfocus PitStop Server:

- If you only want to activate the trial version, refer to *Activating the 30-day trial version* on page 13.
- If you installed Enfocus PitStop Server on a computer without internet access, refer to *Activating PitStop Server (offline method)* on page 14
- If you installed Enfocus PitStop Server on a computer with internet access, refer to *Activating PitStop Server (online method)* on page 13.

3.2.1.1. Opening the About Enfocus PitStop Server dialog

The About PitStop Server dialog allows you to activate PitStop Server.

To open this dialog

1. Select **Help** > **About PitStop Server**.
2. To manage your licenses, switch to the **License** tab.

3.2.1.2. Activating the 30-day trial version

To activate the 30-day trial version

1. When you launch PitStop Server for the first time, the About Enfocus PitStop Server dialog pops up automatically.

   Alternatively, you can open it yourself. Refer to *Opening the About Enfocus PitStop Server dialog* on page 12.

2. In the **About Enfocus PitStop Server** dialog box, on the **License** tab, enter your Enfocus ID and password.

   The Enfocus ID is a new account that replaces all former Enfocus accounts (the webshop, product activation and support portal account). If you don't have one yet, click the **Create Enfocus ID** link and follow the on-screen instructions.

3. Click **Sign in**.

4. Click **Start Trial**.

3.2.1.3. Activating PitStop Server (online method)

Before you start:

- Your system must have internet access to communicate with the Enfocus web server.
- You must have a product key.
- If you're using a firewall, make sure to allow PitStop Server to communicate with *https://licensingservices.esko.com* using ports 80 and 443.

To activate PitStop Server

1. In the **About Enfocus PitStop Server** dialog box, on the **License** tab, enter your Enfocus ID and password.

   The Enfocus ID is a new account that replaces all former Enfocus accounts (the webshop, product activation and support portal account). If you don't have one yet, click the **Create Enfocus ID** link and follow the on-screen instructions.

2. Click **Sign in**.

3. Click **Activate Product Key**.

4. Enter your product key by doing one of the following:

   - Type or copy-paste your product key in the **Activated licenses** field.
   - Browse to your product key license file (for example: LicensesBackup.html) or drag it to the **Activated licenses** field.

5. Click **Activate**.
   Your system communicates with the Enfocus webserver and activates PitStop Server.

6. To close the dialog, click **Close**.

3.2.1.4. Activating PitStop Server (offline method)

Before you start:

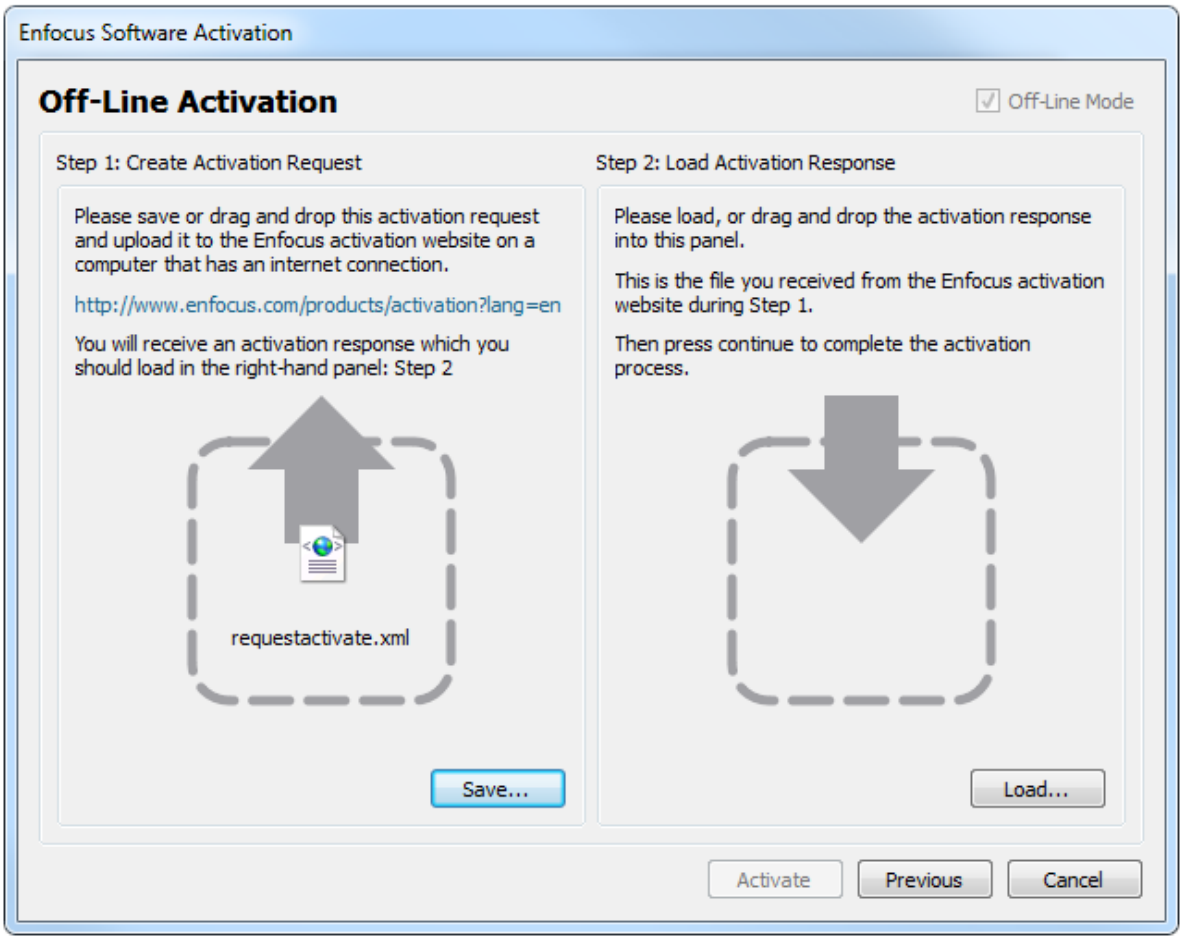
- In addition to your offline system on which PitStop Server is installed, you must have a system with internet access to communicate with the Enfocus web server.
- You must have a product key.
- If you've never installed an Enfocus product before, you have to initialize the application first! See *Initializing PitStop Server (offline)* on page 16.

To activate PitStop Server

1. On your offline system with PitStop Server:
   a. In the **About Enfocus PitStop Server** dialog box, on the **License** tab, enter your Enfocus ID and password.

      The Enfocus ID is a new account that replaces all former Enfocus accounts (the webshop, product activation and support portal account). If you don't have one yet, click the **Create Enfocus ID** link and follow the on-screen instructions.
   b. Click **Sign in**.
   c. Click **Offline Activation**.

      This button appears if PitStop Server detects that there is no internet connection. If for any reason this button is not available, select the **Offline mode** checkbox at the bottom of the tab.
   d. Click **Activate Key**.
   e. Enter your product key by doing one of the following:
      - Type or copy-paste your product key in the **Product key** field.
      - Browse to your product key license file (example: LicensesBackup.html) or drag it to the **Product key** field.
   f. Click **Activate**.
      The following dialog box opens:



g. In **Step 1**, click **Save**.
   PitStop Server creates a file: requestactivate.xml.

2. Make requestactivate.xml available on your online system.

   Example: You can copy requestactivate.xml to a USB stick, and connect the USB stick to your online system.

3. On your online system:
   a. Go to *http://www.enfocus.com/products/activation?lang=en*
   b. Upload requestactivate.xml, and click **Continue**.
   c. Fill in your Enfocus ID password, and click **Continue**.
   d. Click **Continue** to confirm.
      The Enfocus web server creates a file: activation-response.xml.
   e. Download the file.

4. On your offline system with PitStop Server:
   a. In **Step 2**, upload activation-response.xml.
   b. Click **Activate**.
      Your system activates PitStop Server.
   c. To close the confirmation dialog, click **Close**.

Initializing PitStop Server (offline)

This procedure describes how to initialize PitStop Server. Note that this is only required:

- If it is the first time you're activating an Enfocus product on a particular computer.
- If you want to activate PitStop Server offline, i.e. on a computer *without internet access*. In case of online activation, initialization is done automatically in the background.

Prerequisites:

- You need an additional computer with internet access to communicate with the Enfocus web server.
- You need an Enfocus ID. To create an Enfocus ID (on a computer with internet access), go to the Account section of the Enfocus website and follow the on-screen instructions. After completing the form, you will receive an e-mail with your Enfocus ID and password.

How it works:

Initializing PitStop Server consists of three steps:

1. Create an initialization request on the computer on which you installed PitStop Server.
2. Save this file on another computer with internet access and upload it to the Enfocus activation website. Enfocus will provide you with a response file.
3. Upload the response file to the computer on which you installed PitStop Server.

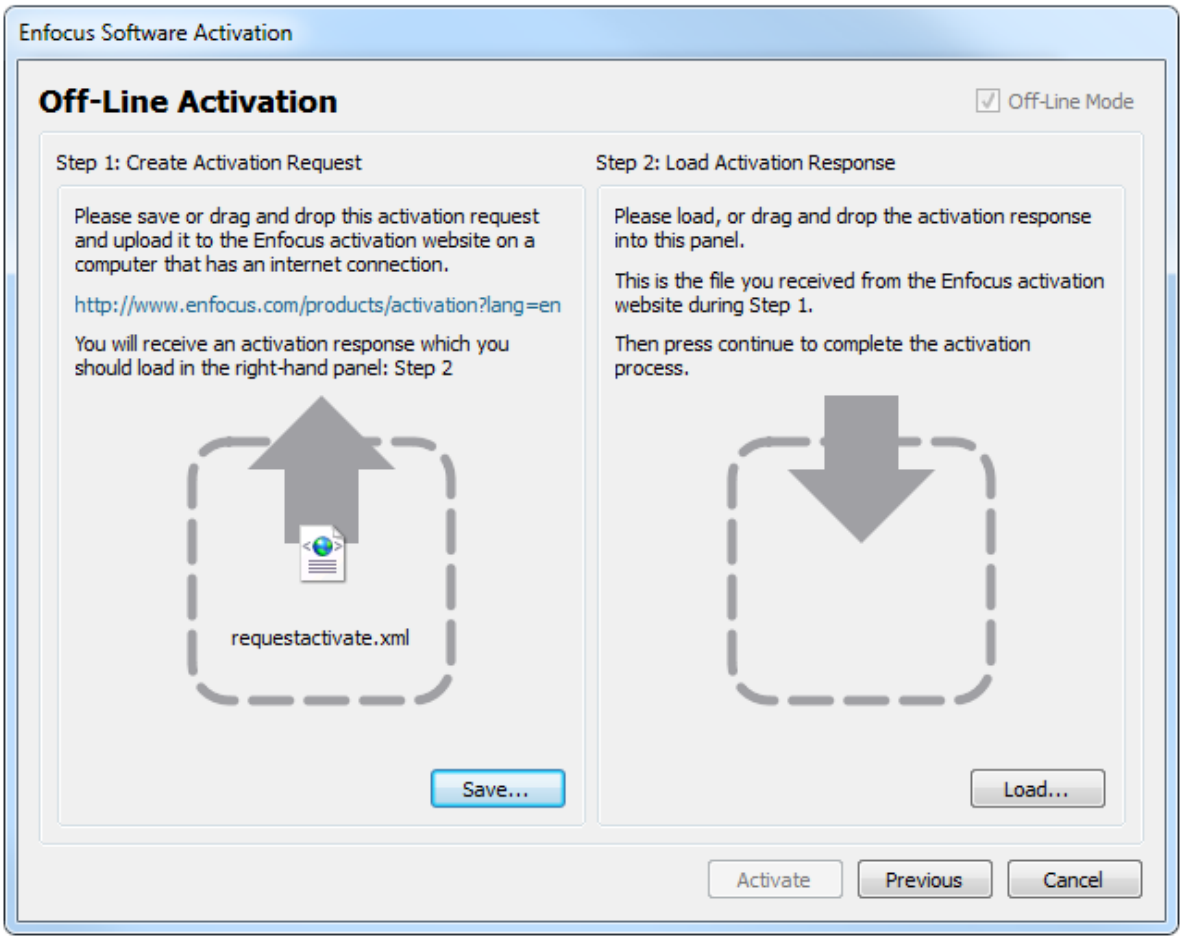
Each of these steps is explained below.

To initialize PitStop Server

1. On your offline system with PitStop Server:
   a. In the **About Enfocus PitStop Server** dialog box, on the License tab, enter your Enfocus ID and password.

      The Enfocus ID is a new account that replaces all former Enfocus accounts (the webshop, product activation and support portal account). If you don't have one yet, click the **Create Enfocus ID** link and follow the on-screen instructions.
   b. Click **Sign in**.
   c. Click **Offline Activation**.

      This button appears if PitStop Server detects that there is no internet connection. If for any reason this button is not available, select the **Offline mode** checkbox at the bottom of the tab.
   d. Click **Activate Key**
   e. Enter your product key by doing one of the following:
      - Type or copy-paste your product key in the **Product key** field.
      - Browse to your product key license file (example: LicensesBackup.html) or drag it to the **Product key** field.
   f. Click **Activate**.
      The following dialog box opens:



g. In **Step 1**, click **Save**.
   PitStop Server creates a file: requestinitialize.xml.

2. Make requestinitialize.xml available on your online system.

   Example: You can copy requestinitialize.xml to a USB stick, and connect the USB stick to your online system.

3. On your online system:
   a. Go to *http://www.enfocus.com/products/activation?lang=en*
   b. Upload requestinitialize.xml, and click **Continue**.
   c. Fill in your Enfocus ID password, and click **Continue**.
   d. Click **Continue** to confirm.
      The Enfocus web server creates a file: response.xml.
   e. Download the file.

4. On your offline system with PitStop Server:
   a. In **Step 2** (right part of the dialog), upload response.xml.
   b. Click **Initialize**.
      Your system initializes PitStop Server.

Once you have initialized PitStop Server, the Off-Line Activation dialog appears. You can immediately go on with the last substep of step 1 (save requestactivate.xml) of the *offline activation procedure*.

3.2.1.5. Managing your Enfocus licenses

Once you have installed Enfocus PitStop Server, you can manage your Enfocus PitStop Server license from within the application. You can for example check the status of your other Enfocus licenses, deactivate or repair your PitStop Server license, export license information, and so on.

Deactivating a license is required before you can move the license to another system. This is also required if you want to move from one system to another using a system image.

Repairing a license can be necessary, if the hardware characteristics of your computer have changed, for example, if you added memory or a new network card.

Deactivating PitStop Server (online method)

Use this task when you want to move the license to another system.

To deactivate PitStop Server

1. In the **About Enfocus PitStop Server** dialog box, on the **License** tab, select the product key you want to deactivate.
2. Enable the **Export license information during deactivation** option.
   This enables you to download the license file, so that you can reactivate it on another system.
3. Click **Deactivate**.
4. Browse to a download location, and click **Save**.
   PitStop Server creates a license file: LicensesBackup.html. Your system deactivates PitStop Server.
5. Click **Close**.

Deactivating PitStop Server (offline method)

Use this task, for example, when you want to move the license to another system.

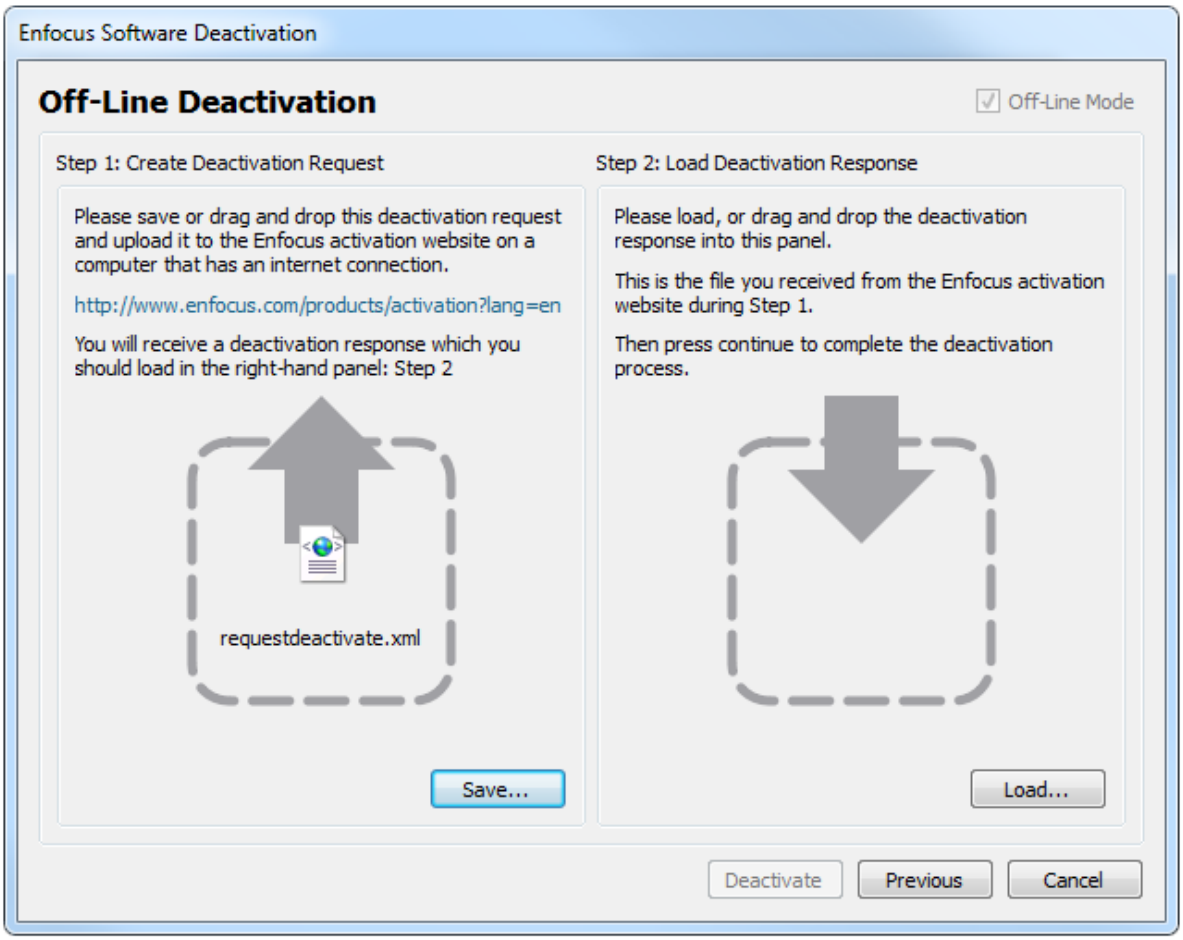
In addition to your offline system on which PitStop Server is installed, you must have a system with internet access to communicate with the Enfocus web server.

To deactivate PitStop Server

1. On your offline system with PitStop Server:
   a. In the **About Enfocus PitStop Server** dialog box, select the product key you want to deactivate.
   b. Enable the **Off-Line Mode** option at the bottom of the pane.
   c. Enable the **Export license information during deactivation** option.
      This enables you to download the license file, so that you can reactivate it on another system.

d. Click **Deactivate**.

e. Browse to a download location, and click **Save**.
PitStop Server creates a license file: LicensesBackup.html, and opens the following dialog box:



f. In **Step 1**, click **Save**.
PitStop Server creates a file: requestdeactivate.xml.

2. Make requestdeactivate.xml available on your online system.

Example: You can copy requestdeactivate.xml to a USB stick, and connect the USB stick to your online system.

3. On your online system:

a. Go to *http://www.enfocus.com/products/activation?lang=en*

b. Upload requestdeactivate.xml, and click **Continue**.

c. Click **Continue** to confirm.
The Enfocus web server creates a file: deactivation-response.xml.

d. Download the file.

4. On your offline system with PitStop Server:

a. In **Step 2**, upload deactivation-response.xml.

b. Click **Deactivate**.

Your system deactivates PitStop Server.

c. Click **Close**.

Repairing PitStop Server (online method)

Use this task when you try to use PitStop Server, but it tells you that you need to repair your license.

To repair PitStop Server

1. In the **About Enfocus PitStop Server** dialog box, on the **License** tab, select the product key you want to repair.
2. Make sure the **Off-Line Mode** option is disabled.
3. Click **Repair**.
   Your system communicates with the Enfocus web server and repairs your license. If it fails, please contact Enfocus via the Enfocus Support Portal *http://www.enfocus.com/en/supportportal*
4. Click **Close**.

Repairing PitStop Server (offline method)

Use this task when you try to use PitStop Server, but it tells you that you need to repair your license.

In addition to your offline system on which PitStop Server is installed, you must have a system with internet access to communicate with the Enfocus web server.

To repair PitStop Server

1. On your offline system with PitStop Server:
   a. In the **About Enfocus PitStop Server** dialog box, on the **License** tab, select the product key you want to repair.
   b. Enable the **Off-Line Mode** option.
   c. Click **Repair**.
      A new dialog box opens.
   d. In **Step 1**, click **Save**.
      PitStop Server creates a file: requestrepair.xml.
2. Make requestrepair.xml available on your online system.

   Example: You can copy requestrepair.xml to a USB stick, and connect the USB stick to your online system.
3. On your online system:
   a. Go to *http://www.enfocus.com/products/activation?lang=en*
   b. Upload requestrepair.xml, and click **Continue**.
   c. Fill in your Enfocus ID password, and click **Continue**.
   d. Click **Continue** to confirm.
      The Enfocus web server creates a file: response.xml.
   e. Download the file.

4. On your offline system with PitStop Server:
   a. In **Step 2**, upload response.xml.
   b. Click **Repair**.
      Your system repairs PitStop Server. If it did not work, please contact Enfocus via the Enfocus Support Portal (*http://www.enfocus.com/en/supportportal*).
   c. Click **Close**.

3.2.2. Activating a subscription ID (subscription)

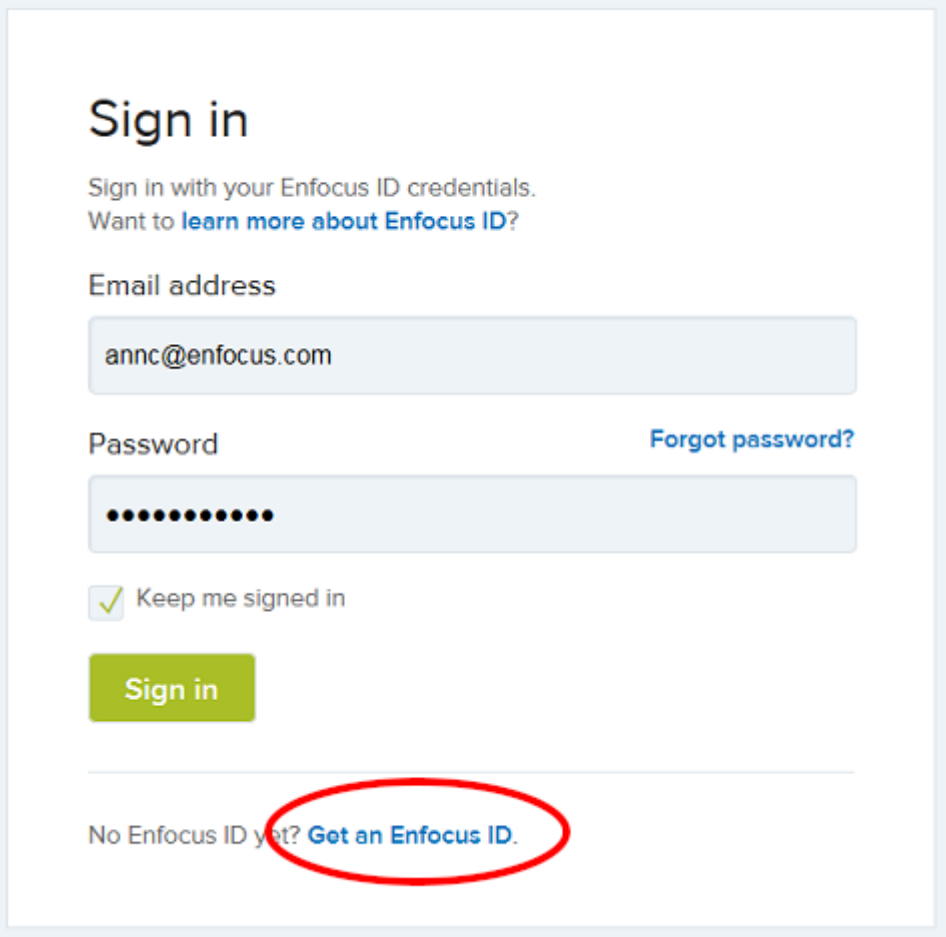
If you have bought PitStop Server subscription, you have received a subscription ID. This ID has to be activated in order to start your contract term.

Note: Your Enfocus subscription will be checked by an Esko license server. Therefore, make sure your Proxy server and firewall settings (if any) allow access to *.esko.com for both the HTTP and the HTTPS protocol.

To activate your subscription ID

1. Go to *the Account section* on the Enfocus website.
2. Sign in using your Enfocus ID.

   The Enfocus ID is a new account that replaces all former Enfocus accounts (the webshop, product activation and support portal account). From now on, there's only one account for all communication with Enfocus. Note that there is no way to convert older accounts into an Enfocus ID; even if you have already an Enfocus activation account, you are asked to register once again. Registering is very easy; just click the **Get an Enfocus ID** link and follow the on-screen instructions.



3. Click **Activate a subscription**.
4. Enter the subscription ID and click **Activate**.

The new subscription is displayed in the overview. You can immediately start working with PitStop Server.

5. Open PitStop Server.
   The About Enfocus PitStop Server dialog pops up.

6. In the License tab, enter your My Enfocus ID credentials (email address and password) and click **Sign In**.
   In the background, PitStop Server checks your license and allows access to the software as long as the contract term hasn't expired. If it has expired (because the subscription has been cancelled), you will get a warning.

   Note that you remain signed in with your Enfocus ID: you won't have to enter your credentials next time you launch PitStop Server. However, if you haven't used the software for a longer period (more than one month), you may be asked to sign in again, so PitStop Server can check if your license is still valid.

   Note: If you want to use your subscription license on another computer, you should just sign out (from within PitStop Server), which frees up your license, and sign in on that other computer.

3.3. Getting Support

3.3.1. What to do in case of problems

If you have problems, please proceed as follows:

1. Consult the documentation on the Enfocus website:
   - The **Activation Troubleshooting Guide** clearly explains how to solve problems related to the activation of the software: *http://www.enfocus.com/manuals/Extra/ActivationTroubleshooting/home.html*
   - The **manuals on the PitStop Server product page** provide information about the software and related topics such as working with Action Lists, customizing PitStop Report Templates and understanding Preflight Report messages: *https://www.enfocus.com/en/support/manuals/pitstop-server-manuals*. You can also access this information from within the software, by selecting **Help** > **Online Resources** > **Online Documentation**.
2. Consult our *Known issues and solutions database*. You can also access this information from within the application, by selecting **Help** > **Plug-In Help** > **PitStop Server Help** > **Solution Articles**.
3. Ask your local reseller. Contact information can be found on the Enfocus website: *http://www.enfocus.com/en/support/resellers/*
4. Contact Enfocus Customer Support. Refer to *Reporting a problem* on page 24.

3.3.2. Finding support information

To find information about the version of the Enfocus product you're currently using

1. Do one of the following:
   - On Windows, choose **Help** > **About Enfocus PitStop Server**.
   - On Mac, choose **PitStop Server** > **About Enfocus PitStop Server**.

The **About Enfocus PitStop Server** dialog appears.

2. Click the **Support info** tab.

   You can see all the relevant information about your version of the software and about the configuration of your computer system.

If you want to provide this info to the Enfocus Support Team, click the **Copy to Clipboard** button and paste the content into the Description field of your case in the *Enfocus Support Portal* .

3.3.3. Reporting a problem

Before reporting a problem

- We recommend checking *our Solution Articles*. You may find the solution to your problem in our database.
- Check if free support is included in your license: *Support Policy*

To report a problem

1. Do one of the following:
   - Go to the *Enfocus Support Portal* on the Enfocus website.
   - In the software, choose **Help** > **Get Support**. The Support section of the Enfocus website appears. Under Contact, click **Report a problem**.
2. Log in using your Enfocus ID (usually your email address) and your password.
3. Click the **Create New Case** link.
4. Fill out the online form.

   If you don't know the version number, refer to *Finding support information* on page 23.
5. Click the **Submit** or **Submit & Add Attachment** button.

4. Starting and exiting PitStop Server

4.1. Starting PitStop Server

To start PitStop Server

1. Do one of the following:
   - Select PitStop Server in the Start menu (on Windows)
   - Locate the application (PitStopServer.exe or PitStopServer.app) and double-click it to start PitStop Server.

   PitStop Server is installed by default in the following directory:
   - *Windows*: C:\Program Files\Enfocus\Enfocus PitStop Server <version number> or C:\Program Files (86x)\Enfocus\Enfocus PitStop Server <version number>
   - *Mac OS*: /Applications/Enfocus/Enfocus PitStop Server<version number>
2. The PitStop Server Watchdog must be running (See *About Enfocus PitStop Server* on page 8). If this is not the case, a dialog will appear, asking you to start the PitStop Server Watchdog. Click **Yes**.

   Remarks:
   - If you want the Watchdog to start automatically whenever you *launch PitStop Server*, select the **Don't show this message again** checkbox before clicking **Yes**. To reset this option, navigate to **Window** > **Preferences** > **General** and click the **Reset All Messages** button.
   - If you want the Watchdog to start automatically whenever you *boot your computer*, you can configure the Watchdog to run as a service (Windows) or a daemon (Mac). Refer to *Running the Watchdog as a service on Windows* on page 25 and *Running the Watchdog as a daemon on Mac* on page 26.
3. If the About PitStop Server dialog pops up, click **Close**.
   You can now start working with PitStop Server.

4.1.1. Running the Watchdog as a service on Windows

On Microsoft Windows, the Watchdog can be operated as a Windows service. This allows PitStop Server to start automatically when you start up your computer.

Note: Automatic startup is not the default behavior, because we want to avoid problems with mapped network drives that fail to load due to OS restrictions. Microsoft Windows allows assigning a drive letter to a network computer or folder, creating a mapped drive. A mapped drive letter (such as Z) can be used in a file or folder path (e.g. in the hotfolder setup) just like a local drive letter (such as C), but the drive mappings are established

when a user logs in to the system - and a service is not logged in (even if it is associated with a user account).

To configure the Watchdog to run as a service (Windows only!)

1. In your Windows operating system, navigate to **Start** > **Control Panel** > **Administrative Tools** > **Services**.
2. Double-click **Services**.
3. In the list of services, locate **Enfocus PitStop Server Watchdog**.
4. Right-click this service and choose **Properties**.
5. On the **General** tab, from the **Startup type** dropdown menu, select **Automatic**.
   This will make sure that PitStop Server Watchdog is launched automatically whenever you start PitStop Server.
6. On the **Log On** tab, make sure that you set a user/ID that has administrative rights, so that you avoid permission problems on the folders (and volumes) configured in the hot folders.
7. Back on the **General** tab, click the **Start** button to launch the PitStop Server Watchdog as a service.

   If you don't click the **Start** button now, the Watchdog will start as soon as you reboot your computer.

4.1.2. Running the Watchdog as a daemon on Mac

On Mac OS, you can run PitStop Server as a daemon. This allows PitStop Server to start automatically when you start up your computer.

Note:

- On Mac OS, the Watchdog is linked to a user account. We recommend creating a user, e.g. "PitStopServer" with sufficient privileges. Use this user to install the software, and keep this user always logged on. If needed, you could set the PitStop Server Watchdog as a Login Item for this user.
- When running PitStop Server as a daemon on **Catalina**, you need to *enable full disk access for PitStop Server*, otherwise you won't be able to use user-specific files, such as presets (Action Lists, Preflight Profiles, etc.).

To configure the Watchdog to run as a daemon (Mac only!)

1. Open a terminal window by starting /Applications/Utilities/Terminal.app.
2. Type `sudo pico /Library/LaunchDaemons/PitStopServerWatchdog.plist` and press **Enter**.
3. Provide your administrator password.
   An editor will be started inside the terminal window.
4. For the key OnDemand, replace the <true/> by <false/>.
5. To exit the editor, press **Control-X**.

6. When the editor asks if you want to save the modified buffer, press **Y**.
7. When you're asked if you want to select the location to save the buffer, press **Enter** without changing the location.
   The editor quits.
8. Close the terminal window.
9. Now reboot your computer.
   The Watchdog will be running even if you are not logged in.

4.1.2.1. Enabling full disk access for PitStop Server (on Catalina)

When running PitStop Server as a daemon on Catalina, you must enable full disk access for PitStop Server, otherwise you won't have access to user-specific files such as Action Lists, Preflight Profiles, etc.

Proceed as follows:

1. Open the **System Preferences** and choose **Security & Privacy**.
2. Switch to the **Privacy** tab.
3. In the left column, select **Full Disk Access** from the list of services.
4. Click the lock icon in the bottom left corner and enter your (administrator) password if requested. Click **Unlock**.
5. Do one of the following:
   - Click the plus button, select the PitStop Server app and click **Open**, OR
   - Drag and drop the PitStop Server app onto the field on the right.

   The PitStop Server app can be found in Applications/Enfocus/Enfocus PitStop Server <version number>.
6. Click **Quit Now**.

4.2. Exiting PitStop Server

To exit PitStop Server

1. Click **File** > **Exit** (Windows) or **Enfocus PitStop Server** > **Quit Enfocus PitStop Server** (Mac).
2. Decide whether or not you want to keep processing files after you have closed PitStop Server:
   - To keep processing files, click **Yes**. PitStop Server Watchdog and all software components to process files, will keep running in the background.
   - To stop processing files, click **No**. Both the PitStop Server UI and the Watchdog including all other software components will stop running.

5. Looking at the Enfocus PitStop Server Work Area

5.1. The Lock Settings button

In the top right corner of the PitStop Server Work area, you will see the Lock Settings button:

- : If it looks like this, the PitStop Server has not been locked and can be used without any restrictions.
- : If it looks like this, PitStop Server has been locked with a password. Users cannot set up new hot folders if they don't know the password.

5.1.1. Locking PitStop Server

It is possible to lock PitStop Server using a password. Only day-to-day tasks are possible while PitStop Server is locked: monitor and cancel jobs, manage the history, view hot folders, etc. Configuring PitStop Server is prevented.

To lock PitStop Server

1. Click the **Lock settings** button in the upper right corner of PitStop Server.
   The **Lock Settings** dialog box appears.
2. Enable **Locked**.
3. Enter a password, and confirm the password by entering it again.
4. Click **OK**.

5.1.2. Unlocking PitStop Server

To unlock PitStop Server

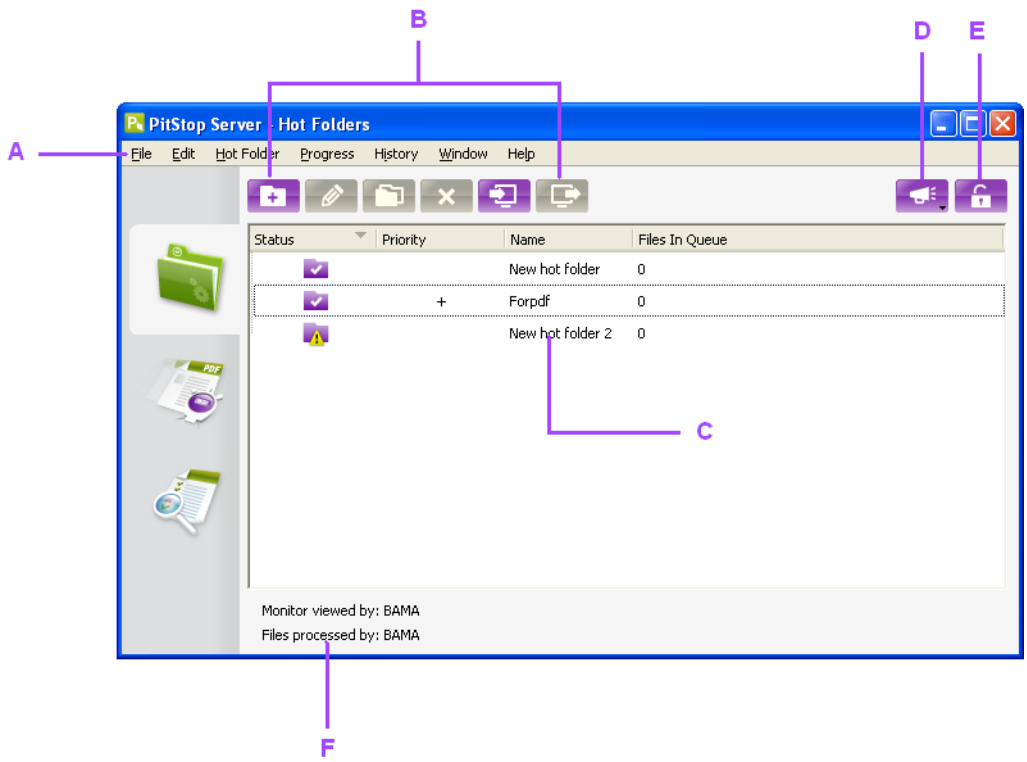
1. Click the **Unlock settings** button in the upper right corner of PitStop Server.
   The **Lock Settings** dialog box appears.
2. Enter the password and click the **Unlock** button.
3. Enable **Unlocked**.
4. Click **OK**.

5.2. The PitStop Server Hot Folder tab

The Hot Folder tab will by default appear as soon as you launch PitStop Server. You can use the Hot Folder tab for the following purposes:

- To manage your hot folders
- To keep track of the status of a particular hot folder

The contextual menu on a Hot Folder allows to perform a number of basic tasks, such as enabling or disabling the folder, changing the priority, managing the hot folders, sorting the list or exploring the input folder or one of the output folders.



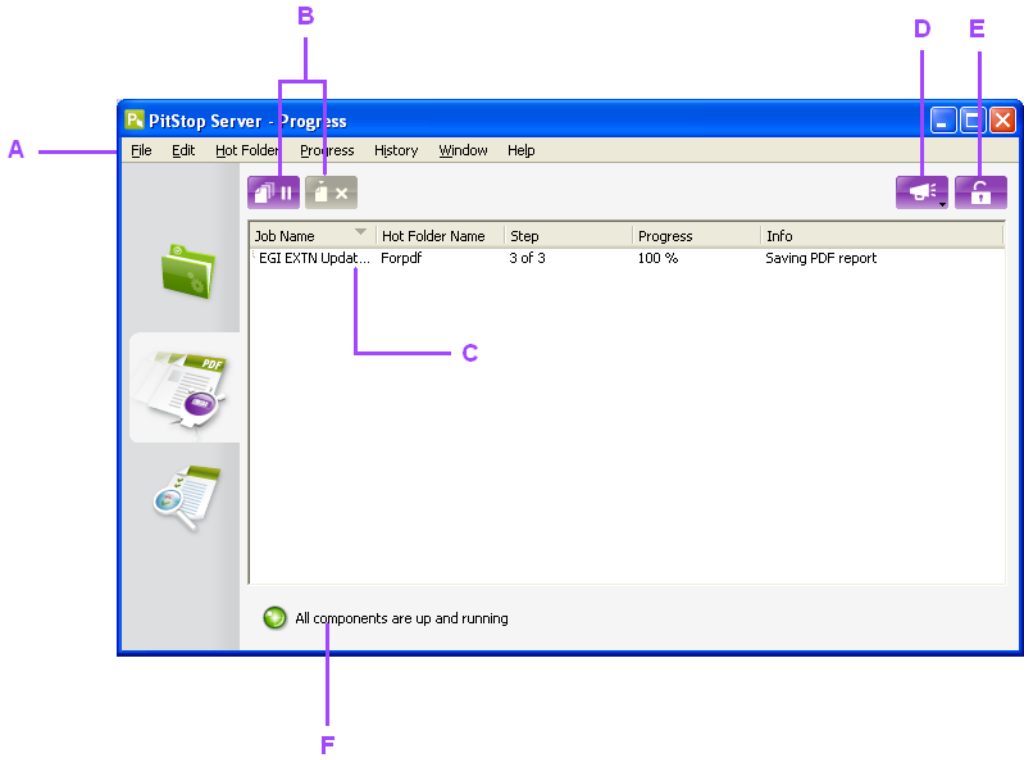
A. *Menu bar*
B. *Buttons to manage your hot folders*
C. *Hot folder Status, Priority and Name*
D. *Special Events Log (see "Special Events Log on page 73)*
E. *Lock settings Button (see The Lock Settings button on page 28)*
F. *Current User for PitStop Server and PitStop Server Watchdog*

Note: For a detailed description on managing hot folders, see *Working with hot folders* on page 37. For a detailed description on setting up hot folders, see *Setting up hot folders* on page 47.

5.3. The PitStop Server Progress tab

The Progress tab provides information on the active jobs in PitStop Server. You can use the Progress tab for the following purposes:

- To monitor jobs being processed by PitStop Server
- To keep track of the status of a particular job



A. *Menu bar*
B. *Buttons to pause/resume job processing, and to delete the selected jobs*
C. *Job name, the hot folder, step, progress, and info*
D. *Special Events Log (see "Special Events Log on page 73)*
E. *Locking Button (see The Lock Settings button on page 28)*
F. *Status of PitStop Server Watchdog*

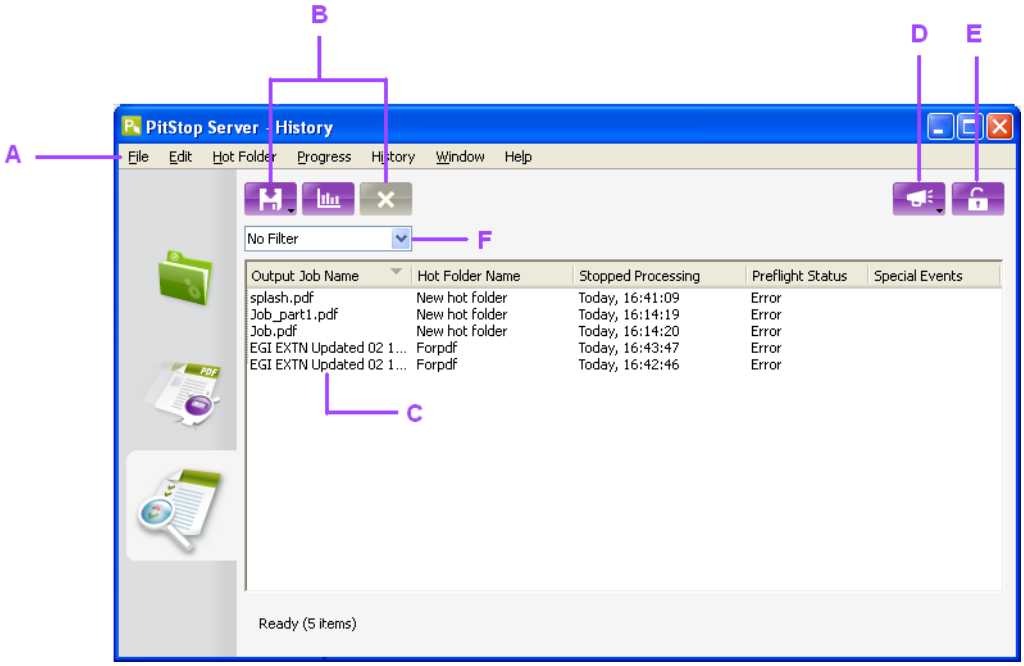
Note: For a detailed description on Jobs in progress, see *Monitoring active jobs* on page 69.

5.4. The PitStop Server History tab

The History tab provides information on the finished jobs in PitStop Server. You can use the History tab for the following purposes:

- To manage your finished jobs; filtered by name, date, ...
- To check the preflight status of finished jobs

- To check the statistics



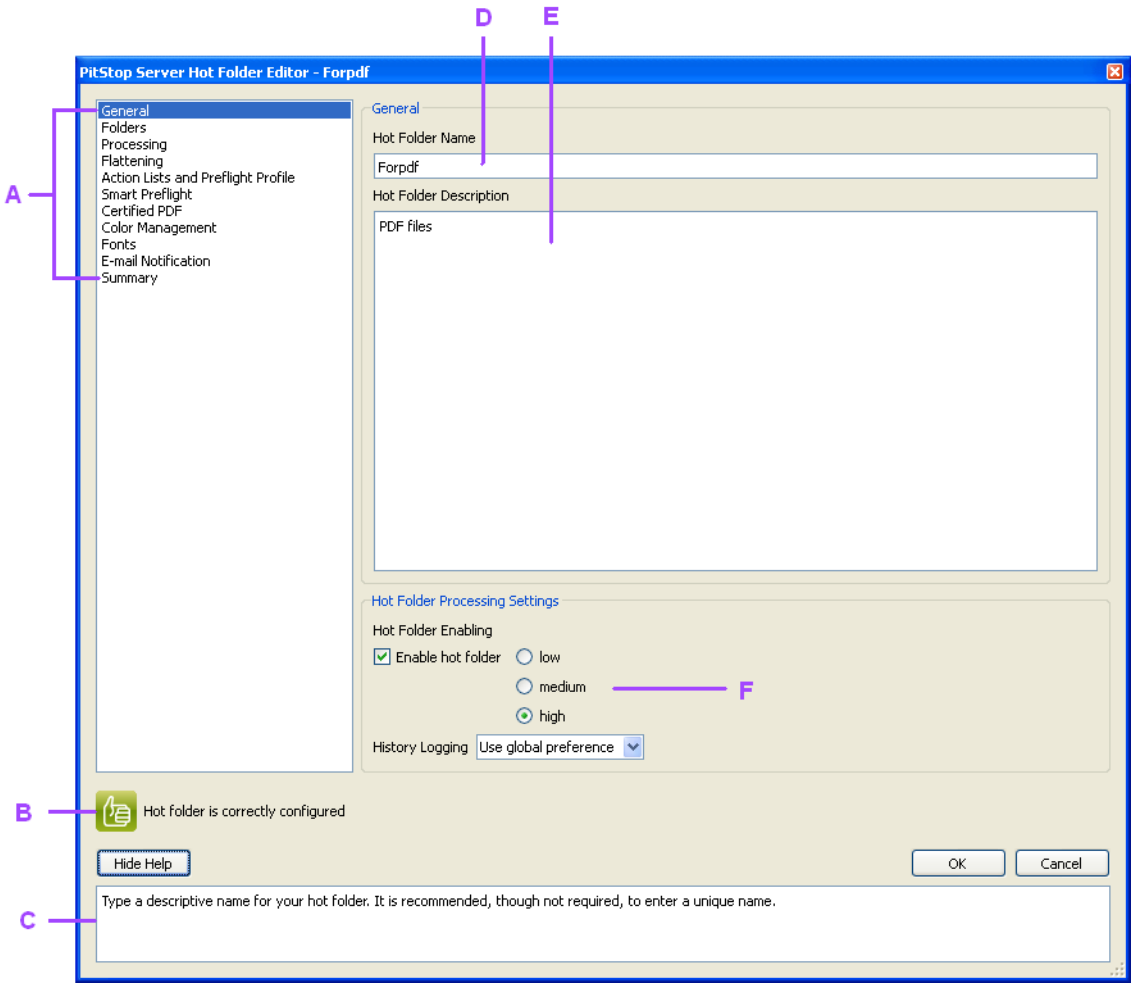
A. *Menu bar*
B. *Buttons to manage your History*
C. *Output name, hot folder, date, preflight status and special events for every job*
D. *Special Events Log (see "Special Events Log on page 73)*
E. *Locking Button (see The Lock Settings button on page 28)*
F. *Filter applied on the History (see Filtering the History on page 71)*

Note: For more information about History logging, see *Viewing finished jobs in the History tab* on page 71.

5.5. The Hot Folder Editor

A hot folder is a collection of folders and is made up of a set of properties.

You can use the Hot Folder Editor to set or change these properties.



A. *The categories of properties to define a hot folder.*
B. *The hot folder status and, if any, indication of the configuration error.*
C. *A Help line on the active category and setting.*
D. *Type a descriptive name for your hot folder.*
E. *The hot folder description is optional.*
F. *Activate your hot folder and specify a priority level.*

5.5.1. Displaying the Hot Folder Editor dialog

In the Hot Folder tab, do one of the following:

- To set the properties of a new hot folder, click the **Create a new hot folder** button . See also *Setting up hot folders* on page 47.
- To change the properties of an existing hot folder, select the hot folder in the list and click **Edit the selected hot folder** button or double-click the hot folder in the list.

5.5.2. Using the Hot Folder Editor

To use the Hot Folder Editor

1. To display a group of properties in the Hot Folder Editor, click the respective category.
2. Make the changes to the properties that you want.

   Note: For a detailed description of the changes you can make, see *Setting up hot folders* on page 47.

3. If necessary, to select any other group of properties that you want to change, click the respective category.
4. Click **OK**.
   This will save your changes and bring you back to the Hot Folder tab.

5.6. The PitStop Server Menu

The PitStop Server menu allows you to quickly access the basic functions of PitStop Server. Some menu items are only available if the correct item is selected, for example, the items in the **Hot Folder** menu are grayed out if no hot folder is selected in the Hot Folder tab.

5.6.1. File menu

Menu Item	Windows	Mac OS	More information
Exit	alt-F4	cmd-Q	*Exiting PitStop Server* on page 27 On Mac OS, this option is called "Quit Enfocus PitStop Server" and can be found in the **Enfocus PitStop Server** menu.

5.6.2. Edit menu

Menu Item	Windows	Mac OS	More information
Select all	ctrl-A	cmd-A	
Deselect All	ctrl-shift-A	cmd-shift-A	

5.6.3. Hot Folder menu

Menu Item	Windows	Mac OS	More information
New	ctrl-N	cmd-N	*Creating a hot folder* on page 43

Menu Item	Windows	Mac OS	More information
Edit	ctrl-E	cmd-E	*Editing a hot folder* on page 43
Import	ctrl-O	cmd-O	*Importing a hot folder* on page 44
Export	ctrl-S	cmd-S	*Exporting a hot folder* on page 44
Delete	Del	Backspace	*Deleting a hot folder* on page 44
Duplicate	ctrl-D	cmd-D	*Duplicating a hot folder* on page 43
Enable			*The hot folder status* on page 45
Disable			*The hot folder status* on page 45
Priority			*The hot folder priority* on page 46
Explore			Shows the selected input or output folder in the finder / explorer.
Show Hot Folders	ctrl-1	cmd-1	

5.6.4. Progress menu

Menu Item	Windows	Mac OS	More information
Pause All Jobs			*Pausing all active jobs* on page 69
Resume All Jobs			*Resuming all active jobs* on page 69
Cancel Job	escape	cmd-.	*Cancelling active jobs* on page 69
Show Progress	ctrl-2	cmd-2	*Monitoring active jobs* on page 69

5.6.5. History menu

Menu Item	Windows	Mac OS	More information
Export History			*Exporting the History* on page 73
Show Statistics	ctrl-I	cmd-I	*Viewing statistics* on page 73
Remove From History	Del	Backspace	*Deleting jobs from the list* on page 72

Menu Item	Windows	Mac OS	More information
View Special Events Log			*Special Events Log* on page 73
Show History	ctrl-3	cmd-3	*Filtering the History* on page 71

5.6.6. Window menu

Menu Item	Windows	Mac OS	More information
Preflight...	ctrl-alt-P	cmd-opt-P	*Hot Folder Properties: Action Lists and Preflight Profile* on page 60
Action Lists...	ctrl-alt-A	cmd-opt-A	*Hot Folder Properties: Action Lists and Preflight Profile* on page 60
Variable Sets...	ctrl-alt-V		*Smart Preflight* on page 109
Select Columns...	-	-	Allows you to select the columns to display (or to hide) on the current tab. Alternatively, to display other columns than the ones that are shown currently, right-click a column header in a Hot Folders tab and select **Show columns**.
Preferences...	ctrl-alt-K	cmd-opt-K or cmd-,	On Mac OS, **Preferences** can be found in the **Enfocus PitStop Server** menu. *Setting the Enfocus PitStop Server Preferences* on page 74

5.6.7. Dashboard

Menu Item	More information
My PitStop Server Dashboard	This is a direct link to your PitStop Server Dashboard on the Enfocus website. If you opt in, you get a lot of info about your use of PitStop Server, how many files were preflighted by you, how many failed and how many passed, etc. The data is linked to your Enfocus ID. This is the Enfocus

Menu Item	More information
	ID that was used to opt in to the PitStop Server Dashboard.
Opt in/Opt out	You can opt out whenever you want. Note that we can keep your data for later use, if you want this.

5.6.8. Help menu

Menu Item	Windows	Mac OS	More information
About Enfocus PitStop Server			On Mac OS, this can be found in the **Application** menu. This dialog allows you to find version, license and support information. Through this dialog you can as well manage your PitStop Server licenses.
License			Click this menu item to manage your Enfocus licenses.
Enfocus Home Page			Alternatively, click *http://www.enfocus.com*.
Buy now!			Alternatively, click *http://www.enfocus.com/en/products/pitstop-server/*
Check for Updates			Click this option to check if your version is still up-to-date.
PitStop Server Help (HTML)			Clicking this option will open the PitStop Server Reference Guide.
License Agreement (PDF)			
Online Resources			Provides links to: • Online Documentation on the Enfocus website • Preflight Profile Library • Action List Library
Solution Articles			*What to do in case of problems* on page 23
Get Support			*What to do in case of problems* on page 23

6. Working with hot folders

6.1. What are hot folders?

6.1.1. Hot folders defined

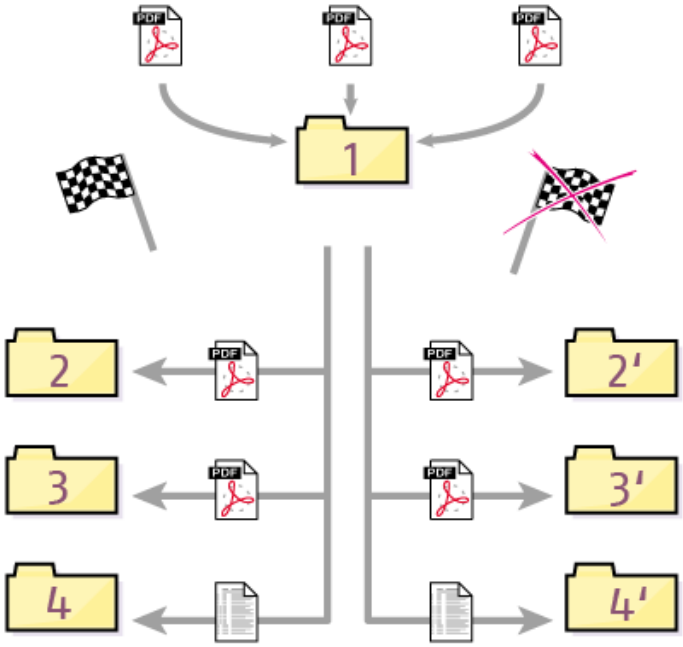
An Enfocus PitStop Server hot folder is actually a collection of dedicated folders for automated PDF processing. You create these folders on the hard disk of your computer or on a network drive. Enfocus PitStop Server automatically processes PDF documents that arrive in a given input folder of this hot folder and places them in the output folder which you have specified. The original PDF document and a process report can be placed in the same or a different folder, depending on whether processing was successful or not.

The hot folder's input folder is an **active** folder: Enfocus PitStop Server will monitor the input folder of a hot folder at regular intervals and will, upon arrival of a PDF document in this input folder, start the appropriate automatic action.

Hot folders are **interlinked** folders. You use the Hot Folder Editor to create the links between the folders of a hot folder: You specify the path the PDF documents have to follow as they are processed.

6.1.2. Hot folder workflow illustrated

The illustration below shows a typical set-up of a hot folder and its workflow.



1. Enfocus PitStop Server detects incoming PDF documents in the input file folder and processes them automatically.
2. Enfocus PitStop Server places the original PDF documents in a separate folder, depending on the result after processing: folder 2 if processing was successful or folder 2' if processing of the PDF document returned errors.
3. Enfocus PitStop Server places successfully processed PDF documents in a dedicated folder (3) but also saves the PDF documents with errors (3').
4. Enfocus PitStop Server generates a Preflight Report and saves it in the respective folder.

6.1.3. Main rules for valid hot folders

Hot folders cannot work without any Action Lists or a Preflight Profile. A hot folder must have either a Preflight Profile or at least one Action List before you can successfully activate it. In other words, a hot folder can be valid when it has:

- Just a Preflight Profile and no Action Lists
- One or more Action Lists and no Preflight Profile
- A Preflight Profile and one or more Action Lists

A hot folder can have several Action Lists, but only one Preflight Profile.

To be valid, other requirements need to be met, e.g. a hot folder also needs valid paths to the respective input and output folders. When the hot folder is not valid, the errors to be corrected will be shown at the bottom of the dialog, and in the Summary. See *Hot Folder Properties: Summary* on page 67.

6.2. What is processing?

6.2.1. Processing defined

Hot folders in an Enfocus PitStop Server environment "process" incoming documents automatically and place these documents in a given folder, depending on the process result. What do we understand by processing?

Processing can mean the following:

- A PDF document can be checked against a Preflight Profile and corrected correspondingly. A Preflight Profile is a set of user-defined criteria which define whether a PDF document is output-worthy or not.
- An Action List can be applied to a PDF document. An Action List is a series of tasks to edit or correct PDF documents automatically. You can also use Action Lists to check elements.
- You can combine a PDF Profile and Action List(s) in one processing method called 'preflight and auto correct'
- Documents other than PDF documents can arrive in the input folder of a hot folder. Enfocus PitStop Server will detect that their digital format is not PDF and move these documents to a given folder.

Note: You can design Preflight Profiles or Action Lists with products like Enfocus PitStop Pro, a plug-in for Adobe Acrobat. From PitStop 13 onwards, you can also design Preflight Profiles and Action Lists in PitStop Server (through the PitStop Server menu).

6.2.2. Action Lists and Preflight Profiles: required “fuel” for processing

Action Lists and Preflight Profiles are the "**fuel**" for hot folders. The processing of hot folders can be triggered by one or more Action Lists, a Preflight Profile or a combination of both. A hot folder with neither an Action List nor a Preflight Profile simply won’t run. For each hot folder you can specify:

- One or more Action Lists, to be executed **consecutively**

and/or

- One Preflight Profile

Order of execution

If a PDF arrives in a hot folder:

1. First, the Action Lists are executed, in the order they have in the hot folder.
2. Then the Preflight Profile is run. If this Profile contains embedded Action Lists:
   a. First, the *changes* defined in the embedded Action List(s) are applied.
   b. Then, the *checks* defined in the embedded Action List(s) are applied.
   c. Finally, the *checks and fixes included in the Preflight Profile* are applied.

Note: The end result may be different depending on whether or not the Actions Lists are embedded. To make sure the results from your checks are accurate, we recommend embedding all Action Lists in the Preflight Profile. See also *Adding Actions to the Preflight Profile* on page 106

6.2.3. Process results

A processed document can have either one of the following results:

Result	Meaning
Success	The processed PDF document meets all the criteria specified in the Preflight Profile without any intervention from Enfocus PitStop Server. and/or The Action Lists were applied successfully and none of the checked or detected properties were logged as "Warning" or "Error".
Warning	The processed PDF document does not meet one or more of the criteria labeled "Warning" specified in the Preflight Profile or One or more of the properties checked or detected by an Action List were logged as "Warning".
Fixed	The processed PDF document meets all the criteria specified in the Preflight Profile after being fixed by the Action List, by the PDF Profile or by an Action List in the PDF Profile
Non-critical Failure	A Failure occurred while processing the PDF document, meaning that Enfocus PitStop Server was not able to perform a requested fix (e.g. because a font that should be embedded is not available on the system). The Failure is set in the Action List as a "non-critical failure", or it occurred on a fix from the PDF Profile.
Error	The processed PDF document does not meet one or more of the criteria labeled "Error" specified in the Preflight Profile. or One or more Action Lists could not be applied successfully or one or more of the checked or detected properties were logged as "Error".
Critical Failure	A Failure occurred while processing the PDF document, meaning that Enfocus PitStop Server was not able to perform a task (e.g. because a font that should be embedded is not available on the system). The Failure is set in the Action List as a "critical failure".
Non-PDF	The document which arrived in the input folder is not in PDF format.

6.3. Types of folders

6.3.1. Organizing your Enfocus PitStop Server work environment

When setting up a hot folder, you can specify all folders and organize them in such a way that they fit your working environment best. For example, you may choose to save processed documents in separate folders, depending on their process result (OK, Warning, Error...) or you can save all processed documents in the same folder. The same applies to original documents, non-PDF files and process reports.

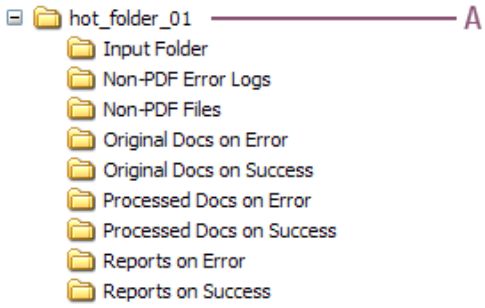
Below, you find a brief overview and description of the folders you can specify using the Hot Folder Editor.

6.3.2. Base folder

The base folder is the root folder from which you can make other folders branch automatically. You do not necessarily have to define a base folder, and even if you do, the various folders don't need to be directly under the base folder. It may however be recommended to do so.

Input and output folders can be defined using absolute paths, or using relative paths. For these relative paths, the base folder will be used as "starting location".

For example, you can define a base folder for each hot folder, as shown in the example below (Base folder (A) with its subfolders).



6.3.3. Input Folder

The "Input Folder" is the starting point of the workflow. This is the folder which Enfocus PitStop Server will monitor for new documents to arrive. As soon as Enfocus PitStop Server detects a document in this folder, processing will start. As soon as the document is in process, the original input file will be removed from the input folder and moved to the "Original Documents"

folder. The input file will be read, processed and saved to one of the output folders for processed documents.

6.3.4. Folders for original documents

When a document arrives in the input folder, Enfocus PitStop Server will not only process this document, but it can also keep the original. Originals can be placed in either one of the following folders, depending on the process result:

- A folder for originals that are processed with success
- A folder for originals that are processed with warning(s)
- A folder for originals that are processed with fixes
- A folder for originals that are processed with error(s)
- A folder for originals that are processed with Critical Failure
- A folder for originals that are processed with Non-critical Failure(s)
- A folder for originals which are non-PDF file

6.3.5. Folders for processed documents

Like the original documents, processed documents are routed to dedicated folders, based on their process result.

6.3.6. Output folders for non-PDF files

Non-PDF files cannot be processed and, evidently, do not have an output folder for "processed" files. They will simply be moved from the input folder to the output folder for non-PDF files. These folders can contain any file, for example:

- Original PostScript files
- Log files which are created by Acrobat Distiller

Enfocus PitStop Server will also generate a report ("error log") about this event. This report will be placed in a "Non-PDF Error Log" folder.

You could e.g. drop all files from your customer in the input folder, and then investigate what appears in the non-PDF folder for manual processing (images, PostScript files, Word documents, ...).

6.3.7. Folders for reports

When a PDF document arrives in an input folder, Enfocus PitStop Server will run one or more Action Lists and/or a Preflight Profile. In this process, the following events may occur in the PDF document:

- The PDF document can be analyzed and information can be gathered about specific properties
- Some of the properties of the PDF document can be changed

Detailed information about these events will be logged and summarized in Preflight Reports. Preflight Reports are special types of PDF documents: they have hyperlinks to any potential problems, i.e. **Warnings** or **Errors** in the processed PDF documents. Thus, they help you determine why a document was labeled "Certified Not OK" or indicate specific properties in successfully processed PDF documents which need special attention.

By default, Preflight Reports get the name of the original PDF document, with the suffix "_log.pdf", but this can be changed using file renaming (see *File Name* on page 54). You can specify dedicated folders for these Reports, based on the process result of the PDF document.

6.4. Managing hot folders

You can manage your hot folders from the **Hot Folders** tab in the PitStop Server. All the options underneath can also be accessed from the contextual menu, by pressing **Ctrl** and clicking or right-clicking in the Hot Folder tab.

6.4.1. Creating a hot folder

To create a hot folder

Click .
This will open the Hot Folder Editor. For more information on the individual settings to be made, see *Setting up hot folders* on page 47.

6.4.2. Editing a hot folder

Note: We recommend disabling hot folders during editing, because files in the input folder will continue to be processed with the old settings while the user is still editing the hot folder. If you want to rename/delete subfolders of the input folder, disabling the hot folder is even mandatory.

To edit a hot folder

Do one of the following:

- Select the hot folder in the list of hot folders and click .
- Double-click the hot folder in the list of hot folders.

For more information on the individual settings to be made, see *Setting up hot folders* on page 47.

6.4.3. Duplicating a hot folder

Duplicating a hot folder means making a copy of an existing hot folder. You may want to do this to create a new hot folder based on an already created hot folder in the list, but with a couple of different settings.

To duplicate a hot folder

1. Do one of the following:
   - Select a hot folder in the list and click .
   - Right-click a hot folder in the list and choose **Manage** > **Duplicate**.

   The copy of the selected hot folder appears in the list. The duplicated hot folder has exactly the same settings as the original, but is set to *inactive/disabled*.
2. To edit the duplicated folder, select it and click .
3. Change the properties of your choice and click **OK**. For more information on the individual settings to be made, see *Setting up hot folders* on page 47.

   Note: Make sure you check the input and output folders of the new hot folder. These folders will be the same as those of the folder on which the copy was based.

6.4.4. Deleting a hot folder

Deleting a hot folder means removing the hot folder from the list. It will no longer be monitored by Enfocus PitStop Server. The actual folders will not be removed from your hard disk.

To delete a hot folder

1. Do one of the following:
   - Select a hot folder in the list and click .
   - Select a hot folder in the list and click **Hot Folder** > **Delete**.
2. Click **OK**.

6.4.5. Exporting a hot folder

Exporting a hot folder means creating a file on your hard disk, containing all settings for the selected hot folder. These settings can later be imported using the **Import a hot folder** function.

To export a hot folder

1. Click .
2. A dialog will open to define the name and location for the hot folder settings file.
3. In the dialog that appears, define the name and location for the hot folder settings file and click **Save**.

   The settings are collected into one single file with the file extension .ehf.

6.4.6. Importing a hot folder

Importing a hot folder means creating a new hot folder based on the settings exported from a hot folder using the Export function. Importing and exporting hot folders is a very good way to exchange, backup and restore your hot folder settings.

To import a hot folder

1. Click .
2. In the dialog that appears, select the hot folder settings file (*.ehf) concerned and click **Open**.
3. Select a location for the hot folder.
4. To only save the resources (Action Lists, PDF Profiles, ...) that don't exist on the system yet, select the checkbox.

   If the checkbox is cleared, all resources will be saved.
5. Click **Next**.
6. Check the list of all resources, and click **Next**.
7. If necessary, define the new base folder to be used:
   a. Select the **Remap base folder to** checkbox.
   b. Select the folder of your choice.
8. Check the list of folders to be created and click **Import**.
   The new hot folder is imported and added to the list. Optionally select the checkbox to immediately open the new hot folder in the Hot Folder Editor.
9. Click **Finish**.
10. Change the properties of your choice and click **OK**. For more information on the individual settings to be made, see *Setting up hot folders* on page 47.

Note: Make sure you check and change the input and output folders of the new hot folder. These folders will be the same as those of the original folder on which the settings were based.

6.5. The hot folder status

In the hot folder list on the Hot Folder tab, the first icon shows the status of the hot folder. This can be one of the following:

Status	Meaning
	The hot folder has been correctly configured, and has been enabled.
	The hot folder has been enabled, but is not configured correctly. Double-click the hot folder and check and correct the missing or incorrect settings.

Status	Meaning
	The hot folder has **not** been enabled, and is not configured correctly. Double-click the hot folder and check and correct the missing or incorrect settings.
	The hot folder has not been enabled. Double-click the hot folder and enable it in the General category.

6.6. The hot folder priority

In the hot folder list on the Hot Folder tab, you can see the priority of the different hot folders. The priority defines the order in which jobs will be processed.

Enfocus PitStop Server will first process all jobs in hot folders with priority “high”. If all those are processed, the jobs in hot folders with priority “medium” will be processed next. Finally, if no jobs with priority “high” or “medium” are waiting to be processed, the jobs with priority “low” will be processed.

For jobs with the same priority, the order will be determined by the time of submission: the job that was submitted first, will also be processed first (FIFO principle: First In, First Out).

7. Setting up hot folders

7.1. Setting up a hot folder

To set up a hot folder:

1. Click to create a new hot folder.
2. In the **Hot Folder Editor**, set the hot folder's name and description in the **General** category.

   Do not enable (i.e. activate) the hot folder yet (bottom part of the dialog); the hot folder must be configured completely, before it starts processing files.
3. Set all properties in the different categories (as described further).

   Note that the **Summary** category gives you an overview of all settings and errors. Make sure to fix any errors before continuing. If you save the folder with errors, you will see an icon with an exclamation mark and you will not be able to start processing files. See also *The hot folder status* on page 45.
4. When you're ready, return to the **General** category and:
   a. Select the **Enable hot folder** option with the appropriate **Priority**.
   b. Specify the History logging setting of your choice. If not set up in the hot folder editor, the default option as defined in the global preferences (**Window** > **Preferences** > **Processing** - History Logs section) will apply.

   Note: If you don't want the hot folder to start processing files yet, you can skip this step and enable the hot folder later. Refer to *Enabling a hot folder* on page 48.
5. Click **OK**.

7.2. Hot Folder Properties: General

In the **General** category in the Hot Folder Editor, you can define the name of the hot folder and a hot folder description.

In this category, you can also:

- Enable the hot folder and select a priority level (**Enable hot folder**).
- Indicate whether or not a log of the processed files should be kept (**History Logging**).

Note: If you choose **Use global preference**, the option set in the PitStop Server User preferences (**Window** > **Preferences** > **Processing** - History Logs section) will apply.

7.2.1. Enabling a hot folder

When you have set up a hot folder, it will not start processing PDF documents immediately. You will first have to make it active, i.e. enable it. When activating or enabling a hot folder, you can also give it a specific priority level: low, medium or high.

Note: You may want to "turn off" or disable a hot folder if you do not wish to use it temporarily. It is also advisable to disable a hot folder while changing its settings. See *Editing a hot folder* on page 43.

To enable a hot folder

1. In the Hot Folder tab, double-click the hot folder you want to enable.
2. Select the **General** category.
3. In the lower part of the dialog, select **Enable hot folder** and select a priority level.

   Setting a priority level is optional. If you don't make a choice, the level will be set to **medium** priority.

   Note: Instead of enabling the hot folder through the Hot Folder Editor, you can as well simply right-click the folder and choose **Enable** from the context menu. If you do so, you will not be asked to specify a priority level:

   - For new folders, the priority will be set to **medium** by default.
   - For folders that have been enabled before, the priority that was set earlier is remembered and used.

4. Click **OK**.

7.3. Hot Folder Properties: Folders

In the **Folders** category in the Hot Folder Editor, you can define which folders you need and where original and processed files and reports should move to.

For more information, refer to *Organizing your Enfocus PitStop Server work environment* on page 41.

Basic folder versus advanced folder structure

When creating your folder structure, you have the choice between a **basic folder structure**, with only three folder types: success, error and non-PDF, and an **advanced folder structure**, with more distinctions, e.g. output folders for warnings, fixes, and critical or non-critical failures.

If advanced folders are defined, there is one folder per type (e.g. files with status "Warning" are moved to the "Warning" folder). If no advanced folders are defined, the output will be routed as shown in the table below:

- Warning, Fixed and Non-critical Failure will use the "Success" output folder.
- Critical Failure will use the "Error" output folder.

Preflight result of the processed file	Routing in advanced folders	Routing in basic folders
Success	Success	Success
Warning	Warning	
Fixed	Fixed	
Non-critical Failure	Non-critical Failure	
Error	Error	Error
Critical Failure	Critical Failure	
Non-PDF	Non-PDF	Non-PDF

7.3.1. Creating a folder structure

The **Create Basic Setup...** option is a simple way to create a basic folder structure inside a base folder. A base folder is the root folder from which you can make the input folder and the related output folders branch. Consequently, you need to create a base folder only if all related folders — or most of them — have to be subfolders of this base folder.

The **Create Basic Setup...** option can be used on an existing folder on your computer hard disk or network drive. Using the "New Folder" button, a new physical folder can be created as well.

Note: If you have already created a complete folder structure on your hard disk, you don't have to use the **Create Basic Setup** option. In that case, you can simply use the **More/Less Options** buttons (at the bottom of the screen) to prepare an advanced or basic folder structure (as explained higher), and assign the correct folders. Refer to *Editing a folder structure manually* on page 50.

To create a folder structure

1. In the Hot Folder Editor, go to the **Folders** category.
2. Click the **Create Basic Setup...** button.
3. Select the appropriate radio button:
   - To define *advanced* folders (i.e. one folder per preflight status), choose **Create all subfolders**.
   - To define only *basic* folders (i.e. only folder for Result, Error, and non-PDF), choose **Create minimal set of subfolders**.
4. Do one of the following:
   - Navigate to the existing folder you want to use as a base folder.
   - Navigate to the location you want to create a new folder, and click **New Folder**. The new folder appears with a temporary name, which can be changed to a more descriptive name for the folder, e.g. "**hot_folder_01**"

5. Select the new or existing folder, and click **OK**.
   The fields in the Folders category are filled out automatically. The location of the folders is defined relative to the base folder.

6. For each folder, make the required changes, if any:
   - Type an alternative name, e.g. change the default name "Reports on Success" to "ReportsOK".
   - To assign an existing folder on your disk, click ... and select it.
   - To make the subfolder absolute instead of relative to the base folder, click ↓ and select **Make subfolder absolute**. For more information, refer to *Switching between absolute and relative paths* on page 51.
   - To remove a path, click ✖.

   Note: The **More Options** and **Less Options** buttons allow you to switch between an advanced and a basic setup. When switching from basic folders to advanced folders, the paths will be copied, giving the same result as this rerouting:
   - The "Success" paths are copied for Warning, Fixed and Non-critical Failure
   - The "Error" path is copied to the Critical Failure output

7. Click **OK**.

8. If the folders do not exist yet, a dialog pops up asking you if you want to create them. Click **Yes**.
   The folder structure has been created.

7.3.2. Editing a folder structure manually

You can manually make changes to your folder structure as required.

To edit a folder structure manually

1. In the Hot Folder Editor, go to the **Folders** category.

2. Make the required changes:
   - Type a new name if required, e.g. change the default name "Reports on Success" to "ReportsOK".
   - To assign an existing folder on your disk, click ... and select the folder you want to assign. The path of the selected folder will be shown. You can also type or paste the path of the folder, e.g. to assign the same path for different outputs.
   - To make a subfolder absolute instead of relative to the base folder, or vice versa, refer to *Switching between absolute and relative paths* on page 51.
   - To remove a path, click ✖.
   - To switch between an advanced and a basic setup, click **More Options** or **Less Options**.

Note: When switching from basic folders to advanced folders, the paths will be copied, giving the same result as this rerouting:

- The "Success" paths are copied for Warning, Fixed and Non-critical Failure
- The "Error" path is copied to the Critical Failure output

3. Click **OK**.

7.3.3. Switching between absolute and relative paths

The paths defining the different folders can be entered and shown either absolute or relative. An absolute path shows the location of the folder completely, starting from the drive letter. A relative path shows the location of the folder relative to the base folder. For example, "./input" indicates a folder "input" inside the base folder.

Switching between relative and absolute paths is done using the button next to the browse button.

To switch between relative and absolute paths, proceed as follows:

1. To change *all paths* to absolute or relative:
   a. Click the button next to the base folder.
   b. Do one of the following:
      - To change all paths to absolute paths, select **Make all subfolders absolute**.
      - To change all paths to relative paths, select **Make all subfolders relative to the base folder**.

   The representation of all folders will change to absolute resp. relative paths.

2. To change *a single path* to absolute or relative
   a. Click the button next to the specific folder.
   b. Do one of the following:
      - Select **Make subfolder absolute**.
      - Select **Make subfolder relative to the base folder**.

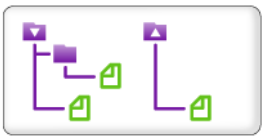
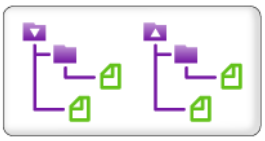
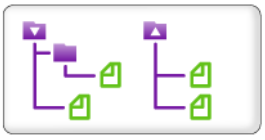
   The path for the folder will change to an absolute or a relative path.

7.4. Hot Folder Properties: Processing

In the **Processing** category in the Hot Folder Editor, you can define the folder processing method, the type of report and the file renaming for the output files. Each of the sections in this category is explained further.

7.4.1. Subfolder Processing

The input folder can receive single files, but also folders can be dropped in the input folder. The options in the **Subfolder Processing** section (upper part of the Processing category in the Hot Folder Editor) define how these subfolders should be treated.

Option	Result	Input and Output
Don't process subfolders in input folder	Only files in the "root" of the input folder will be processed. Files in subfolders are ignored.	
Process subfolders, keeping folder structure	Files from subfolders will be processed. The output files will be placed in a same subfolder structure in the output folder(s).	
Process subfolders, flattening folder structure	Files from subfolders will be processed. All output files will be placed in the "root" of the output folder(s).	
Delete empty subfolders in input folder	Subfolders that are empty after processing, will be deleted.	

7.4.2. Report Generation

The Report Generation section allows you to define the format of your Preflight Reports (PDF and/or XML) and the language in which it will be displayed.

PDF reports

When generating a report, you can choose the report layout style that suits your needs.

There are three "annotated" reports (first three in the table below). An annotated report is a combination of the original document and the report. The report information is integrated in

the original document as a number of notes and bookmarks, allowing to easily navigate to the errors and warnings, in Acrobat Reader or in a browser, without using any Enfocus software.

The three other report styles (Regular, Minimum, Continuous) do not include a copy of the original document.

Report style	Description
Annotated Report	Report with annotations. The report is a copy of the processed PDF; changes and fixes are annotated.
Low Resolution Annotated Report	Report with annotations and with low resolution images, which reduces the file size of the report.
Scaled Low Resolution Annotated Report (max A4)	Report with annotations. The entire document is scaled and has a low resolution. The size of the pages in the report will not exceed the A4 size and the images are also compressed to a smaller size. **Note:** This may be useful if you want to send reports for large format documents through email.
Regular	Report which does NOT include the processed PDF. It contains general file information and an overview of the fixes, failures, warnings, and errors (if any).
Minimum	Regular report with minimal information.
Continuous	Regular report, but without page breaks between the topics (information about the fixes and general file information, font information, ...) as in the Regular Report.

If you have created your own Preflight Report templates, you will be able to select those as well. For more information about customizing report templates, refer to the PitStop Report Template manual on enfocus.com (*https://www.enfocus.com/en/support/manuals/pitstop-server-manuals*).

Note: Unlike PitStop Pro, PitStop Server does not support Secured Annotated Reports.

XML reports

For XML reports, you can choose between version 1 (**v1**), version 2 (**v2**) and version 3 (**v3**).

The version of the XML defines the schema used for the XML report. While v1 and v2 reports are compatible with previous versions (v1: PitStop 10 and earlier, v2: introduced in PitStop 10.1), v3 reports (introduced in PitStop 2018) are more user-friendly and easier to process. All three reports contain the same information.

It is also possible to truncate the number of items per category and the number of objects per item, resulting in a possibly incomplete report but imposing a limit on its size.

Note: Setting the **Maximum number of reported items per category** to x, means that only x warnings per category will be given, plus (if applicable), a message saying that the list is incomplete. The same holds for **Maximum number of reported objects per item**. The default value is 100.

Language

You can also define the language in which the report will be created. The PDF and/or XML report language, as well as the e-mail notification for jobs is determined by this setting.

To use the default language as defined in the PitStop Server Preferences, select **Default language**.

7.4.3. Optimization on save

The **Optimization on save** section allows you to configure settings which will help optimize the output files. There are three options to choose from:

1. **Optimize for file size and web download**

   When you select this radio button, the output files will be optimized to achieve a smaller file size. Also, the objects inside the PDF will be reordered to display the PDF faster. The duplicate objects in the file are merged and the file is linearized for fast web preview. However, it does not change the quality of the file.

   For example, the first page is displayed before the rest of the PDF file is loaded (or downloaded) which generally results in a slightly larger file than when using **Optimize for file size only**.
2. **Optimize for file size only**

   When you select this radio button, the output files will be optimized to achieve a small file size. The duplicate objects in the file are merged to reduce file size. However, it does not change the quality of the file.
3. **Disable optimized save**

   When you select this radio button, the output files will not be optimized. No optimization is performed and the quality of the file is not affected.

7.4.4. File Name

The **File Name** section allows you to configure the name of the output files.

By default, the file name is set to “%Current Document Name%”, meaning that the output files will have the same name as the original input file. You can however configure another output name using “variables”, such as "%User Company%", "%User Name%","%Date%",... Note that, when selecting a variable, the “current value” is shown at the bottom of the Use Variable dialog.

It is also possible to type fixed text (e.g. to add “_log” to the name for the report files) or to combine variables and fixed text in one file name.

The table below gives an overview of the available variables.

Variable	Meaning	Example
%User Company%	The company name as defined in the Personal Info (see **Window** > **Preferences** > **Personal Info**)	Enfocus

Variable	Meaning	Example
%Current Document Name %	The file name of the input file	examplefile.pdf
%User Name%	The company name as defined in the Personal Info (see **Window** > **Preferences** > **Personal Info**)	User
%Time%	The current time in hours, minutes and seconds	08_43_28
%Unique ID	A unique sequential number	45
%Date%	The current date	2007-06-18
%Document Status%	The current preflight status of the document	NOK (Not OK)
%Subfolder Name%	The name of the subfolder	
%Hot Folder Name%	The name of the hot folder	

7.5. Hot Folder Properties: Flattening

In the **Flattening** category in the **Hot Folder Editor**, you can choose the appropriate settings for flattening transparency.

7.5.1. About transparency flattening

Transparency flattening is the process of converting transparent objects in a PDF document to multiple non-transparent objects. The converted objects will be partly vector images and partly raster images (= pixel images).

Usage

When you print a PDF document on a printing press, the PDF document goes through a raster image processor first. Some raster image processors do not handle transparent objects correctly. To avoid problems, you can flatten these objects before sending them to the raster image processor.

Process

1. PitStop Server uses the Adobe flattening engine to flatten the document, taking into account the options in the **Flattening** category.
2. If set up, PitStop Server executes some additional processing:
   - Remove ICC profiles.

- Recompress images.

7.5.2. Setting up transparency flattening

You cannot set up transparency flattening globally in PitStop Server; you have to set it up per hot folder.

To set up transparency flattening

1. Make sure color management is enabled for the hot folder.

   You can enable color management in two ways:

   - Globally in PitStop Server (**Window** > **Preferences** > **Color Management**).
   - By overriding the global options for this specific hot folder (**PitStop Server Hot Folder Editor** > **Color Management**)

2. In the color management options (same location as in step 1), set the **CMM Engine** field to **System CMM** or **Little CMM**.

   A CMM (Color Management Module) takes care of the color conversion. There are three options in the list:

   - **Adobe CMM (unavailable)** (CMM developed by Adobe; this CMM is no longer supported, because it has no 64-bit version)
   - **System CMM** (Your operating system's CMM)
   - **Little CMS** (An open source CMM; if you select this option, the Adobe flattening engine will be used for flattening transparency)

3. In the **PitStop Server Hot Folder Editor**, select the **Flattening** category.
4. Enable the **Flatten transparency** option, and set the necessary other *options*.

7.5.3. Flattening category: options

Option	Description
Flatten transparency	Enabled: Transparent objects in the PDF document will be flattened.
Raster/Vector balance	When flattening, transparent objects are partly converted to non-transparent vector images and partly to non-transparent raster images (= pixel images). Possible values: • **100**: Most (or all) transparent objects are converted to non-transparent vector images. • **0**: All objects (not only the transparent ones) are converted to non-transparent raster images. • Other values: Something in-between.

Option	Description
	Note: Gradient objects are always converted to raster images.
Line art and text resolution	Resolution used when converting transparent line art and text to non-transparent raster images.
Gradient and mesh resolution	Resolution used when converting transparent gradient and mesh to non-transparent raster images.
Convert all text to outlines	Enabled: Before flattening, all text in the PDF document will be converted to outlines. Enable this option to avoid differences between: • Transparent text, which will be converted when flattening. • Non-transparent text, which will be kept as is when flattening. **Note:** Not available when **Raster/Vector balance** is set to 0 %.
Convert all strokes to outlines	Enabled: Before flattening, all strokes in the PDF document will be converted to outlines. Enable this option to avoid differences between: • Transparent strokes, which will be converted when flattening. • Non-transparent strokes, which will be kept as is when flattening. **Note:** Not available when **Raster/Vector balance** is set to 0 %.
Clip complex regions	Enabled: After flattening, a clipping path will be put on the objects that are converted to non-transparent raster images. Enable this option to decrease the differences between: • Parts of a transparent object that are converted to non-transparent vector images. • Other parts of the object that are converted to non-transparent raster images. **Note:** Not available when **Raster/Vector balance** is set to 0 or 100 %.
Preserve overprint	Enabled: When flattening, the color of transparent artwork will be blended with the background color to create an overprint effect. Enable this option when your raster image processor does not handle overprint correctly.

Option	Description
	Note: Not available when **Raster/Vector balance** is set to 0 %.
Page-level transparency blending color space	Enable this checkbox if the blending color space in the file should be overridden by the color management settings (choose None) or by a particular color space selected from the list. Disabled: • If the page has a blending color space, this color space will be used. • If the page does not have a blending color space, the ICC Profile set in the color management settings is used. Enabled: • If **None** is selected, the color management settings are used. • If a particular color space is selected from the list, it is used as intermediate blending color space. **Note:** Before a color space on an object is converted to the output device color space, it is converted to an intermediate blending color space. The option chosen here determines this *intermediate color space*; it is only used for color calculations during transparency flattening. Also refer to "Flattening in Adobe Acrobat vs PitStop Server" underneath this table.

Remove ICC Profiles after Flattening	Enabled: After flattening, the ICC profiles from all objects in the PDF document will be removed.
	When flattening, the Adobe flattening engine:
	• Keeps non-transparent objects as is. This means:
	  • If the object does not have an ICC profile assigned, it is kept as is.
	  • If the object already has an ICC profile assigned, it is kept as is.
	• Converts transparent objects, and:
	  • If the object does not have an ICC profile assigned yet, assigns one.
	  • If the object already has an ICC profile assigned, keeps it assigned.
	Enable this option to avoid differences between:
	• Transparent parts, which will be converted and have an ICC profile assigned.

Option	Description
	• Non-transparent parts, which will kept as is and possibly not have an ICC profile assigned.
Recompress Images	Enabled: After flattening, all images (not only the ones created by the Adobe flattening engine) in the PDF document will be recompressed with the specified options. **Note:** For the **ASCII filter** option: ASCII encoding was formerly required to ensure that PDF files could be safely transported via e-mail over the Internet. However, most e-mail software in use today deals with non-ASCII documents normally, removing the need to ASCII-encode your document. The increase in file size when you use the ASCII encoding is substantial.

Flattening in Adobe Acrobat vs PitStop Server

You can also use Adobe Acrobat to flatten images. The flattening options can be found in the Print Production tool panel (**Flattener Preview** option).

The following options are present in both PitStop Server and Adobe Acrobat:

- **Flatten transparency**
- **Raster/Vector balance**
- **Line art and text resolution**
- **Gradient and mesh resolution**
- **Convert all text to outlines**
- **Convert all strokes to outlines**
- **Clip complex regions**
- **Preserve overprint**

There's one more PitStop Server setting that is similar to an Adobe Acrobat setting: **Page-level transparency blending color space**. The table below compares both settings and how they work:

Page-level transparency blending color space in PitStop Server	Page-Level Transparency Blending Color Space option in Acrobat
Can be enabled or disabled; if disabled, the page's own blending color space will be used (see higher).	Always enabled; if you want to use the page's own blending color space, you must select it from the drop-down.
If set to None, CMM settings are used; otherwise the chosen color space is used.	If set to None, CMM settings are used; otherwise the chosen color space is used.
If set to DeviceCMYK, DeviceCMYK output is created.	If set to DeviceCMYK, the CMM setting is used. This means that it's not possible to create DeviceCMYK output in Acrobat.
If a particular color space is selected, this color space is only used for color calculations during transparency flattening.	If a particular color space is selected, this color space is immediately used as the page's blending space.

Page-level transparency blending color space in PitStop Server	Page-Level Transparency Blending Color Space option in Acrobat
For example, if a page has no transparency, selecting a value from the list will not impact the page.	For example, even if a page has no transparency, changing the dropdown in Acrobat will change the page.

7.6. Hot Folder Properties: Action Lists and Preflight Profile

In the **Action List and Preflight Profile** category in the **Hot Folder Editor** , you can select the Action List(s) and/or Preflight Profile you want to use for preflighting.

Action Lists and Preflight Profiles are the "fuel" for the preflighting process. For a more detailed overview, see *Preflighting and Checking PDF Documents* on page 86 and *Using Action Lists* on page 81.

Note: Through the Hot Folder Editor, you can only *assign* the appropriate Action List(s) and Preflight Profile; if you want to *make changes, create a new Action List or Preflight Profile, view the contents*, ... you should open the PitStop Server Window menu (**Window** > **Action Lists** and **Window** > **Preflight**).

7.6.1. Adding one or more Action Lists to a hot folder

This topic explains how to add one more Action Lists as separate files to a hot folder (so not embedded in a Preflight Profile).

Note: Keep in mind that, if the hot folder contains Action List(s) (with "check" Actions) AND a Preflight Profile, it will not be possible to certify the processed documents based on this Preflight Profile. Certifying is not possible because it is not clear which checks come from the Action List(s), and which come from the Preflight Report. In this setup:

- When checking the History tab in PitStop Server, the Preflight status of this document will be "Not OK".
- When checking the Certified PDF status of this document, the status will be "undetermined" (gray icon). See *Checking the Certified PDF status of a PDF* on page 137.

We recommend embedding the Action List(s) in the Preflight Profile, so the PDF document can be preflighted with this Profile and the status can be determined.

To add one or more Action Lists to a hot folder

1. In the Hot Folder Editor, go to the **Action Lists and Preflight Profile** category.
2. Below the **Selected Action Lists** area, click .
3. Select one or more Action Lists you want to add, either *From database* on page 61 or *From file* on page 62.

You can select multiple Action Lists in one go by holding the shift key or the Ctrl (Windows) or apple (Mac OS) key.

4. Click **OK**.
   The Action Lists of your choice are added to the bottom of the list of **Selected Action Lists**. Note that you can change the order of the Action Lists, by selecting a List and clicking the **Move Up** or **Move Down** button.

   The Action Lists will be run on the PDFs in the order in which they appear in the list: the Action List on top of the list will start first. As a different order can give a different result, it is important to make sure this order is correct.

7.6.2. Adding a Preflight Profile to a hot folder

To add a Preflight Profile to a hot folder

1. In the Hot Folder Editor, go to the **Action Lists and Preflight Profile** category.
2. Below the **Selected Preflight Profile** area, click .
3. Select a Preflight Profile you want to add, either *From database* on page 61 or *From file* on page 62.
4. Click **OK**.
   The name of the Preflight Profile and its description will be shown.

7.6.3. Where Can I Find Action Lists and Preflight Profiles?

If you want to add Action Lists or a Preflight Profile to your hot folder, this is where you can find them:

7.6.3.1. From database

One of the options when selecting Action Lists or a Preflight Profile is "From database". This refers to the Preset Databases installed on your computer's hard disk along with Enfocus PitStop Server. These databases contain:

- Predefined Action Lists/Preflight Profiles, in the *Standard* database. These are installed with the application and available to all users on the computer. The Standard database and its contents cannot be modified.
- Action List/Preflight Profiles created by the user in the *Local database*. The Local database level is only available to the current user and its contents can be modified.

Note: The Preset Databases also contain Action Lists/Preflight Profiles created or updated by other Enfocus products, such as Enfocus PitStop Pro or Enfocus Connect.

Note that additional folders can be added using the PitStop Pro Preferences (Preset Databases category).

7.6.3.2. From file

When adding Action Lists or a Preflight Profile to your hot folder, you can also use Action Lists or a Preflight Profile that is stored on your computer's hard disk or on a network drive. For example, if someone has sent you an Action List or Preflight Profile by e-mail. The default extension of an Action List is *.eal. The default extension of a Preflight Profile is *.ppp

The **Browse** button allows to select the Action List or Preflight Profile you want to use.

7.6.3.3. Enfocus Action List Library

You can find Action Lists on the Enfocus Action List Library page on the Enfocus website at: *http://www.enfocus.com/en/support/downloads/pitstop-action-lists*.

You can also access this page from within Enfocus PitStop Server: **Help** > **Online Resources** > **Action List Library**.

Proceed as follows:

1. Select an Action List or the complete Enfocus Action List Library and download the archive file.
2. Extract or expand the Action Lists in the archive file to a folder.
3. Go back to the **Action Lists and Preflight Profile** category in the Hot Folder Editor and select the appropriate Action List using the "From File" option.

7.6.3.4. Enfocus Preflight Profile Library

You can find Preflight Profiles on the Enfocus Preflight Profile Library page on the Enfocus website at: *http://www.enfocus.com/en/support/downloads/pitstop-preflight-profiles*.

You can also access this page from within Enfocus PitStop Server: **Help** > **Online Resources** > **Preflight Profile Library**.

Proceed as follows:

1. Select a Preflight Profile or the complete Enfocus Profile Library and download the archive file.
2. Extract or expand the Preflight Profiles in the archive file to a folder.
3. Go back to the **Action Lists and Preflight Profile** category in the Hot Folder Editor and select the appropriate Preflight Profile using the "From File" option.

7.7. Hot Folder Properties: Smart Preflight

In the **Smart Preflight** category in the **Hot Folder Editor**, you should enable the Smart Preflight options if applicable.

Smart Preflight is a functionality that allows you to handle many different job types and specifications by using only one Preflight Profile. This is possible, thanks to the use of "variables", dynamic values instead of fixed values, that are taken from a Job Ticket.

For a full explanation, refer to the chapter on Smart Preflight. There you'll find information on how to set up Smart Preflight (i.e. create a Variable Set with the appropriate variables and apply the variables to the appropriate checks in a Preflight Profile).

Additionally, if you want to use a Preflight Profile with variables enabled in PitStop Server, you must:

- Select the correct Variable Set (making sure the variables used in the selected Preflight Profile are contained in this Variable Set)
- Indicate which file is the Job Ticket that should supply the values for the Smart Variables.

7.7.1. Applying a Variable Set

In order to be able to use Smart Preflight, you must "apply" the Variable Set that contains the variables used in the Preflight Profile or Action List(s) selected in the **Action List and Preflight Profile** category of the Hot Folder Editor. If the Variable Set does not match what has been used in the Preflight Profile or Action Lists, the workflow will not activate.

To apply a Variable Set

1. In PitStop Server, open the Hot folder Editor.
2. Select **Smart Preflight**.
3. Click and select the Variable Set you want to apply.
4. Click **OK**.

7.7.2. Enabling the use of a Job Ticket

If variable values should be taken from a Job Ticket, you should define its name in the Hot Folder setup.

To enable the use of a Job Ticket in PitStop Server

1. In PitStop Server, open the Hot folder Editor.
2. Select **Smart Preflight**.
3. Under **Job Ticket file Matching**, make the appropriate choices:
   - Select the **Use Job Ticket** checkbox and type the name of the associated Job Ticket file, or define the file name pattern using variables. There are two variables available: one to duplicate the source PDF file name and one for the file extension. The hot folder will process incoming files in pairs: a PDF file and the matching job ticket XML/JDF file. As long as only one of both required files has arrived in the input folder, PitStop Server will wait for the other one.
   - Select the **Time Out** checkbox and indicate how long PitStop Server should wait before rejecting any orphaned documents or Job Tickets. Determine where orphaned files

should be moved to. If no folder is specified, the files (orphaned original document and Job Tickets) will be deleted.

- Indicate what should be done with the Job Ticket after processing, by selecting the appropriate option from the **Transfer Job Ticket** list. You can can either move it to one of the folders in the hot folder setup (reports, original or processed documents), or you can delete it.

4. Click **OK**.

7.8. Hot Folder Properties: Certified PDF

In the **Certified PDF** category in the Hot Folder Editor you can define how Enfocus PitStop Server will handle incoming Certified PDF documents.

For a more elaborate explanation on Enfocus Certified PDF Workflow, see *Working with Certified PDF documents* on page 131.

7.8.1. Changing the Certified PDF status of an incoming PDF

When a PDF arrives in an input folder of a hot folder, it can be a Certified PDF or not. You can use Enfocus PitStop Server to change the Enfocus Certified status. To this end, you set your hot folder to perform one of the following actions on the PDF as soon as it arrives in the input folder:

- **Keep the document status unchanged**
- **Make the document Certified using hot folder Preflight Profile**
- **Make the document uncertified**

Note: If you set your hot folder to change the Enfocus Certified status of incoming PDFs, it will do so *before* it actually processes the document, i.e.:

- Before it starts to run Action Lists
- Before it checks the document against a Preflight Profile.

The table below gives an overview of the effect on the incoming PDF depending on the chosen option and the Certified PDF status of the incoming file.

Chosen option	Incoming non-Certified PDF	Incoming Certified PDF
Keep the document status unchanged	The PDF remains uncertified.	The PDF remains certified and keeps its embedded Profile.
Make the document Certified using hot folder Preflight Profile	The PDF will be Certified using the Preflight Profile defined in the hot folder.	The PDF will be Certified using the Preflight Profile defined in the hot folder, unless the option **Keep original Certified Preflight Profile if incoming**

Chosen option	Incoming non-Certified PDF	Incoming Certified PDF
		document is already a Certified PDF is selected (in the area below).
Make the document uncertified.	The PDF remains uncertified.	The PDF document will no longer be certified.

7.8.2. Certified options

On Certified PDF documents, you have the option to use the Roll-back system and you can add a session comment. This is only applicable when using the option **Make document Certified using hot folder Preflight Profile** and on incoming Certified PDF documents when using **Keep document status unchanged**.

7.8.2.1. Allow rollback to previous version

The Certified PDF workflow can offer you a robust roll-back mechanism. This allows you to revert to any previous stage in the Certified PDF workflow and to compare different versions of your PDF document, even though you maintain one physical PDF file.

If you do **not** want to take advantage of the roll-back functionality, enable **Perform Certified full save (no rollback to previous sessions)**. You will not be able to revert to a previous version of the PDF; however this will reduce the file size, which can be advisable if size is an issue.

Note: This option is only applicable for Certified documents. When using **Make document uncertified**, this option will not be available.

7.9. Hot Folder Properties: Color Management

In the **Color Management** category in the Hot Folder Editor you can set alternative color management settings that override the global color settings set in the PitStop Server preferences (**Window** > **Preferences** > **Color Management**).

Refer to *Using ICC profiles for a specific hot folder* on page 153.

Elaborate information can be found in the chapter on *Managing color* on page 147.

7.10. Hot Folder Properties: Fonts

Font folders
In the **Fonts** category in the Hot Folder Editor you can manage the font settings for the *selected hot folder*:

- If the system fonts should be used, enable the **Use system fonts** checkbox.
- If applicable, select additional font folders that should be used (by clicking the **Add** button).

Note that the *general* font folders for Enfocus PitStop Server are set in the *PitStop Server Preferences*. Fonts will be searched on the system first, then in the general font folders, and finally in the font folders specific for the hot folder.

License restrictions

Sometimes font license restrictions do not allow certain font manipulations, e.g. conversion to outlines. In that case, PitStop Server will not perform the conversion, despite the Hot Folder configuration.

However, you may have an agreement with the font provider, or you may have checked the license conditions and be sure that the requested manipulation is allowed. In that case, select the **Agree with Font License restrictions** checkbox to overrule the font license restrictions. A dialog will pop up. Read it carefully and click **Yes** if you agree. Remember that you are responsible for complying with the font licenses restrictions!

The **Edit General Font Preferences** button offers a shortcut to the font settings in the **Preferences**.

See also:

- *Managing fonts* on page 139
- *Setting the Enfocus PitStop Server Preferences* on page 74

7.11. Hot Folder Properties: E-mail Notification

In the **E-mail Notification** category in the Hot Folder Editor you can set up e-mail notifications for processed documents.

As Enfocus PitStop Server processes the PDFs in the background, you might not even notice that Enfocus PitStop Server is at work for you. However, you can, if you wish, get feedback on how the processing went. You can get this feedback by means of an e-mail message.

You can configure when the mails should be sent, to whom and what the actual content should be, as explained further.

7.11.1. Setting up e-mail notifications

To set up e-mail notifications

1. Open the Hot Folder Editor.
2. Display the **E-mail Notification** category.
3. Select one or more cases in which an e-mail message has to be sent, for example:
   - If the document was successfully processed
   - If the document generated warnings, fixes, critical or non-critical failures, or errors (as required)
   - If the processed document was not a PDF file

- If there was a time-out for a document.

Note: Only one e-mail per job will be sent!

4. Configure the message that will be sent.

   It is for example possible to add the Preflight Report or the PDF file itself to the e-mail. You can use variables and/or free text and you can limit the size of the attachments, to avoid the notifications being blocked by a mail server.

   Note: The language of the e-mail message is dependent on the language settings in the **Processing** > **Report Generation** section of the **PitStop Server Hot Folder Editor**.

5. Enter the e-mail addresses of the people who have to be notified.

   Use a semicolon to separate multiple addresses.

   Tip: You may want to fill in your own e-mail address first and click **Send Test Notification** to check if the e-mail notifications are sent correctly. If something is wrong, click the **Edit E-mail Preferences** button to double-check the *PitStop Server Preferences*.

6. Click **OK**.

7.12. Hot Folder Properties: Summary

The summary of the Hot Folder Editor gives an overview of all warnings and errors in the configuration of the hot folder. The most severe message is also shown in the hot folder status line in the bottom left corner of the Hot Folder Editor.

8. Running jobs through PitStop Server

By dropping a file in the input folder, this file is submitted to be processed by the hot folder.

An input folder is checked for incoming files, based on the Time Interval set in the Processing category of the Preferences. By default, the input folder is checked every 10 seconds.

If you create subfolders in the input folder, either by dropping folders in the input folder or by creating subfolders manually, the way these subfolders are processed depends on the "Processing" category in the Hot Folder Editor. See *Subfolder Processing* on page 52.

9. Monitoring active jobs

In the **Hot Folders** tab, you can see the number of jobs queued to a specific hot folder. However, to monitor individual jobs, you can use the **Progress** tab.

In the **Progress** tab in PitStop Server, all active jobs can be monitored. For every job, you can see

- The name of the job. This will be the name of the input file.
- The hot folder processing the job
- The current step
- The progress on this step
- Additional info

9.1. Sorting the active jobs

To sort the active jobs in the list

1. Go to the **Progress** tab in PitStop Server.
2. Click in the header of the column you want to use as base to sort the active jobs.
3. To change between sorting ascending and descending, click the same header again.

9.2. Pausing all active jobs

To pause all active jobs

1. Go to the **Progress** tab in PitStop Server.
2. Click the button to pause all jobs.

9.3. Resuming all active jobs

To resume all active jobs

1. Go to the **Progress** tab in PitStop Server.
2. Click the button to resume processing on all jobs.

9.4. Cancelling active jobs

To cancel active jobs

1. Go to the **Progress** tab in PitStop Server.
2. Select one or more active jobs.
3. Click the button to cancel the selected jobs.

10. Viewing finished jobs in the History tab

After finishing a job, the job will be shown in the **History** tab.

Note: Remember that this is only the case, if **History Logging** is enabled for the hot folder concerned. Refer to *Hot Folder Properties: General* on page 47.

The **History** tab in PitStop Server gives an overview of all finished jobs, showing the output job name, the hot folder name, the date, the Preflight status and any special events that occurred.

Refer to *The PitStop Server History tab* on page 30.

10.1. Managing the History List

Using the Filters on top of the list, you can define what jobs you want to see, based on different criteria (date, file name, preflight status, ...). This allows to get an overview of all jobs for a specific customer or hot folder, get an overview of all jobs with errors, etc.

By clicking the column headers, you can also sort the list based on the selected column.

To add new columns, click **Window** > **Select Columns** and select the desired columns.

10.1.1. Filtering the History

Using the dropdown, it is possible to filter the jobs shown in the list. Depending on the filter type chosen, an additional dropdown or input field can appear.

Filter	Parameter (dropdown/input field)	Jobs shown
No Filter		All jobs
Last Number Of Files	(input field = n)	The last n jobs
Processed Within Last	days/hours/minutes (input field = n)	Jobs submitted the last n days/ hours/minutes.
Finished Processing	Before/After (input = date yyyy/mm/dd hh:mm:ss)	Jobs finished before or after the entered time.
Output Job Name	Begins With / Contains (input = string)	Jobs of which the input file name begins with or contains the entered string.

Filter	Parameter (dropdown/input field)	Jobs shown
Hot Folder Name	Begins with / Contains (input = string)	Jobs of which the output file name begins with or contains the entered string.
PitStop Server CLI ID	(input = n = process ID of the CLI that sent the job(s) to PitStop Server, e.g. 4012 or 98765)	Jobs that were processed using the command-line interface of PitStop Server. If no ID is entered, all rush jobs are shown; if a particular ID is entered, all rush jobs sent by that particular CLI are shown.
Preflight Status	Highest/lowest/only severity level = particular preflight status	Jobs sorted based on the preflight result, i.e. the type of problems (warnings, errors,...) found during preflight. For example, "Only severity level is Success" will show jobs that were processed without any errors or warnings. "Highest severity level is Warning" will show jobs that were processed with warnings or errors.
Without Special Events	-	Jobs without Special Events, i.e. jobs that were processed successfully.
With Special Events	-	Jobs that for some reason failed to be processed, e.g. because the incoming PDF file is corrupted.

10.1.2. Deleting jobs from the list

To delete jobs from the list

1. Go to the History tab.
2. Select the jobs you want to delete.
3. Click the button.

10.2. Exporting the History

The information in the History tab can be exported to a file for archiving, statistics. This file can either be tab separated text (TXT), with or without detail, or an XML.

To export the information in the history

1. Go to the **History tab**.
2. Select the jobs for which you want to export the history.
3. Click the History export button .
4. Select the file type you want to export:
   - Export as XML
   - Export as TXT
5. In the dialog that appears, define the name and location for the file.
6. Click **OK**.

10.3. Viewing statistics

The statistics allow to check the number of files processed per hot folder, processing times, average pages per jobs, etc.

To view statistics

1. Go to the History tab.
2. Click the button.
   A dialog will appear, showing statistics on files per hot folder, processing time, pages per job and totals. The statistics take the selected filter into account.

10.4. Special Events Log

The Special Events Log, opened by clicking the button, shows all jobs that, for some reason, failed to be processed. This could be e.g. because the incoming PDF file is corrupted. The Special Events Log will also show errors that are not job-related, e.g. if there are missing components of Server itself, if Enfocus PitStop Server has no access to a folder due to changed permissions, etc.

The Special Events Log also reports on files being quarantined, i.e. taken out of the workflow and moved to a special folder (as set in the *PitStop Server Preferences*). This may happen if the libprocessor (the PitStop Server process that actually processes the PDF files) crashes or fails to move the result files to an output folder.

11. Setting the Enfocus PitStop Server Preferences

The PitStop Server Preferences are grouped in several categories. The following table gives an overview of the different categories and explains what type of preferences they contain.

Note: Preferences can only be changed when the PitStop Server Watchdog is running.

Category	Related to...
General	The units (points, picas, inches, feet, centimeters, millimeters or meters) to be used in PitStop Server and processing and logging. See *Setting the Measurement Units* on page 75.
Languages	The language used for logging and processing, and the language used in PitStop Server. See *Setting the Language* on page 75.
Folders	The location of the folders for temporary files, quarantined files and log files of PitStop Server. See *Setting the Folders* on page 76.
Processing	The time interval for hot folder checking, optimized save setting, etc. See *Setting the Processing preferences* on page 77.
File Cleanup	Automatic Deletion of files after processing. See *Setting the File Cleanup preferences* on page 77.
Fonts	Font locations. Folders on your hard disk or network drive where Enfocus PitStop Serverwill look for fonts, e.g. when a font has to be (re-)embedded. See *Setting your Font preferences* on page 78.
Color Management	Enabling color management and the color models which you wish to use. See *Setting your Color Management preferences* on page 78.
E-Mail	SMTP server for e-mail notification, and e-mail settings for PitStop Server special events. See *Setting your E-Mail preferences* on page 79.
Personal Info	Name, company, address, e-mail addresses and phone numbers, etc., e.g. used when sending an e-mail. See *Setting your Personal Info* on page 79.
Updates	Checking for application updates, and sending notification e-mails to PitStop Server Administrator. See *Setting the Update Preferences* on page 80.

11.1. Setting the Measurement Units

To set the Measurement Units

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **General** category.
3. Select the **default measurement units** you want to use for processing and logging.

   The default measurement units are used on the *processing* side of PitStop Server. Practically speaking, this means the measurement units in the PDF or XML report.
4. Select the **measurement units you want to view** in the PitStop Server.

   These measurement are used on the *viewing* side of PitStop Server. For example, the measurement units in the editor panels, like the Preflight Profile editor etc.

   If you choose **Default measurement units**, the same unit (i.e. the unit chosen in the previous step) will be used for the Preflight Reports and the PitStop Server UI.
5. To display the hidden warning messages, click the **Reset All Messages** button.

   This applies to all messages for which you have selected the **Don't show this message again** checkbox.

11.2. Setting the Language

To set the language of the application

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **Languages** category.
3. From the **Default language** list, select the language for PitStop Server **processing and logging** (i.e. the language that will be used for the Preflight Reports).

   Supported languages:

   - English
   - French
   - German
   - Dutch
   - Italian
   - Spanish
   - Polish
   - Brazilian Portuguese
   - Chinese (only available if you licensed a Chinese copy of PitStop)
   - Japanese (only available if you licensed a Japanese copy of PitStop)

Note that presets (example Action Lists, Preflight Profiles,...) are only available in English. Japanese users can obtain presets in Japanese, if they use a Japanese installer to install Enfocus PitStop Server (on Windows) or if the language of their system is set to Japanese (on Mac).

Note: You can still change the report language for a specific hot folder as required, in the Processing tab of the hot folder concerned. See also *Report Generation* on page 52.

4. From the **Viewing language** list, select the language in which you want to see the PitStop Server GUI.

   The **Default language** refers to the language selected in the previous step.

5. Click **OK**.

6. If you have changed the viewing language for PitStop Server, restart Adobe Acrobat.

11.3. Setting the Folders

To set the preferences in the Folders category

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).

2. Select the **Folders** category.

3. Define in what folder PitStop Server can store *temporary files*:

   - To store them in the default location, click the **Use Default** button.
   - To choose any other folder, click the **Browse** button.

   Note: If the Temporary Files folder is changed, you will have to restart the PitStop Server Watchdog.

4. Define in what folder *quarantined files* will be stored.

   Quarantined files are files that need to be taken out of the processing workflow. This only happens when the libprocessor (= the PitStop Server process that actually processes the PDF files) crashes or fails to move the result files from a temp folder to an output folder. You will get a notification through the *Special Events Log* and, if emails alerts are enabled, you will receive an email alert. In case of a crash, please report the crash to Enfocus Support.

   Make sure you have sufficient *permissions* to access this folder and there is sufficient disk space available on this drive.

   Note: Since networks are not always stable, to avoid problems, it is no longer allowed to use a network folder for quarantined files.

5. Define in what folder PitStop Server will store its *Special Events Log* files.

These are files which contain information about the special events that may occur in PitStop Server. Make sure you have sufficient permissions to access this folder.

11.4. Setting the Processing preferences

To set the Processing preferences

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **Processing** category.
3. Configure the options as required:
   - Define the number of processes that are allowed to run concurrently. Remember that a high number may slow down PitStop Server.
   - Define how often input folders must be checked for new files and after how much time submitted files are processed.
   - Indicate whether or not you want to keep a log of the processed files and enter the number of days after which the history should be cleaned.

     Note: History logging must be configured for each hot folder separately (in the Hot folder settings (General category)). If History Logging is set to **Use global preference**, the options chosen here will apply.

   - Set the number of days to keep Special Event Logs.
   - Define if PitStop Server should continue processing files in the background when closing the application. **Ask the user** means you get the choice when closing Enfocus PitStop Server.
4. Click **OK**.

11.5. Setting the File Cleanup preferences

To set the File Cleanup preferences

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **File Cleanup** category.
3. Define if files have to be deleted after a number of days, if they exceed a number of megabytes, or if the number of files gets too high.
4. Define if empty subfolders need to be removed.
5. Define what file types you want to be deleted automatically.

Note: Note that Enfocus PitStop Server will only remove files and folders that have been processed.

11.6. Setting your Font preferences

To set your Font preferences

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **Fonts** category.
3. Click the **Add...** button.
4. Select the necessary font folders on your hard disk or network drive and click **OK**.

   The selected font folders appear in the **Font Folders** pane of the **Enfocus PitStop Server Preferences** Panel.

   Note: You can add font folders for a specific hot folder in the Hot Folder setup. See also *Hot Folder Properties: Fonts* on page 65.
5. Click the **Remove** button to remove a font folder.
6. Click **OK**.

11.7. Setting your Color Management preferences

To set your Color Management preferences

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **Color Management** category.
3. Configure the general color management settings in the **General** tab.
4. In the **Images** tab:
   - To apply the general settings for the images too, select the **Apply General color settings** checkbox.
   - To override the general color settings and configure separate settings for images, select the **Enable color management** checkbox.
5. Select a default source and target ICC profile for each color space.
6. Select the **CMM Engine** to be used, and (if applicable) select **Use black point compensation** checkbox.

Note: You can set color management for a specific hot folder in the Hot Folder setup. See also *Using Color Management in Enfocus PitStop Server* on page 152.

7. Click **OK**.

11.8. Setting your E-Mail preferences

To set your E-Mail preferences

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **E-Mail** category.
3. Fill in the name and port for your outgoing mail.

   You can find this information in your e-mail program or contact your system administrator for assistance.
4. Fill in the user name and password, if any.
5. Define to whom PitStop Server should send an e-mail notification if a special event occurs.

   You can enter multiple e-mail addresses (separated by a semicolon) as required.
6. Click **OK**.

11.9. Setting your Personal Info

The personal info is stored in the Certified PDF documents which you will be creating using PitStop Server. This allows the recipients of your Certified PDF documents to contact you if they have any questions.

To set your Personal Info

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **Personal Info** category.
3. Enter your name, company, address and all other personal information.

   The information on the System tab is not editable. The **system information** consists of the details of the person who registered PitStop Server and information taken from your operating system, network and computer. This information cannot be changed and is therefore a reliable source to pinpoint responsibility, for example.
4. Click **OK**.

11.10. Setting the Update Preferences

To set the preferences in the Updates category

1. In PitStop Server, choose **Window** > **Preferences...** (Windows) or **Application** > **Preferences...** (Mac).
2. Select the **Updates** category.
3. Define how often PitStop Server should check for application updates, e.g. weekly or monthly.

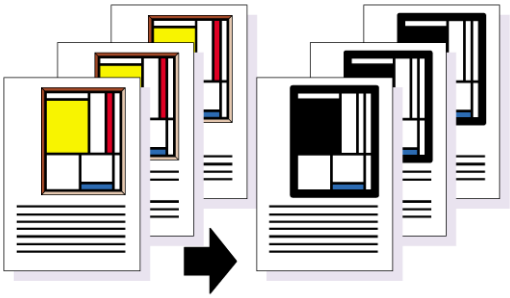
   If you choose "Manually", PitStop Server will not inform you about updates. Note that you can check the *Enfocus website* for new versions.
4. Define how often the PitStop Server administrator (as defined in the E-Mail preferences) and/or the user ("Notify me") should get a notification on available updates.
5. Click **OK**.

12. Using Action Lists

One of the main reasons for using Enfocus PitStop Server is the automated editing of PDF documents. To do this, you can add one or more Action Lists to a hot folder. An Action List is a series of sequential tasks saved in one file. For example, this can be tasks such as changing color or objects. Enfocus PitStop Server will automatically carry out the respective tasks in the defined sequence.

For example, suppose you have a line-art object in several PDF documents. You want to change the following properties of this object in all of your PDF documents:

- Fill colors of a number of areas in the object
- Lines in the object which are thinner than a given line weight.



This job may consist of a number of sequential tasks, as outlined in the illustration. Using Enfocus PitStop Server, you can apply these tasks to all PDF documents that arrive in a specified hot folder.

Remark

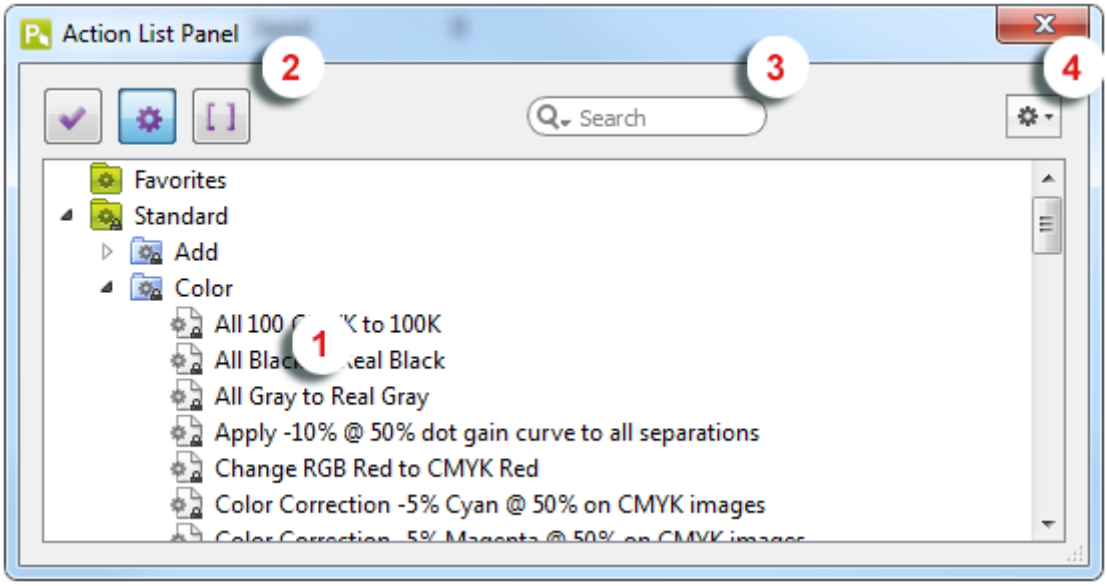
The following topics explain how to **manage** (import, export, duplicate) Action Lists in PitStop Server. Remember that, to **apply** these Action Lists to one or more PDFs, you should:

- Embed one or more Action Lists in a Preflight Profile (and add this Preflight Profile to a hot folder). (Recommended) See *Adding Action Lists to a Preflight Profile*
- Add the Action Lists as separate files to a hot folder. See *Adding one or more Action Lists to a hot folder* on page 60.

12.1. Where to find Action Lists in PitStop Server

To manage Action Lists in PitStop Server, navigate to **Window** > **Action Lists...**.

This will open the **Action List Panel**.



This panel is made up of the following parts:

1	A workspace, which displays the available Action Lists. The Action Lists are organized in folders, called "databases". By default, the following folders can be found: • **Favorites**: Action Lists marked as your favorites. This provides you fast access to the Action Lists you need often. • **Standard**: The default Action Lists installed with PitStop Server (grouped in subfolders, such as Color, Fonts, Image,...). • **Local**: Action Lists edited and created by you, and saved locally.
2	Buttons to switch between Preflight Profiles ( ) , Action Lists , and Variable Sets [ ] (Refer to the chapter on *About Smart Preflight*).
3	A search field (allowing you to search for a particular Action List)
4	An Action menu . You can use this menu to: • Create or edit an Action List • Remove an Action List • Duplicate an Action List • Import or Export an Action List • Rename an Action List • Change the order of the Action Lists in this panel (move up, move down) Alternatively, you can select an Action List and use the context menu to perform these operations.

Note: As of PitStop 13, Action Lists can be created and edited directly in PitStop Server! You don't need PitStop Pro anymore.

12.2. Editing an Action List

As of PitStop 13, you can edit existing Action Lists directly in PitStop Server.

For example, if you want to add your company background to a PDF, you can edit the "Add Enfocus Background" Action List (by default available in the Standard folder) and replace the Enfocus background image with your own background image.

Tip: For more details on working with Action Lists, refer to *the Action Manual on the Enfocus website* (Chapter "Automating tasks with Action Lists").

To edit an Action List

1. In Enfocus PitStop Server, navigate to **Window** > **Action Lists...**.
2. In the **Action List Panel**, double-click the Action List you want to edit.

   Alternatively, select the Action List you want to edit and click > **Edit**.

   Note: If the Action List is fully locked, you will be asked to enter a password before you can see the content of the Action List. If it is partially locked, you will be able to view the content of the Action List, but you'll have to click the Lock icon and enter the password, before you can make any changes.
3. Design the Action List, i.e. add or remove Actions or change the attributes of an Action as required.
4. If you have made all required changes, click **OK**.
   The changed Action List will be saved in the Local database (folder).

12.3. Creating an Action List

As of PitStop 13, you can create your own Action Lists directly in PitStop Server.

Tip: For more details on working with Action Lists, refer to *the Action Manual on the Enfocus website* (Chapter "Automating tasks with Action Lists").

To create an Action List

1. In Enfocus PitStop Server, navigate to **Window** > **Action Lists...**.
2. In the **Action List Panel**, do one of the following:
   - To create a new Action List based on an existing one, click > **New** > **New From/New from File** and select the Action List you want to start from. The option **New from** allows

you to select an existing Action List from the Standard database; **New from file** allows you to select a file (*.eal) from your computer.

- To create a new Action List from scratch, click > **New** > **New**.

3. Fill in the **Properties** section as required:
   - Select **General Information** and set the Action List name, your name and company and a description of the Action List.
   - Select **Locking Information** and choose the appropriate options. Refer to the Action Manual on the Enfocus website ("Locking an Action List).
4. Design your Action List, i.e. add or remove Actions or change the attributes of an Action as required.
5. If you have made all required changes, click **OK**.

12.4. Exporting an Action List

Exporting an Action List means that you save it as a separate file.

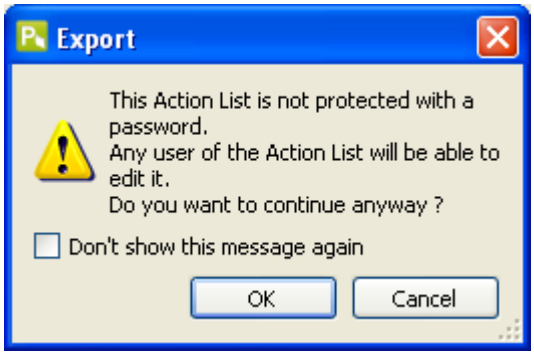
You may want to do this for a number of different reasons, for example:

- To re-use this Action List later on
- To share the Action List with other users
- To send an Action List to a service provider or any other recipient or supplier of PDF documents
- To create a backup copy

To export an Action List

1. In Enfocus PitStop Server, navigate to **Window** > **Action Lists...**.
2. In the **Action List Panel**, select the Action List you wish to export.
3. From the **Action** menu ( ), choose **Export**.

   If the Action List is not secured with a password, the following message will appear:



4. Specify the Action List's file name and location.

5. Click **Save**.

12.5. Importing an Action List

Importing an Action List means that you load it into the **Action List Panel**. This can be useful if you received Action Lists from colleagues or customers. Remember that you can also download Action Lists from the Enfocus Action List Library (available on the Enfocus website).

To import an Action List

1. In Enfocus PitStop Server, navigate to **Window** > **Action Lists...**.
2. Select the category (folder) in which you want to import the Action List.
3. From the **Action** menu ( ), choose **Import**.
4. Select the Action List to import.
5. Click **Open**.

   The imported Action List appears at the bottom of the selected category in the Enfocus PitStop Server **Action List Panel**.

12.6. Duplicating an Action List

Duplicating an Action List means that you save a copy of this Action List.

To duplicate an Action List

1. In Enfocus PitStop Server, navigate to **Window** > **Action Lists...**.
2. In the **Action List Panel**, select the Action List you wish to duplicate.
3. From the **Action** menu ( ), choose **Duplicate**.

   Enfocus PitStop Server creates a copy of the selected Action List with the same name as the original, followed by "copy". This copy will also appear in the **Action List Panel**.

12.7. Removing an Action List

When you remove an Action List, it will no longer appear in the **Action List Panel** and it is deleted from your hard disk.

To remove an Action List

1. In Enfocus PitStop Server, navigate to **Window** > **Action Lists...**.
2. In the **Action List Panel**, select the Action List you wish to remove.
3. From the **Action** menu ( ), choose **Remove...**.

13. Preflighting and Checking PDF Documents

Enfocus PitStop Server lets you conveniently check and fine tune your PDF documents before you output them, either on screen or in printed form. You can ensure the properties of your PDF documents to match the properties as specified in the selected Preflight Profile. The result of these preflight actions is presented in a Preflight Report, stored in a log folder.

13.1. What is preflighting?

13.1.1. Preflighting defined

Preflighting is a term derived from the airline industry. The pilot has the responsibility to determine the airworthiness of the aircraft before take-off. This means that he or she has to perform a number of checks prior to each flight.

Preflighting PDF documents basically means the same thing: the “pilot in command”, i.e. the person who creates or processes a PDF document, has to make sure that the document is “airworthy”, or rather, “outputworthy”, before sending it for output.

“Outputworthy” means that the PDF document is “fit for use”, for example:

- That a PDF document to be printed on a four-color printing press contains only CMYK images and that all the necessary fonts are included
- That a PDF document intended for online viewing contains only RGB images

Moreover, any property of a PDF document which does not meet the requirements of the preflight check can be reported as a “problem” and fixed in the same process.

13.1.2. Preflight Profiles

To preflight PDF documents, you use Preflight Profiles. A Preflight Profile is a collection of criteria which a PDF document should meet to be outputworthy. For each criterion, you can specify:

- If it should be checked or not
- How it should be listed in the Preflight Report, i.e. “Warning” or “Error”
- How the problem, if any, should be fixed

An example of a criterion is RGB colors. If you do not want RGB colors in your PDF documents, you can check this and have all RGB colors converted to CMYK.

13.1.3. Preflighting in Enfocus PitStop Server

How exactly does preflighting work in Enfocus PitStop Server? The typical stages in a preflight check are the following:

1. In your Hot Folder setup, select the Preflight Profile you want to use.

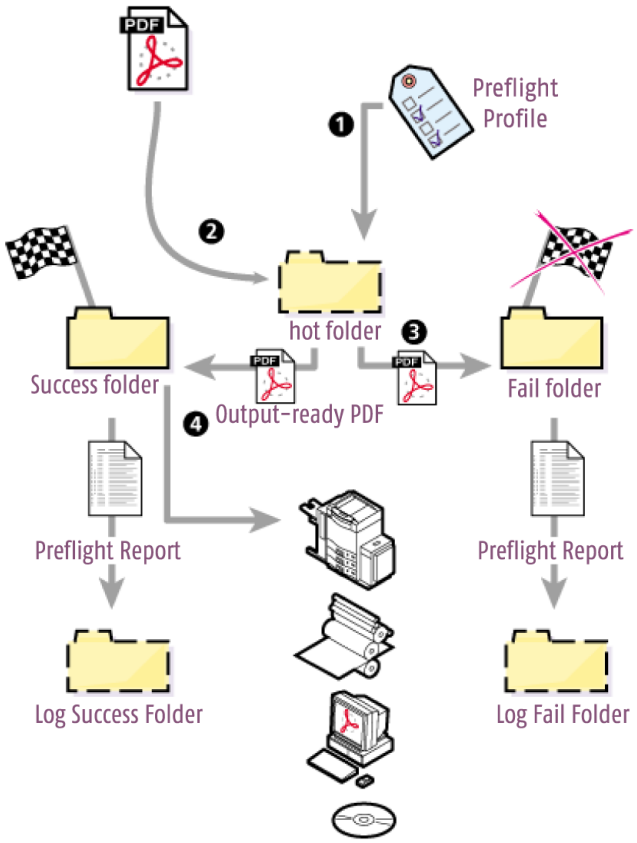
   Note that you can create, edit or import other Preflight Profiles than the default ones, via the Preflight Profile panel (**Window** > **Preflight**).

2. Place PDF documents in the input folder (defined in your Hot Folder setup) to have them checked and fixed automatically.

3. Enfocus PitStop Server checks the PDF documents and depending on the Preflight Profile fixes problems, if any. It generates a Preflight Report and saves the Report in a log folder.

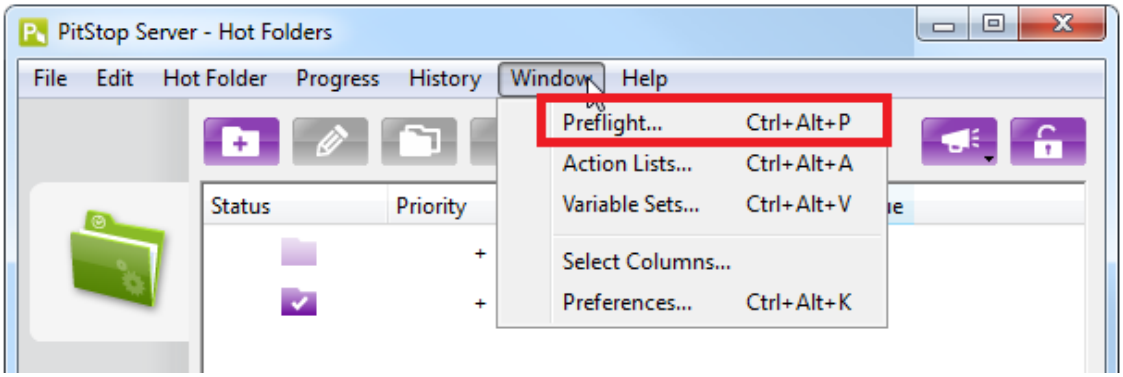
4. If necessary, re-check the PDF document until it is output-ready and can be taken to the final output stage, e.g., for print, press or online viewing.

   The following image is an example of a typical preflight workflow with Enfocus PitStop Server.



13.2. Where to find Preflight Profiles in PitStop Server

In PitStop Server, click **Windows** > **Preflight**.

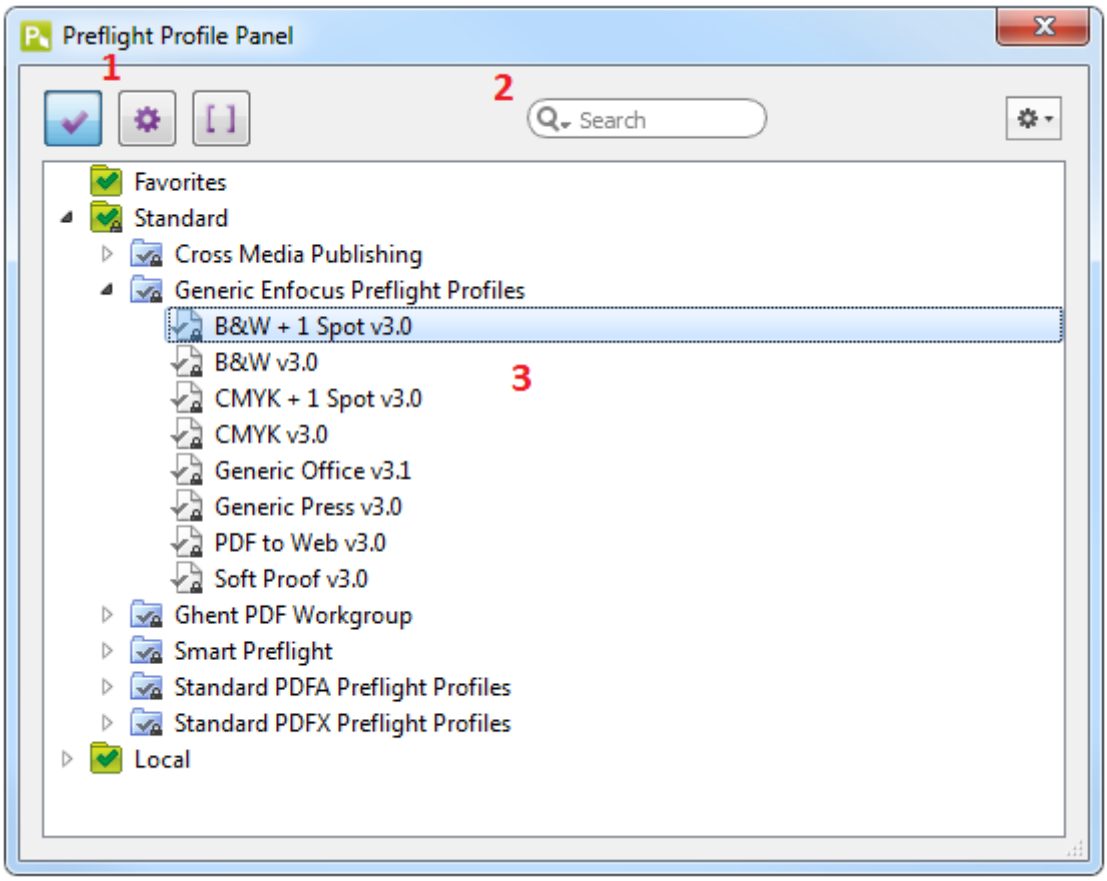


13.2.1. The Preflight Profile Panel

The **Preflight Profile Panel** allows you to organize and access Preflight Profiles:

- You can open an existing Profile or a blank Profile (to create a new one).
- You can import, export, duplicate, and group Preflight Profiles

Note: Running a Preflight Profile is not possible from this dialog. Instead, you must select the Preflight Profile concerned in the Hot Folder setup (**Action Lists and Preflight Profile** category).



The **Preflight Profiles** dialog consists of the following screen parts:

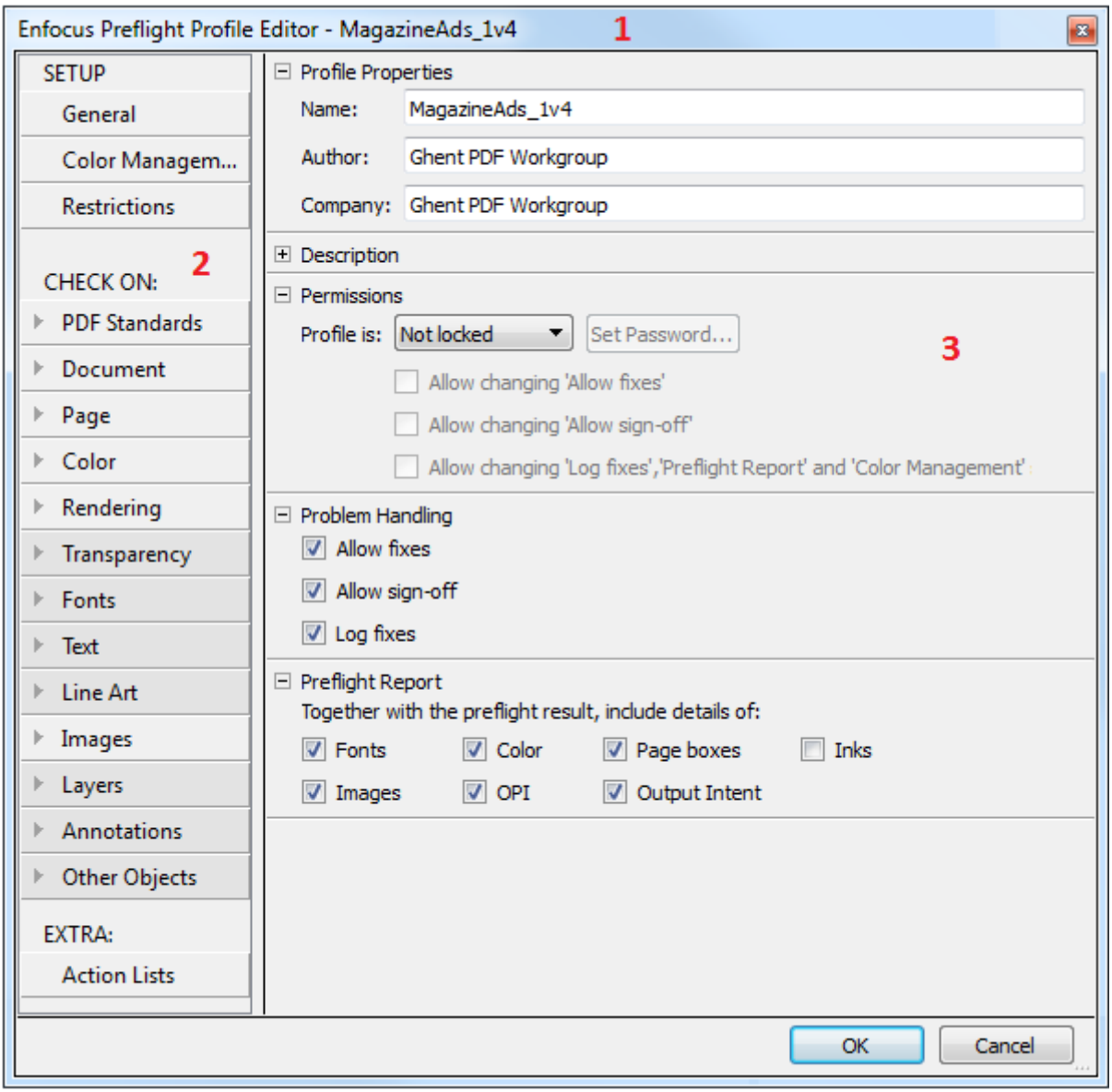
#	Description
1	Buttons to switch between Preflight Profiles ( ) and Action Lists ( ) or Variable Sets [ ]. For more information about Variable Sets, refer to the PitStop Server Guide on the Enfocus website (Smart Preflight chapter).
2	A search field (allowing you to search for a particular Preflight Profile) and an Action menu (allowing you to organize the Preflight Profiles).
3	A workspace, which displays the available Preflight Profiles. The Preflight Profiles are organized in folders, called "databases". By default, the following folders can be found: • **Favorites**: Preflight Profiles marked as your favorites. This provides you fast access to the Preflight Profiles you need often. • **Standard**: The default Preflight Profiles installed with PitStop Server (grouped in subfolders, such as Generic Enfocus Preflight Profiles, Ghent PDF Workgroup Profiles, Standard PDF/A or PDF/X Profiles, ...). **Tip:** To see the checks included in a particular Preflight Profile, double-click the Profile.

#	Description
	• **Local**: Preflight Profiles edited and created by you, and saved locally.

13.2.2. The Enfocus Preflight Profile Editor

The **Enfocus Preflight Profile Editor** is accessible from within the Preflight Profile Panel: when double-clicking a Preflight Profile (or selecting **New** > **New** from the contex menu), this dialog appears. It allows you to change the *content of a Preflight Profile*:

- You can change the general settings or the description of the Preflight Profile.
- You can protect the Preflight Profile with a password.
- You can enable or disable color management and add or remove restrictions as required.
- You can enable or disable checks and fixes as required.
- You can add Action Lists to be embedded in the Preflight Profile.



The **Enfocus Preflight Profile Editor** consists of the following screen parts:

#	Description
1	The name of the Preflight Profile you're editing.

2	The left part of the Editor consists of three main categories:
	• **Setup** consists of:
	  • *General* settings, just like the name and author of the Profile and a couple of preferences (permissions, problem handling, ...)
	  • *Color management* settings
	  • *Restrictions*, allowing you to define particular selections (e.g. all text on page X or all images of a particular type,...) to which certain checks should be limited.

#	Description
	• **Check on** lists all available checks, grouped in categories, such as PDF Standards, Document, ... A check will only be performed if it is enabled (see further). For most checks, an automatic fix is provided. **Note:** The categories in a dark gray background have no checks enabled. • Under **Extra**, you can add or remove Action Lists that will be run as part of the Preflight check.
3	When you click an item in the left part of the Editor, the corresponding information is shown in the right part of the dialog. In the example above, the right-hand pane shows the contents of Setup > General.

13.3. How to create and edit a Preflight Profile

This chapter describes how to create and/or edit a Preflight Profile in PitStop Server.

13.3.1. Creating and editing a Preflight Profile

To create a new or to edit an existing Preflight Profile

1. Open the Preflight Profile Panel.

   See *Where to find Preflight Profiles in PitStop Server* on page 88.

2. Create a new Preflight Profile or edit an existing one:

   - To create a new Preflight Profile based on an existing one, click > **New** > **New From/ New from File** and select the Preflight Profile you want to start from.

     The option **New from** allows you to select an existing Preflight Profile from the Standard database; **New from file** allows you to select a file (*.ppp) from your computer.
   - To create a new Preflight Profile from scratch, click > **New** > **New**.
   - To edit an existing Preflight Profile, double-click it. Alternatively, you can select the preferred Preflight Profile and click > **Edit**.

   If the Preflight Profile is fully locked, you will be asked to enter a password before you can see the content of the Preflight Profile.

   If it is partially locked, you will be able to view the content of the Preflight Profile, but you'll have to click the Lock icon and enter the password, before you can make any changes. Refer to *Locking a Preflight Profile with a password* on page 108.

3. Configure the settings in the different categories:

   - *Defining the general properties of a Preflight Profile* on page 93

- *Defining the color management settings of a Preflight Profile* on page 94
- *Defining restrictions for a Preflight Profile* on page 95
- *Configuring checks* on page 100
- *Adding Actions to the Preflight Profile* on page 106

4. Click **OK**.

You can now run the new or edited Preflight Profile and check the results of the Preflight Check in the Enfocus Navigator or the Preflight Report.

13.3.1.1. Defining the general properties of a Preflight Profile

To define the general properties of a Preflight Profile

1. In the Enfocus Preflight Profile Editor, in the **SETUP > General** category, check and, if necessary, change the **Profile Properties**:
   - **Name**
   - **Author**
   - **Company**
2. Check and, if necessary, change the **Description** of the Preflight Profile.
3. In the **Permissions** section, you can choose to (partially) lock the Preflight Profile to prevent users from changing the Preflight Profile. See *Locking a Preflight Profile with a password* on page 108.
4. In the **Problem Handling** section, you can decide what you want to do when an error occurs.
   - **Allow fixes**: If enabled, PitStop Server will try to solve any problems. If disabled, problems will be logged but not resolved.
   - **Allow sign-off**: If enabled, the user will get the chance to sign off on problems for which the Sign-off flag is set (see further). This allows the user to treat errors as warnings if they are considered less severe. If disabled, users cannot sign off errors, even if the Sign-off flag is set. Note that this sign-off is only possible as part of a certified PDF workflow.
   - **Log fixes**: If enabled, all fixes made in the PDF are listed in the Preflight Report.
5. In the **Preflight Report** section, along with the preflight details, you can choose to gather information about fonts, color, page boxes, inks, layers, images, OPI, output intent and page color type.
   Each checkbox corresponds with an information chapter in the Preflight Report. For example, if you select the Layers checkbox, the Preflight Report will contain a chapter about

the layers in the PDF and their properties. The Page Color Type chapter will inform you about the number of empty, white and black, and color pages, ...

13.3.1.2. Defining the color management settings of a Preflight Profile

Color management allows you to define which ICC profiles are used whenever color conversions are made during preflight and correction. This is useful to minimize color differences between devices. If you don't enable color management, the generic color conversion from your operating system will be used.

This topic describes how to define the color management settings to be used for color conversions during preflight.

Note: The settings defined here take priority over the settings defined in the PitStop Server Preferences.

To define the color management settings

1. In the Enfocus Preflight Profile Editor, in the **SETUP > Color Management** category, enable color management as follows:
   - To use the Enfocus Default Preset, select the **Enable color management** checkbox.
   - To use another particular color management preset
     1. Click the **Actions** menu.
     2. Select **Use color management preset**.
     3. Select the preferred color management preset, either from a database or from a file on your computer.
     4. Click **OK**.

   The settings as defined in the selected preset are displayed. You can change them as required.
2. Choose the correct source and target ICC profiles for each color space.
   - Enable **The Output Intent overrides the selected ICC profiles** as required.
   - Enable **Use other ICC profile than source** and select the correct target ICC profiles, if the target profiles are different from the source profiles.
3. Select the required CMM Engine.

   A CMM (Color Management Module) takes care of the color conversion. Choose one of the following:
   - **Adobe CMM** (CMM developed by Adobe; this CMM is no longer supported, because it has no 64-bit version)
   - **System CMM** (Your operating system's CMM)
   - **Little CMS** (An open source CMM)
4. Select the preferred rendering intent.

A rendering intent is a translation method used to convert colors between different devices. In order to conserve the appearance of an image across devices, the colors that cannot be reproduced by a specific output device (i.e. your color printer) need to be remapped to the nearest matching color that does lie within the output device's color range. This remapping is performed according to a specific method called a rendering intent.

Choose one of the following remapping methods:

- **Object defined**: The rendering intent of the object itself is used.

  Note: To see the rendering intent of an object, open the Enfocus Inspector and click **Prepress** > **Output intent**.

  The following remapping methods do not taken into account the originally defined rendering intent of the objects in the PDF.

- **Relative colorimetric**: Replaces colors outside of the gamut by colors with the same lightness, but with different saturation.

- **Absolute colorimetric**: Clips colors outside of the gamut to a color on the gamut boundary. Colors which cannot be displayed in the target color gamut will be lost.

- **Saturation**: Scales all colors to the brightest saturation possible. The saturation (also called chroma) will remain the same, but some colors will appear lighter or darker. This method is most suitable for business graphics, where the exact relationship between colors is not as important as having bright saturated colors.

- **Perceptual**: Rescales the original gamut within the gamut of the destination color space, but preserves the relationship between colors. This method preserves the visual relationship between colors, although the color values themselves may change.

5. Select the **Use black point compensation** checkbox as required.

   The black point compensation option is a feature of Adobe Photoshop to address color conversion problems caused by differences between the darkest level of black achievable on one device and the darkest level of black achievable on another.

6. Switch to the **Images** tab.

7. Do one of the following:

   - To use the same color management settings for all objects in the PDF (i.e. the settings defined on the General tab), select the **Apply General color settings** checkbox.
   - To use different settings for images, select the **Enable color management** checkbox and repeat steps 2 - 5. You cannot select a different preset to start from (step 1).

13.3.1.3. Defining restrictions for a Preflight Profile

About restrictions

Restrictions in a Preflight Profile

Restrictions are a way to limit the scope of your Preflight check; instead of applying all checks to the whole document, you can now for each (set of) checks define on what part of the PDF the check(s) should be run - be it a PDF page box, a certain page or pages, a particular area or specific elements of a PDF, or even different layers within a PDF file.

Restrictions are defined by *Action Lists with Select Actions only*. You can create your own restricting Action Lists, or use pre-defined, ready-to-use restricting Action Lists, installed with PitStop. These restrictions must be imported into the Profile, in order to use them.

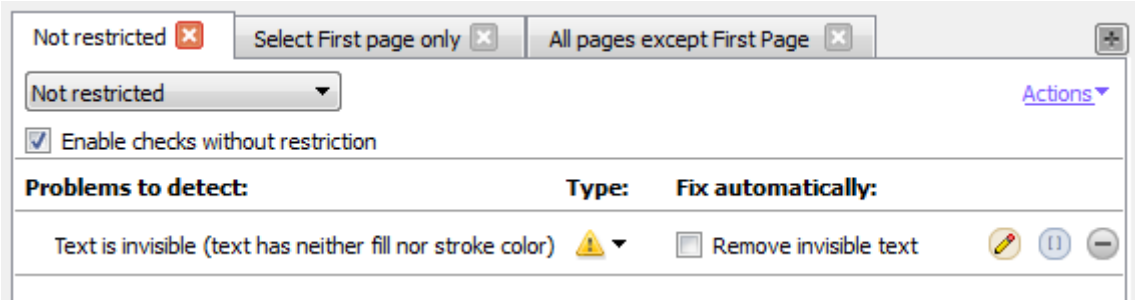
For each group of checks (i.e. each category under **Check on**), you can decide which restriction applies (if any). If more than one restriction applies for one category, you can use separate tabs (one tab per restriction) as shown below.

Example

Suppose you want to check a PDF for both very small/colored and invisible text. The threshold for text size is different for the cover page and the other parts of the document, whereas invisible text should be detected, regardless of where it is found.

The checks for small/colored and invisible text are available under **Check ON: Text**.

- "Invisible text" should be enabled for all pages in the document, so it should not be restricted. This is the default behavior for which you don't need a restricting Action List.
- "Text size" should be checked twice: once for the cover page and once for the other pages of the document (each with different values). Therefore, you'll need two extra tabs, each with **a restriction** selected:
  - Restriction 1 is an Action List that selects the cover page.
  - Restriction 2 is an Action List that selects all other pages.



Restrictions in the Preflight Report

If a check is limited by a restriction, in the Preflight Report, the name of the restriction will precede the actual warning. If no restriction is applied, this is not mentioned explicitly.

Best practice

Before configuring the checks in your Preflight Profile:

1. Think about the restrictions you need.
2. Create the Action List(s) to define these restrictions, or check if you can use the pre-defined, ready-to-use restrictions, installed with PitStop.
3. Import the required restrictions in the Preflight Profile.
4. Configure your checks, choosing the appropriate restriction where needed. If no restriction is chosen, the check applies to the whole document.

Creating a restriction

You can create new restricting Action Lists from within a Preflight Profile. If you want to re-use them, you can afterwards export them to your local Action Lists database.

Note: Alternatively, you can create an Action List in the Action List editor. Just make sure to only use "Select" Actions (and to import the restricting Action List into the Preflight Profile(s) in which you want to use it).

To create a restriction from within a Preflight Profile

1. In your Preflight Profile, go to **SETUP > Restrictions**.
2. Click .
   The Action List Editor appears.
3. Configure the Action List just like any other Action List (using "Select" Actions only).
   - Only one selection per Action List is allowed (this includes Select Actions combined with an operator if they result in one selection). There's one exception: the *Select page if content is selected* Action can be combined with another select Action. For example:

     ```
     Select by color space
     Select page if content is selected
     ```

   - If you need more complex selections, you must combine several Action Lists in one restriction. The Action Lists are executed one after the other, as if they were two Actions followed by an AND operator.

     Tip: Click to only see those "Select" Actions.
4. Click **OK**.
   The restricting Action List is added to your list of Restrictions. Note that you can double-click the restriction or click (**Edit selected restriction**) to make any changes as required, e.g. to choose another name.
5. Select **Reuse selection** as required.
   See *Reusing a restricting selection* on page 99

The new restriction will be available for use in all categories of checks. Optionally, click the **Create tab in all categories** button if you want to use the restriction concerned for many categories. Adding a tab however, does not automatically enable checks, it is just a way to save time.

If you want to be able to re-use the restriction in other Preflight Profiles, click to export it to a local folder in the Action List dialog. This local folder is named after the Preflight Profile concerned, for example: "Restrictions from PDFX-4".

Editing a restriction

You can make changes to a restriction from within a Preflight Profile.

To edit a restriction

1. In your Preflight Profile, go to **SETUP > Restrictions**.
2. Select the restriction you want to edit.
3. Double-click the restriction or click (**Edit selected restriction**).
   The Action List Editor appears.
4. Configure the Action List just like any other Action List (using "Select" Actions only).
   - Only one selection per Action List is allowed (this includes Select Actions combined with an operator if they result in one selection).
   - If you need more complex selections, you must combine several Action Lists in one restriction. The Action Lists are executed one after the other, as if they were two Actions followed by an AND operator.

   Tip: Click to only see those "Select" Actions.
5. Click **OK**.
6. Select **Reuse selection** as required.
   See *Reusing a restricting selection* on page 99

Remember that changes are only made to the version that is imported in the Preflight Profile.

To export the changes to a local folder, click This local folder is named after the Preflight Profile concerned, for example: "Restrictions from PDFX-4".

Using a pre-defined restriction

PitStop provides you with a number of pre-defined restrictions, which you can use as they are, or use as a starting point for your own restrictions.

To use a pre-defined restriction

1. In your Preflight Profile, go to **SETUP > Restrictions**.
2. Click .
   The Import restricting Action Lists appears, showing Action Lists with "Select" Actions only.
3. Make sure **From database** is selected and click **Standard** > **Restricting Action Lists**.
   All standard, pre-defined restrictions delivered with PitStop are listed. To know what they are doing, select a restriction and read the description at the bottom of the dialog.

4. Double-click the restriction of your choice.
   The restriction is imported immediately in your Preflight Profile and can be used as it is.

5. To see the content of the restriction, or to change it as required, double-click it or click (**Edit selected restriction**).

   For more information, refer to *Editing a restriction* on page 98. Close this dialog, by clicking **OK** or **Cancel** as required.

   If you've added a restriction you eventually don't need, click .

The restriction will be available for use in all categories of checks. Optionally, click the **Create tab in all categories** button if you want to use the restriction concerned for many categories. Adding a tab however, does not automatically enable checks, it is just a way to save time.

Importing a restriction

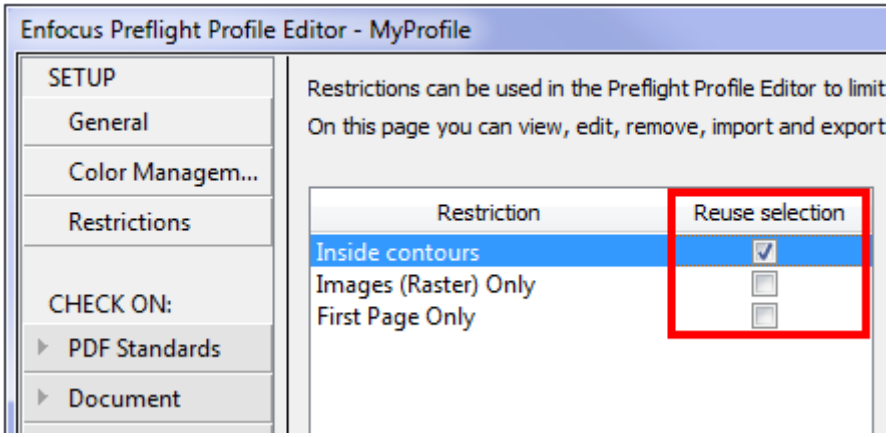
A restriction must be imported into a Preflight Report in order to use it.

1. Do one of the following:
   - In your Preflight Profile, go to **SETUP > Restrictions** and click (**Import restrictions**).
   - In your Preflight Profile
     1. Go to **CHECK ON** and open a category.
     2. Open the list at the top of the pane.
     3. Click **Import restriction...**

2. Select the restriction concerned and click **OK**.
   Regardless of where you have imported the restriction, it is listed under SETUP - Restrictions and it is available in all lists on all tabs of all categories of checks. Note that changes to the restrictions must be made through the **SETUP > Restrictions** section.

Reusing a restricting selection

If you want to speed up the time needed to preflight your document, you may enable the **Reuse selection** checkbox in the **Setup > Restriction** section of the Preflight Profile Editor.



Meaning

- If **Reuse selection** is *cleared* (default behavior), the restricted Action List is executed several times as required, i.e. every time it is used for a check. For example, if five different checks are limited to one and the same restricted selection (e.g. all objects with particular attributes), then the Action List to select these objects is executed five times. In case of complex restrictions, this seriously affects the time needed for preflighing the PDF.

- If **Reuse selection** is *selected*, the restricted Action List is executed only once and the resulting selection is remembered and used for the relevant checks in the Profile. In case of complex restrictions, this may save a lot of processing time.

Warning

Only enable this option if the selected area is NOT affected by changes initiated by the Preflight Profile!

Example where it is safe to enable ***Reuse selection***: If your restricting Action List selects all objects inside contours, the selection will remain the same as long as the page layout is not changed throughout the preflighting process. Reusing the selection will reduce the processing time.

Example where it is not a good idea to enable ***Reuse selection***: If your restricting Action List selects CMYK objects and your profile converts CMYK to RGB, it's probably not a good idea to reuse the selection, because once converted, the result of the restricting Action List may not match the changed state of the PDF.

Note: In case of doubt, run the Preflight Profile and check if the outcome is as expected.

13.3.1.4. Configuring checks

In the **Check on** section, you can indicate which problems should be detected and optionally be fixed.

To configure the checks in a Preflight Profile

1. Click a category under **Check on**, for example: PDF Standards or Document.

2. Determine whether or not you want to limit (some of) the checks in this category to a particular selection:

   - If the checks should apply to the whole document, make sure **Not restricted** is selected from the list in the top left corner of the tab.
   - If the checks should apply to a particular part of the document, select a restriction from the list in the top left corner of the tab.
   - If you need a restriction that is not in the list, import a new restriction. See *Importing a restriction* on page 99.

   - As of PitStop 2017, there's one category that cannot be restricted: the PDF Standards category. Some of the checks in this category are all-in-one checks (e.g. check for PDF/X compliancy) that apply to the whole document and cannot be limited to a particular selection. If you're importing an old Preflight Profile with restrictions defined in this

category, you'll be warned that the items concerned will be disabled in the imported Profile.

3. Select the **Enable checks of <selected restriction>** or the **Enable checks without restriction** checkbox as required.

   This activates the checks in the left part of the pane. They will no longer be grayed out.

4. Double-click the profile checks you want to add to your Preflight Profile, for example PDF/X Compliancy (in the PDF Standards category) or Binding (in the Document category).

   For more information about a check, hover your cursor over it. A tooltip with additional information will appear.

   Tip: You can also find an overview of all checks on the *Enfocus website*. Go to the product page of the product concerned and click the **Manuals** tab).

   The enabled checks are available in the right pane.

5. Configure each check separately as follows:

Area/button	Do the following:
Under **Problems to detect**	Specify what exactly should be checked, i.e. enter or select the required values.
Under **Type**	Indicate how the detected problem should be listed in the Preflight Report: • **Warning**: Warnings are no real problems, but you may want to be informed about them. In a Certified PDF workflow, warnings are not blocking. • **Sign-off** : If a problem is set to Sign-off , the user can decide to handle the problem as a warning and sign off on it, thus allowing the PDF to pass preflight. Note that sign-offs are only possible in a Certified PDF workflow. • **Error**: Errors are considered severe problems. In a Certified PDF workflow, they block the PDF from being certified OK.
Under **Fix automatically**	If PitStop should automatically fix the detected issues, you should select this checkbox and (if applicable), enter the required details. **Note:** You may want to just log the problems and not fix them yet, or manually fix the problems using the Enfocus Navigator. In that case, do not select the checkbox.
	If you want to customize the message that will appear in the Preflight Report (if the problem concerned is detected), click this button. This is useful if the

Area/button	Do the following:
	"default" message is rather technical, and you want to make it easier to understand. If the default message has been modified, the button changes (a small checkmark is added): . For more details, refer to *Customizing report messages* on page 103.
	Click this button to remove the check from the active tab.
	Instead of fixed values, you can also use variables to configure the checks. For example, instead of entering a fixed minimal text size which you have to adjust for each document you're preflighting, you could use a variable "text size". When running a Preflight check with this Profile, a dialog will pop up allowing you to define the required text size for that particular document. **Note:** If these variables should be used for **all** checks on the tab, click the **Actions** link in the top right corner of the tab and select **Enable Variable Names**. For more details, refer to *Applying variables to a check in a Preflight Profile* on page 102.

6. Repeat the previous steps for each problem in the selected category you want to check and/or fix.

7. If you want a different restriction for another set of checks, click to add a new tab and select the restriction concerned. You should configure the checks for each tab separately.

   Note: If the plus button is grayed out, all (imported) restrictions are already used for that category of checks. If you want to add an additional tab, you must first *import a new restriction*. This will activate the plus button and allow you to add a new tab for that restriction.

Applying variables to a check in a Preflight Profile

Variables allow you to process different jobs and job types with one Preflight Profile; instead of using fixed values, you enter a variable which is defined when running the Preflight Profile.

Note that you need to have defined a Variable Set with Smart Preflight variables before you can use variables in a Preflight Profile. For more information, refer to the chapter about Smart Preflight in the PitStop Pro Reference Guide on the Enfocus website. This topic only explains how you can add variables to your Preflight Profile.

To use variables in a Preflight Profile

1. In your Preflight Profile, open the CHECK ON: category for which you want to use a variable.
2. Do one of the following:
   - If a variable should be used for **all checks on the tab**, click the **Actions** link in the top right corner of the tab and select **Enable Variable Names**. A button appears next to the checkbox of Enable checks without restriction/Enable checks of <restriction>.
   - If a variable should be used for one particular check, in the attributes of the check concerned, click the **Enable Variable Names button**. A button appears next to each property where it is relevant.
3. Click next to the property for which you want to use a variable.

   Note that this button is only shown when the check can have a variable applied.
4. In the Select a Variable dialog, make sure **Use a Variable from the selected Variable Set** is selected and select a Variable Set as required.
5. Double-click the variable you want to use for the property concerned.

   Only the variables that match the type required for the property concerned are shown. For example, if you want to define the page width, you need a variable of the type Length.

   The name of the variable is shown in the Preflight Profile.

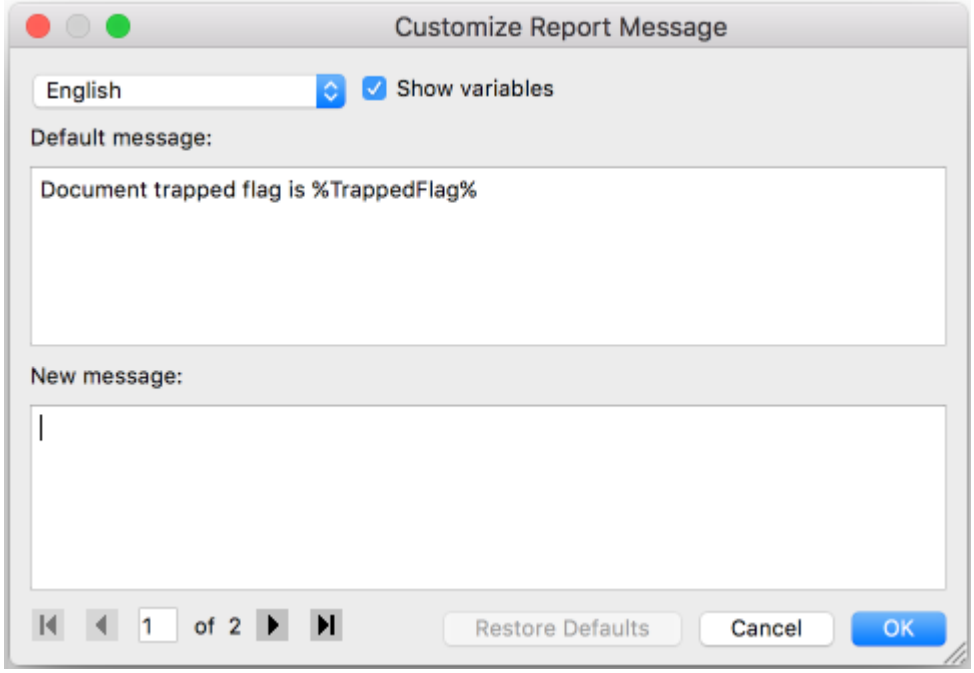
Customizing report messages

The default messages shown in the Preflight Report and the Enfocus Navigator can be customized in several ways. You can for example:

- Rephrase the default text
- Add extra information (e.g. what to do in case of problems)
- Add a link to a web page with more information

To do so, proceed as follows:

1. In the attributes of the check concerned, click the **Customize report message** button .
   The Customize Report Message dialog appears.



2. From the list at the top, select the language for which you want to change the message.

   Select **All** if you want to display a particular message regardless of the PitStop language.

   The default message is displayed in the first field. If the message contains variables, you can make them visible by selecting the **Show variables** checkbox: the variables are enclosed in % signs. To preview the end result (variables replaced with the actual values), you should clear the checkbox again.

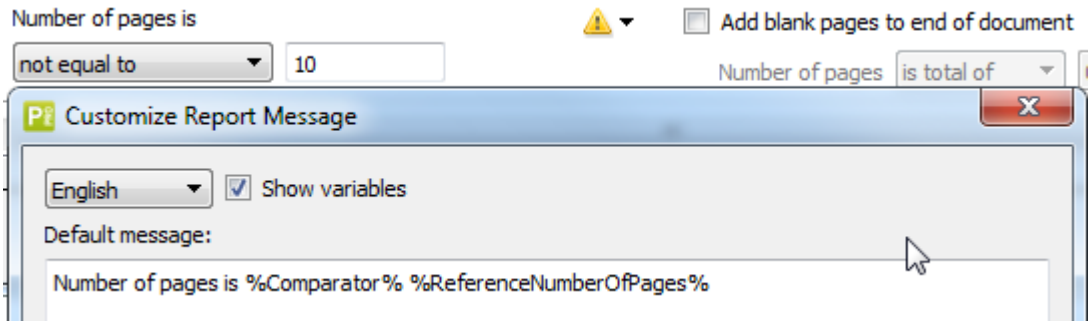
3. Enter a new message in the second field.

   If you don't, the default message will be used.

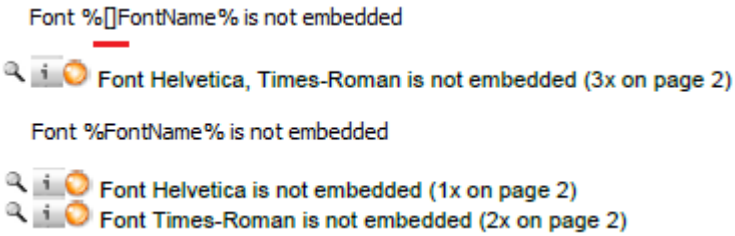
   Tip: We recommend copying the message from the first into the second field (making sure **Show variables** is selected). That way you're sure the variables are written correctly. If a variable contains a typo, it will not be recognized as such and it will be considered a fixed string.

   Special cases

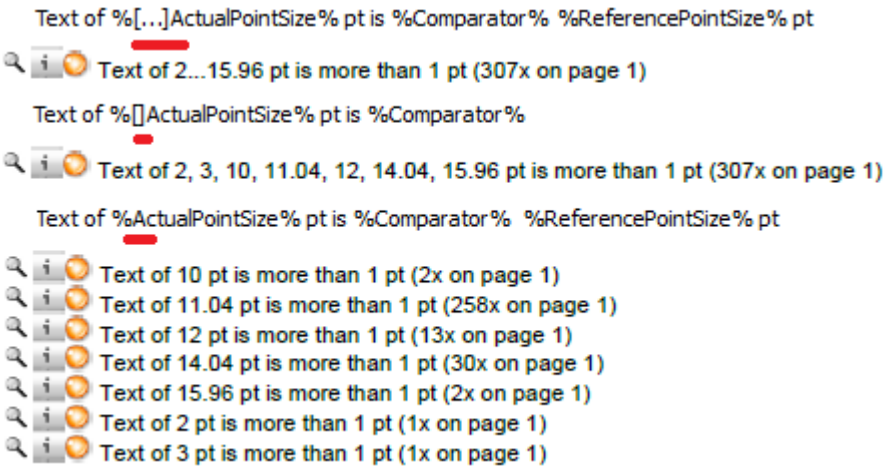
   - **Built-in configuration variables** refer to the options in the attributes of the check. If you clear the **Show variables** checkbox, you can see what they refer to. In the example below, %Comparator% refers to the value chosen from the list ("not equal to") and %ReferenceNumberOfPages% refers to the entered value.



- **Square brackets such as "[]" inside a variable** indicate that the variable may be replaced with more than one value, depending on what's found in the PDF. For example, "%**[]**fontName%" means that more than one font name may be mentioned in the message. If written like this, the font names are listed, one after the other. If the square brackets are removed, you'll have a separate message on a separate line for each different font name. See the example below:



- **Square brackets enclosing 3 dots such as "[...]" inside a variable** refer to a range, e.g. %[...]ActualPointSize% means that the smallest and the largest point size found in the document will be mentioned in the message, separated by three dots. Values inbetween will not be mentioned. If you remove the three dots, all values found in the document will be mentioned (separated by a comma). Alternatively, you could remove the square brackets, resulting in one separate message per point size value. See the examples below:



Note: Make sure to use the correct notation; if you omit one dot, or write 4 dots, this will not work!

- If you want to display **a link** in a report message, simply type the URL (e.g. http://www.enfocus.com). When users click this URL in the Preflight Report, the corresponding web page will be opened.
- The **%Context%** variable is a special variable, that should not be touched. It's used as a placeholder in case of global checks with multiple subchecks (each with their own message), such as the PDF Standards checks. For example, "PDF/X-3:2002 : %Context %" will generate multiple messages, each starting with "PDF/X-3:2002 : " followed by the applicable message. All possible messages can be found (and customized as required) by clicking the navigation buttons at the bottom of the dialog.
- Note that a **small number of messages cannot be customized**, because they are generated "on the fly". For these messages, you'll see a warning: "This Action has no customizable messages".

4. Click the navigation button(s) at the bottom of the dialog, to navigate to other messages originating from the same check and configure them in the same way.

   This is the case if the check has several distinct options, e.g. the "Empty page" check allows you to check if the whole page is empty, or if it is empty inside a particular page box. For each of these options, a separate message is available. Note that **Restore Defaults** resets all these messages (not only the one that is shown).

5. Click **OK**.

   In the Preflight Profile, the button has changed ( ). If you ever want to return to the default message, just click the button again and choose **Restore Defaults**.

13.3.1.5. Adding Actions to the Preflight Profile

Before you perform a preflight check, you may want to edit your PDF document first, for example run a number of Action Lists to correct or change colors. Instead of running these Action Lists separately and then performing the preflight check, you can include them in your Preflight Profile. You will then kill two birds with one stone:

- First, the *changes* defined in the embedded Action List(s) are applied.
- Then, the *checks* defined in the embedded Action List(s) are applied.
- Finally, the *checks and fixes included in the Preflight Profile* are applied.

To add Action Lists to a Preflight Profile

1. In the Enfocus Preflight Profile Editor, under **Extra**, click the **Action Lists** category.
   In the upper part of the dialog, you can add Action Lists containing "Change" Actions only, whereas in the lower part, you can add Action Lists containing "Check" Actions only.

2. If you want to limit the Actions to a particular part of the document, select a restriction from the list at the top of the pane.

   - If you need a restriction that is not in the list, import a new restriction. See *Importing a restriction* on page 99).

- If you want a different restriction for another set of Action Lists, click to add a new tab and select the restriction concerned.

3. Add the required Action Lists.

   You can either import existing Action Lists or create new ones from within the Preflight Profile Editor. The meaning of the icons is explained in the table below.

Icons	Use these icons to:
	Change the order in which the Action Lists will be executed. **Note:** Running two or more Action Lists in a different order may produce a different result. You may want to test this first.
	Import or export an Action List (for example after you changed it).
	Edit an Action List. **Note:** You are editing *a copy of the Action List* that exists within the Preflight Profile. You are **not changing the version within the Action List Database**!
	Remove the selected Action List.
	Add a new Action List that you create from scratch from within the Preflight Profile Editor

   By default, the added Action Lists are turned **on**, meaning that they are always executed when the Profile is run. You can manually turn off an Action List (if you don't need it), by clearing the **On/Off** checkbox in the Preflight Profile. In that case, it will not be used.

   Alternatively, you can enable Action lists based on a variable. This means that the value of the variable determines whether or not the Action List is executed when running the Preflight Check (see next step). Refer to the PitStop Server Reference Guide on the Enfocus website (chapter about Smart Preflight).

4. To use variables to enable or disable the Action Lists within a Preflight Profile:
   a. Click the **Actions** menu in the top right corner of the Preflight Profile Editor.
   b. Click **Enable Variable Names**.
      The variable button appears between the On/Off checkbox and the name of the Action Lists.
   c. Click next to the Action List for which you want to use a variable.
   d. Select a Variable set (if the default one is not the desired one) and a variable, and click **OK**.
      The Variable's User Readable Name is displayed within the square brackets of the variable button.

If you don't want to use variables for all Action Lists, leave the variable button as it is. The state of the **On/Off** checkbox determines whether or not the Action List will be executed.

13.3.2. Locking a Preflight Profile with a password

You can secure your Preflight Profile, or part of it, with a password to prevent others from changing its settings. This may be convenient when the Preflight Profile is shared among multiple users. You can lock a Preflight Profile with a password when you create the Preflight Profile or you can add a password afterwards.

1. Open the Preflight Profile Panel.

   See *Where to find Preflight Profiles in PitStop Server* on page 88.

2. Double-click the Preflight Profile you want to lock.
3. In the **Enfocus Preflight Profile Editor**, open the **Setup - General** section.
4. In the **Permissions** section, select the appropriate permission level from the **Profile is** list:

Restriction level	Meaning
Not locked	None of the settings of the Preflight Profile will be locked. Anyone can change any setting.
Partially locked	Everything is locked, except for the actions you allow using the options underneath the list: • Allow changing 'Allow fixes' (under **Problem Handling**) • Allow changing 'Allow sign-off' (under **Problem Handling**) • Allow changing 'Log fixes' (under **Problem Handling**), 'Preflight Report' (i.e. options under **Preflight Report**) and 'Color management' settings (options not under General, but under **SETUP - Color Management**).
Locked	Nothing can be changed. Users can only select the Preflight Profile and run it in their PDF document.

5. If you have decided to set a password, click **Set Password**.
6. Enter a password and confirm it.

   The password can include:

   - Uppercase and lowercase letters
   - Any character on the keyboard
   - Spaces

7. Click **OK**.
8. To save the Preflight Profile, click **OK**.

13.4. Smart Preflight

13.4.1. About Smart Preflight

Smart Preflight is a functionality that allows you to handle many different job types and specifications by using only one Preflight Profile. This is possible, thanks to the use of *variables*.

For example, if one of your preflight settings checks the page size, it is sufficient to define one Profile using a variable with the most commonly used page size (e.g. A4) as the default. If a document type with a different page size comes in (e.g. a leaflet or a newspaper), you can select the required page size from a pre-defined list or type the appropriate value (depending on how the variable is defined) in the dialog that pops up when running the preflight check.

There are three types of variables:

- **Constant variables** are variables that get their value from user input (in PitStop Pro, as in the example above) or from a Job Ticket or a database (in PitStop Server and Connect):
  - In **PitStop Pro**, a dialog pops up just before running the preflight check. You can manually enter the required values.
  - In **PitStop Server**, you must send an XML/JDF Job Ticket along with the PDF. The information in this Job Ticket (e.g. the page size) is used to determine the value of the variables.
  - In the **PitStop Server Configurator** (for use with Switch), the information can be taken either from a Job Ticket or from a database.
  - In **Connect**, you can create Job Tickets that collect job information for each document processed by a Connector. The metadata in these Job Tickets will be used to determine the value of the variables.
- **Calculation-based variables** are variables of which the value is calculated by multiplying, dividing, subtracting, adding up, ... certain values (fixed values or variables).

  For example, in large format printing, the required resolution depends on the viewing distance; the bigger the distance, the lower the required resolution. The optimal resolution can be calculated with a calculation variable.

  Another example is point size: if a large poster will be viewed on a small display, the point size should be smaller; the optimal point size can be calculated by dividing the regular value (a fixed value) by the scaling factor (stored in a variable).
- **Rule-based variables** are variables of which the value is based on other variables (possible in all Enfocus products)

  For example, suppose you want to check the ink coverage using a Preflight Profile. The optimal ink coverage depends on several different factors, just like the paper type and the printing method. Without variables, you must define different Profiles for each combination of paper and printing method, each with fixed total ink coverage values (e.g. Profile 1 for Uncoated + Sheetfed Litho and Profile 2 for coated + Sheetfed Litho, ...). However, using variables, you can define one Profile and enter the required information for the job (paper type and printing method) to calculate the optimal ink coverage at run-time.

The different types of variables can be combined (e.g. rule-based variables calculated based on a drop-down of constant variables), making it possible to configure multiple checks and fixes based on a single user input (PitStop Pro) or on only one value in a Job Ticket or database.

	Constants User input	Constants Job Tickets	Constants Databases	Rule-based	Calculation-based
PitStop Pro	✔			✔	✔
PitStop Server		✔		✔	✔
PitStop Server with Enfocus Switch*		✔	✔	✔	✔
Enfocus Connect/ Connectors		✔	✔	✔	✔

** The PitStop Server Configurator also supports the Switch variables. Refer to Smart Preflight Variables: types on page 114.*

Note: Variables can be used in Action Lists as well, in a similar way as in Preflight.

13.4.2. Getting started with Smart Preflight

Variables and Variable Sets

Before you can start working with Smart Preflight, you need to define the variables you want to use and save them within a Variable Set (a file format which can be exported and imported).

When defining your Preflight Profile, you can then select the variables you need from this Variable Set. Note that you can create different Variable Sets (e.g. if you would like to define different Variable Sets for different document types or different Enfocus products) and that a Variable Set can contain as many variables as required. However, you can apply only one Variable Set at a time (e.g. one per hot folder in PitStop Server, one active Variable Set in PitStop Pro) and it should match the Variable Set used in the Preflight Profile concerned.

Note: PitStop Pro and PitStop Server can share the same Smart Preflight Variable Sets, much like they can share Preflight Profiles or Action Lists. However, some variable types (see further) are useful in PitStop Pro only and others work only in PitStop Server. Unsupported variables will use a default value or will generate a failure.

How to decide which preflight settings could be configured as variables?

Good candidates are preflight settings that can change from job to job, for example:

- Trim page size
- Total ink coverage
- Number of colors defined

Preflight settings that are often the same can better be configured as fixed values. Some examples:

- Embedded fonts

- Security settings
- Document contains pre-separated pages

Getting started

The following topics explain step by step how to configure a Variable Set and how to use the variables in your Preflight Profiles.

13.4.3. Setting up Smart Preflight

13.4.3.1. Smart Preflight setup: overview

This topic describes the steps required to set up and use Smart Preflight.

1. *Configure a Variable Set:*
   a. *Create a Variable Set.*
   b. *Define the Variables to be used.*
2. *Apply the Variable Set.*
3. *Optionally, enable the use of a Job Ticket.*
4. *Apply the variables to the appropriate checks in your Preflight Profile.*
5. *Run the Preflight Profile with the variables enabled.*

13.4.3.2. Configuring a Variable Set

Creating or editing a Variable Set

You need a Variable Set (which contains the variables you need) in order to use variables in a Preflight Profile or Action List. You can create a new one or re-use an existing one (i.e. add any new variables as required).

Important:

- Although you can create more than one Variable Set, we recommend that you keep all your variables in one Set. Only if you are working with both PitStop Pro and PitStop Server, you might consider using different sets. However, if you use variables of different Variable Sets within a single Preflight Profile, only the "active" (applied) Variable Set variables will contain values. Variables used from inactive Variable Sets will be blank!
- Do you want to use a Variable Set with the PitStop Configurator in Switch? To get access to the Switch Variables (see *Smart Preflight Variables: types* on page 114), you should edit the Variable Set in Switch (not in PitStop Server).

  For more information, refer to the Switch Reference Guide.

To create or edit a Variable Set

1. Select **Window** > **Variable Sets**.
   The Variable Set Panel appears, displaying all the installed Variable Sets as well as any local Variable Sets that have been defined.
2. Do one of the following:
   - To edit an existing Variable Set, double-click the Set concerned.
   - To create a new Variable Set, from the actions menu ( ), select **New** > **New**.

   The Enfocus Variable Set Editor appears.
3. Enter the appropriate details (a meaningful name and a description) and lock the Variable Set if required.
   See *Locking a Variable Set (optional)* on page 112
4. Define the Variables you need.
   See *Defining Smart Preflight variables* on page 112
5. Click **Save**.
   The new Variable Set is saved to your Local PitStop Server folder.

   Note: This Local folder is shared with any other Enfocus applications that you may have installed.

Locking a Variable Set (optional)

You can lock a Variable Set with a password, to prevent other users from editing the Variable Set and viewing details when they open it in the Enfocus Variable Set Editor.

To lock a Variable Set

1. Open the Variable Set.
   See *Creating or editing a Variable Set* on page 111
2. In the Enfocus Variable Set Editor, click **SETUP** > **General**.
3. From the Permissions list, select **Locked**.
4. Enter a password and repeat it.
   Note that you can change the password at any point of time if required, by clicking the **Change Password** button.
5. Click **OK**.
6. Click **Save**.

The Variable Set is locked. Users wanting to edit or view the details of the Variable Set must click the Lock icon and enter the correct password.

Defining Smart Preflight variables

The Smart Preflight variables for use in Preflight Profiles must be defined before you can use them. This topic explains how you can create and define new variables.

To define Smart Preflight variables

1. Open the dialog with the Variable Set that will contain the new variable.
   See step 1 of *Creating or editing a Variable Set* on page 111.
2. In the left part of the Enfocus Variable Set Editor, under Variables, click ⊞.
3. Enter the required details for the new variable:

Field	Meaning
Name	Choose a meaningful name, for example, the check the variable is intended for. This name will be visible in the Preflight Profile editor or in the Action List editor, when applying a variable to a check or fix (see *Applying variables to a check in a Preflight Profile* on page 126). For this reason, it is advisable to keep this name as short as possible. **Tip:** For use with PitStop Server and an XML/JDF data field, you could choose a name that reflects that field.
User Readable Name	Use this field if the variable name is too technical or too short to be clear enough.
Type (*First list*)	Choose the appropriate type. Refer to *Smart Preflight Variables: types* on page 114.
Type (*Second list*)	The type of the values produced by this variable. For example, if a variable for a trim page size is to be created, then it must have a "Length" variable type. If a variable is needed to select or deselect a check box (such as to turn on a correction), then a Boolean variable type needs to be defined. Some examples for each option: • Number - Page count, Number of separations, etc • Length (i.e. a number of measurement fields) - Page trim size, bleed amount, etc • String - Entry for a metadata field • Boolean - Selection for any checkboxes **Note:** Make sure that this value type matches the preflight check setting it is intended for. When applying variables to a preflight check setting, *only the variables that match that type of entry will be displayed*.
Type (*Third list*)	In case of a Job Ticket in combination with value type "Length", a third list is available, allowing you to choose the appropriate unit, for example "Points", "Inches", ...

Field	Meaning
	Note: The unit displayed in the Default Value field (lower) depends on the application Preferences.
Description	Optionally, provide a brief description.

4. Proceed with the fields in the lower part of the dialog.

   This part of the procedure depends on the chosen variable type:

   - *Constant variable definition* on page 115.
   - *Calculation-based variable definition* on page 117.
   - *Rule based variable definition* on page 118.
   - *Job Ticket variable definition* on page 121.

   Note: For example variables, have a look at the Smart Preflight Variable Set - PitStop Pro - v1.4. (available under **Standard** > **Smart Preflight**).

5. Click to see how the variable will be presented to the user.

   See *Testing variables in a Variable Set* on page 124. This option is not available in Switch.

6. Click **Save**.

Smart Preflight Variables: types

When defining a variable, you must choose a type. The table below gives an overview of the available variable types per application and explains their meaning.

Type	Meaning	Application
Constant	In PitStop Pro, when a Constant variable is applied to a preflight check, a default value will be displayed to the operator, allowing him to override it before running that preflight check. Constants can be a text string, a number, a length (i.e. a measurement) or a boolean (yes/no or on/off) value. Constant variables are available in PitStop Server to stay compatible with PitStop Pro. Only their default value is used when processing. No choice to override their value is given at the time of processing, since PitStop Server is intended to process files completely "hands-off".	PitStop Pro/Server PitStop Server Configurator in Switch Enfocus Connect
Rule Based	A Rule Based variable allows you to take values from other variables and use them to create a new value, based on different conditions. For example, variables representing paper type and printing method could both be used to define the value for the necessary Total Ink Coverage.	PitStop Pro/Server PitStop Server Configurator in Switch

Type	Meaning	Application
Calculation Based	A Calculation Based variable allows you to make calculations. You can divide, multiply, subtract, add up, ... fixed and variable values as required.	PitStop Pro/Server PitStop Server Configurator in Switch Enfocus Connect
Job Ticket	Job Ticket variable values are extracted from an XML/JDF file submitted to PitStop Server or a Connector in conjunction with the PDF job file. These variables can either change a single setting or be linked to Rule Based variables for more complex processing. **Note:** The Job Ticket variables of PitStop Server cannot be used in Switch. However, you can change the Job Ticket variables to either Text with Variables or Script Expression and modify them to correspond to the behavior of Switch.	PitStop Server Enfocus Connect
Text with variables	Variable values are defined using the Switch variables. Note that this type is only available if you open the Variable Set via the PitStop Server Configurator in Switch. For more information, refer to the Switch Reference Guide.	PitStop Server Configurator in Switch
Script expressions	Variable values are defined using JavaScript. Note that this type is only available if you open the Variable Set via the PitStop Server Configurator in Switch. For more information, refer to the Switch Reference Guide.	PitStop Server Configurator in Switch

Constant variable definition

Options

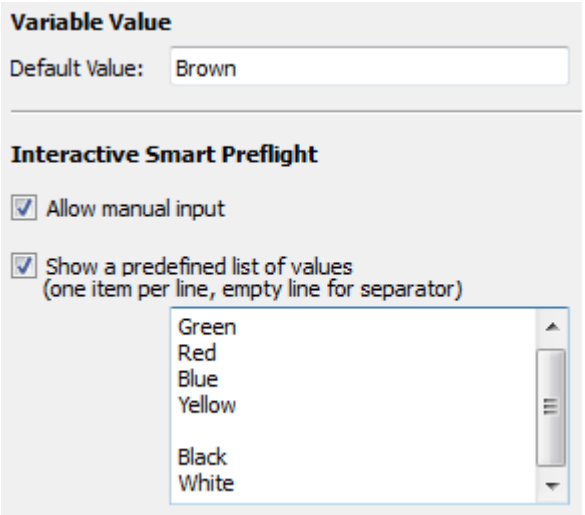
The following table gives an overview of the constant-specific options.

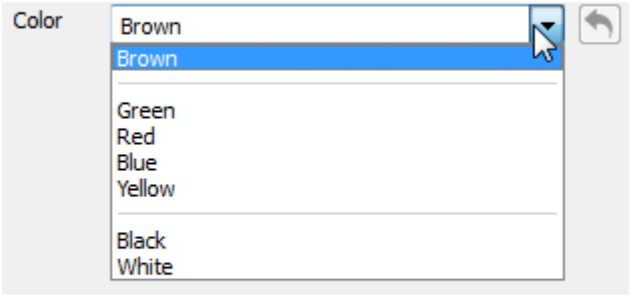
Option	Description
Default Value	Fixed value, which will be used when PitStop Server runs a Preflight Profile that needs this variable. **Note:** Constant variables used in PitStop Server cannot be manipulated by the user. Hence, PitStop Server will only use the default value.

Option	Description
Allow manual input	Enables users to type values when they run the Preflight Profile.
Show a predefined list of values	Enables users to select a predefined value from a list of values. If the value type is Number or Length, you will have the possibility to mask the value and provide an alternate name for the user. **Tip:** You can change the order of the items in the list by just selecting a value and dragging it up or down and dropping it in the desired position.

Example

Below you can see an example of a constant variable definition (left) and the resulting list the users will see when running the Preflight Profile (right).





.

Combining options

Allow manual input and **Show a predefined list** can be combined. The following table explains what this means.

Selected options	Meaning
Both enabled	Users can either select a value from the predefined list but or manually enter a value.
Both disabled	Users will see the default value in a read-only text box. They cannot change it.
Only **Allow manual input** enabled	Users can manually enter a value. There is no list to choose from.
Only **Show a predefined list** enabled	Users can select a value from the predefined list. They cannot enter a value themselves.

Calculation-based variable definition

Calculation-based variables allow you to calculate a value by multiplying, dividing, subtracting, adding up, ... certain values (both fixed and variable values).

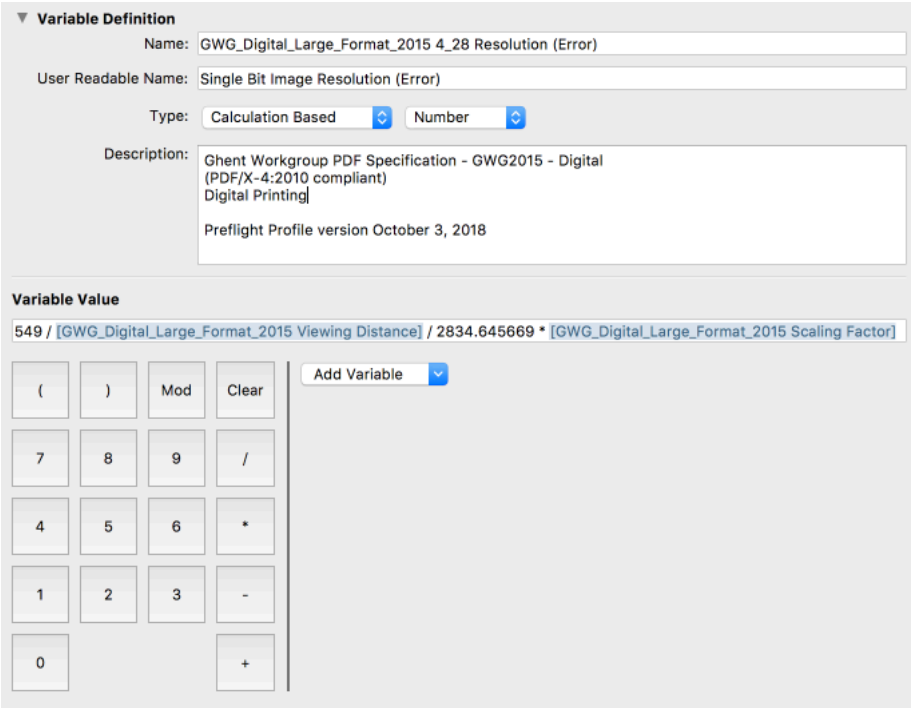
You can build your calculation (in the **Variable Value** entry field) as follows:

- You can type it directly into the **Variable Value** field.
- To insert the digits and operators, you can also use the calculator beneath the entry field. Note that 'Clear' clears the whole entry field.
- To insert variables:
  1. Click the **Add variable** button or enter a square bracket (**[**) in the entry field. This will open a drop-down list with all variables defined in the current Variable Set.
  2. Click the variable you want to insert.

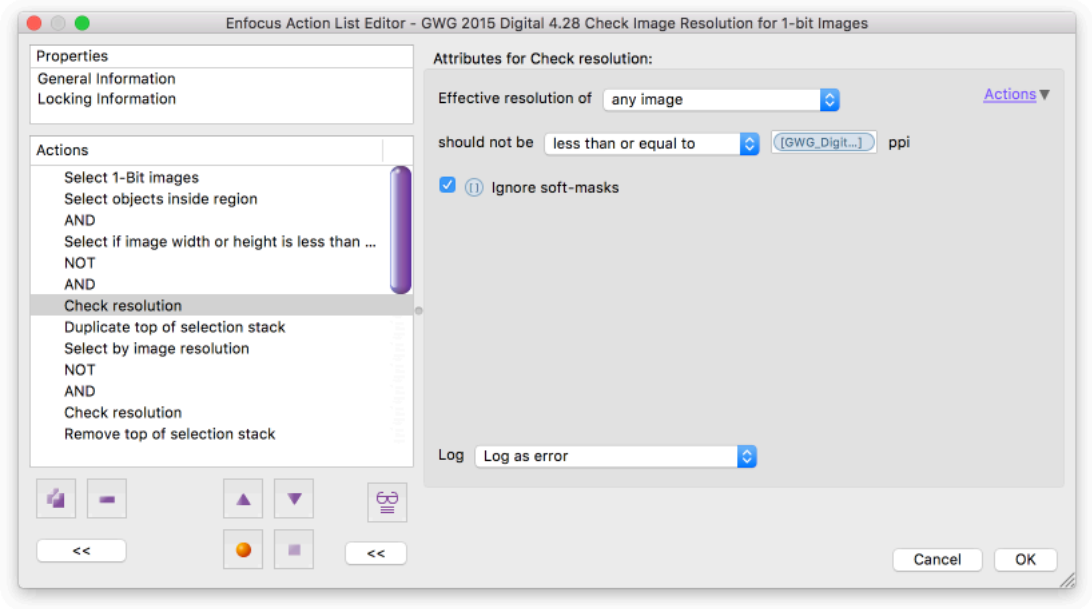
Example

This is an example of a calculation variable that is used to check the resolution of images in large formatting. This is the value that triggers an error.

The first screenshot shows the variable definition. The value is calculated by dividing and multiplying fixed values and variable values (the viewing distance and the scaling factor), which both have an impact on the allowed image resolution. Note that the variable definitions for viewing distance and scaling factor must be defined as variables in the same Variable Set.

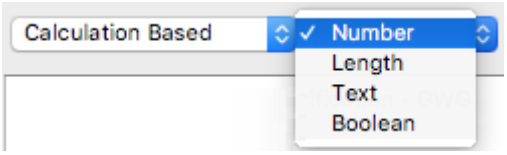


The second screenshot shows how the variable is used in an Action List to check the image resolution of grayscale and color images.



More examples can be found in Variable Set 1.4 (under **Preferences** > **Variable Sets**). These variables were configured for use with the GWG Profiles for Packaging (2015 Specifications).

Remark



The most common value type of calculation variables will be Number. However, if your Preflight check or Action expects a different type, this is also possible. For example, in case of a "Boolean" variable, the result of the calculation will be converted to false (if it's 0) or true (if not 0). In case of "Length", the result of the calculation will be converted to a value in the unit chosen in the Preferences (so x points will be converted to the corresponding value in cm, mm, feet, etc).

Rule based variable definition

About rule based variables

The concept of a rule based variable is to build a variable that will change based on the state of another setting. For example:

Rule based variable "Image Resolution" is defined as follows:

```
IF "Job type" is "Offset" THEN set "Image Resolution" to 300 ppi
ELSE
IF "Job type" is "Digital", THEN set "Image Resolution" to 150 ppi
```

Rule based variables get their values based on one or more rules. Each rule has two parts: a condition to trigger the rule (IF) and the value to be used when that condition is triggered (THEN).

The condition contains one or more comparisons of a variable with a value. In the above example, the variable "Job type" is compared with the value "Digital". These comparisons can be combined with "AND" and "OR" to create complex conditions.

If a rule is not triggered, the next rule is tried. There must be an ELSE rule at the very end, that is triggered if none of the conditions are met.

Because a rule based variable always needs to be compared with one or more other variables, you will always need to create **at least one other variable** to make a rule based variable work. In the above example, you need to know the value of the "Job type" variable in order to determine the value of "Image Resolution". In PitStop Server, the variable to compare with will usually be a Job Ticket variable. In PitStop Pro, this will usually be a constant variable which offers the user a list of predefined constant values to choose from.

How to proceed

Proceed as follows:

Note: Before starting the configuration in the software, we recommend writing down the rule for yourself (using IF/ELSE statements). This will make clear which variables you need.

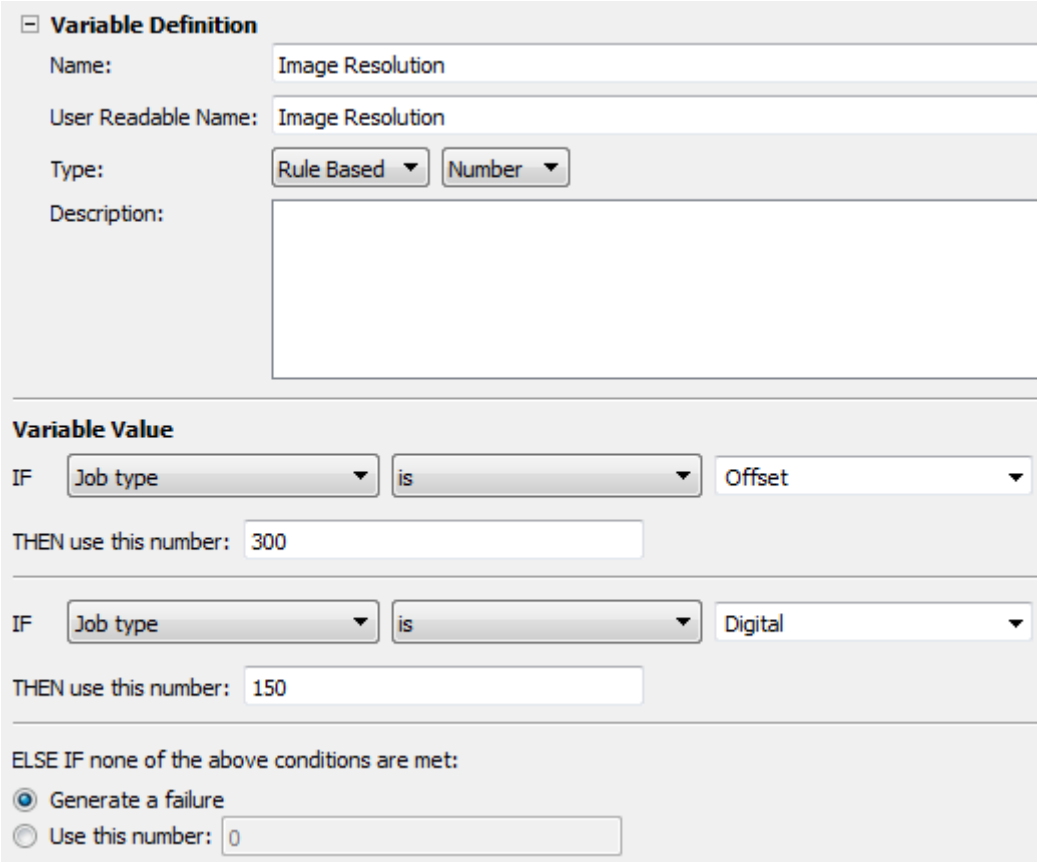
1. Define the variable(s) you need.
2. Define the rule based variable itself:
   - Choose **Rule Based** as Type and determine the value type, for example "Number".
   - Build the rules:
     - The first list (preceded by "IF") allows you to select any earlier defined variable.
     - Choose "is", "is not", "begins with", ... as required and enter or select the appropriate value. Options depend on the variable chosen in the previous step.
     - Click the appropriate operator (AND/OR). (The chosen operator is added to the rule.)

       AND/OR statements will add a condition to the selected rule, making the rule dependent on two or more conditions.
     - Enter/Select the resulting value (the type depends on the chosen value type).
     - If required, click **ELSE** to add an alternative rule to the overall variable (=IF) and proceed in the same way.
     - Determine what should happen in case none of the conditions are met. You can either generate a failure (so the preflight check will generate a preflight error) or enter a default value.
3. Save the Variable Set.

Example 1

Below you can see the definition of the "Image Resolution" rule based variable (value type = Number). It makes use of an earlier defined variable: "Job type", which is a constant (text) variable with "Offset" and "Digital" as possible values.

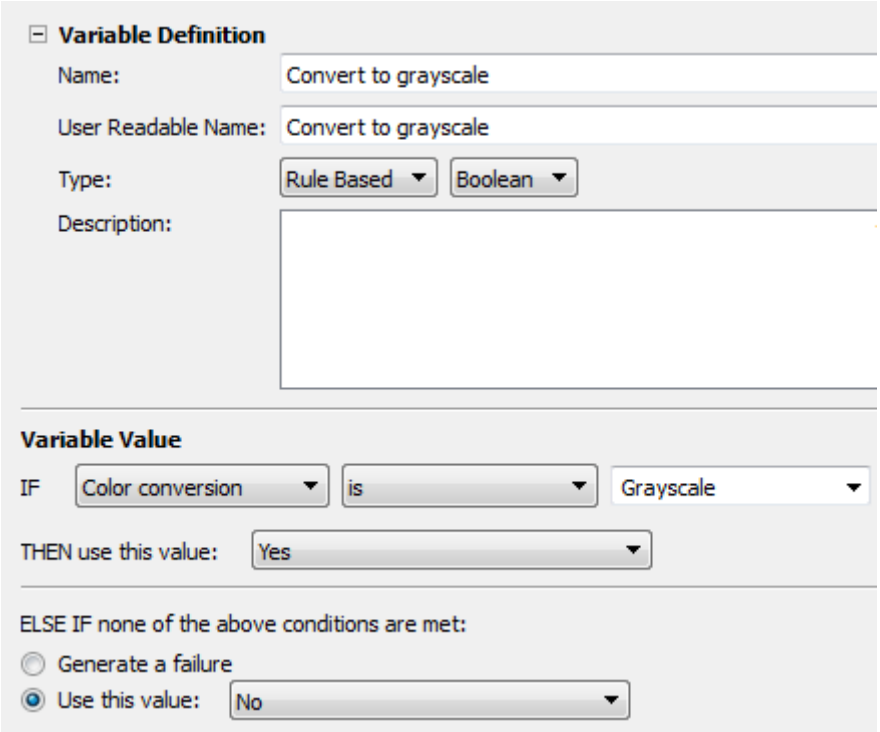
Depending on the value of "Job type", the Image Resolution will be different (300 or 150). If the Job type is different from the ones for which a rule has been configured, a preflight error will be generated.



Example 2

Below you can see the definition of the "Convert to grayscale" rule based variable (value type = Boolean). It makes use of an earlier defined variable: "Color conversion", which is a constant (text) variable with "Grayscale" as one of the possible values.

If the value of the "Color conversion" variable is "Grayscale", the value of "Convert to grayscale" will be "Yes". If this is not the case (e.g. Color conversion is "CMYK"), the value of "Convert to grayscale" will be "No" (=default value).



Job Ticket variable definition

About Job Ticket variables

Job Ticket variables are defined from an XML/JDF Job Ticket file. These files may vary based on the source of the Job Ticket. A sample XML/JDF Job Ticket file is needed to easily locate the appropriate data needed for the variable.

Note: The XML/JDF job tickets are required to be submitted to the PitStop Server hot folder together with the corresponding PDF file. If a match between a PDF file and its corresponding job ticket cannot be made within the user specified timeout value, the individual PDF or XML will be rejected to the defined error folder.

XPath

To select the XPath from a sample file, proceed as follows:

1. In the Variable Set Editor (Variable Value section), go to the XPath field and click **Browse**. This opens a dialog.
2. Select your sample Job Ticket file. It can be located anywhere on your local system as only the internal XPath is required. Once your sample job ticket is selected, all the internal data fields will be visible.
3. Navigate through the data fields and select the correct data field needed for the check you're creating. The XPath field is filled in automatically based on your selection.
4. Click **OK**.

If necessary it is also possible to manually edit an XPath if you require a more advanced method to return a value from your job ticket.

Tip: XPath definitions and values obtained from an XML/JDF job ticket can be verified in the Variable Set Tester. Refer to *Testing variables in a Variable Set* on page 124.

XPath offers a number of functions to perform additional operations on location paths, for example: count() to return the number of times a certain node is present or to count the number of nodes under the color nodes in order to know the number of separations, sum(), ceiling(), floor(), string-length() and so on. For more information about the XPath format, refer to *http://www.w3.org/TR/xpath/*.

Text manipulation options

It's possible the values returned from the Job Ticket may need to be manipulated in order to get the result desired for the Preflight Profile or Action List. The following options help you quickly extract the information needed.

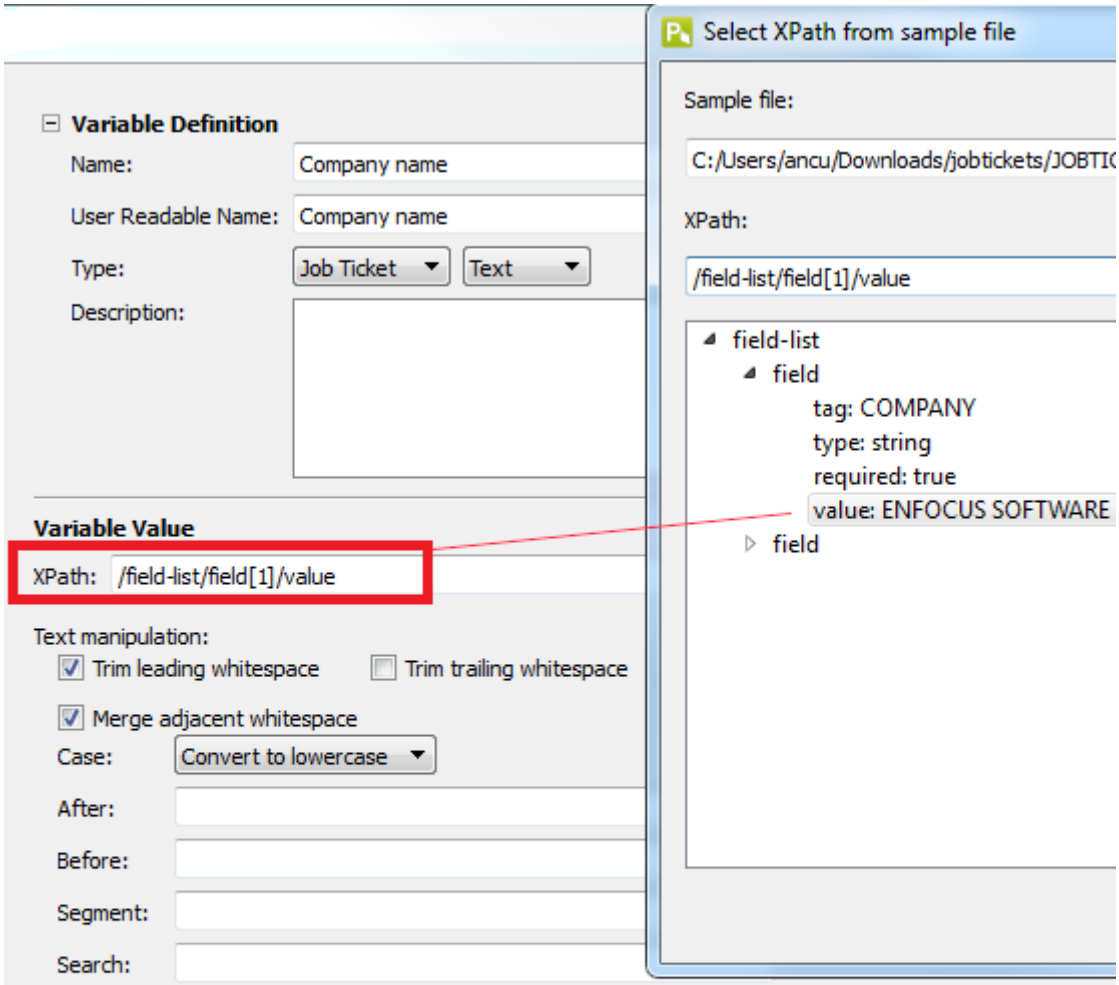
Manipulation	Description	Example
Trim leading whitespace	Removes any extra spaces at the beginning of a result string	Changes " sample" to "sample"
Trim trailing whitespace	Removes any extra spaces at the end of a result string	Changes "sample " to "sample"
Merge adjacent whitespace	Combines sequences of whitespace into a single space character	Changes "Sample Text" to "Sample Text"
Case: Unchanged	Leaves the result unchanged	No changes to result
Case: Convert to lowercase	Converts all text to lowercase	Changes "Sample Text" to "sample text"
Case: Convert to uppercase	Converts all text to uppercase	Changes "Sample Text" to "SAMPLE TEXT"
After	Captures all data after a character or phrase	The complete result is "Sample Text 1234". You need "1234" for your value. Entering "Text " in "After" will return "1234" as the result
Before	Captures all data before a character or phrase	The complete result is "Sample Text 1234". You need "Sample" for your value. Entering " Text" in "Before" will return "Sample" as the result
Segment	Allows you to capture a specific segment of text from a result. This manipulation is expressed numerically as one or more ranges of character positions, using "-" to	The complete result is “Sample Text 1234”. The “T” in “Text” is the 8th character, the ending “t” is the 11th character and "4" is the 16th. So segment

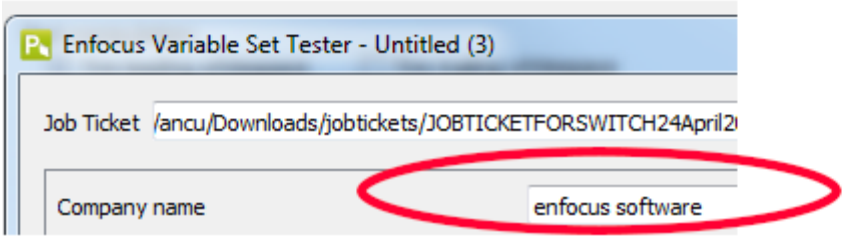
Manipulation	Description	Example
	define a range and "," to separate the ranges	“8-11,16” will return “Text4” for the result
Search	Allows you to use "Regular Expressions" (RegExp) to manipulate your results. If the original string matches the specified regular expression (case sensitive), the result is the part of the string that matches the expression.	

Tip: To check modifications, use the **Variable Set Tester**. Refer to *Testing variables in a Variable Set* on page 124.

Example

Below you can see the definition of the "Company" Job Ticket variable (Text). The XPath is set using a sample Job Ticket, with ENFOCUS SOFTWARE as example value. A couple of text manipulation options were selected, for example the option to convert all characters to lowercase. As a consequence, when verifying the variable, you'll see that the string "ENFOCUS SOFTWARE" has been changed to "enfocus software". This may be useful to match company names with entries in a database, to use them as part of a file name, ...





Testing variables in a Variable Set

In the Enfocus Variable Set Editor, you can review and verify settings within a Variable Set to ensure the variables work as expected. For example, you can verify whether values from XML/JDF Job Ticket file are read correctly.

Note: This doesn't change any settings, it merely simulates the use of the Variable Set.

To check the variables in a Variable Set

1. In the Enfocus Variable Set Editor, click .

All the variables within the current Variable Set are displayed with the default values or (in case of Job Ticket variables) with the values taken from the last XML/JDF job ticket loaded (if any).

2. Verify the different aspects of your variable, for example:
   - Are the default values as expected?
   - Is manual input allowed or forbidden (as configured)?
   - If you have defined a number of choices, are these choices presented as expected?
   - In case of a rule based variable, does it work correctly?
   - In case of a Job Ticket, are the correct values taken from the Job Ticket?

   Using Job Ticket variables? In that case, you can test the variables with a Job Ticket with different values; just load a different Job Ticket by clicking the **Browse** button at the top of the Enfocus Variable Set Tester.

   Job Ticket variables and their values will be displayed based on the file loaded along with the XPath expression and any modifications to that field based on the variable settings. If there is an error in the XPath expression or if the requested field does not exist in the sample XML/JDF file, the *variable will be displayed in red*. Errors in Job Ticket values may be the result of errors in any manipulations defined or errors in the XML/JDF sample file. Errors in the XPath expression or manipulations can be corrected by editing the offending variable.

3. If you have changed values, you may want to display the default values again:
   - To restore the defaults for all variables in the Tester, click **Restore All Defaults** button at the bottom of the dialog.
   - To restore the default of one particular variable, click next to this variable.

13.4.3.3. Applying a Variable Set

In order to be able to use Smart Preflight, you must "apply" the Variable Set that contains the variables used in the Preflight Profile or Action List(s) selected in the **Action List and Preflight Profile** category of the Hot Folder Editor. If the Variable Set does not match what has been used in the Preflight Profile or Action Lists, the workflow will not activate.

To apply a Variable Set

1. In PitStop Server, open the Hot folder Editor.
2. Select **Smart Preflight**.
3. Click and select the Variable Set you want to apply.
4. Click **OK**.

13.4.3.4. Enabling the use of a Job Ticket

If variable values should be taken from a Job Ticket, you should define its name in the Hot Folder setup.

To enable the use of a Job Ticket in PitStop Server

1. In PitStop Server, open the Hot folder Editor.
2. Select **Smart Preflight**.
3. Under **Job Ticket file Matching**, make the appropriate choices:
   - Select the **Use Job Ticket** checkbox and type the name of the associated Job Ticket file, or define the file name pattern using variables. There are two variables available: one to duplicate the source PDF file name and one for the file extension. The hot folder will process incoming files in pairs: a PDF file and the matching job ticket XML/JDF file. As long as only one of both required files has arrived in the input folder, PitStop Server will wait for the other one.
   - Select the **Time Out** checkbox and indicate how long PitStop Server should wait before rejecting any orphaned documents or Job Tickets. Determine where orphaned files should be moved to. If no folder is specified, the files (orphaned original document and Job Tickets) will be deleted.
   - Indicate what should be done with the Job Ticket after processing, by selecting the appropriate option from the **Transfer Job Ticket** list. You can can either move it to one of the folders in the hot folder setup (reports, original or processed documents), or you can delete it.
4. Click **OK**.

13.4.3.5. Applying variables to a check in a Preflight Profile

Variables allow you to process different jobs and job types with one Preflight Profile; instead of using multiple Profiles with different, fixed values, you enter a variable which is defined when running the Preflight Profile.

Note that you need to have defined a Variable Set with Smart Preflight variables before you can use variables in a Preflight Profile.

To use variables in a Preflight Profile

1. Click **Window** > **Preflight Profiles** and double-click the Preflight Profile concerned.
2. In your Preflight Profile, open the CHECK ON: category for which you want to use a variable.
3. Do one of the following:
   - If a variable should be used for enabling or disabling **all checks on the tab**, click the **Actions** link in the top right corner of the tab and select **Enable Variable Names**. A button appears next to the checkbox of Enable checks without restriction/Enable checks of <restriction>.
   - If a variable should be used for one particular check, in the attributes of the check concerned, click the **Enable Variable Names button**. A button appears next to each property where it is relevant.
4. Click next to the property for which you want to use a variable.
   Note that this button is only shown when the check can have a variable applied.

5. In the Select a Variable dialog, make sure **Use a Variable from the selected Variable Set** is selected and select a Variable Set as required.

6. Double-click the variable you want to use for the property concerned.

   Only the variables that match the type required for the property concerned are shown. For example, if you want to define the page width, you need a variable of the type Length.

   The name of the variable is shown in the Preflight Profile.

13.4.3.6. Running a Smart Preflight check

If your Preflight Profile contains variables, when running a preflight check, the variable values cannot be entered by the user, as PitStop Server is an automated system, without manual intervention. Instead, the values are taken from a Job Ticket - at least if the variable type is "Job Ticket". If this is not the case (i.e. if the variable type is "rule based" or "constant"), the default values are used. See also *Smart Preflight Variables: types* on page 114.

Note that all PDF files arriving in a hot folder for which preflight has been enabled will be preflighted. No additional setup is required.

13.4.4. Using Smart Preflight variables in Action Lists

Smart Preflight variables can also be used in Action Lists.

13.4.4.1. Using variables instead of fixed values in Action Lists

You can also use Smart Preflight variables to define attributes of your Actions contained in your Action Lists. The advantages are the same as for Preflight Profiles, i.e. you don't need different Action Lists but you can dynamically modify the values just before running the Action or by taking them from a Job Ticket or database.

This topic explains how you can configure an Action to use variables instead of fixed values.

To define your Actions using variables instead of fixed values

1. Click **Window** > **Action Lists** and double-click the Action List concerned.

2. Select the Actions you want to define using a Smart Preflight variable.

3. Click the **Actions** link (in the top right corner of the attributes for the Action concerned).

4. Select **Enable Variable Names**.

   This option is only available if it is relevant for the Action concerned.

   The icon appears where it is possible to use a variable.

5. Click .

6. Select the variable you want to use.

   You will only see the variables that can be used in the field concerned. Note that you can choose a different Variable Set if necessary.

7. Click **OK**.

13.4.4.2. Running an Action List with Smart Preflight variables enabled

If your Action List contains variables, when running it, the variable values cannot be entered by the user, as PitStop Server is an automated system, without manual intervention. Instead, the values are taken from a Job Ticket - at least if the variable type is "Job Ticket". If this is not the case (i.e. if the variable type is "rule based" or "constant"), the default values are used. See also *Smart Preflight Variables: types* on page 114.

Note that all PDF files arriving in a hot folder for which an Action List has been added will be processed using that Action List. No additional setup is required.

13.4.5. Troubleshooting for Smart Preflight

Following topics explain how to fix some issues you may run across while working with Smart Preflight.

13.4.5.1. Variable not available to apply a preflight check

Issue

Although the variable is present in the Variable Set, you are not able to select it for a particular preflight check.

Cause/Context

When configuring a preflight check, you must first select the Variable Set concerned. Only variables that belong to this set can be applied.

Variables are (among others) defined using a particular type (Constant, Rule Based, Job Ticket) and value/measurement type (Number, Length, String, Boolean). This value type must match the preflight check settings it is intended for, otherwise it is not displayed when you try to select it.

Fix

Make sure the correct Variable Set is selected. If the variable you want to use is present in a different Variable Set, you may decide to switch Variable Sets or add the variable to the currently selected Variable Set.

Next, review the variable and ensure it's defined as the right "value type" (Number, Length, String or Boolean) to match the preflight check.

13.4.5.2. Not possible to enable hot folder

Issue
Your hot folder with Smart Preflight turned on cannot be enabled.

Cause/Context

The variables used in the Preflight Profile set for the current hot folder must be contained in the active Variable Set for that workflow. If that is not the case, you cannot enable the hot folder.

Fix

Check the Smart Preflight settings under the hot folder setup for that workflow and ensure you have the correct Variable Set selected.

To do so:

1. Open the PitStop Server Hot Folder Editor and select **Action Lists and Preflight Profile**.
2. Check the content of the selected Preflight Profile.

   Note: A quick way to open this Preflight Profile: click and double-click the Profile concerned.

3. Go to the **Check on:** section in the Preflight Profile and click an activated variable. In the **Select a Variable** dialog that appears, you can see the name of the used Variable Set.
4. Make sure that this particular Variable Set is also selected in the Hot Folder Editor under **Smart Preflight**.

13.4.5.3. Variable Set not supported

Issue

While importing a Variable Set, you get one of the following errors:

- This Variable Set has settings not supported by this version of software. These may be changed or removed when editing the Variable Set.
- The selected Variable Set has been created with a more recent application and cannot be used.

Cause/Context

Variable Sets created with earlier versions of the software are always compatible with new versions. You can import them and use any new features of the software as required. No error messages will be shown.

Variable Sets created with newer versions of the software than the one you're using can be used as long as no new settings were used (as they are not supported by the software). If there is a version mismatch, one of the above mentioned error messages appears.

Fix

If you can import the Variable Set, remove or change the variables containing settings that are not supported.

If you cannot import the new Variable Set, you can either upgrade the software (recommended) or re-create the Variable Set using the older version of the software.

Note that, while saving Variable Sets, Enfocus PitStop Pro will automatically choose the lowest possible Variable Set version number to ensure maximum portability.

13.4.5.4. Red exclamation mark in front of a variable

Issue

When opening your Variable Set in the Variable Set Editor, you notice that one or more variables in the Variable Set have a red exclamation mark in front of them. Possible warnings:

- The variable uses the unkown variable type ... and cannot be edited.
- Variables from ... are not supported because ... Module is not licensed.

Cause/Context

Not all variable types are compatible with all Enfocus products. For example, "Text with Variables" can only be used with Switch. If a variable is "unknown" to an Enfocus product, it cannot be used or edited, but it won't harm either.

In Switch, some variable types are linked to a particular Switch module. For example, the "text with variables" variable using database fields is only supported if you have an active license for the Switch Database module.

The problem can also be linked to a rule-based variable; if the variable is based on another variable that has been removed or is invalid, the rule-based variable becomes invalid as well and gets a red exclamation mark in front of it.

Fix

If you want to use "unknown" variables, you must change the variable type to a type supported by the product you're using.

If you don't want to use it, just leave it in there; it won't do any harm. You can use (or edit) it again when working with other Enfocus products.

If you want to use variables that require a license that you don't have, please contact Enfocus to buy a license.

In case of invalid rule-based variables, review the rule(s) and correct or re-define the dependent variable(s) as required.

14. Working with Certified PDF documents

14.1. Understanding Certified PDF

14.1.1. PDF workflow concept

Certified PDF is a PDF workflow concept developed by Enfocus based on customer requests and feedback from industry experts. The Certified PDF concept has been designed to address three fundamental issues faced by the majority of users implementing a PDF workflow:

- How to *guarantee* that a PDF document was successfully preflighted with a specific Preflight Profile.
- How to maintain *consistency* between the source document(s) and the PDF document when (minor) changes can be applied to the PDF document throughout the workflow.
- How to minimize risk and *responsibility* when changing a customer's PDF document before the final output.

14.1.1.1. Guaranteed preflighting

Preflighting issues

"Preflighting" is the process of checking a PDF document against various criteria to ensure that the PDF document meets all the requirements for output or publication. Typically, the criteria vary depending on the output or publishing process. A set of criteria matching the requirements of a particular process is called a "Preflight Profile".

PitStop Server, for example, allows you to create a Preflight Profile that checks your PDF document against various criteria, such as color and font usage. Moreover, you can use PitStop Server to actually fix detected problems in your PDF documents.

Ideally, a PDF document should be preflighted at an early stage in a workflow, i.e. as soon as it has been created. This is particularly true if the PDF document will move from the PDF document provider, who created the PDF document, to the PDF document recipient, for example a publishing or printing department. Detecting problems in the PDF document before the file leaves the PDF document provider saves time (and money). Even more so, when the PDF file is sent to a different physical location.

Note: You can also create Certified PDF documents with Enfocus Connectors. For more information about Enfocus Connect, visit our website at *www.enfocus.com*.

Preflighting in a Certified PDF workflow

A Certified PDF workflow supports the preflight process by:

- Offering the PDF document provider a simple and streamlined way to preflight a PDF document with a Preflight Profile supplied by the PDF document recipient.

- Including the Preflight Profile and the corresponding Preflight Report in the PDF document. This way there can be no doubt about the preflight status of the PDF document.
- Offering a straightforward user interface that enables the recipient of the PDF document to verify that the document has been preflighted successfully with a profile he or she provided.

The above-mentioned features help to:

- Motivate the PDF document provider to actually preflight his or her PDF documents.
- Dramatically reduce the number of problems in files received from PDF document providers.

14.1.1.2. Document consistency

PDF editing issues

PDF editing tools, such as Enfocus PitStop Pro, are very convenient for making intermediate or last-minute corrections in PDF documents. This saves you both time and money because you do not have to go back to the original application program to re-create the PDF document. Sometimes, it may even be more efficient to make the changes directly in your PDF document. Enfocus PitStop Pro, for example, allows you to make global color changes throughout your PDF document.

However, PDF editing also involves a risk: as soon as you edit and save a PDF document, you create a version of a document that is different from the original document you made using a word processor or a desktop publishing software. These inconsistencies are hard to manage, and may introduce problems in archiving or when the document is republished at a later date.

PDF editing in a Certified PDF workflow

To help reduce document consistency problems, the Certified PDF workflow features a mechanism that:

- Logs all the changes that are made to a Certified PDF document
- Can store these changes inside the Certified PDF document

Based on this information, an edit log —a human readable PDF report— can be generated.

If consistency between the PDF document and the source file(s) is very important, you can use the edit log to change the source file(s) accordingly. To assist in this process, a Certified PDF document can also keep a reference to the source file(s) from which the PDF document was created. You can use this reference to make sure that the source file has not been edited since the PDF document was created.

14.1.1.3. Responsibility

Responsibility issues

In addition to causing inconsistencies, changing a PDF document that was created by someone else can create ambiguity about who is ultimately responsible for the final result.

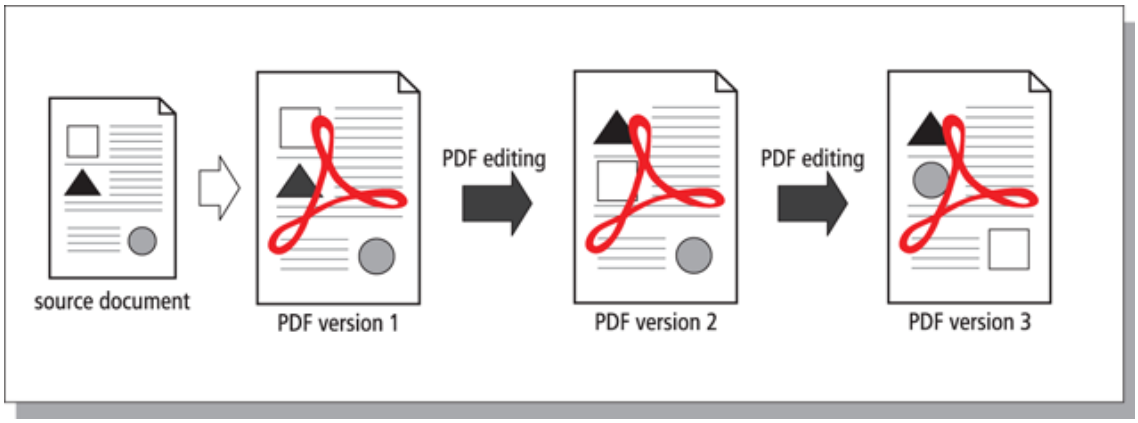
Many printers, service providers, etc. are extremely reluctant to make any changes to their customer's documents for fear of having to assume responsibility if anything goes wrong. This includes issues that can be totally unrelated to the small correction applied.

Responsibility in a Certified PDF workflow

The Certified PDF workflow settles responsibility issues by:

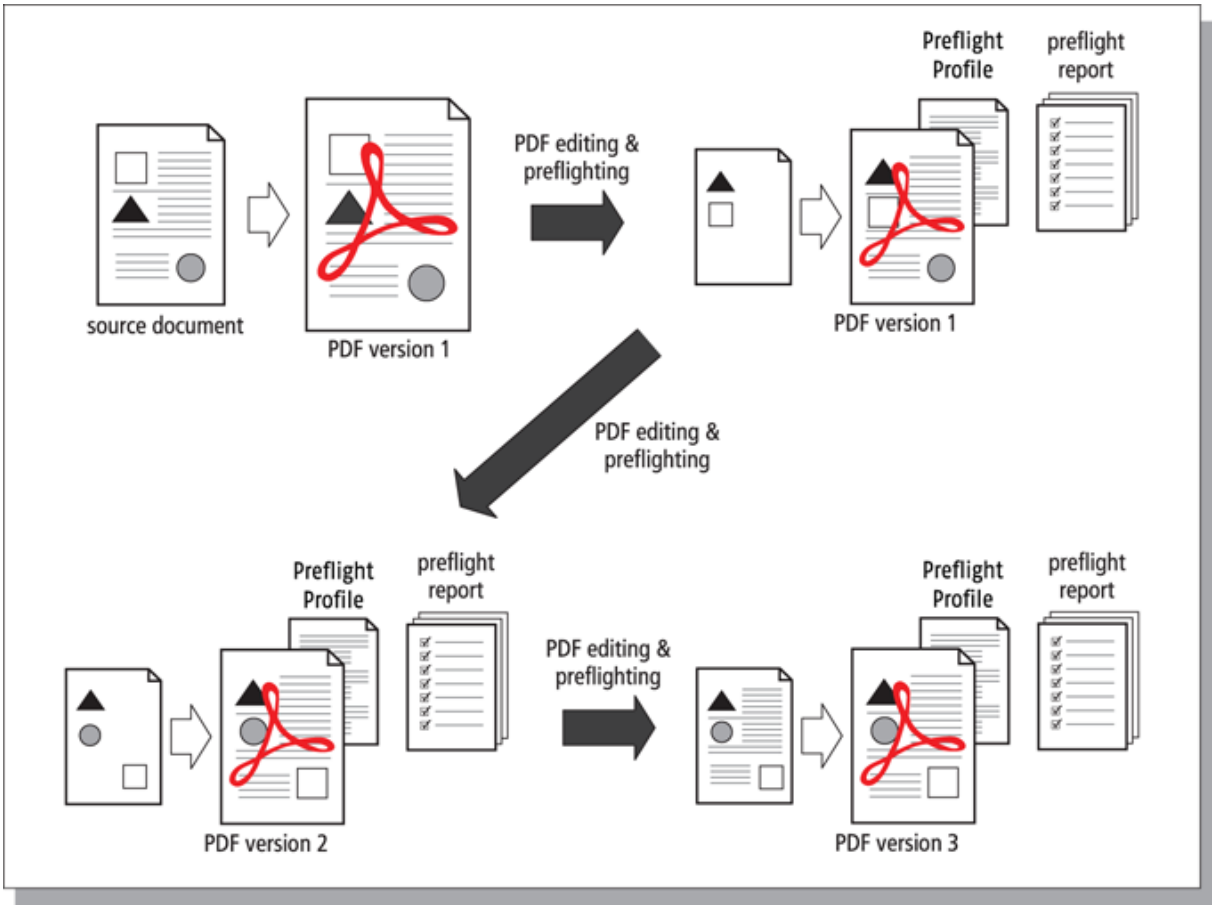
- Providing a detailed log file of all the changes made to a PDF document
- Keeping track of the PDF editing process, i.e. who applied which change and when
- Implementing a robust roll-back mechanism, which, if you wish, allows you to easily return to a previously saved state —a "snapshot"— of your PDF document
- Offering the possibility to compare any two of these snapshots visually to detect and examine the differences

14.1.2. A conventional PDF workflow



In a conventional PDF workflow, the PDF document goes through the hands of different parties who can each edit it, if necessary. The original PDF document is replaced by the edited one.

14.1.3. The Certified PDF workflow



Incremental save, snapshots and roll-back mechanism

A Certified PDF document can "remember" all the changes that were made during a given session and can store the information about these changes per session ("incrementally") as you save your PDF document. Moreover, each time you save your PDF, a "**snapshot**" is saved, i.e. a view of the status of the PDF document at the time it was saved at the end of a session. This snapsnot cannot only be viewed; you can also save it as a separate document. This is called the **roll-back mechanism**. It allows you to revert to any previous stage in the Certified PDF workflow and to compare different versions of your PDF document, even though you maintain one physical PDF file.

If you edit and save a Certified PDF document, you may notice that its file size will increase. The reason is obvious: all the changes done in an editing session are stored in the Certified PDF document. So even if you perform actions which would normally reduce the size of your PDF file, such as removing objects or downsampling images, saving the PDF document will increase its file size. And this increase can become significant, depending on the types of actions and the number of editing sessions you do.

Optimized save

If file size is or becomes an issue, you can "optimize" your Certified PDF. You will still have a Certified PDF document with history information about previous editing sessions, but you will no longer be able to save snapshots of these sessions or use the roll-back mechanism to revert to a previous state of your Certified PDF document.

In PitStop Server, you can disable the roll-back mechanism in the Hot Folder Editor (Certified PDF category). See also *Allow rollback to previous version* on page 65.

14.1.4. What is an Enfocus Certified PDF document?

Whereas a regular PDF only contains Acrobat metadata, an Enfocus Certified PDF document contains a lot of additional information ("Enfocus metadata") related to the preflight process, such as the preflight settings and the version history.

Acrobat metadata

Any regular PDF document contains metadata, i.e. information about the document itself. The **Document Properties** dialog box of Adobe Acrobat, for example, includes the following metadata:

- Creation and modification date of the PDF document
- The application with which the PDF document was created
- The PDF version
- File size
- The name and path of the PDF file
- Number of pages
- Page size

Enfocus metadata

An Enfocus Certified PDF document can be enriched with the following metadata:

- A reference to one or more source documents on which the PDF document was based
- A Preflight Profile
- A Preflight Report
- User and system identification
- An edit log, listing all the changes done in the PDF document per editing session (the time in which the PDF document was opened, edited and saved). It contains all previous versions of a file and allows you to save back to an older version.
- Session comments

14.2. Starting a Certified PDF workflow

14.2.1. Setting the personal information

We recommend entering your personal information (such as your name and contact details) in the Personal info category of the Preferences. After you have done that, the personal info will be added to all Certified PDFs you create or edit with PitStop Server, allowing the recipients of your PDFs to contact you if they have any questions.

Note that this personal information is the same for all PDFs you create or edit. If you need to add *PDF-specific* information, (for each PDF separately), you should use the Job info category of the Enfocus Certified PDF Panel.

To set the personal information

1. In the PitStop Server, navigate to **Window** > **Preferences...** > **Personal Info**
2. Enter your personal information.

   Fill in as much information as possible. A message is optional.
3. Click **OK**.

You can check the personal information in a Certified PDF through the Enfocus Certified PDF Panel in Adobe Acrobat.

Remark:

The Certified user is not only identified by the personal information; there is also a second type of user identification, i.e. the **system information**, which consists of the details of the person who registered PitStop Server and information taken from your operating system, network and computer.

14.2.2. Starting a Certified PDF workflow for a PDF document

In PitStop Server, you can also start a Certified PDF workflow for the incoming PDFs.

To do so

1. Double-click a folder in the Hot folder tab.
2. In the Hot Folder Editor, select the **Certified PDF** category.
3. Make the appropriate choices.

   Refer to *Hot Folder Properties: Certified PDF* on page 64.
4. Click **OK**.

14.3. Adding a session comment

The Certified PDF mechanism in PitStop Server enables you to enhance the quality of your PDF workflow by adding comments to the Edit Log. Before sending your PDF document to the publisher for example, you may want to explain why given changes have been made.

You can add comments per editing session. A session is the time in which you edit and save a PDF document.

To add a session comment

1. Select a hot folder and click the **Edit the selected hot folder** button.
   The **PitStop Server Hot Folder Editor** appears.
2. In the Hot Folder Editor, go to the **Certified PDF** category.
3. Add a new session comment or change the comment of the current session.

   Refer to *Hot Folder Properties: Certified PDF* on page 64.
4. Click **OK**.

14.4. Checking Certified PDF files

14.4.1. Checking the Certified PDF status of a PDF

This topic explains how you can check if a document is already in a Certified workflow and if so, what its status is.

Note: You should have installed either PitStop Pro or StatusCheck (a free plug-in for Adobe Acrobat).

1. Open a PDF in Adobe Acrobat.
2. Do one of the following:
   - Choose **Certified PDF** > **Certified PDF**. This opens the Enfocus Certified PDF Panel, with the Certified PDF status button in the top left corner.
   - In the Tools pane, click the **Certified PDF** panel. This opens the panel and shows the available tools. The first button indicates the Certified PDF status.

   The meaning of the buttons is explained in the following table.

   Note: The button in the top left corner of the Enfocus Certified PDF Panel refers to the **overall** Certified PDF status. For more information, refer to *The aspects of the Certified PDF Status* on page 138

Button in Acrobat (Certified PDF panel)	Meaning
	The current PDF document is not a Certified PDF document (yet).
	The current PDF document is in a Certified PDF workflow, but was not successfully preflighted and verified. The possible causes are: • The PDF document has been preflighted with errors. • The Preflight Profile doesn't match the Preflight Profile Comparison. • The PDF document or the selected **Preflight Profile** has been changed since it was last preflighted. • The original document has been changed.

Button in Acrobat (Certified PDF panel)	Meaning
	The current PDF document is a Certified PDF document which was successfully preflighted and verified: • The Certified Preflight Profile matches the Preflight Profile Comparison. • The PDF document has been preflighted without any errors.
	The status of the current PDF document is undetermined, for example because: • The document was certified but edited afterwards (so the certification may not be valid anymore). • The PDF document was certified, but not preflighted. • The PDF document was processed with one or more Action Lists and a Preflight Profile *combined in one QuickRun* (PitStop Pro) or *in one Hot Folder* (PitStop Server). In that case, it is not possible to certify the document based on the Preflight Profile, because it is not clear which checks come from the Action List(s), and which come from the Preflight Report. **Tip:** We recommend embedding the Action List(s) in the Preflight Profile, so the PDF document can be preflighted with this Profile and the status can be determined.

14.4.1.1. The aspects of the Certified PDF Status

The Certified PDF Status is determined by different aspects. As soon as one aspect has a "not OK" status, the overall Certified PDF status will be not OK as well (red). If all aspects have an "OK" status or an "undetermined" status (for example if no Original Documents are defined), the Certified PDF status will be "OK".

- **Preflight**: Checking the document based on a **Preflight Profile**.
- **Original Documents**: A reference to the original documents, to monitor any changes made to the originals.
- **Certified Preflight Profile Comparison**: The Profile Compare Configuration allows to set a number of Preflight Profiles that are allowed. The Certified Preflight Profile Comparison allows to check if the Preflight Profile used for the Certified PDF document matches a Preflight Profile from this list.

15. Managing fonts

What are the implications of using Times-Roman instead of Times New Roman in a document? Can I use these fonts interchangeably and, if not, when do I use which font? How do the various types of fonts affect the output of my PDF document, onscreen and in print? This chapter provides the answers to these questions, together with some more theoretical background information about fonts.

15.1. Types of fonts and their usage

15.1.1. Types of fonts

There are various types of fonts:

- *PostScript Type 1 fonts* on page 140, with the subset called the "*standard 14 fonts*" and the extension "*Multiple Master fonts* on page 142"
- *PostScript Type 3 fonts* on page 141
- *TrueType fonts* on page 141 with the extension "*OpenType fonts* on page 142"
- *Composite fonts* on page 143

15.1.2. Standard 14 fonts

When working in PostScript and PDF environments, you may come across the notion "standard 14 fonts" or "base 14 fonts". What exactly are these "standard 14 fonts"?

Actually, the term is derived from the standard set of 13 PostScript fonts, which are resident in all PostScript output devices. These fonts are listed in the table below.

Font family	Font
Times	Times-Roman
	Times-Italic
	Times-Bold
	Times-BoldItalic
Helvetica	Helvetica
	Helvetica-Oblique
	Helvetica-Bold
	Helvetica-BoldOblique
Courier	Courier
	Courier-Oblique

Font family	Font
	Courier-Bold
	Courier-BoldOblique
Symbol	Symbol (∞ δ Σ Δ Φ ⊆ λ)

For PDF environments, ZapfDingbats (✉ ✪ ✔ ❑ ❶) is added to this standard font set.

15.1.3. PostScript Type 1 fonts

PostScript Type 1 fonts were originally developed by Adobe Systems for use in PostScript printers.

PostScript Type 1 fonts are outline fonts. They use lines and cubic Bézier curves to define letter shapes or "glyphs". A "glyph" is the shape in a font that is used to represent a character code on screen or paper. Examples of glyphs are the letters of the alphabet or the symbols in a font like ITC ZapfDingbats (✉ ✪ ✔ ❑ ❶).

Type 1 fonts have the following characteristics:

- They are smaller in file size than TrueType fonts, which means that they occupy less space on your system's hard disk.
- Being outline fonts, Type 1 fonts are scalable to almost any size. They remain sharp and smooth on any platform and in print, and their legibility remains good, even when printed at small point sizes on low-resolution laser printers.
- PostScript Type 1 fonts are commonly used in professional publishing environments and are supported by most high-end output devices, because most of these devices use PostScript as their page description language.
- A PostScript Type 1 font is stored in two separate files: one which contains the character outlines and one which contains the font metric data. In Microsoft Windows, you can recognize these by their extensions: *.pfb (Printer Font Binary file) for the character outline and *.pfm (Printer Font Metrics file) for the one containing the metric data. The former (.pfb) is commonly called the printer font, the latter (.pfm) is also known as the screen font. The combined file size of both files, however, is smaller than the file size of its TrueType counterpart. The file size of the PostScript font may sometimes even be as little as half of the size of the corresponding TrueType font.
- You can recognize a PostScript Type 1 font by the following icons:

Icon	Description
	PostScript Type 1 font in Microsoft Windows

Icon	Description
	PostScript Type 1 font in the Mac OS

15.1.4. PostScript Type 3 fonts

PostScript Type 3 fonts are primarily decorative ornaments fonts with a lot of tonal variations and filled-and-stroked objects in the same character. Indeed, Type 3 fonts can have grayscale fills and strokes and other "special effects", whereas Type 1 or TrueType fonts are entirely black. Consequently, Type 3 fonts have the following characteristics:

- Their file size is bigger than the corresponding of Type 1 or TrueType fonts.
- They may take longer to print or output.
- They look worse than Type 1 or TrueType fonts in very small point sizes and when printed at low resolutions.

15.1.5. TrueType fonts

The TrueType font format was developed by Apple Computer as an alternative to the Adobe Type 1 standard. It is used both on Macintosh and Windows computers.

Like PostScript Type 1 fonts, TrueType fonts also use outlines to describe the letter shapes.

TrueType fonts have the following characteristics:

- Their use is widespread and they are integrated in almost every desktop office software program for Microsoft Windows or Macintosh systems.
- TrueType fonts can print well on both non-PostScript and PostScript output devices. However, to print well on a PostScript device, the TrueType font must be converted to PostScript outlines, which may affect the visual quality of the resulting font. This is why many prepress service providers are reluctant to support TrueType fonts.
- On Windows-based systems, a TrueType font is physically stored in a single file, the name of which has the .ttf extension. On Macintosh, it is stored as a single Suitcase.
- You can recognize a TrueType font by the following icons:

Icon	Description
	TrueType font in Microsoft Windows
	TrueType font in the Mac OS

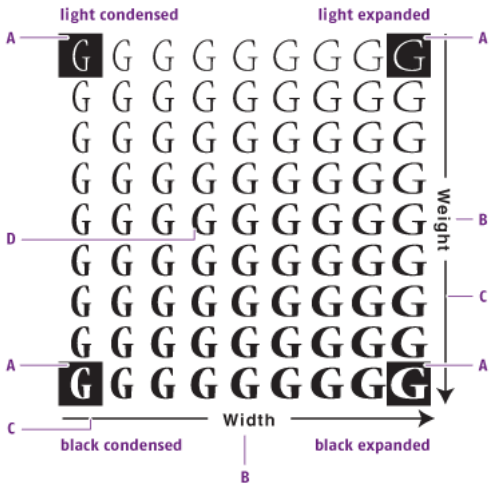
- A TrueType font, or a combined use of TrueType and PostScript fonts in one document, may be troublesome in high-end PostScript devices, especially imagesetters.

15.1.6. Multiple Master fonts

The Multiple Master font format is an extension of the PostScript Type 1 format. "Multiple Masters" are fonts offering design variations at the extremes of the "design axis". This design axis represents a given variable property for that font, such as:

- Weight (light vs. bold)
- Width (condensed vs. expanded)
- Optical size

The mechanism of Multiple Master fonts is that the two masters at the extremes of the design axis have a fixed design, but you can create any variation between these masters. Typically, Multiple Master fonts have two design axes, which require four masters. These masters can be considered the cornerstones of the matrix.



A. *Master*
B. *Font property*
C. *Design axis*
D. *User-defined variant "in-between"*

To create the in-between variants, you require Adobe Type Manager.

15.1.7. OpenType fonts

Extension of the TrueType format

OpenType is a new font file format which has been jointly developed by Adobe Systems Inc. and Microsoft Corporation. It is an extension of the TrueType format: OpenType fonts can contain TrueType but also Adobe Type 1 font data. This means that you can have an OpenType font based on:

- An Adobe Type 1 font. The file name of such a font has the suffix .otf.
- A TrueType font. This font still has the .ttf file name suffix.

You can recognize an OpenType font by the following icons:

Icon	Description
	OpenType font in Microsoft Windows
	OpenType font in the Mac OS

OpenType font embedding

In PDF files, an OpenType font can only appear as an embedded font. So if you are using a Type 1-based OpenType font, you can embed it as Type 1 or as OpenType. Similarly, TrueType-based OpenType fonts can be embedded as TrueType or as OpenType.

OpenType font embedding is a new PDF 1.6 feature, which implies that it might not be supported by the rest of the workflow for the PDF document. For example, earlier versions of Adobe Acrobat may not be able to display the text in OpenType fonts correctly or printing errors can occur.

OpenType-SVG Fonts

OpenType-SVG Font is a font format where (some of) the glyphs are represented as SVG (Scalable Vector Graphics) artwork. SVG can have multiple colors and gradients in one single glyph, which is not possible in conventional fonts.

SVG fonts are supported by Adobe Indesign, Photoshop, Quark Xpress, ... but not by the PDF Specification. That's why, when exporting artwork to PDF, these fonts are converted to Type 3 fonts. Unfortunately, these Type 3 fonts are not always created according to the PDF Specs and therefore used to generate an error in PitStop 2018 and earlier. This has been fixed in PitStop 2019: we implemented a workaround to be able to display the SVG fonts.

Note that these fonts will trigger a warning when running the Check for PDF/A file structure problems Action.

15.1.7.1. More about OpenType

For more information about OpenType, see:

- *www.adobe.com* and search for OpenType
- *store.adobe.com/type/opentype*

15.1.8. Composite fonts

Composite character sets are needed if you are working with Asian languages such as Japanese, Chinese and Korean. These languages have many characters and require hard- and software that support the double-byte format.

Composite fonts use 16-bit or two-byte characters instead of 8-bit or one-byte characters.

15.2. PDF font substitution

If you transfer PDF documents across computers or computer platforms, the fonts in the document may be in any of three conditions. They may be:

- Available as system fonts, i.e. the fonts in the PDF document are also installed on the computer where the PDF document is viewed
- Available as embedded fonts, which means that the fonts are included completely or partially (subset) in the PDF document
- Not available, either in the document or on the system.

If the font is not available, it will have to be replaced by a font which is available on the recipient's computer. This process is called "PDF font substitution". PDF font substitution may affect the appearance and output of your documents.

15.2.1. Finding exact font names

A given font can have different names. And the name of the font which you see in your source application is not necessarily the same as its "real" internal font name.

For example, the Adobe Type 1 font "Times" as you see it in your word processing or desktop publishing program also has a PostScript name: "Times-Roman". The same applies to its TrueType counterpart "Times New Roman": its name appears in Adobe Acrobat as "TimesNewRoman" (without spaces).

Consequently, if you need to enter a font name manually in one of the dialog boxes of Enfocus PitStop Server, it is important that you type the font name exactly as it is spelled in Adobe Acrobat. You can use a PDF file containing the desired font to find the exact spelling of the name.

15.2.1.1. To find the exact font name:

1. Use any application to create a one-page document with the font(s) of which you want to know the exact name.
2. Create a PDF file of the document.
3. Open the PDF file in Adobe Acrobat and do one of the following:
   - In Adobe Acrobat 4, choose **File** > **Document Info** > **Fonts**.
   - In Adobe Acrobat 5 -9 , choose **File** > **Document Properties** > **Fonts**.
   - In Adobe Acrobat X or later, choose **File** > **Properties** > **Fonts**.
4. Write down the name of the font(s), using the exact spelling, capitalization, and hyphenation of the name as it appears in the Font Info dialog box.
5. Click **OK**.

15.3. Embedding versus subsetting fonts

15.3.1. Embedding fonts

Using the Enfocus Preflight Profile Editor, you can specify in a Preflight Profile whether a PDF document should:

- Embed all fonts
- Embed all fonts except the standard 14 fonts
- Embed all fonts except those that can be emulated for viewing

Embedding a font implies that the entire font, i.e. every single character of the font, is copied into your PDF document. This is particularly useful if your document needs to be displayed and printed on a different computer, which may not have the same fonts installed.

Furthermore, if the entire font is embedded, you might be able to edit the text in the PDF document on a computer that does not have the font installed. Note that embedding an entire font – a standard roman font typically contains 256 characters – will increase the file size of the PDF document by 30k to 40k for PostScript Type 1 fonts, or more for TrueType fonts.

15.3.2. Subsetting fonts

Using the Enfocus Preflight Profile Editor, you can specify in a Preflight Profile whether a PDF document should:

- Subset all fonts
- Subset all except the standard 14 fonts
- Subset all fonts except those that can be emulated for viewing

Instead of embedding an entire font, you may want to embed only a subset of the font – i.e. the characters of the font that are actually used in the text. Subsetting a font allows you to keep a file as small as possible, which is recommended especially if you do not plan to add more text (and hence more font characters) to the file. Note that when you combine two or more PDF documents that have the same font subset, duplicate character information is not deleted from the merged sets. This will result in a considerably larger file.

However, if it is not important that readers see the file in its original fonts, do not embed fonts at all, and let Acrobat use substitute fonts when necessary. This will produce the smallest file possible. Naturally, reducing file size will improve the file transferability.

15.4. Embedding missing fonts

15.4.1. About embedding missing fonts

In PitStop Server, you can embed missing fonts in a PDF document as part of an Action List or Preflight Profile:

1. PitStop Server only looks for the missing fonts on your local system.
2. If not found on your local system, PitStop Server you will get a warning in the Preflight Report.

15.4.2. To embed missing fonts

Use this task to embed missing fonts in your PDF document as part of an Action List or Preflight Profile.

1. Open the Hot Folder you want to use.
2. In the PitStop Server Hot Folder Editor, switch to the **Fonts** category.
3. In the **Fonts** category, proceed as follows:
   - To embed fonts that are available on your system, enable the **Use system fonts** checkbox.
   - To embed other fonts, add the font folders concerned.
4. Switch to the **Action Lists and Preflight Profile** category and define an Action List or Preflight Profile. Use one of the following:
   - Action List: **Embed Non-Base14 Fonts**
   - Action: **Embed font**
   - Preflight check/fix: **Fonts** > **Not embedded** (**Embed font** attribute)

   In addition to the other checks and fixes, PitStop Server will search for missing fonts and embed them if possible. If fonts are unavailable, a warning will be displayed in the Preflight Report.

16. Managing color

This chapter offers a brief introduction to color management and color basics. It explains how you can use PitStop Server to obtain an accurate, high-quality reproduction of the colors in your PDF documents.

16.1. About color management

Color monitors and color printers reproduce color in completely different ways.

A color management system (CMS) is a collection of tools designed to reconcile the different color capabilities of scanners, monitors, and printers to ensure consistent color throughout the creation, display, and print process. Ideally, this means that the colors displayed on your monitor accurately represent the colors of the final output. It also means that different applications, monitors, and operating systems will display colors consistently.

16.2. Color models

16.2.1. The RGB color model

A monitor uses red, green, and blue (RGB) light to create colors. Combining the full intensities of all three colors makes white. RGB colors are used for lighting, video, and monitors. Your computer monitor creates color by emitting light through red, green, and blue phosphors.

16.2.2. The CMYK color model

A printing press uses a CMYK color model, in which three colors of transparent ink (cyan — C, magenta — M, and yellow — Y) are combined along with black (noted as K, derived from "key color") in varying amounts to create different colors. CMYK inks filter the white light that

reflects back from the paper and subtract some of the red, green, and blue light from the spectrum. The color we see is what's left.

In theory, pure cyan, magenta, and yellow pigments should combine to absorb all color and produce black. But because all printing inks contain impurities, these three inks actually produce a muddy brown and must be combined with black ink to produce a true black. Combining these inks to reproduce color is called four-color process printing.

Summarizing: In theory, mixing cyan, magenta and yellow yields perfect black; in practice the key color black has to be added.

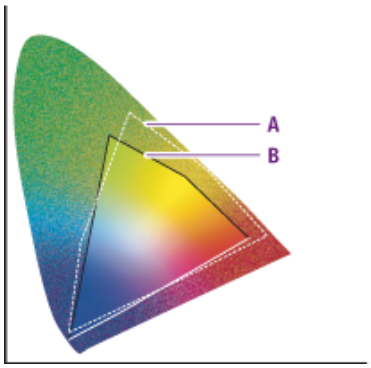
16.2.3. The grayscale model

The grayscale model uses shades of gray to represent objects. In this case, every pixel of a grayscale image has a brightness value ranging from 0% (black) to 100% (white). The maximum number of grays that most output devices can produce is 256.

16.3. Color gamuts and color spaces

16.3.1. Color gamut: device-related subset of the color spectrum

The visible spectrum contains millions of colors, but color devices, such as scanners, monitors and color printers can only (re)produce a subset of this spectrum. This "subset" is called a color gamut. The gamut of a device defines the color space it can (re)produce. For example, a monitor can display a wider range of colors than an offset press can print using CMYK colors, while some of the CMYK colors cannot be accurately displayed on the monitor. Each device has a different color gamut.



A. *RGB color gamut*
B. *CMYK color gamut*

For more information on color gamuts and color spaces, see the Adobe Acrobat Help.

16.3.2. Device-dependent color

Device-dependent colors relate to the settings of the device on which the image was created or output. Device-dependent colors require all devices in the workflow to be "calibrated" to obtain consistent color reproduction. In other words, the input devices (for example scanners or digital cameras), monitors and output devices (for example digital color printers) have to be tuned to each other to make the colors match.

Differences may even occur between devices of the same type or model, because they may have different settings. Monitors may have different brightness or contrast, for example.

For more information on device-dependent color, see the Adobe Acrobat Help.

16.3.3. Device-independent color

To eliminate, or at least minimize, color differences between devices, you can use a color management system. Color management systems use a standard, device-independent color model, such as CIELab. Images are associated with a profile, which contain information about the input and/or output devices. Thus, if images are to be output on a specific device, they will be associated, or "tagged", with a profile for that device.

For more information on device-independent color, see the Adobe Acrobat Help.

16.4. Rendering intents

16.4.1. Rendering intents to remap colors

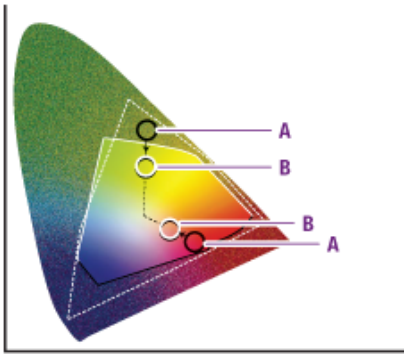
A color management system allows you to remap colors so that they best match the intended use. 'Remapping' means that colors from one output device's color space are mapped to the color space of another device. This remapping is done according to a specific remapping

method, also known as rendering intent. There are four remapping methods or rendering intents:

- *Perceptual remapping* on page 150
- *Saturation remapping* on page 150
- *Relative colorimetric remapping* on page 151
- *Absolute colorimetric remapping* on page 151

16.4.2. Perceptual remapping

The human eye is sensitive to the relationships between colors. Perceptual mapping alters all the colors in the original color space to bring them into the gamut of the destination color space, but preserves the relationships between the colors. As the relationships are preserved, the change in colors will hardly be perceivable.

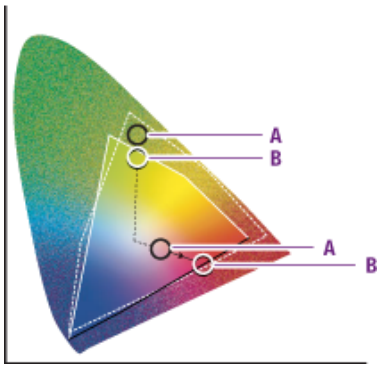


Perceptual remapping rescales the original gamut (**A**) within the gamut of the destination color space (**B**), but preserves the relationships between colors.

16.4.3. Saturation remapping

Reproduces the original image color saturation (vividness) when converting into the target device's color space. In this approach, the relative saturation of colors is maintained from gamut to gamut. This render intent is primarily designed for business graphics, where the exact relationship between colors (such as in a photographic image) is not as important as are bright saturated colors.

Saturation remapping scales all colors to the brightest saturation possible (**B**). The saturation (also called chroma) will remain the same, but some colors will appear lighter or darker.



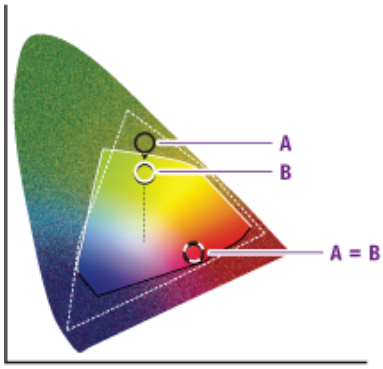
16.4.4. Relative colorimetric remapping

Colors that fall within the gamuts of both input and output device are left unchanged. Colors that fall outside the gamut of the output device are usually altered to colors with the same lightness, but different saturation.

This method may reduce the total number of colors in the image considerably, if many different input colors map to the same output color.

But this matching method is useful when combining 2 output profiles for proofing. Since the color gamut of the proofing device (2) should be bigger than the color gamut of the destination profile (1).

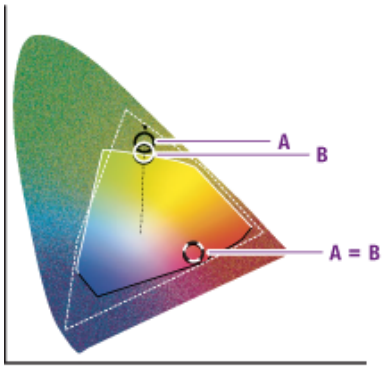
Relative colorimetric remapping replaces colors outside of the gamut by colors with the same lightness, but different saturation (**B**).



16.4.5. Absolute colorimetric remapping

Colors that fall within the gamuts of both input and output device are left unchanged. Colors that fall outside the gamut of the output device are clipped to a color on the edge of the output gamut. This may lead to a loss of detail in some regions. Over most of the tonal range, a close match is obtained. This method is suited for spot colors.

Absolute colorimetric remapping clips colors outside of the gamut to a color on the gamut boundary (**B**). Colors which cannot be displayed in the target color gamut will be lost.



16.5. Using Color Management in Enfocus PitStop Server

16.5.1. Working with ICC profiles

In working environments where color management is used, objects in PDF documents can be tagged with ICC profiles. An ICC profile is a description of the color space related to a specific device. ICC profiles help you reproduce colors accurately across different platforms, devices and ICC-compliant software programs.

Suppose you use a digital camera to take pictures. If you want to make sure that the colors in these pictures are displayed consistently on a specific monitor, you can tag the images with an ICC profile of your digital camera. The images then get a detailed mathematical description of how your digital camera "saw" the colors at the moment when you took the pictures. A color management system can use this description to convert the colors to the color space of another output device, such as a monitor. In that case, the colors seen through the lens of your digital camera and the colors displayed by your monitor will look (almost) identical.

16.5.2. Using ICC profiles in Enfocus PitStop Server

Enfocus PitStop Server can be set to use the same profiles for all objects, or to use specific profiles for images. In the first case, there will only be one tab, to define color management for all objects. In the latter case, there will be a tab to define color management for images, and one for other objects.

Enfocus PitStop Server enables you to specify source and target ICC profiles for the following color models:

- Gray

- RGB
- CMYK
- Lab

The ICC profiles will be used when color conversions have to be done from one color model to another, for example, when RGB colors are converted to CMYK colors.

When necessary, the target profiles can be set different than the source profiles, by selecting the "use other ICC profile than source" option, and defining the target profiles.

You can define ICC profiles at different levels:

- Default ICC profiles apply to all hot folders. You specify these profiles in the Enfocus PitStop Server preferences.
- Specific ICC profiles apply to a particular hot folder. You may want to use these profiles to process PDF documents in which color conversions have to be performed from a given color model to a device-specific color.
- Specific ICC profiles defined in a Preflight Profile or in an Action List

16.5.2.1. Using default ICC profiles for all hot folders

To use default ICC profiles for all hot folders

1. Choose **Window** > **Preferences**.
2. Click the **Color Management** category.
3. Click the **Enable color management** checkbox.
4. Define if you want the same profiles for all objects, or if you want to define profiles for images and for other objects
5. Select source and target ICC profiles for the color models of your choice.
6. Click **OK**.

16.5.2.2. Using ICC profiles for a specific hot folder

To use ICC profiles for a specific hot folder

1. Double-click the hot folder concerned.
2. Select the **Color Management** category.
3. Select **Override General Color Settings**.
4. Define if you want the same profiles for all objects, or if you want to define profiles for images and for other objects
5. Select source and target ICC profiles for the color models of your choice.

6. Click **OK**.

16.5.3. Disabling color management

Sometimes you want to use color management in the Enfocus PitStop Server environment, sometimes you don't. Reasons for using color management and ICC profiles are outlined in *Working with ICC profiles* on page 152. Reasons for not using color management in Enfocus PitStop Server can be the following:

- You do not process PDF documents coming from or going to color-managed environments. For example, you know that PDF documents which arrive in a given hot folder never contain images which are tagged with ICC profiles and you do not wish to tag them either.
- You wish to leave the ICC tagging of the images in the PDF documents as is.

In these cases, you can disable color management. If you do so and you process PDF documents with profile-tagged images, the color profiles will be left untouched: they will not be removed or changed.

You can enable color management for all hot folders and disable it for one or more specific hot folders and vice versa. Disabling color management for all hot folders only applies to hot folders which you create from that moment onwards. Existing hot folders which already use specific ICC profiles maintain their settings.

16.5.3.1. To disable color management for all hot folders:

1. Choose **Window** > **Preferences**.
2. Click the **Color Management** category.
3. Click to clear the **Enable color management** check box.
4. Click **OK** button.

Note: Existing hot folders which already use specific ICC profiles maintain their settings.

16.5.3.2. To disable color management for a specific folder:

1. Select a hot folder and click **Edit**.
2. Display the **Color Management** properties.
3. Select **Override General Color Settings** checkbox.
4. Click uncheck the **Enable color management** checkbox.
5. Click **OK** button.

16.6. Spot colors

16.6.1. About spot colors

Spot colors are colors which are printed with their own premixed inks. You can choose from several spot color systems and from hundreds of different spot-color inks. In spot-color offset printing, each spot color is reproduced using a single printing plate. In contrast, process color printing uses four inks only (CMYK: cyan, magenta, yellow and black) to reproduce all colors.

If you print a spot color at 100 %, a solid opaque color appears on your page (not a dot pattern). A tint of a spot color, i.e. a lightened spot color, is created by printing smaller halftone dots of the base color.

Spot colors can provide excellent results when used for offset printing. For digital output or monitor display, however, spot colors are less well-suited and should be used with caution.

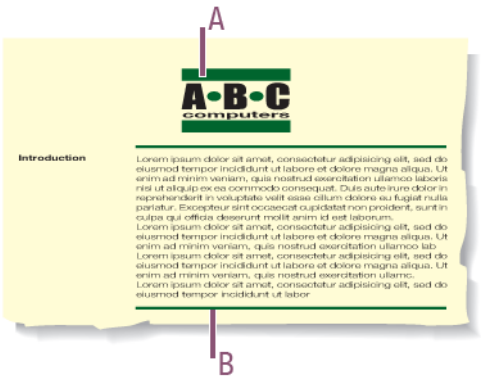
16.6.2. Unambiguously defined spot colors

Unambiguously defined spot colors are colors which have distinct names and associated CMYK equivalents. If two spot colors with different CMYK values have the same name, they will be considered ambiguously defined.

An example would be a document which contains objects from various applications:

- Green lines which were drawn in a word processing application.
- The company logo which was created using illustration software.

If the spot colors of these objects have the same name, say “company green”, but different CMYK values, they are ambiguously defined.



A - Company logo: “company green” C 100%, M 0%, Y 100%, K 50%

B - Separator lines: “company green” C 90%, M 0%, Y 90%, K 50%

16.6.3. Converting spot colors to the equivalent CMYK process colors

Sometimes, it may be convenient to use spot colors in your source document and have Enfocus PitStop Server convert these spot colors to the corresponding RGB or CMYK colors in the PDF document. Rather than creating dedicated — RGB, CMYK and spot-color — source files for different output purposes, you may want to maintain one single source document.

For example, you may have a newsletter or brochure containing spot-color objects, such as your company logo. You would then have the following option:

- You could leave the spot color definitions unchanged and use the PDF document to produce individual offset printing plates for each color.
- You could have Enfocus PitStop Server convert the spot colors to the equivalent CMYK process colors for output on, for example a digital four-color press.

17. Third-Party License Information

```
This product includes lzw-ab.

    Copyright (c) David Bryant
    All rights reserved.

    Redistribution and use in source and binary forms, with or without
    modification, are permitted provided that the following conditions are met:

    * Redistributions of source code must retain the above copyright notice,
      this list of conditions and the following disclaimer.
    * Redistributions in binary form must reproduce the above copyright notice,
      this list of conditions and the following disclaimer in the
      documentation and/or other materials provided with the distribution.
    * Neither the name of Conifer Software nor the names of its contributors
      may be used to endorse or promote products derived from this software
      without specific prior written permission.

    THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS"
    AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
    IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
    ARE DISCLAIMED. IN NO EVENT SHALL THE REGENTS OR CONTRIBUTORS BE LIABLE FOR
    ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
    DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR
    SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER
    CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY,
    OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
    OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

-------------------------------------------------------------

This product includes Botan.

      Copyright (C) 1999-2009 Jack Lloyd
      2001 Peter J Jones
      2004-2007 Justin Karneges
      2004 Vaclav Ovsik
      2005 Matthew Gregan
      2005-2006 Matt Johnston
      2006 Luca Piccarreta
      2007 Yves Jerschow
      2007-2008 FlexSecure GmbH
      2007-2008 Technische Universitat Darmstadt
      2007-2008 Falko Strenzke
      2007-2008 Martin Doering
      2007 Manuel Hartl
      2007 Christoph Ludwig
      2007 Patrick Sona
      2010 Olivier de Gaalon
      All rights reserved.

      Redistribution and use in source and binary forms, with or without
      modification, are permitted provided that the following conditions are
      met:

      1. Redistributions of source code must retain the above copyright
      notice, this list of conditions, and the following disclaimer.

      2. Redistributions in binary form must reproduce the above copyright
      notice, this list of conditions, and the following disclaimer in the
      documentation and/or other materials provided with the distribution.

      THIS SOFTWARE IS PROVIDED BY THE AUTHOR(S) "AS IS" AND ANY EXPRESS OR
      IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED
      WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE,
      ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR(S) OR CONTRIBUTOR(S) BE
      LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
      CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
      SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR
      BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY,
      WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE
```

```
      OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN
      IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

-------------------------------------------------------------

This product includes ICC Profiles.

    Some ICC Profiles were created by FFEI Ltd. (www.ffei.co.uk) using Fujifilm
    ColourKit Profiler Suite (www.colourprofiling.com)

-------------------------------------------------------------

This product includes ICC Profiles.

    Some ICC profiles are copyright (C) by European Color Initiative, www.eci.org

-------------------------------------------------------------

This product includes ICC Profiles.

    Some ICC profiles are copyright (C) of WAN-IFRA, www.wan-ifra.org

-------------------------------------------------------------

This product includes ICC Profiles.

    Some ICC profiles are copyright (C) IDEAlliance(R). G7(R), GRACol(R) and
    SWOP(R) are all registered trademarks of IDEAlliance(C).

-------------------------------------------------------------

This product includes PANTONE Color Libraries.

    PANTONE© and other Pantone trademarks are the property of Pantone LLC.
    Pantone is a wholly owned subsidiary of X-Rite, Incorporated.

-------------------------------------------------------------

This product includes curl.

      Copyright (c) 1996 - 2020, Daniel Stenberg, <daniel@haxx.se>.
      All rights reserved.

      Permission to use, copy, modify, and distribute this software for any purpose
      with or without fee is hereby granted, provided that the above copyright
      notice and this permission notice appear in all copies.

      THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
      IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
      FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN
      NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM,
      DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR
      OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE
      OR OTHER DEALINGS IN THE SOFTWARE.

      Except as contained in this notice, the name of a copyright holder shall not
      be used in advertising or otherwise to promote the sale, use or other dealings
      in this Software without prior written authorization of the copyright holder.

-------------------------------------------------------------

This product includes LibTIFF.

      Copyright (c) 1988-1997 Sam Leffler
      Copyright (c) 1991-1997 Silicon Graphics, Inc.

      Permission to use, copy, modify, distribute, and sell this software and
      its documentation for any purpose is hereby granted without fee, provided
      that (i) the above copyright notices and this permission notice appear in
      all copies of the software and related documentation, and (ii) the names of
      Sam Leffler and Silicon Graphics may not be used in any advertising or
      publicity relating to the software without the specific, prior written
      permission of Sam Leffler and Silicon Graphics.

      THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND,
      EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY
      WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.
```

```
      IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR
      ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND,
      OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS,
      WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF
      LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE
      OF THIS SOFTWARE.

------------------------------------------------------------

This product includes Minizip.

       Copyright (C) 1998-2005 Gilles Vollant
      Modifications of Unzip for Zip64
       Copyright (C) 2007-2008 Even Rouault
      Modifications for Zip64 support on both zip and unzip
       Copyright (C) 2009-2010 Mathias Svensson
       http://result42.com
      Modifications for AES, PKWARE disk spanning
       Copyright (C) 2010-2014 Nathan Moinvaziri

      This software is provided 'as-is', without any express or implied
      warranty.  In no event will the authors be held liable for any damages
      arising from the use of this software.

------------------------------------------------------------

This product includes zlib.

      Copyright (C) 1995-2004 Jean-loup Gailly and Mark Adler

      This software is provided 'as-is', without any express or implied
      warranty.  In no event will the authors be held liable for any damages
      arising from the use of this software.

------------------------------------------------------------

This product includes FreeType.

    Portions of this software are copyright (C) 2014 The FreeType
    Project (www.freetype.org) licensed under the Freetype License.
    All rights reserved.

------------------------------------------------------------

This product includes Google Breakpad.

      Copyright (c) 2006, Google Inc. All rights reserved.

      Redistribution and use in source and binary forms, with or without
      modification, are permitted provided that the following conditions are
      met:
      * Redistributions in binary form must reproduce the above
      copyright notice, this list of conditions and the following disclaimer
      in the documentation and/or other materials provided with the
      distribution.
      * Neither the name of Google Inc. nor the names of its
      contributors may be used to endorse or promote products derived from
      this software without specific prior written permission.

      THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
      "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
      LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
      A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
      OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
      SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
      LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
      DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
      THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
      (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
      OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

------------------------------------------------------------

This product includes curl.

      Copyright (c) 1996 - 2011, Daniel Stenberg, <daniel@haxx.se>.
```

```
      All rights reserved.

      Permission to use, copy, modify, and distribute this software for any purpose
      with or without fee is hereby granted, provided that the above copyright
      notice and this permission notice appear in all copies.

      THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
      IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
      FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN
      NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM,
      DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR
      OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE
      OR OTHER DEALINGS IN THE SOFTWARE.

-------------------------------------------------------------

This product includes Google Logging Library (glog).

      Copyright (c) 2008, Google Inc.
      All rights reserved.

      Redistribution and use in source and binary forms, with or without
      modification, are permitted provided that the following conditions are
      met:
      * Redistributions of source code must retain the above copyright
      notice, this list of conditions and the following disclaimer.
      * Redistributions in binary form must reproduce the above
      copyright notice, this list of conditions and the following disclaimer
      in the documentation and/or other materials provided with the
      distribution.
      * Neither the name of Google Inc. nor the names of its
      contributors may be used to endorse or promote products derived from
      this software without specific prior written permission.

      THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
      "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
      LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
      A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
      OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
      SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
      LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
      DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
      THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
      (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
      OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

-------------------------------------------------------------

This product includes Protocol Buffers.

      Copyright (c) 2008, Google Inc.
      All rights reserved.

      Redistribution and use in source and binary forms, with or without
      modification, are permitted provided that the following conditions are
      met:

      * Redistributions in binary form must reproduce the above
      copyright notice, this list of conditions and the following disclaimer
      in the documentation and/or other materials provided with the
      distribution.
      * Neither the name of Google Inc. nor the names of its
      contributors may be used to endorse or promote products derived from
      this software without specific prior written permission.

      THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
      "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
      LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
      A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
      OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
      SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
      LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
      DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
      THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
      (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
      OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
```

```
------------------------------------------------------------

This product includes gSOAP.

      EXHIBIT B.

      Part of the software embedded in this product is gSOAP software.
      Portions created by gSOAP are Copyright (C) 2001-2007 Robert A. van Engelen,
 Genivia inc. All Rights Reserved.

      THE SOFTWARE IN THIS PRODUCT WAS IN PART PROVIDED BY GENIVIA INC AND ANY EXPRESS
 OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF
 MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT
 SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY,
 OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE
 GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER
 CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR
 TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
 SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

------------------------------------------------------------

This product includes ICU.

      Copyright (c) 1995-2014 International Business Machines Corporation and others
      All rights reserved.

      Permission is hereby granted, free of charge, to any person obtaining a copy of
      this software and associated documentation files (the "Software"), to deal in
 the
      Software without restriction, including without limitation the rights to use,
      copy, modify, merge, publish, distribute, and/or sell copies of the Software,
 and
      to permit persons to whom the Software is furnished to do so, provided that the
      above copyright notice(s) and this permission notice appear in all copies of the
      Software and that both the above copyright notice(s) and this permission notice
      appear in supporting documentation.

      THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
      IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS
      FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. IN NO EVENT
      SHALL THE COPYRIGHT HOLDER OR HOLDERS INCLUDED IN THIS NOTICE BE LIABLE FOR ANY
      CLAIM, OR ANY SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES
      WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF
      CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION
      WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

------------------------------------------------------------

This product includes iODBC.

      Copyright (C) 1995-2006, OpenLink Software Inc and Ke Jin.
      All rights reserved.

      Redistribution and use in source and binary forms, with or without
      modification, are permitted provided that the following conditions
      are met:

       1. Redistributions of source code must retain the above copyright notice,
          this list of conditions and the following disclaimer.
       2. Redistributions in binary form must reproduce the above copyright
          notice, this list of conditions and the following disclaimer in the
          documentation and/or other materials provided with the distribution.
       3. Neither the name of OpenLink Software Inc. nor the names of its
          contributors may be used to endorse or promote products derived from
          this software without specific prior written permission.

      THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
      "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO,
      THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
      PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL OPENLINK OR CONTRIBUTORS
      BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY,
      OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
      SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS
      INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN
      CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
      ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF
```

```
      THE POSSIBILITY OF SUCH DAMAGE.

-------------------------------------------------------------

This product includes JBIG2Lib.

    Portions of this product copyrights (C) 2002 Glyph & Cog, LLC.

-------------------------------------------------------------

This product includes JPEGLib.
This software is copyright (C) 1991-2016, Thomas G. Lane, Guido Vollbeding.
      All Rights Reserved.

      This software is based in part on the work of the Independent JPEG Group.
-------------------------------------------------------------

This product includes Little CMS.

    Little CMS
    Copyright (c) 1998-2011 Marti Maria Saguer

    Permission is hereby granted, free of charge, to any person obtaining a copy
    of this software and associated documentation files (the "Software"), to deal
    in the Software without restriction, including without limitation the rights
    to use, copy, modify, merge, publish, distribute, sublicense, and/or sell
    copies of the Software, and to permit persons to whom the Software is
    furnished to do so, subject to the following conditions:

    The above copyright notice and this permission notice shall be included in
    all copies or substantial portions of the Software.

    THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
    IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY,
    FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE
    AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER
    LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM,
    OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN
    THE SOFTWARE.

-------------------------------------------------------------

This product includes libpng.

      Copyright (c) 2000-2002 Glenn Randers-Pehrson

      The PNG Reference Library is supplied "AS IS".  The Contributing Authors
      and Group 42, Inc. disclaim all warranties, expressed or implied,
      including, without limitation, the warranties of merchantability and of
      fitness for any purpose.  The Contributing Authors and Group 42, Inc.
      assume no liability for direct, indirect, incidental, special, exemplary,
      or consequential damages, which may result from the use of the PNG
      Reference Library, even if advised of the possibility of such damage.
      There is no warranty against interference with your enjoyment of the
      library or against infringement.  There is no warranty that our
      efforts or the library will fulfill any of your particular purposes
      or needs.  This library is provided with all faults, and the entire
      risk of satisfactory quality, performance, accuracy, and effort is with
      the user.

-------------------------------------------------------------

This product includes libxml2.

    Copyright (C) 1998-2012 Daniel Veillard.  All Rights Reserved.

    Permission is hereby granted, free of charge, to any person obtaining a copy
    of this software and associated documentation files (the "Software"), to deal
    in the Software without restriction, including without limitation the rights
    to use, copy, modify, merge, publish, distribute, sublicense, and/or sell
    copies of the Software, and to permit persons to whom the Software is fur-
    nished to do so, subject to the following conditions:

    The above copyright notice and this permission notice shall be included in
    all copies or substantial portions of the Software.

    THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR
```

```
    IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FIT-
    NESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.  IN NO EVENT SHALL THE
    AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER
    LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM,
    OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN
    THE SOFTWARE.

-------------------------------------------------------------

This product includes IP*Works!.

      Copyright (c) 2017 /n software inc. - All rights reserved.

      DISCLAIMER OF WARRANTY. THE LICENSED SOFTWARE IS PROVIDED "AS IS" WITHOUT
 WARRANTY OF ANY KIND, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF
 MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. FURTHER, /N SOFTWARE
 SPECIFICALLY DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE
 USE, OR THE RESULTS OF THE USE, OF THE LICENSED SOFTWARE OR DOCUMENTATION IN TERMS
 OF CORRECTNESS, ACCURACY, RELIABILITY, CURRENTNESS, OR OTHERWISE. THE ENTIRE RISK AS
 TO THE RESULTS AND PERFORMANCE OF THE LICENSED SOFTWARE IS ASSUMED BY YOU. NO ORAL
 OR WRITTEN INFORMATION OR ADVICE GIVEN BY /N SOFTWARE OR ITS EMPLOYEES SHALL CREATE
 A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY, AND YOU MAY NOT RELY
 ON ANY SUCH INFORMATION OR ADVICE.  FURTHER, THE LICENSED SOFTWARE IS NOT FAULT-
TOLERANT AND IS NOT DESIGNED, MANUFACTURED OR INTENDED FOR USE OR RESALE AS ON-LINE
 CONTROL EQUIPMENT IN HAZARDOUS ENVIRONMENTS REQUIRING FAIL-SAFE PERFORMANCE, SUCH AS
 IN THE OPERATION OF NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS,
 AIR TRAFFIC CONTROL, DIRECT LIFE SUPPORT MACHINES, OR WEAPONS SYSTEMS, IN WHICH THE
 FAILURE OF THE LICENSED SOFTWARE COULD LEAD DIRECTLY TO DEATH, PERSONAL INJURY, OR
 SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE ("HIGH RISK ACTIVITIES"). /N SOFTWARE AND ITS
 SUPPLIERS SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR HIGH
 RISK ACTIVITIES.
      LIMITATION ON LIABILITY. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW,
 IN NO EVENT WILL /N SOFTWARE'S TOTAL AGGREGATE AND CUMULATIVE LIABILITY TO YOU FOR
 ANY AND ALL CLAIMS OF ANY KIND ARISING HEREUNDER EXCEED THE AMOUNT OF LICENSE FEES
 ACTUALLY PAID BY YOU FOR THE LICENSED SOFTWARE GIVING RISE TO THE CLAIM IN THE TWELVE
 MONTHS PRECEDING THE CLAIM. /N SOFTWARE'S LICENSORS AND THEIR SUPPLIERS SHALL HAVE NO
 LIABILITY TO YOU FOR ANY DAMAGES SUFFERED BY YOU OR ANY THIRD PARTY AS A RESULT OF
 USING THE LICENSED SOFTWARE, OR ANY PORTION THEREOF. NOTWITHSTANDING THE FOREGOING,
 IN NO EVENT SHALL /N SOFTWARE, ITS LICENSORS, OR ANY OF THEIR RESPECTIVE SUPPLIERS
 BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR INDIRECT, PUNITIVE, SPECIAL,
 INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER, INCLUDING, WITHOUT LIMITATION,
 ANY COMMERCIAL DAMAGES OR LOSSES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF
 LIABILITY, ARISING OUT OF THE USE OR INABILITY TO USE THE LICENSED SOFTWARE, OR ANY
 PORTION THEREOF, EVEN IF /N SOFTWARE, ITS LICENSORS AND/OR ANY OF THEIR RESPECTIVE
 SUPPLIERS HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT
 ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS
 MAY NOT APPLY. EACH EXCLUSION OF LIMITATION IS INTENDED TO BE SEPARATE AND THEREFORE
 SEVERABLE.

-------------------------------------------------------------

This product includes IP*Works! SSH.

      Copyright (c) 2017 /n software inc. - All rights reserved.

      DISCLAIMER OF WARRANTY. THE LICENSED SOFTWARE IS PROVIDED "AS IS" WITHOUT
 WARRANTY OF ANY KIND, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF
 MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. FURTHER, /N SOFTWARE
 SPECIFICALLY DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE
 USE, OR THE RESULTS OF THE USE, OF THE LICENSED SOFTWARE OR DOCUMENTATION IN TERMS
 OF CORRECTNESS, ACCURACY, RELIABILITY, CURRENTNESS, OR OTHERWISE. THE ENTIRE RISK AS
 TO THE RESULTS AND PERFORMANCE OF THE LICENSED SOFTWARE IS ASSUMED BY YOU. NO ORAL
 OR WRITTEN INFORMATION OR ADVICE GIVEN BY /N SOFTWARE OR ITS EMPLOYEES SHALL CREATE
 A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY, AND YOU MAY NOT RELY
 ON ANY SUCH INFORMATION OR ADVICE.  FURTHER, THE LICENSED SOFTWARE IS NOT FAULT-
TOLERANT AND IS NOT DESIGNED, MANUFACTURED OR INTENDED FOR USE OR RESALE AS ON-LINE
 CONTROL EQUIPMENT IN HAZARDOUS ENVIRONMENTS REQUIRING FAIL-SAFE PERFORMANCE, SUCH AS
 IN THE OPERATION OF NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS,
 AIR TRAFFIC CONTROL, DIRECT LIFE SUPPORT MACHINES, OR WEAPONS SYSTEMS, IN WHICH THE
 FAILURE OF THE LICENSED SOFTWARE COULD LEAD DIRECTLY TO DEATH, PERSONAL INJURY, OR
 SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE ("HIGH RISK ACTIVITIES"). /N SOFTWARE AND ITS
 SUPPLIERS SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR HIGH
 RISK ACTIVITIES.
      LIMITATION ON LIABILITY. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW,
 IN NO EVENT WILL /N SOFTWARE'S TOTAL AGGREGATE AND CUMULATIVE LIABILITY TO YOU FOR
 ANY AND ALL CLAIMS OF ANY KIND ARISING HEREUNDER EXCEED THE AMOUNT OF LICENSE FEES
 ACTUALLY PAID BY YOU FOR THE LICENSED SOFTWARE GIVING RISE TO THE CLAIM IN THE TWELVE
```

MONTHS PRECEDING THE CLAIM. /N SOFTWARE'S LICENSORS AND THEIR SUPPLIERS SHALL HAVE NO LIABILITY TO YOU FOR ANY DAMAGES SUFFERED BY YOU OR ANY THIRD PARTY AS A RESULT OF USING THE LICENSED SOFTWARE, OR ANY PORTION THEREOF. NOTWITHSTANDING THE FOREGOING, IN NO EVENT SHALL /N SOFTWARE, ITS LICENSORS, OR ANY OF THEIR RESPECTIVE SUPPLIERS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER, INCLUDING, WITHOUT LIMITATION, ANY COMMERCIAL DAMAGES OR LOSSES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF THE USE OR INABILITY TO USE THE LICENSED SOFTWARE, OR ANY PORTION THEREOF, EVEN IF /N SOFTWARE, ITS LICENSORS AND/OR ANY OF THEIR RESPECTIVE SUPPLIERS HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY. EACH EXCLUSION OF LIMITATION IS INTENDED TO BE SEPARATE AND THEREFORE SEVERABLE.

This product includes Open Source Computer Vision Library.

By downloading, copying, installing or using the software you agree to this license.
If you do not agree to this license, do not download, install,
copy or use the software.

License Agreement
For Open Source Computer Vision Library
(3-clause BSD License)

Copyright (C) 2000-2018, Intel Corporation, all rights reserved.
Copyright (C) 2009-2011, Willow Garage Inc., all rights reserved.
Copyright (C) 2009-2016, NVIDIA Corporation, all rights reserved.
Copyright (C) 2010-2013, Advanced Micro Devices, Inc., all rights reserved.
Copyright (C) 2015-2016, OpenCV Foundation, all rights reserved.
Copyright (C) 2015-2016, Itseez Inc., all rights reserved.
Third party copyrights are property of their respective owners.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* Neither the names of the copyright holders nor the names of the contributors may be used to endorse or promote products derived from this software without specific prior written permission.

This software is provided by the copyright holders and contributors "as is" and any express or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed. In no event shall copyright holders or contributors be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.

This product includes OpenJPEG.

The copyright in this software is being made available under the 2-clauses BSD License, included below. This software may be subject to other third party and contributor rights, including patent rights, and no such rights are granted under this license.

Copyright (c) 2002-2014, Universite catholique de Louvain (UCL), Belgium
Copyright (c) 2002-2014, Professor Benoit Macq
Copyright (c) 2003-2014, Antonin Descampe
Copyright (c) 2003-2009, Francois-Olivier Devaux
Copyright (c) 2005, Herve Drolon, FreeImage Team
Copyright (c) 2002-2003, Yannick Verschueren
Copyright (c) 2001-2003, David Janssens

Copyright (c) 2011-2012, Centre National d'Etudes Spatiales (CNES), France
Copyright (c) 2012, CS Systemes d'Information, France

All rights reserved.

Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions
are met:
1. Redistributions of source code must retain the above copyright
   notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright
   notice, this list of conditions and the following disclaimer in the
   documentation and/or other materials provided with the distribution.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS `AS IS'
AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE
LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS
INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN
CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
POSSIBILITY OF SUCH DAMAGE.

This product includes OpenSSL.

Copyright (c) 1998-2017 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without
modification, are permitted provided that the following conditions
are met:

1. Redistributions of source code must retain the above copyright
   notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright
   notice, this list of conditions and the following disclaimer in
   the documentation and/or other materials provided with the
   distribution.

3. All advertising materials mentioning features or use of this
   software must display the following acknowledgment:
   "This product includes software developed by the OpenSSL Project
   for use in the OpenSSL Toolkit. (http://www.openssl.org/)"

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to
   endorse or promote products derived from this software without
   prior written permission. For written permission, please contact
   openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL"
   nor may "OpenSSL" appear in their names without prior written
   permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following
   acknowledgment:
   "This product includes software developed by the OpenSSL Project
   for use in the OpenSSL Toolkit (http://www.openssl.org/)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY
EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR
ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT,
STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED
OF THE POSSIBILITY OF SUCH DAMAGE.

```
This product includes OpenSSL.

      Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)
      All rights reserved.

      Redistribution and use in source and binary forms, with or without
      modification, are permitted provided that the following conditions
      are met:
      1. Redistributions of source code must retain the copyright
         notice, this list of conditions and the following disclaimer.
      2. Redistributions in binary form must reproduce the above copyright
         notice, this list of conditions and the following disclaimer in the
         documentation and/or other materials provided with the distribution.
      3. All advertising materials mentioning features or use of this software
         must display the following acknowledgement:
         "This product includes cryptographic software written by
         Eric Young (eay@cryptsoft.com)"
         The word 'cryptographic' can be left out if the rouines from the library
         being used are not cryptographic related :-).
      4. If you include any Windows specific code (or a derivative thereof) from
         the apps directory (application code) you must include an acknowledgement:
         "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

      THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND
      ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
      IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
      ARE DISCLAIMED.  IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE
      FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
      DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
      OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
      HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
      LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
      OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
      SUCH DAMAGE.

-------------------------------------------------------------

This product includes patented technology.

      This product and use of this product is under license from Markzware
      under U.S. Patent No. 5,963,641.

-------------------------------------------------------------

This product includes Potrace.

      Copyright (c) 2001-2019 Icosasoft Software Inc. All rights reserved.

-------------------------------------------------------------

This product includes Qt.

      The software uses Qt, licensed under LGPL v3. The Qt Toolkit is Copyright (C)
 2019 The Qt Company Ltd.

      Portions of this software are copyright (C) 2006-2015 The FreeType Project
 (www.freetype.org). All rights reserved.

      Copyright (C) 1991-2011, Thomas G. Lane, Guido Vollbeding.
      This software is based in part on the work of the Independent JPEG Group.

      Secure Hash Algorithm SHA-3 - brg_endian
      Copyright (c) 1998-2013, Brian Gladman, Worcester, UK. All rights reserved.

      LICENSE TERMS

      The redistribution and use of this software (with or without changes)
      is allowed without the payment of fees or royalties provided that:

       1. source code distributions include the above copyright notice, this
          list of conditions and the following disclaimer;

       2. binary distributions include the above copyright notice, this list
          of conditions and the following disclaimer in their documentation;

       3. the name of the copyright holder is not used to endorse products
```

```
          built using this software without specific written permission.

      DISCLAIMER

      This software is provided 'as is' with no explicit or implied warranties
      in respect of its properties, including, but not limited to, correctness
      and/or fitness for purpose.

-------------------------------------------------------------

This product includes QtCopyDialog.

      Copyright (c) 2009 Nokia Corporation and/or its subsidiary(-ies).
      All rights reserved.

      BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO
      WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
      EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR
      OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY
      KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE
      IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
      PURPOSE.  THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE
      LIBRARY IS WITH YOU.  SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME
      THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

-------------------------------------------------------------

This product includes QtMigration.

        Copyright (C) 2013 Digia Plc and/or its subsidiary(-ies).

        Redistribution and use in source and binary forms, with or without
        modification, are permitted provided that the following conditions are
        met:
          * Redistributions of source code must retain the above copyright
            notice, this list of conditions and the following disclaimer.
          * Redistributions in binary form must reproduce the above copyright
            notice, this list of conditions and the following disclaimer in
            the documentation and/or other materials provided with the
            distribution.
          * Neither the name of Digia Plc and its Subsidiary(-ies) nor the names
            of its contributors may be used to endorse or promote products derived
            from this software without specific prior written permission.

        THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
        "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
        LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
        A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
        OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
        SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
        LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
        DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
        THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
        (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
        OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE."

-------------------------------------------------------------

This product includes QtService.

        Copyright (C) 2010 Nokia Corporation and/or its subsidiary(-ies).

        Redistribution and use in source and binary forms, with or without
        modification, are permitted provided that the following conditions are
        met:
          * Redistributions of source code must retain the above copyright
            notice, this list of conditions and the following disclaimer.
          * Redistributions in binary form must reproduce the above copyright
            notice, this list of conditions and the following disclaimer in
            the documentation and/or other materials provided with the
            distribution.
          * Neither the name of Nokia Corporation and its Subsidiary(-ies) nor
            the names of its contributors may be used to endorse or promote
            products derived from this software without specific prior written
            permission.

        THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
```

```
        "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
        LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
        A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
        OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
        SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
        LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
        DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
        THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
        (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
        OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

------------------------------------------------------------

This product includes QtSingleApplication.

        Copyright (C) 2010 Nokia Corporation and/or its subsidiary(-ies). All rights
 reserved.

        Redistribution and use in source and binary forms, with or without
        modification, are permitted provided that the following conditions are
        met:
          * Redistributions of source code must retain the above copyright
            notice, this list of conditions and the following disclaimer.
          * Redistributions in binary form must reproduce the above copyright
            notice, this list of conditions and the following disclaimer in
            the documentation and/or other materials provided with the
            distribution.
          * Neither the name of Nokia Corporation and its Subsidiary(-ies) nor
            the names of its contributors may be used to endorse or promote
            products derived from this software without specific prior written
            permission.

        THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
        "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
        LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
        A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT
        OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
        SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
        LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE,
        DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY
        THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT
        (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
        OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.


------------------------------------------------------------

This product includes Qt SQL driver plugin (qsqlodbc).

      Copyright (C) 1992-2008 Trolltech ASA. All rights reserved.

      Warranty Disclaimer: The Licensed Software is licensed to Licensee
      "as is". To the maximum extent permitted by applicable law, Trolltech on
      behalf of itself and its suppliers, disclaims all warranties and
      conditions, either express or implied, including, but not limited to,
      implied warranties of merchantability, fitness for a particular purpose,
      title and non-infringement with regard to the Licensed Software.

      Limitation of Liability: If, Trolltech's warranty disclaimer
      notwithstanding, Trolltech is held liable to Licensee, whether in
      contract, tort or any other legal theory, based on the Licensed
      Software, Trolltech's entire liability to Licensee and Licensee's
      exclusive remedy shall be, at Trolltech's option, either (A) return of
      the price Licensee paid for the Licensed Software, or (B) repair or
      replacement of the Licensed Software, provided Licensee returns to
      Trolltech all copies of the Licensed Software as originally delivered to
      Licensee. Trolltech shall not under any circumstances be liable to
      Licensee based on failure of the Licensed Software if the failure
      resulted from accident, abuse or misapplication, nor shall Trolltech
      under any circumstances be liable for special damages, punitive or
      exemplary damages, damages for loss of profits or interruption of
      business or for loss or corruption of data. Any award of damages from
      Trolltech to Licensee shall not exceed the total amount Licensee has
      paid to Trolltech in connection with this Agreement.

------------------------------------------------------------
```

```
This product includes QtSql.

      Copyright (c) 2009 Nokia Corporation and/or its subsidiary(-ies).

      BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO
      WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
      EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR
      OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY
      KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE
      IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
      PURPOSE.  THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE
      LIBRARY IS WITH YOU.  SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME
      THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

-------------------------------------------------------------

This product includes XMP Toolkit.

      Copyright (c) 1999 - 2010, Adobe Systems Incorporated
      All rights reserved.

      Redistribution and use in source and binary forms, with or
      without modification, are permitted provided that the following
      conditions are met:

      * Redistributions of source code must retain the above copyright notice,
      this list of conditions and the following disclaimer.
      * Redistributions in binary form must reproduce the above copyright notice,
      this list of conditions and the following disclaimer in the documentation
      and/or other materials provided with the distribution.
      * Neither the name of Adobe Systems Incorporated, nor the names of its
      contributors may be used to endorse or promote products derived from this
      software without specific prior written permission.

      THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS
      "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT
      LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
      A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR
      CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL,
      EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO,
      PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR
      PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF
      LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING
      NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS
      SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

-------------------------------------------------------------

This product includes zlib.

 (C) 1995-2017 Jean-loup Gailly and Mark Adler

  This software is provided 'as-is', without any express or implied
  warranty.  In no event will the authors be held liable for any damages
  arising from the use of this software.

  Permission is granted to anyone to use this software for any purpose,
  including commercial applications, and to alter it and redistribute it
  freely, subject to the following restrictions:

  1. The origin of this software must not be misrepresented; you must not
     claim that you wrote the original software. If you use this software
     in a product, an acknowledgment in the product documentation would be
     appreciated but is not required.
  2. Altered source versions must be plainly marked as such, and must not be
     misrepresented as being the original software.
  3. This notice may not be removed or altered from any source distribution.

  Jean-loup Gailly        Mark Adler
  jloup@gzip.org          madler@alumni.caltech.edu

-------------------------------------------------------------

This product includes ZXing C++ Library.

      -----------------------------------------------------------------------------
      NOTICES FOR C++ Big Integer Library
```

```
      ---------------------------------------------------------------------------

      I, Matt McCutchen, the sole author of the original Big Integer
      Library, waive my copyright to it, placing it in the public domain.
      The library comes with absolutely no warranty.

-------------------------------------------------------------
```

18. Copyrights

© 2020 Enfocus BV all rights reserved. Enfocus is an Esko company.

Certified PDF is a registered trademark of Enfocus BV.

Enfocus PitStop Pro, Enfocus PitStop Workgroup Manager, Enfocus PitStop Server, Enfocus Connect YOU, Enfocus Connect ALL, Enfocus Connect SEND, Enfocus StatusCheck, Enfocus CertifiedPDF.net, Enfocus PDF Workflow Suite, Enfocus Switch, Enfocus SwitchClient, Enfocus SwitchScripter and Enfocus Browser are product names of Enfocus BV.

Adobe, Acrobat, Distiller, InDesign, Illustrator, Photoshop, FrameMaker, PDFWriter, PageMaker, Adobe PDF Library™, the Adobe logo, the Acrobat logo and PostScript are trademarks of Adobe Systems Incorporated.

Datalogics, the Datalogics logo, PDF2IMG™ and DLE™ are trademarks of Datalogics, Inc.

Apple, Mac, Mac OS, Macintosh, iPad and ColorSync are trademarks of Apple Computer, Inc. registered in the U.S. and other countries. Windows and Windows Server are registered trademarks of Microsoft Corporation.

PANTONE® Colors displayed here may not match PANTONE-identified standards. Consult current PANTONE Color Publications for accurate color. PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc. ©Pantone, Inc., 2006.

OPI is a trademark of Aldus Corporation.

Quark, QuarkXPress, QuarkXTensions, XTensions and the XTensions logo among others, are trademarks of Quark, Inc. and all applicable affiliated companies, Reg. U.S. Pat. & Tm. Off. and in many other countries.

This product and use of this product is under license from Markzware under U.S.Patent No. 5,963,641.

Other brand and product names may be trademarks or registered trademarks of their respective holders. All specifications, terms and descriptions of products and services are subject to change without notice or recourse.