

**:ARKITEX QUALITY**

**IntellituneX User's Guide**

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All software and hardware described in this document are subject to change without notice.

# About This IntelliTuneX User's Guide

This IntelliTuneX User's Guide offers you a complete description of the interface and provides procedures and settings so you can work efficiently.

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**NOTE:** Starting with this release the User's Guide (CG+0955760001) is now a separate document from the Installation Guide (CG+0956920001).

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## Keyboard Conventions

All key names are shown in capital letters. For example, the Control key is shown as CTRL.

Keys are frequently used in combinations or sequences as shortcut keys. For example, SHIFT+F3 means to hold down the SHIFT key while pressing F3.

## Mouse Conventions

To...	Do this...
Click	Point to an item, and then quickly press and release the mouse button without moving the mouse.
Double-click	Point to an item, and then quickly press and release the mouse button twice.
Context-click on Windows	Click the right mouse button.
Context-click on Macintosh	Hold down the CTRL key while clicking the mouse button.
Drag	Point to an item. Press and hold down the mouse button as you move the mouse to a new location, then release the mouse button.



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# CHAPTER 1

# :Arkitex IntelliTuneX Setup

This manual is intended for qualified IntelliTuneX operators. The main focus of this Guide is the use of the IntelliTuneX client. Some server functions are also described. The IntelliTuneX operator should have sufficient permissions to access the IntelliTuneX functions covered in this Guide.

Additionally, you will see how to optimize System and User Preferences.

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# Launching IntelliTuneX

After installation an IntelliTuneX icon will appear on the desktop.

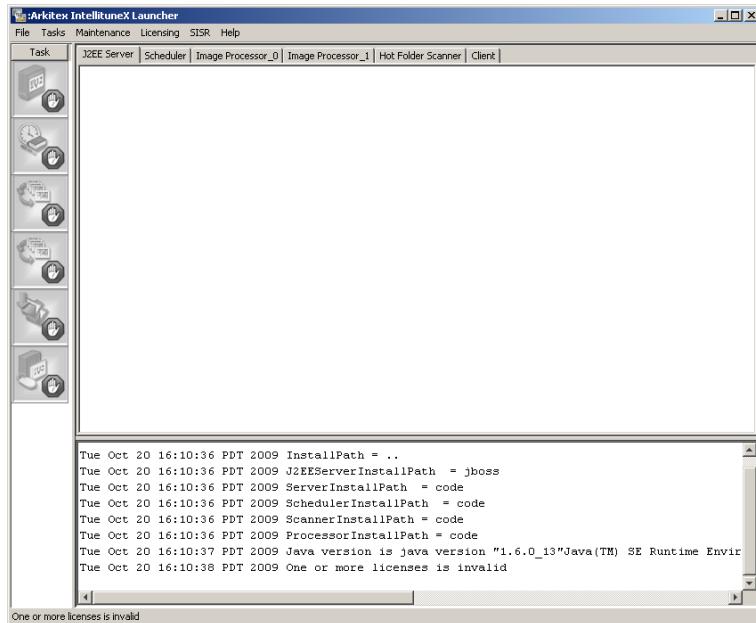
## Launch IntelliTuneX

### ► Steps

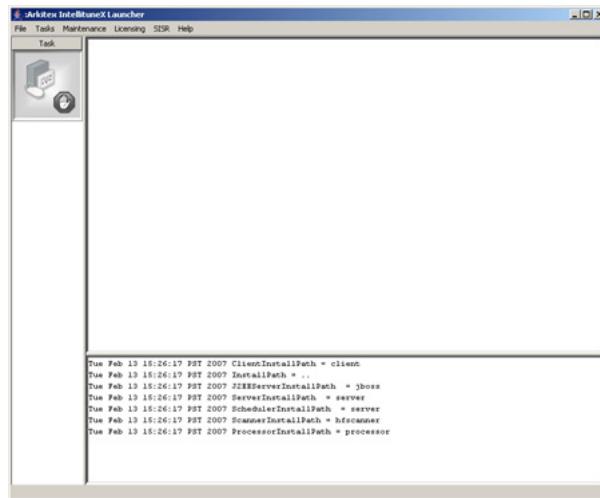
- 1 Click the IntelliTuneX icon.



- 2 The Launcher will display.



**NOTE:** If only the Client has been installed, the launcher window will look like this:



---

The time difference is 10 minutes for the client not to connect. A pop up will display.

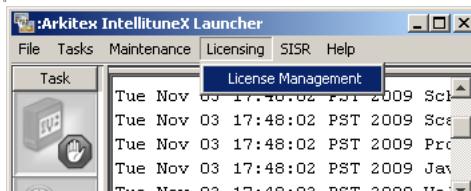


The Launcher Script is set to warn on > 600 seconds (10 minutes). This can be changed by adjusting the number TIMEDIFF\_WARNING at the start of the script.

## Load the License File

The following procedure describes how to load the IntelliTunex license file.

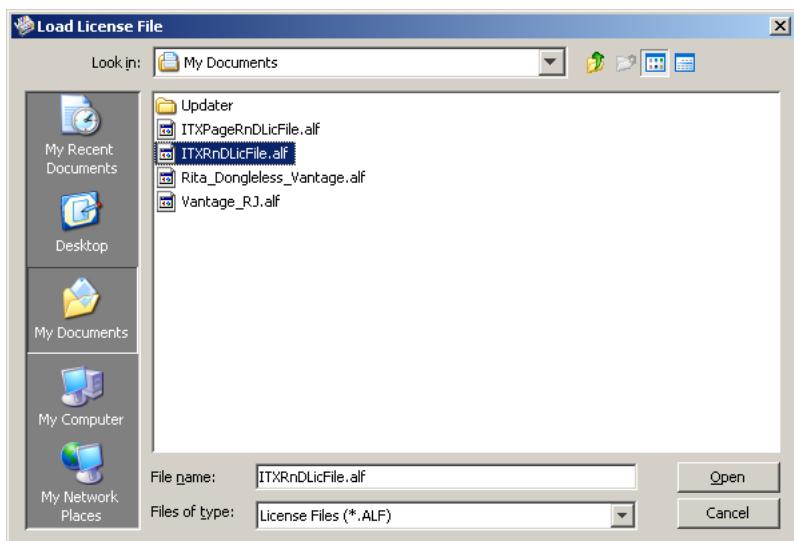
## ► Steps



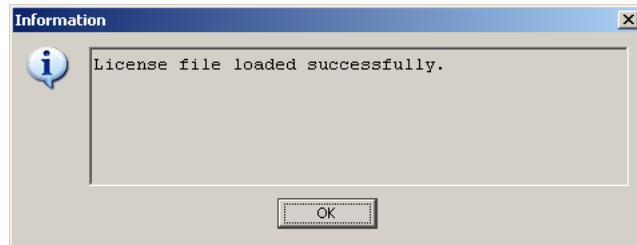
- 1 Click Licensing > License Management.



- 2 Select Load License File.
- 3 Locate the license file. It will have an \*.alf extension.



4 Click **Open**.



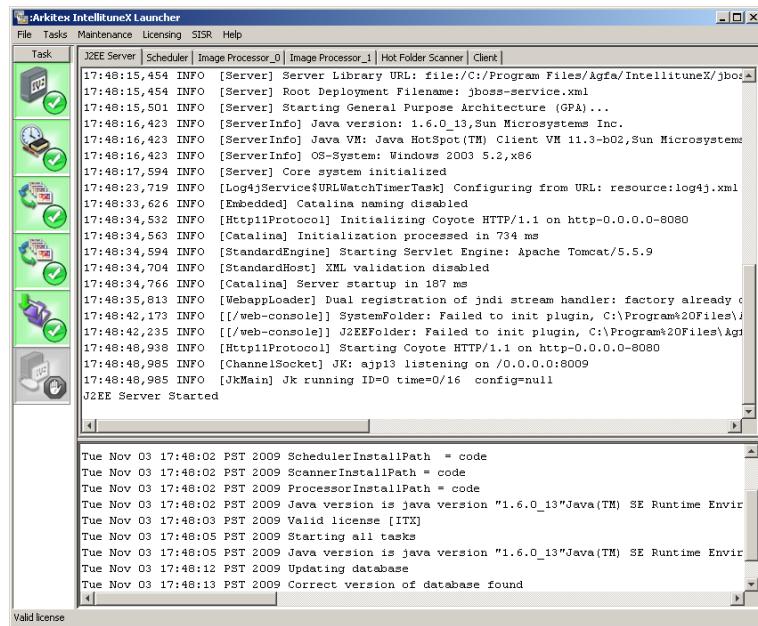
- 5 A **Confirm** message will appear. Click **OK**.
- 6 Click the “X” in the upper right-hand corner to close the License Management Utility.
- 7 To verify the license, refer to “Show License Info” on page 33.

## Start Tasks

The following procedure describes how to Start Tasks.

### ► Steps

- 1 Select **Tasks > Start All**.



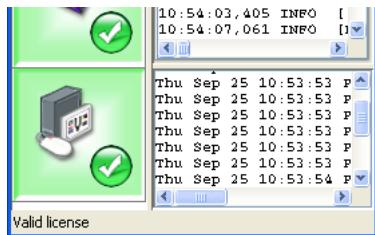
- 2 Services will start to load. You will see messages appear on the screen.

## Start the Client

The following procedure describes how to start the Client.

### ► Steps

- 1 Select Tasks > Start Client.

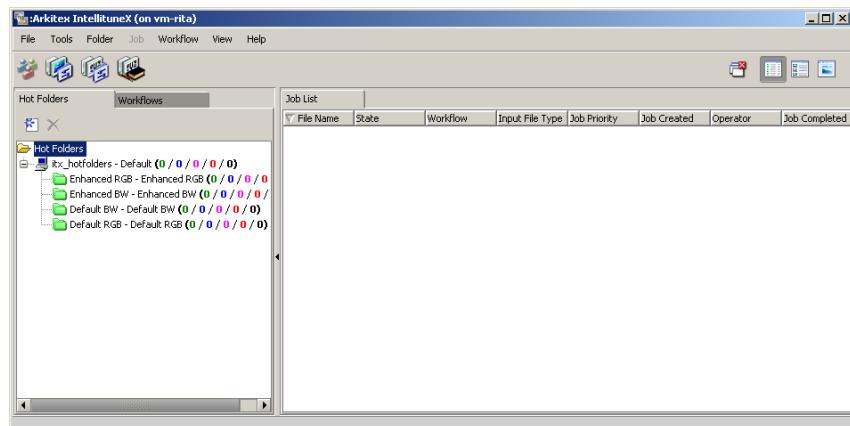


- 2 The Client service will turn green when it starts.
- 3 The logon menu will display.



- 4 Enter the **Administrator password**, and click **Login**.

The IntelliTuneX application will display.



**NOTE:** File paths in the database now reference **localhost** rather than the machine name where applicable to make it easier to move databases to different servers.

## The IntelliTunex Launcher

From the IntelliTunex Launcher you can do the following tasks:

- Set Preferences
- Start Tasks
- Perform Database Maintenance
- Load Licenses and Generate Fingerprint files
- Configure SISR (Smart Input Space Recognition)
- Check the Version Level of IntelliTunex

Menu	Options	Description
File		Refer to “Setting System Preferences” on page 43
	Preferences	Use to set the Licensing and J2EE Server hosts.
	Exit	Exits the IntelliTunex Launcher application
Tasks		Refer to “Start Tasks” on page 16
	Start All	Starts all service components.

Menu	Options	Description
	Stop All	Stops all service components.
	Start Client	Starts the Client service.
	Stop Client	Stops the Client service.
Maintenance		Refer to “Performing Database Maintenance” on page 23
	Remove Jobs And Logs	Removes jobs and system logs from the database.
	Backup Database	Backs up the database to a defined location. All tasks must be stopped before backup.
	Output Database to Text File	Exports workflows and hot folder settings to a text file.
	Restore Database	Restored the database from a pre-defined location.
	Delete Database	Deletes the database.
	ZIP Logs	The database can be backed up to a ZIP file. This will preserve all workflow and hot folder settings.
Licensing		Refer to “Licensing” on page 28
	License Management	Used to generate clean fingerprint files, finger-print files for dongle-less configurations, load the license file, and view license file information.
SISR		Refer to “SISR” on page 33
	Install ICC Profile...	Used to install ICC profiles.
	Remove ICC Profile...	Used to remove ICC profiles.
Help		Refer to “Help” on page 36
	About	Displays copyright information on IntelliTuneX including version.

## Set Preferences

Preferences control licensing and exiting Launcher.

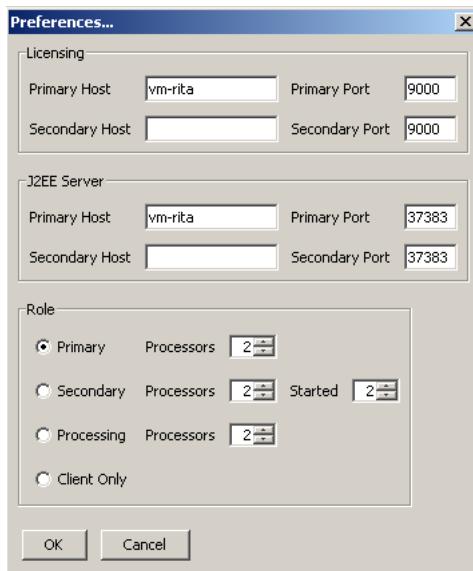
### ► To Set the Host

- 1 Select **File > Preferences** from the Launcher menu bar.



- 2 The **Preferences** dialog box will display.

**Preferences** supports primary and secondary licensing, and J2EE server set ups, as well as selecting the Role and number of Processors.



- 3 Under **Licensing** in the **Primary Host** field, enter the host ID. By default this is **localhost**.
- 4 Enter the **Primary Port**.
- 5 In the **Secondary Host** field, enter the host ID.
- 6 Enter the **Secondary Port**.

---

**NOTE:** You can point the server client away from the local server and display a different server installation. Enter the IP or host look-up name of a running IntelliTunex server (not the localhost). The client will operate fully as a remote client with the server entered in the J2EE host field.

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- 7 Under **J2EE Server**, enter the **Primary Host** field. By default this is **localhost**.
- 8 Enter the **Primary Port**.
- 9 In the **Secondary Host** field, enter the host ID.
- 10 Enter the **Secondary Port**.
- 11 Under **Role** select the Role type:
  - Primary
  - Secondary
  - Processing
  - Client Only

---

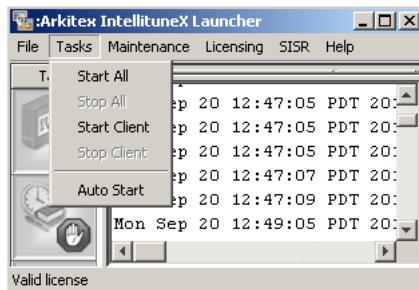
**NOTE:** The radio buttons may be grayed out depending on what software components have been installed.

---

- 12 Enter the number of **Processors** for the Primary, Secondary, or Processing roles.
- 13 Select a number under **Started**.
- 14 Click **OK** to accept the entry, or **Cancel** to exit.

## Start Tasks

**Tasks** control starting/stopping service components, auto start, and auto start client. By default when Launcher is first opened, no tasks are started.

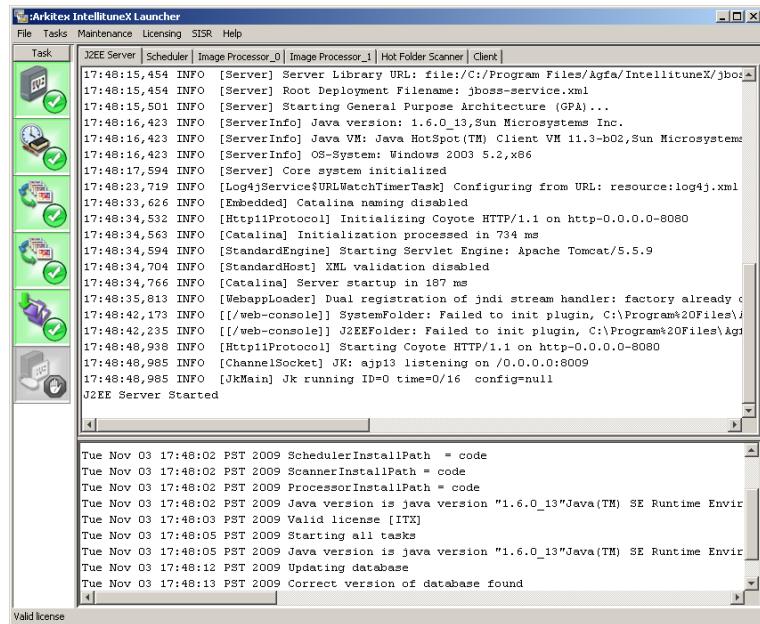


### ► Launch Service Components

- 1 Select **File > Tasks** from the Launcher menu bar.

## 2 Select Start All.

- 3 The service components will begin to start, and messages will display across the screen.

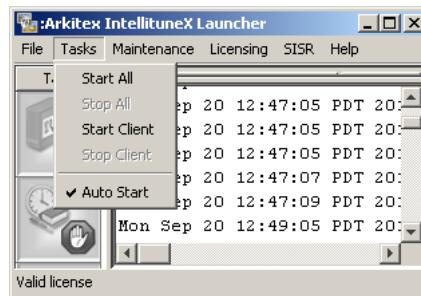


## Activating Auto Start

The following procedure describes how to activate Auto Start.

### ► Steps

- 1 To automatically start tasks when IntelliTuneX is launched, select **File > Tasks**, then select the **Auto Start** option.



- 2 When the **Tasks** menu is displayed again, this item will display with a check mark.

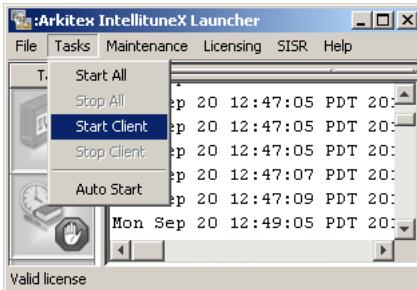
**NOTE:** The client must be restarted for these settings to work.

## Start Client

The following procedure describes how to start the client.

### ► Steps

- 1 Select **File > Tasks** from the Launcher menu bar, and select **Start Client**.



- 2 To stop the Client, select **File > Tasks**, and then select **Stop Client**.

## Stop All Service Components

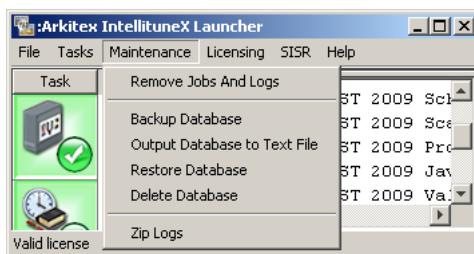
The following procedure describes how to stop all service components.

### ► Steps

- 1 Select **File > Tasks** from the Launcher menu bar.
- 2 Select **Stop All**.
- 3 The service components will be grayed out as they are stopped.

## Performing Database Maintenance

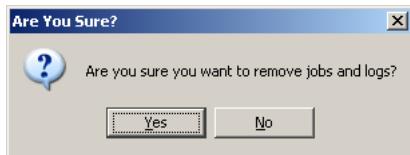
When all the service components have been stopped, clicking **File > Maintenance** brings up the following selections:



<b>Remove Jobs And Logs</b>	Jobs and Log files will be removed.
<b>Backup Database</b>	The database will be backed up as a ZIP file to a location of your choice.  The database should be minimal with the least amount of jobs possible in the least amount of Completed jobs in the server's job history. The purpose is to restore the workflow.  <b>CAUTION:</b> No extra files should be placed in the hypersonic folder. Extra files placed in this folder will cause the Launcher to error with duplicate entries.  <b>C:\Program Files\AGFA\IntellituneX\jboss\server\default\data\hypersonic</b>
<b>Output Database to Text File</b>	The workflow and hot folder settings will be output to a text file.
<b>Restore Database</b>	The database will be restored from the backup location.  To restore a database (from a previous backup, or an Agfa supplied ZIP), use the <b>Maintenance &gt; Restore Database</b> menu in the Launcher while IntelliTuneX is shutdown. Follow this with <b>Maintenance &gt; Remove Jobs and Logs</b> before starting IntelliTuneX up.  A database saved from one PC can be restored onto a different PC.  <b>CAUTION:</b> The Root Folders that a user can create as an input or parent input folder are not restored by the DB restore action. Root Folders must be manually created and manually shared with all Permissions for Everyone set to Allow ON.
<b>Delete Database</b>	The database will be deleted. You will be prompted to backup the database prior to deletion.
<b>ZIP Logs</b>	The database can be backed up to a ZIP file using the <b>Maintenance &gt; Backup Database</b> menu in the Launcher while IntelliTuneX is shutdown. This will preserve all workflow and hot folder settings.  To minimize ZIP file size, make a backup when there are not many jobs in the system.

## ► Remove Jobs And Logs

- 1 Click Remove Jobs And Logs.

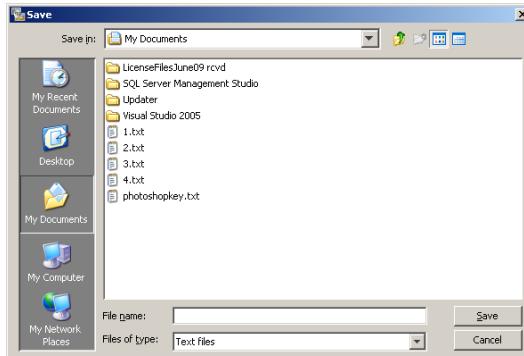


A warning message will display.

- Click **Yes** to remove Jobs and Logs.
- Click **No** to cancel.

## ► Output Database to Text File

- 1 Click **Output Database to Text File**.
- 2 A **Save** dialog box will display.

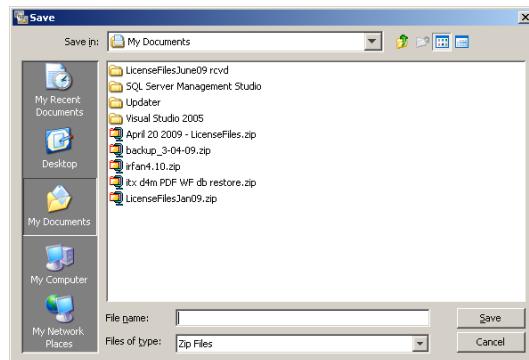


- 3 Choose the folder location in the **Save In** box and the **File name** for the backup.
- 4 Click **Save**.

## ► Backup Database

- 1 Click **Backup Database**.

2 A **Save** dialog box will display.



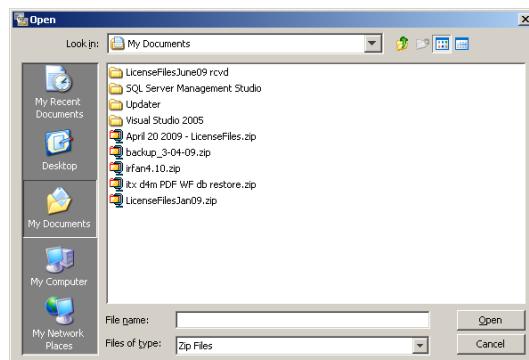
3 Choose the folder location in the **Save In** box and the **File name** for the backup.

4 Click **Save**.

#### ► **Restore Database**

1 Click **Restore Database**.

2 A **Open** dialog box will display.



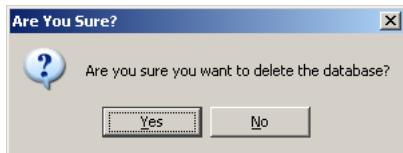
3 Choose the folder location in the **Look In** box and the **File name** of the database to restore.

4 Click **Open**.

#### ► **Delete Database**

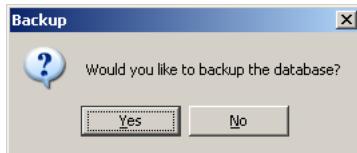
1 Select **Delete Database**.

A prompt will display asking if you are sure.



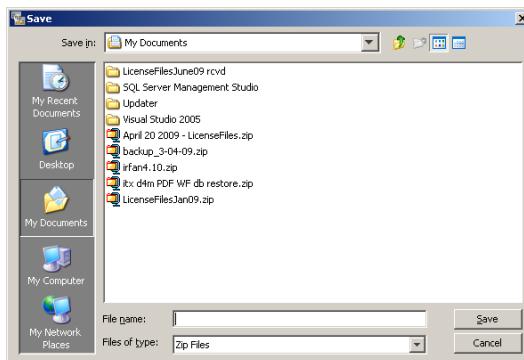
**2 Click Yes.**

A prompt displays asking if you want to backup the database.



**3 Click Yes.**

**4 A Save dialog displays.**



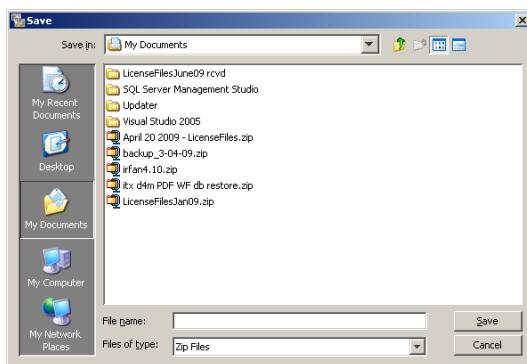
**5 Select the location for the backup.**

**6 Click Save.**

**▷ ZIP Logs**

**1 Click ZIP Logs.**

**2 A Save dialog box will display.**



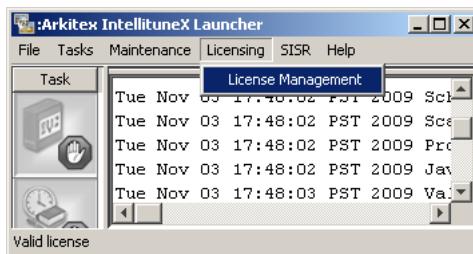
3 Enter the file name.

4 Click **Save**.

## Licensing

Before using IntelliTuneX, load the license file.

### ► Load License File

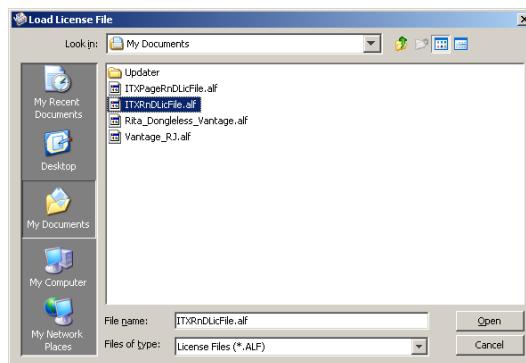


1 Click **Licensing > License Management**.

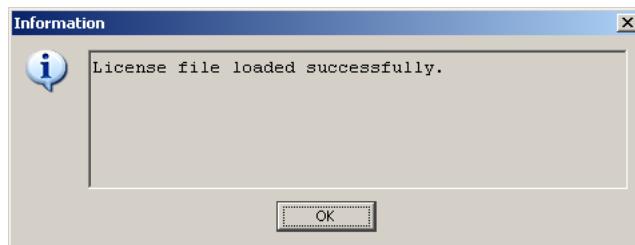


2 Select Load License File.

3 Locate the license file. It will have an \*.alf extension.



4 Click Open.



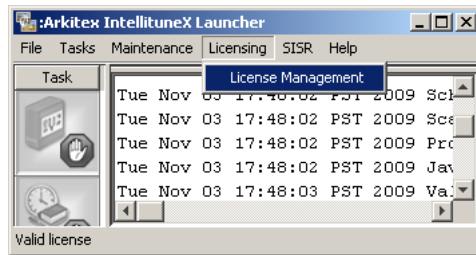
5 A Confirm message will appear. Click OK.

6 Click the “X” in the upper right-hand corner to close the License Management Utility.

## ► Generate Clean Fingerprint File

**CAUTION:** If a clean fingerprint file is created, you will be resetting the license state to Null. A valid license must be reinstalled after using Clean Fingerprint File.

### 1 Launch the IntelliTuneX application.



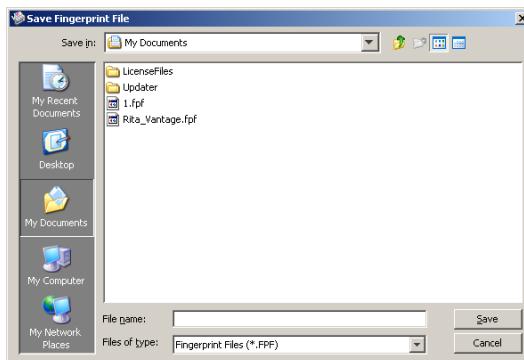
### 2 From the Menu bar select **Licensing > License Management**.



### 3 Select **Clean**.

### 4 Select **Platform Key**.

### 5 Click **Generate**. A clean fingerprint file deletes the license file, which must be reloaded.



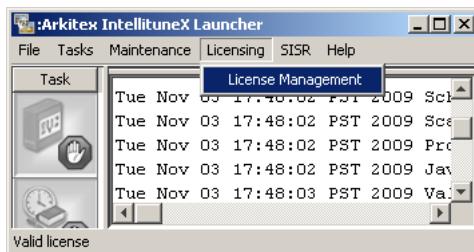
- 6 When prompted enter a file name (e.g., Customer name or Server name) and an extension of fpf (i.e., FT.fpif) to generate the Finger Print File. Click **Save**.



- 7 At the Fingerprint generated successfully message, click **OK**.
- 8 Click the “X” in the upper right-hand corner to close the License Management Utility.

**NOTE:** You will have to reload the license file.

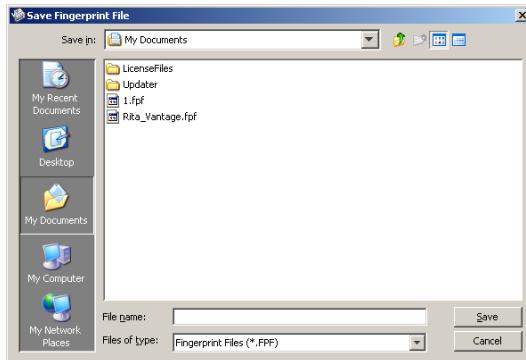
#### ► Generate Fingerprint for dongle-less configuration



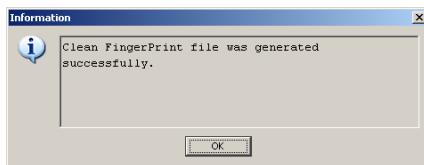
- 1 From the Menu bar select **Licensing > License Management**.



- 2 Select **Clean** and **Dongle** for a dongle-less configuration.
- 3 Click **Generate**. A clean fingerprint file deletes the license file, which must be reloaded.



- 4 When prompted enter a file name (e.g., Customer name or Server name) and an extension of fpf (i.e., FT.fpf) to generate the Finger Print File. Click **Save**.

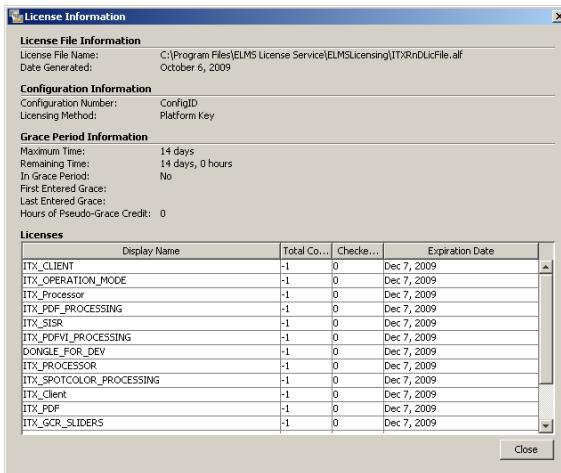


- 5 At the Fingerprint generated successfully message, click **OK**.
- 6 Click the “X” in the upper right-hand corner to close the License Management Utility.

**NOTE:** You will have to reload the license file.

### ► Show License Info

- 1 Select License > License Management.
- 2 To confirm the license information, click **View License Info**.



- 3 Click **Close**.
- 4 Click the “X” in the upper right-hand corner to close the License Management Utility.

## SISR

SISR profiles are installed using the **SISR Install** and **Remove** menu items on the launcher. The relevant menu items will only be visible if a processor is installed. Only profiles that have been installed in the system ICC profile folder should be used.

The following \*.icc profiles are installed with the IntelliTuneX software.

- AdobeRGB1998.icc
- Generic Gray Profile.icc
- Generic Lab Profile.icc
- IntelliTune\_gray\_26v1.icc
- IntelliTune\_gray\_30v1.icc

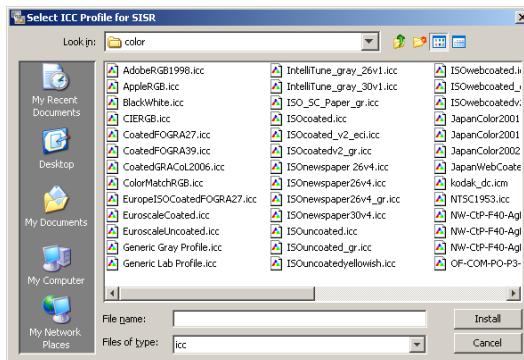
- kodak\_dc.icm
- NW-CtP-F40-Agfa-Default.icc
- NW-CtP-F40-Agfa-GCR.icc
- NW-CtP-F40-Agfa.icc
- OF-COM-PO-P3-WB-Agfa.icc
- SNAP.icc
- SNAPnewspaper\_gr.icc
- sRGB Color Space Profile.icm
- StandardWorkingSpaceProfile.icc
- USSheetfedCoated.icc
- USWebCoatedSWOP.icc
- USWebCoatedSWOP\_gr.icc
- USWebUncoated.icc
- ISOcoated.icc
- ISOcoatedv2\_gr.icc
- ISOcoated\_v2\_eci.icc
- ISOnewspaper26v4.icc
- ISOnewspaper26v4\_gr.icc
- ISOnewspaper30v4.icc
- ISOuncoated.icc
- ISOuncoatedyellowish.icc
- ISOuncoated\_gr.icc
- ISOwebcoated.icc

- ISOwebcoatedv2\_gr.icc
- ISOwebcoated\_gr.icc
- ISO\_SC\_Paper\_gr.icc

#### ▷ **Install ICC Profile**

When the **Install ICC Profile** menu item is selected, the contents of the system ICC Profile folder will be displayed. Profiles can be selected from the list and installed to the processor SISR folder using the **Install** button.

**1** Select **Install ICC Profile** from the menu.



**2** Select the **ICC Profile** from the list.

**NOTE:** Multiple selections can be made, and the user will be warned if a profile already exists in the destination folder. Only CMYK profiles should be selected for install.

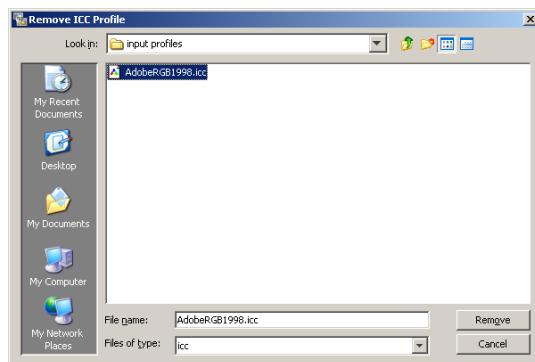
**3** Click **Install**.

**NOTE:** It is important to manually synchronize all the profiles used on the server and all remote clients. If these are not present on the remote client, then the remote client will not display Job Edit source/result views correctly, or fail to display them at all.

#### ▷ **Remove ICC Profile**

When the **Remove ICC Profile** menu item is selected, the contents of the processor SISR profile folder will be displayed. Select profiles from the list and remove using the **Remove** button.

- 1 Select **Remove ICC Profile** from the menu.



**NOTE:** Multiple selections can be made for removal.

- 2 Select the ICC Profile to be removed.
- 3 Click **Remove**.
- 4 A prompt will appear asking you to confirm the removal.



- Click **Yes** to confirm.
  - Click **No** to cancel.
- 5 Click **Cancel** to cancel the operation.

## Help

Help displays information about the IntelliTuneX Launcher.

### ► To Launch Help

- 1 Click **File > Help** and select **About**.
- 2 The **About** dialog box will display.



The version and copyright information displays.

- 3 Click **OK** to close the dialog box.

## Changing Users and Passwords

User Administration allows for the maintenance of users, their login details, and their capability levels.

The functions are accessed by clicking the User Administration toolbar button, or its menu item. This brings up a dialog box like the following for users who have full administrative privileges. This dialog allows users to be added, deleted, and updated.

### Enabling the Administration Functions

Initially all functions are disabled. To enable them, you must enter your current login password in the top entry box. As soon as this is correct, then the **Update** and **Delete** buttons become enabled. This is designed to prevent unintended user changes if a client is left logged in unattended.

### Add a New User

To add a new user type in a new name into the Username entry box. As soon as the name is different from that shown in the current user selector, then the **Add** user button is enabled, and the **Delete** and **Update** buttons are disabled.

Complete the New user's details by entering and confirming the password, and by selecting the privilege level.

Click the **New User** button, and the New user will be created and appear on the list of current users. A confirmation message will appear in the message line at the bottom.

### Update an Existing User

To update a current user, select the user with the Current users' selector. The **Delete** and **Update** buttons are enabled.

You may update the password and the privilege level. If you just want to change the level, then leave the password entry boxes blank; and only the level will be updated.

---

**NOTE:** The user called Administrator cannot have the privilege level changed.

---

Press the **Update User** button, and the user will be updated. A confirmation message appears in the message line at the bottom.

## Delete an Existing User

To delete an existing user, select the user from the list of current users, and press the **Delete** user button. A confirmation box will appear. Click **Yes** to proceed with the deletion.

## Non-Administrative Users

If a user with non-administrative rights logs in and enters User Administration, then a simplified administration dialog is used. It operates in an identical fashion to the administrator, except that only updates of the logged-in user's password may be performed.

## Permission Levels

Four permission levels are available with Administrator permission: Administrator, Level 1, Level 2, and Level 3.

The Administrator level allows you to:

- Create new users
- Delete users
- Assign and change levels, logins, and passwords

Level 1 allows you to:

- Create and edit set up parameters
- Create hot folders

Level 2 allows you to:

- Select different pre-defined setups and resubmit (i.e., change image settings without being able to edit setups)
- Perform interactive edit

- Edit User Preferences

---

**NOTE:** Editing of Hot Folder Settings is not allowed for level 2 users.

---

Level 3 allows you to:

- Open images
- View images
- Approve/unapprove images
- Accept/reject images
- Edit User Preferences

---

**NOTE:** Editing of Hot Folder Settings is not allowed for level 3 users.

---

► **To Add a New User**

- 1 Choose **Tools > User Administration**, or click the User Administration tool.



The following window appears.



- 2 Enter the Administrator password. the **Delete User** and **Update User** controls will activate.



- 3 Clear the **Username** field. The **Access Level** dropdown will activate.
- 4 Select an Access Level.
- 5 Enter the **Username** and **Password**. Enter the password again in the **Confirm New Password** field.

**CAUTION:** The password must be 6 characters or longer.

- 6 Click the **New User** control.



- 7 A "User added successfully" message will display, and the new user will appear in the **User dropdown** list.

8 Click Close.

#### ► To Delete a User

1 Enter the **Administrator** password.



- 2 Select the user from the **Current Users** dropdown list.  
3 Click the **Delete User** control.

---

**NOTE:** The user Administrator cannot be deleted.

---

- 4 A confirmation box will display.



- 5 Choose **Yes** to delete the user.

---

**NOTE:** The user name is removed from the **Current Users** dropdown list.

---

#### ► To Change a Password

- 1 Enter the **Administrator** password.  
2 Select the user from the **Current User** dropdown list.



- 3 Enter the new password in the **New Password** field.
- 4 Confirm the password in the **Confirm New Password** field.
- 5 Click the **Update User** control.
- 6 Click **Close** to close **User Administration**.

#### ► To Change the Administrator Password

You can only change the password, not the access level for Administrator.

- 1 Enter the **Administrator** password.



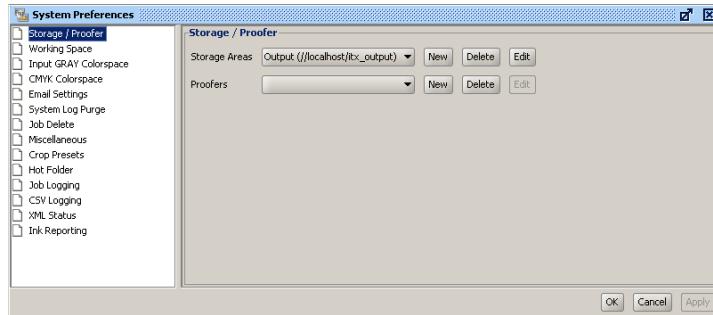
- 2 Enter the new password in the **New Password** field.

- 3 Confirm the password in the **Confirm New Password** field.
- 4 Click the **Update User** control.

**NOTE:** A “User updated successfully” message will display.

- 5 Click **Close** to close **User Administration**.

## Setting System Preferences



**NOTE:** Users can access System Preferences, but not change them without the right privilege.

System Preferences settings affect all workflows globally. You can configure the following parameters:

**Storage / Proofer** Hard proofer input (watch) folders can be configured. The target folder must be created using the standard Windows procedure. A browser button in **Create Proofer** and **Edit Proofer** dialogs are used to point to the input folder. If the input folder exists on a network share, the Windows folder must be shared with open permissions.

**NOTE:** Entering the input folder path manually may not create the folder correctly in this build version.

You can create storage areas to hold output by defining the Name and Share of the storage area.

**Working Space** You can browse for the correct colorspace profile. Image processing is done in the RGB colorspace. Images in different digital formats and quality levels need

uniform RGB colorspace. This uniform colorspace is called the RGB working space.

#### **Input GRAY Colorspace Preferences**

You can tag images with a default GRAY profile if they do not have an embedded profile. If you select this option, specify the rendering intent, which can be the default rendering intent (i.e, the rendering intent as specified in the default GRAY profile, or a specific rendering intent: perceptual, saturation, relative colorimetric, absolute colorimetric, or restore dynamic range).

#### **Input CMYK Colorspace Preferences**

You can tag images with a default CMYK profile if they do not have an embedded profile. If you select this option, specify the rendering intent, which can be the default rendering intent (i.e, the rendering intent as specified in the default CMYK profile, or a specific rendering intent: perceptual, saturation, relative colorimetric, absolute colorimetric, or restore dynamic range). You can select a user-specified profile and intent for CMYK values.

#### **Email Settings**

You can define an Email host, specify username and password, and the IP address. When Alert on Error is set in the post-process operation, an email will be sent to the specified email address to alert the user of the job status.

#### **System Log Purge Preferences**

The System Log can be deleted at a specified time by day, hour, or minutes.

#### **Job Delete Preferences**

Jobs can be deleted at a specified time limit by day, hour, or minute. The default is off.

Which Jobs are eligible for purging is determined **Time Limit** and **Time Of Day**.

---

**NOTE:** Time Of Day is used to select which Jobs to Purge. It is NOT a scheduled time when purging takes place. Purging is always happening continuously as described above.

---

If the **Time Limit** mode is used, a Job becomes available for purging when it has "completed" more than x time ago (where x is determined by the settings). This provides for a continuous purging cycle where jobs are there for a defined amount of time.

If **Time Of Day** mode is used, a Job becomes available for purging when it completed BEFORE the last configured Time Of Day setting. This provides for clearing out material on a daily cycle. If this has been set to 03:00 in the morning, at 02:00 AM the expiry limit is 03:00 of the day before. If it is now 04:00, the expiry is 03:00 of the same day. The purge operation is not actually scheduled for 03:00, as it takes place continuously.

However if the scheduler is active at 03:00, then a new days worth of purgeable jobs becomes available and should start purging at the rate and interval determined by the **scheduler.properties** file. If the scheduler is not active at this time, the purgeable jobs will start purging as soon as the scheduler is activated; they do NOT wait for the next 03:00 time. If the server is reactivated at the start of production, it may well have a backlog of purgeable jobs.

<b>Miscellaneous</b>	Preferences can be set to control “warning when scale is more than” message, file sync intervals, image processing timeout, “skip PDF if image count is more than”, enabling external PDF rendering, processor message timeouts, thumbnail size, PDF processing timeouts, Render timeouts, External PDF render method, and enabling advanced debugging.
<b>Crop Presets</b>	You can crop images by creating crop presets.
<b>Hot Folder</b>	Preferences can be set for processing files in hot folders: Scan period, Stability count, Notification frequency, and Max files per scan.
<b>Job Logging</b>	You can control the location of job logs and allow them to be produced automatically. A log purge setting is used to remove old logs.
<hr/>	
<b>NOTE:</b> In a multiple client environment, if one client updates System Preferences, the other clients must be restarted to see the change.	
<b>CSV Logging</b>	Used for generating raw event data from the main application in CSV format compatible with Analyst, LogViewer and Excel. This feature is enabled by ticking the CSV Log Enabled checkbox.
<b>XML Status</b>	Used for maintaining the status of the application and its current Jobs in XML format compatible with integrating with other Arkitex workflow products including Producer, Portal and Vantage. This feature is enabled by ticking the XML Status Enabled checkbox.
<b>Ink Reporting</b>	This controls how Ink reporting data is exported to other applications. It only applies to workflows that have ink reporting active.

<b>Proofer</b>	The list of proofers is configured to define new proofers, edit existing proofers, or delete existing proofers.  The Proofers element shows the logical name followed by the UNC path associated with it.  New, Edit, and Delete buttons allow the user to add a new proofer item, edit the properties of an existing item, or delete the currently selected item.
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This allows the entry of the Name of the Proofer, and then to browse or enter the UNC path where files will be sent when this Proofer is invoked.

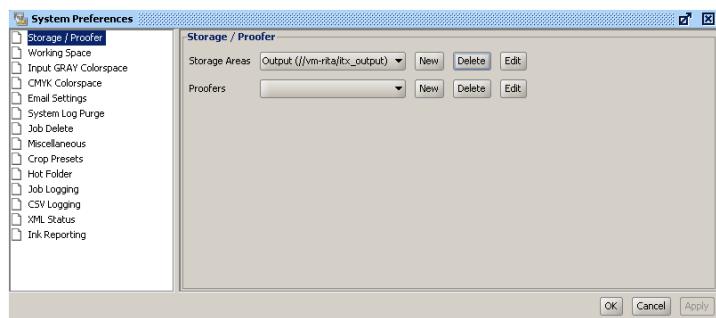
## ► To Configure System Preferences

- 1 Choose **Tools > System Preferences**, or click the **System Preferences** tool.



The System Preferences display opens at **Storage / Proofer**.

- 2 Select **Storage / Proofer**.



- 3 To add a storage area, click **New**.



- 4 The **Create Storage Area** dialog opens.

- 5 Enter the **Share**, **Host**, and **File Name** fields.

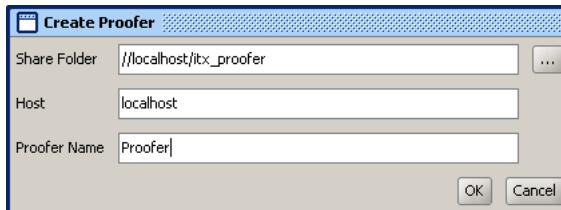
- **Share** - Folder

**Host** - The host field can be refilled by the value from the Share field if the value is //hostname, or \\hostname, or browsing from network.

**File Name** - Storage area name.

**6** Click **OK**.

**7** To add a proofer, click **New**.



**8** Enter the **Share Folder**, **Host**, and **Proofer Name** fields.

**Share Folder** - Folder

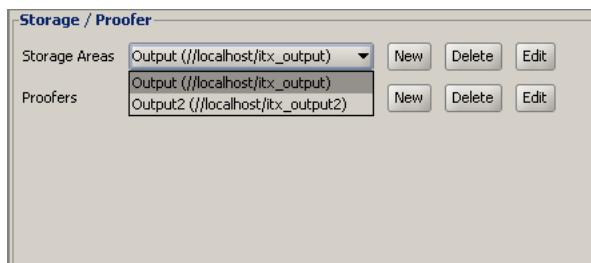
**Host** - The host field can be refilled by the value from the Share field if the value is //hostname, or \\hostname, or browsing from network.

**Proofer Name** - Proofer area name.

**9** Click **OK**.

#### ▷ Delete Storage Area

**10** Select a storage area from the dropdown list.



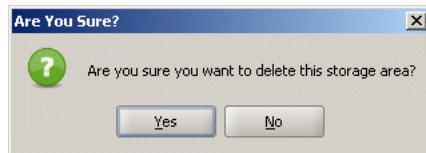
**11** Click **Delete**.

**12** A warning displays.

---

**NOTE:** The Edit button is disabled if there are no items in the list.

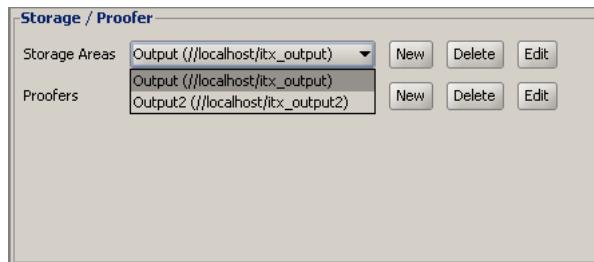
---



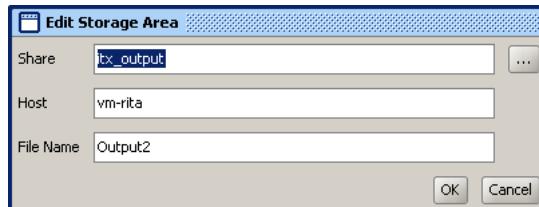
13 Click Yes.

#### ► Edit Storage Area

1 Select a storage area from the dropdown list.



2 Click Edit.



3 Edit the Share, Host, and File Name fields, and click OK.

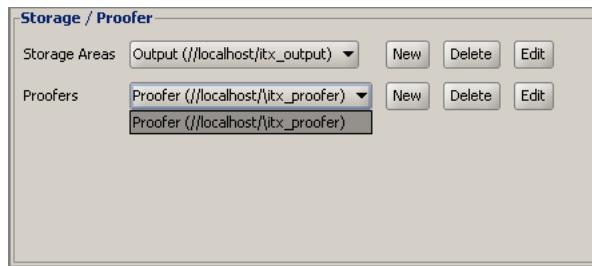
---

**NOTE:** The Edit button is disabled if there are no items in the list.

---

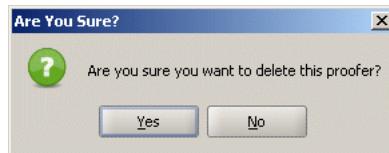
#### ► Delete Proofer Area

1 Select a proofer area from the dropdown list.



2 Click **Delete**.

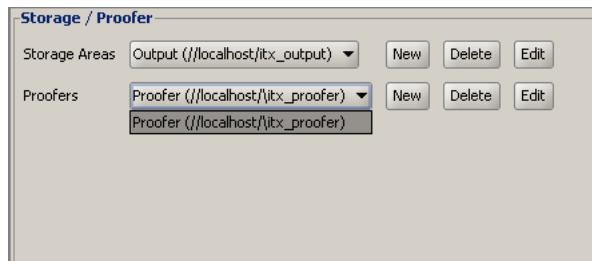
3 A warning displays.



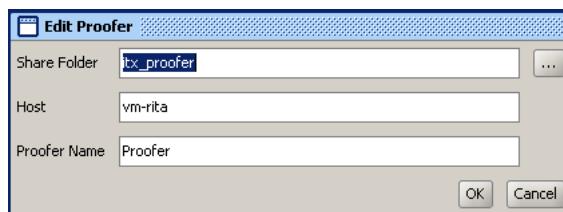
4 Click **Yes**.

#### ▷ Edit Proofer Area

5 Select a proofer area from the dropdown list.



6 Click **Edit**.

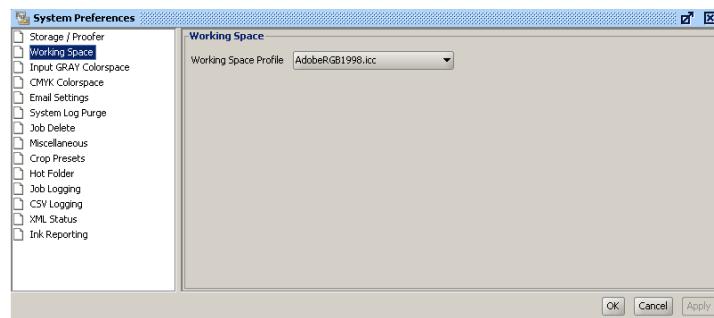


7 Edit the Share Folder, Host, and Proofer Name fields, and click **OK**.

**NOTE:** The Edit button is disabled if there are no items in the list.

## ► Working Space

- 1 Select Working Space.
- 2 Choose a profile from Working Space Profile.



## ► Input GRAY Colorspace Preferences

- 1 Select Input GRAY Colorspace Preferences.



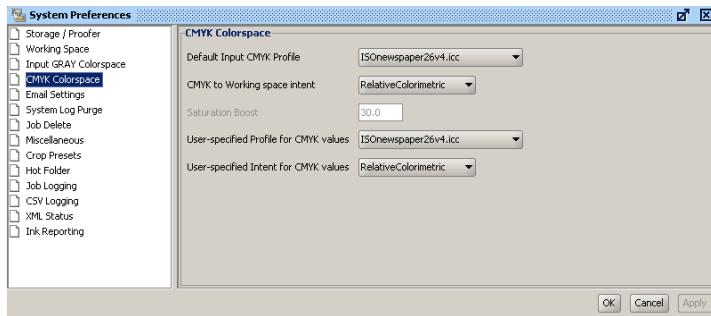
- 2 Select a profile from the Default Input GRAY Profile list.



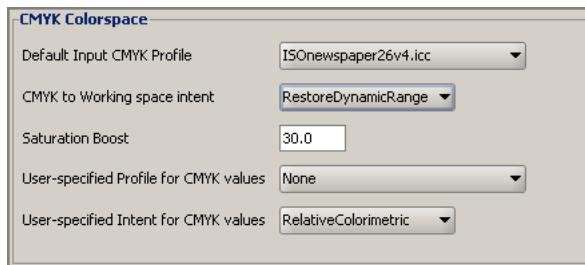
- 3 Select a rendering intent from the GRAY to Working Space intent that is best suited for the images.

## ► Input CMYK Colorspace Preferences

### 1 Select Input CMYK Colorspace Preferences.



- 2 Select a profile from the **Default Input CMYK Profile** list.
- 3 Select a rendering intent from the **CMYK to Working Space intent** that is best suited for the images.

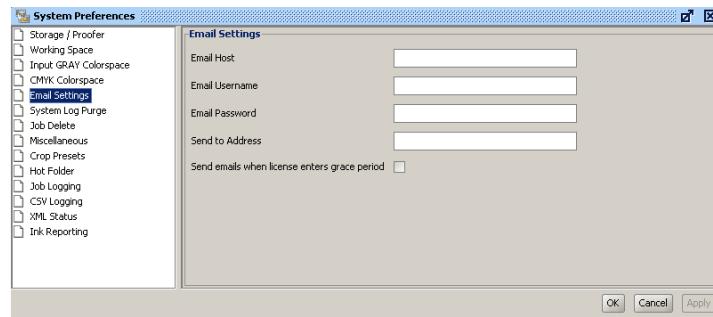


- 4 The **Saturation Boost** value is preset to 30.0. To change this value, you must select **RestoreDynamicRange** from the **CMYK to Working space intent** list.
- 5 **User-Specified Profile for CMYK values** and **User-Specified Intent for CMYK values** are typically used in an RGB workflow. The CMYK profile and rendering intent can be selected. They are used to display the CMYK values in job editing.

---

**NOTE:** If the user selects None from the list of available profiles, no CMYK values will be displayed.

## Email Settings

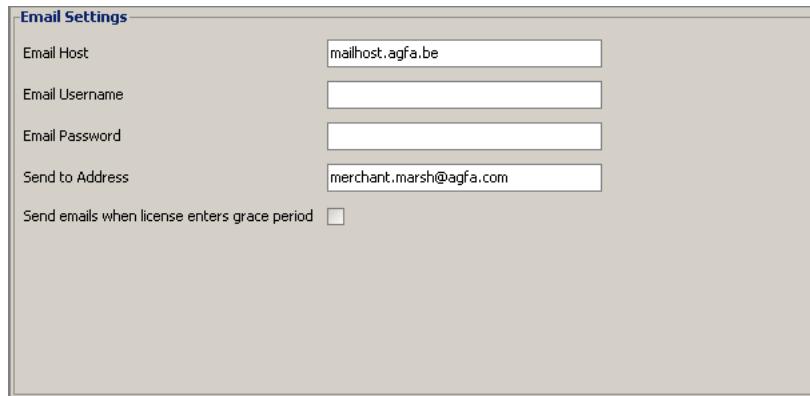


**Email Host** SMTP host name.

**Email Username** Site specific.

**Email Password** Site specific.

**Send to Address** Email address where messages will be sent.



1 Select **Email Settings**.

2 Enter the following information:

**Email Host** - SMTP host name

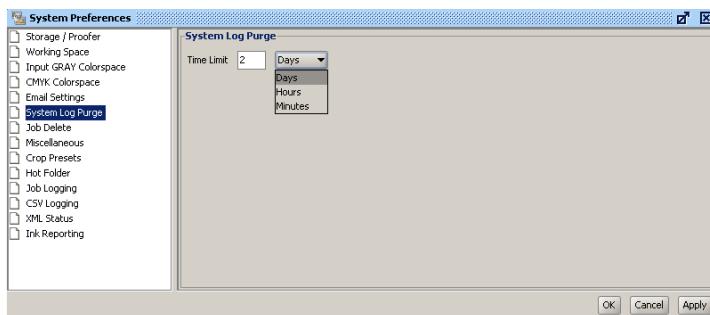
**Email Username** - Site specific

**Email Password** - Site specific

**Send to Address** - Email address where messages will be sent

3 Check **Send emails when license enters grace period** to send an email alert when the grace period has been entered.

## System Log Purge



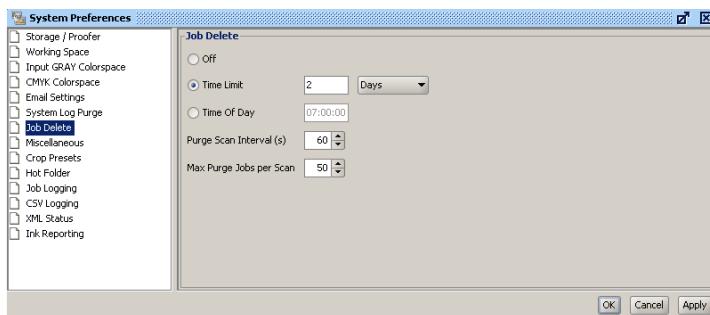
**Time Limit** By default **Time Limit** is set to a value of 2 Days.

**NOTE:** **Time Limit** can have a value set to Days, Hours, or Minutes.

## Job Delete Preferences

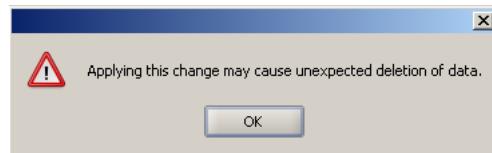
This panel defines the strategy for removing Jobs which are completed or have failed.

The purging strategy may be set to Off, Time Limit, or Time of Day. If it is set to time limit, then Jobs which completed will be removed as soon as the time limit interval from when they completed has past. If it is set to Time of Day, then Jobs which completed before the time of day set up will be removed from the system. This effectively means that Jobs will get purged shortly after this time of day every day.



**Off** Disables job deletion.

By default **Off** is enabled. If you select an option, a warning message will display.



Click **OK** to clear the message.

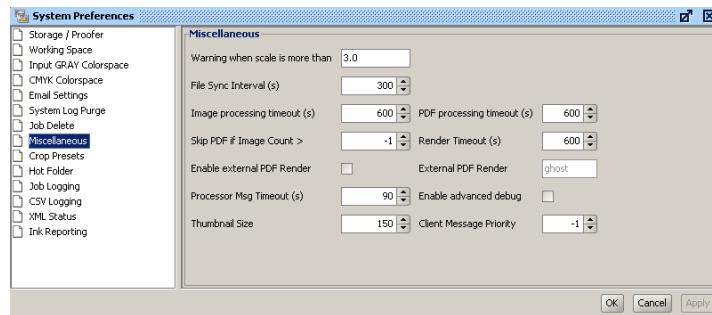
**Time Limit** can have a value set to Days, Hours, or Minutes.

**Time Of Day** The **Time Of Day** is set in <hh:mm:ss>.

**Purge Scan Interval (s)** Purge Scan Interval (s) sets the interval at which Job purging is checked for new Jobs to purge.

**Max Purge Jobs per Scan** Max Purge Jobs per Scan sets the maximum number of Jobs to purge in any one interval and may be used to spread out purging large numbers of Jobs to reduce impact on performance if production is active.

## Miscellaneous



**Warning when scale is more than** Enter a **value** to display a warning if the scale exceeds the entered value.

**File Sync Interval (s)** File Sync Interval (s) configures the interval at which a Primary server will synchronize its database and active file set over to a Secondary server in a Primary / Secondary configuration. Use a low value to keep the two servers in tight synchronization and minimize any data loss if failure occurs between sync intervals. Use a larger value to minimize impact on performance.

**Image processing timeout (s)** Image processing timeout (s) Sets the maximum time that the Application will wait for an image to be processed. This is a safety mechanism that allows any rogue image files which are causing processing problems to be aborted automatically rather than tying up resources.

<b>PDF processing timeout (s)</b>	PDF processing timeout (s) Sets the maximum time that the Application will wait for a PDF file to be processed. This is a safety mechanism that allows any rogue image files which are causing processing problems to be aborted automatically rather than tying up resources.
<b>Skip PDF if Image Count &gt;</b>	Skip PDF if Image Count > Sets an image count which will cause a PDF to skip processing if this is exceeded. Some PDFs may contain large numbers of tiny images which are very time consuming and inappropriate to process. A value of -1 means that no PDFs will be skipped. If one could encounter PDFs with say 10000 images then one can use this control to skip that type of PDF.
<b>Render Timeout (s)</b>	Render Timeout (s) Sets the maximum time that the Application will wait for a PDF file to be rendered to softproof. This is a safety mechanism that allows any rogue image files which are causing processing problems to be aborted automatically rather than tying up resources.

## External Rendering

System preferences control two alternative External rendering options: Ghostscript or folder-based RIPS, including Grafix RIPS. These may give higher performance; and it may be useful to use the same RIPS as will eventually be used to render the PDFs downstream.

A system preference selects the external render option and a parameter associated with it.

The external rendering is controlled by a vbs script. This will select Ghostscript or folder-based RIP operation. For Ghostscript it will invoke the RIP function directly. For folder-based RIPS it will direct the PDF to be rendered to one of a number of configured folders at preset resolutions and colorspace. It will collect the resulting file and signal the application that the rendering is complete.

---

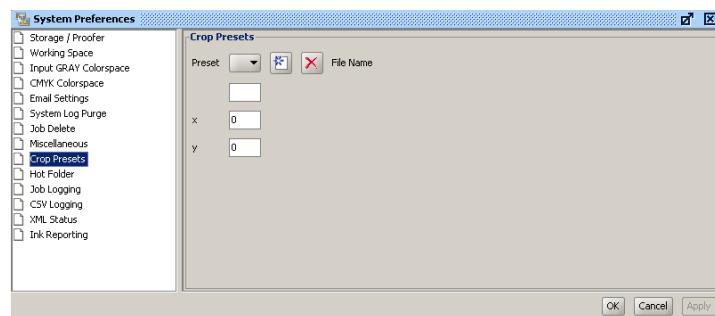
**NOTE:** Refer to “IntelliTuneX / OptiInk Scripting” on page 365.

---

<b>Enable external PDF Render</b>	Enable external PDF Render.
<b>External PDF Render</b>	Processor Msg Timeout (s) Sets the maximum time a module will wait for an internal message to be processed and acknowledged before repeating the message. This is a safety mechanism to make the system more resilient if any messages get lost.
<b>Processor Msg Timeout (s)</b>	Processor Msg Timeout (s) Sets the maximum time a module will wait for an internal message to be processed and acknowledged before repeating the message. This is a safety mechanism to make the system more resilient if any messages get lost.

<b>Enable advanced debug</b>	Debug files are renamed <b>Enable Advance Debug</b> and are now also used to enable previous scheduler trace messages. By default with this control off, they are hidden. This should only be turned on for debug purposes, not for production.
	Used to turn on more verbose logging for debug purposes and capture internal XML job descriptions. Do not turn on for normal use.
<b>Thumbnail Size</b>	Thumbnail Size controls the basic size at which thumbnails will be generated. If larger thumbnails are to be used in the clients then they can become pixelated when upscaled. Increasing the raw thumbnail size will improve this. It should not be increased unnecessarily as it will increase system load and file sizes. Range is 50 to 300.
<b>Client Message Priority</b>	This allows giving extra priority to handling client messages. Higher values mean the scheduler handles more client messages per cycle. The special value -1 means that the priority is automatically raised as more clients log in (default setting).

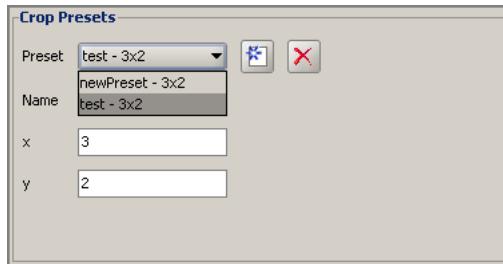
## Crop Presets



- 1 To create a new crop preset, enter a **Name** for the Preset.
- 2 Change the **X** and **Y** coordinates as necessary.
- 3 Click the **New** button.



- 4 The new preset will appear in the **Preset** list.



### ► Delete a Preset

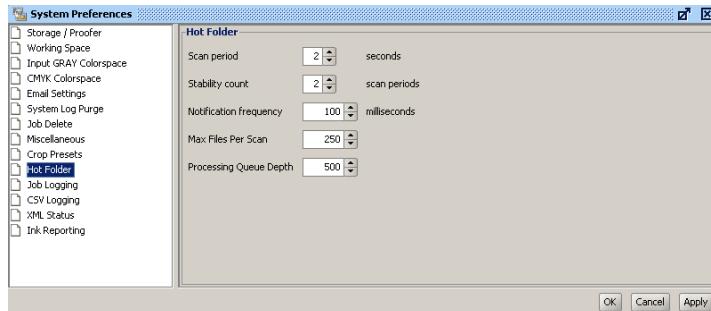
- 1 To delete a preset, select it from the list.
- 2 Click the **Delete** button.



**NOTE:** The preset will delete without a warning message.

## Hot Folder Preferences

Use these preferences to determine the interval between checks for new files in hot folders, to determine when files are stable for processing, and to set the delay between successive messages from the scanning process to the Scheduler when there are a large number of files in hot folders.



**Scan period** The interval in seconds between checks on the Hot folders for new files, or the stabilization of existing files. Increasing this from the default value can lower the processing load caused by scanning large numbers of hot folders, but will also cause files to take longer to be recognized when entered into folders.

Range is 1-60 seconds. Default is 2 seconds.

**Stability count** The number of Scan Periods that a file must be seen as unchanged (size and modification date) for it to be recognized as stable and ready for further

processing. The total time given by Stability Count and Scan period determines the delay before a file can begin processing. Normally, this should be kept small. Sometimes applications writing files slowly and incrementally into hot folders can cause them to be recognized as stable before they actually are stable. Increasing the Stability count can prevent this from happening.

Range is 1-10 scan periods. Default is 3 scan periods.

**Notification frequency** A delay in milliseconds between successive messages from the Scanning process to limit the load on the scheduler when large numbers of files are present in the hot folders.

Range is 10-5000 milliseconds. Default is 100 milliseconds.

---

**CAUTION:** The Notification frequency value is for advanced performance tuning purposes and should not normally be changed.

---

**Max Files Per Scan** Set the number of files that will be scanned.

Range is 1-250. Default is 250 files per scan.

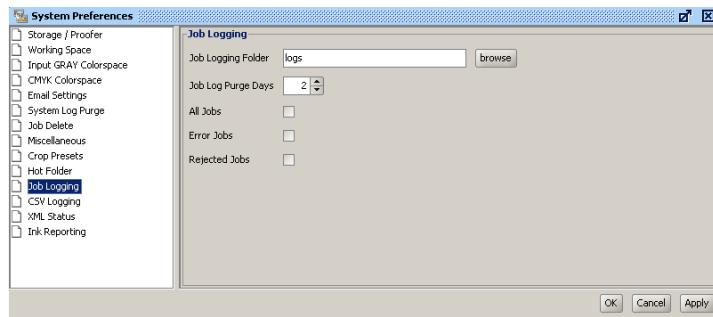
**Processing Queue Depth** Processing Queue Depth configures the maximum number of Jobs that can be active at any one time and suspends scanning for new Jobs until some Jobs complete. If set to a low value like 4 then approximately only 4 jobs will get scanned in batches. This is useful if multiple instances of the applications are set to scan common folders as it allow more effective load sharing.

## Job Log Preferences

Job Logging function allows System Preferences to control the location and condition when logs are written. You can define the folder where logs are written, the number of days the log is retained, and the condition to write the log.

Whenever a job finishes processing, it may cause a Job Log to be written automatically depending upon the System Preference settings.

The condition which triggers the log write is determined by the three check boxes at the bottom of the panel (**Always**, **Error Jobs**, and **Rejected Jobs**). When the **Always** box is checked, the other two are disabled. Otherwise, either or both other boxes can be selected. If the **Error Jobs** box is checked, all jobs that Fail have their log written. If the **Rejected Jobs** box is checked, a log is written for each job that is not approved (see “Approving Jobs” on page 145). The default is “nothing checked”.



**Job Log Export Folder** Path to where Job Logs are written for automatic or manual operation. You can select a folder using **Browse**, or type in a specific location. The default is **Program Files/Agfa/IntellituneX/server/logs**.

**Job Log Purge Days** Job Logs older than this will be purged. Old job log files should be purged according to the system preferences. This should be checked periodically (e.g., once per hour). Any files in the current Job Log folder with a modification date older than the “current time - purge setting” should be deleted.

**Job Log Purge Days** defines the number of days to retain the log. The default is 2.

**All Jobs** Export logs for all Jobs. If 'All Jobs' is checked, then a Job Log should be written when all Jobs finish processing no matter their state.

**Error Jobs** Export for jobs going into Error. If 'Error Jobs' is checked, a Job Log should be written when a job finishes in an Error state. Any internal retries on errors should be attempted first.

**Rejected Jobs** Export Logs for Rejected Jobs. If 'Rejected Jobs' is checked, a Job Log should be written when a job is rejected from a workflow, including approval.

**NOTE:** It is possible to check any combination of these options, but a Job Log will only be written once when it finishes.

**Job Log Name** Both Manual and Automatic Job Logs are named as:  
OriginalFileName\_InternalIDNumber.txt

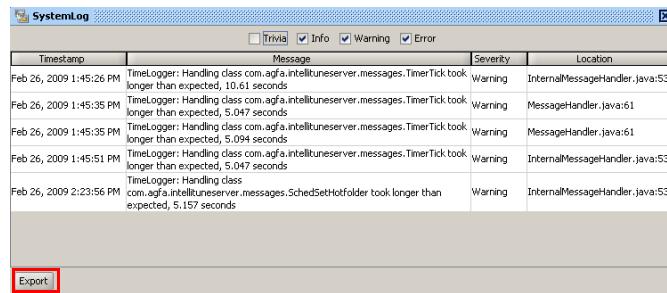
The InternalIDNumber is 6 digits in length with leading zeros as needed.

e.g., a source file TestImage.jpg may produce a JobLog file named TestImage.jpg\_000789.txt

## Manual Job Logging

The **Export** button is used to manually write Job Logs. The Log will be written to the folder specified in System Preferences. If an automatic Job Log is present, it is overwritten. If a job is manually retried, the Job Log will be rewritten.

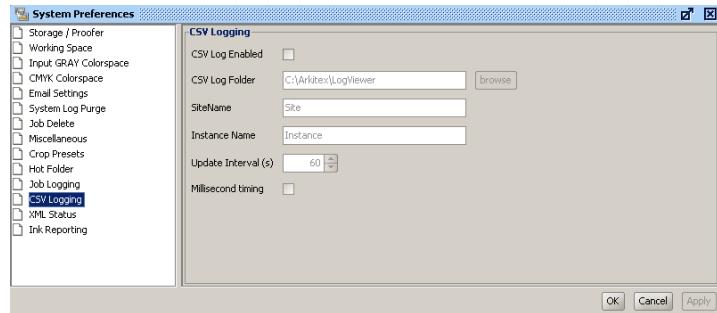
Job logs are named using the Internal Job Number reference (e.g., JOB1530.txt).



The original **Export** button on the View Job Log window (right click a job in the Job List window) is still active. It is written to the same location defined in System Preferences. If a log file exists for a particular job, it is overwritten.

## CSV Logging

Used for generating raw event data from the main application in CSV format compatible with Analyst, LogViewer and Excel.



### CSV Log Enabled

This feature is enabled by ticking the CSV Log Enabled checkbox.

### CSV Log Folder

Selects where the CSV event files are placed.

### SiteName

Site Name controls the Site name in each CSV record and may be used to determine where the main application is situated.

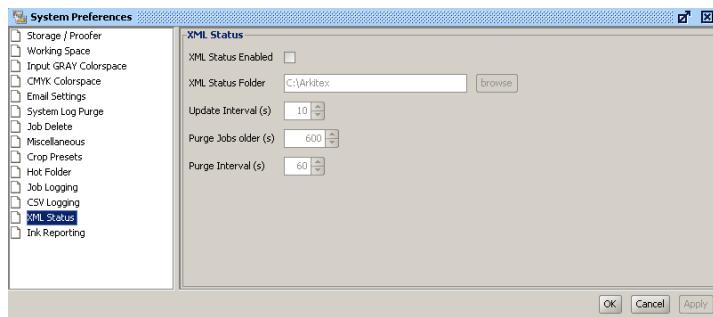
### Instance Name

Instance Name controls the Instance Name in each CSV record and may be used to identify particular installs if there are multiple installs on the same site.

<b>Update Interval (s)</b>	Update Interval (s) configures the frequency at which CSV event files are written. The application queues up records internally, and then writes them out to a new event file at this interval. The logging interval is 100000 seconds.
<b>Millisecond timing</b>	Set a small interval to get rapid export of small event files, which are to be accumulated in an external reporting application. Set a large interval to get infrequent but large event files, if this is more convenient for importing into Excel.

## XML Status

XML Status is used for maintaining the status of the application and its current Jobs in XML format compatible with integrating with other Arkitex workflow products including Producer, Portal and Vantage.



**XML Status Enabled** This feature is enabled by ticking the XML Status Enabled checkbox.

**XML Status Folder** Selects where the XML Status files are placed for :Arkitex Vantage.

**Update Interval (s)** Update interval configures the minimum time the XML status file is updated. Use a low value to get frequent updates and a higher value if the real time aspect is less important as this lowers the loading on the application.

**Purge Jobs older (s)** Purge Jobs older (s) sets the time when Jobs that have completed will be removed from the XML status file. This is NOT the same as when they have been purged from the application. Setting a low value will keep the list of Jobs in the XML down to the minimum required but means their status will not be available after this period.

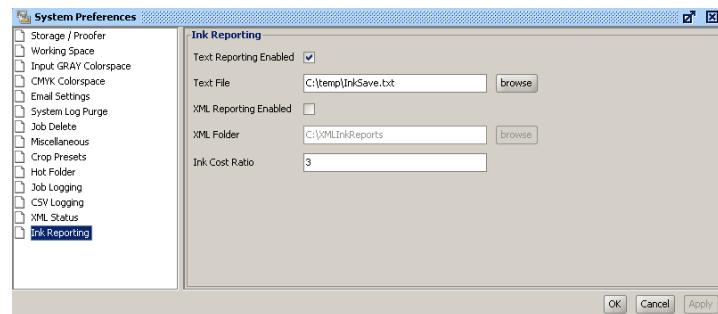
**Purge Interval (s)** Purge Interval is the interval at which older jobs eligible for purging will be removed.

## Ink Reporting

This controls how Ink reporting data is exported to other applications. It only applies to workflows that have ink reporting active.

The settings for how to do the calculation and where to store the results are here. It allows an enable and file browsers for the cumulative text Ink Report format and an enable and folder browser for the per Job XML reports.

A setting is provided for the relative cost of CMY and K ink for the purpose of the Ink cost save calculation.



#### Text Reporting Enabled

Text reporting enabled turns on an accumulating text file of results with the data formatted one job per line in TAB separated format.

#### Text File

The Text file allow configuring the name and location of this Ink report text file.

#### XML Reporting Enabled

XML reporting Enabled turns on exporting Ink reports in an XML format, one for every job ink reported. This format is compatible with Analyst.

#### XML Folder

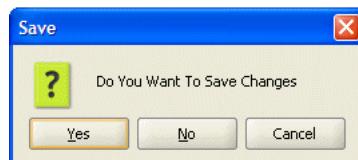
XML reporting Enabled turns on exporting Ink reports in an XML format one for every job ink reported. This format is compatible with Analyst. The XML folder field determines where these XML reports are written.

#### Ink Cost Ratio

Ink Cost ratio is used in the calculation of actual ink cost saved. It represents the relative cost of CMY inks against the cost of black ink.

#### ► To Accept Settings

- 1 To accept settings and continue making changes, click **Apply**.
- 2 To accept settings all at once, click **OK**.
- 3 To cancel settings, click **Cancel**. A Save message will display.



- Click **Yes** to confirm and close the dialog box.
- Click **No** cancel changes.
- Click **Cancel** to return to the **System Preferences** dialog box.

## Specifying User Preferences

Once you have successfully installed IntelliTuneX, specify the display settings according to your monitor, your preferred working method, and your personal preferences. The display settings relate to:

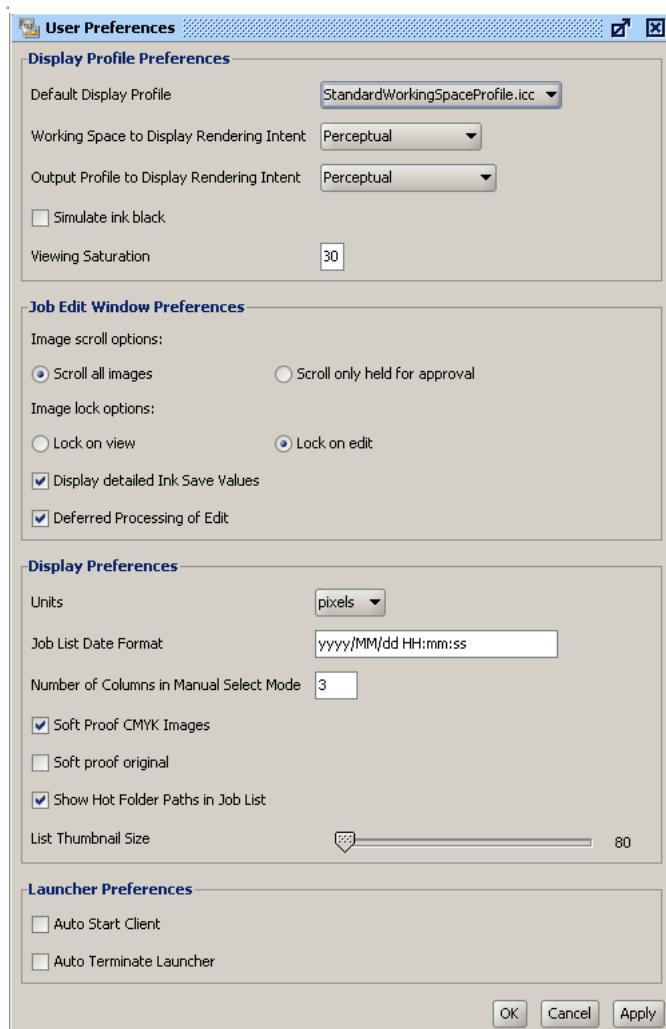
- The system display profile you want to use, together with the rendering intent. You can define a rendering intent to go from working space to system display, and a rendering intent to go from output colorspace to system display, with an option to simulate ink black (for relative colorimetric rendering intent), and to adjust saturation for viewing.
- The display size mode at which images have to be displayed at processing time.
- Image scrolling and locking is used to control the behavior of the client Job List view. Adjusting these settings can optimize job editing and job viewing between multiple clients.
- Deferred processing of job edit for Advanced and Interactive Edit is controlled by the *Deferred Processing Of Edit* checkbox.
- Unit Conversion can be chosen from centimeters, millimeters, inches, and pixels. Image width and height will display according to the selected unit in the Details view and in Job Edit view. The position of X and Y in Job Edit view displays in the selected unit for TIFF and JPEG files only. PDFs are shown as 0 dpi.
- Hot Folder path in the job name in List View.
- Size of thumbnail display can be controlled for Thumbnail View.
- Softproofing of CMYK images.

### ► To Specify Display Settings

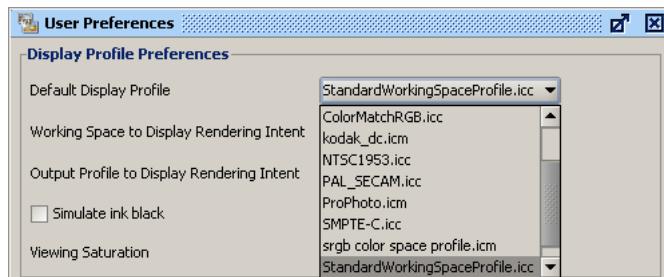
- 1 Start IntelliTuneX.
- 2 Choose **Tools > User Preferences**, or click the **User Preferences** tool.



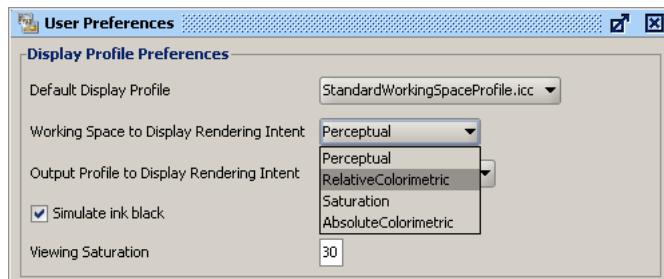
The following window displays.



- 3 Choose a profile from the **Default Display Profile** list.

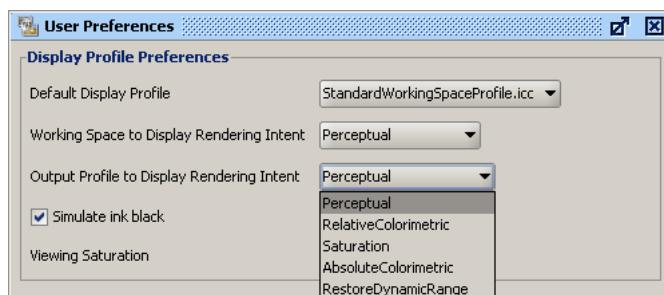


- 4 Choose a rendering Intent from the **Working Space to Display Rendering Intent** list.



This rendering intent will be used for displaying RGB images on the screen.

- 5 Choose a rendering intent from the **Output Profile to Display Rendering Intent** list.

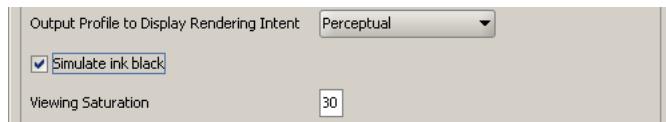



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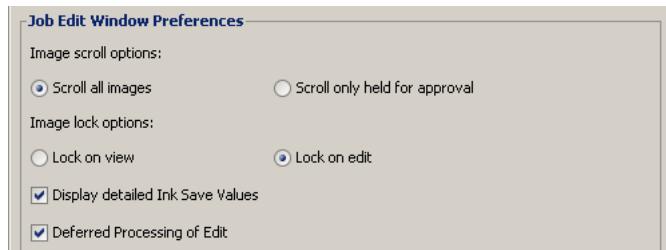
**NOTE:** A Perceptual rendering intent is preferred for display profiles. If you select the default rendering intent, it will be used as it has been specified in the display profile itself.

---

- 6 Check **Simulate ink black** for relative colorimetric rendering intent.



7 **Viewing sat** is defaulted to 30.



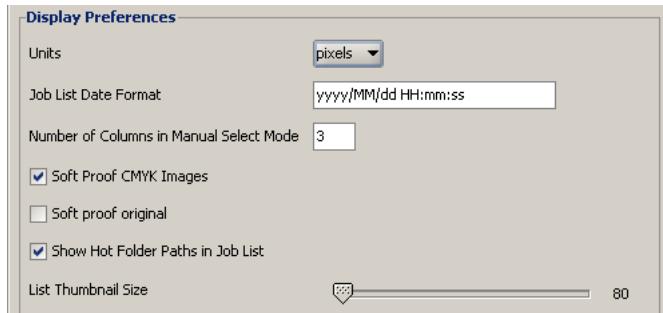
- 8 Under **Image scroll options**, choose the radio button for *Scroll all images* (default), or *Scroll only held images*.
- 9 Under **Image lock options**, choose the radio button for *Lock on view*, or *Lock on edit* (default).

**NOTE:** To prevent two operators from opening and editing the same job, use User Preferences to set *Lock on edit*.

- 10 Under **Display detailed Ink Save Values**, check the box so these values display in the Job Edit view. The Ink Save Calculation feature and XML Ink Reports feature is fully functional if IntelliTuneX is licensed for PDF processing.

**NOTE:** Ink Save reporting is available on CMYK TIFF images. Both the source and result images have to be CMYK TIFF format. The Image Compression Method in the Output operation has to be set to “raw” to calculate the image ink save values. Refer to “Image Compression Method” on page 261.

- 11 **Deferred Processing of Edit** controls job edit processing for Advanced and Interactive Edit.
  - If checked, the **OK** button will be shown in the Advanced and Interactive Edit dialogs. Changes will not be applied until exiting from editing.
  - If unchecked, the **Apply** button will be shown, and changes will take effect immediately after clicking the button.



**12 Job List Date Format** is used to customize the Job List's date and time.

**13** Select the **Units** value (cm, mm, inches, pixels). When converting a unit from pixel to mm, cm, or inches, the resolution of the image is used to calculate the displaying units.

**NOTE:** Because the TIFF files rendered from PDF jobs do not contain resolutions, the units will be displayed in pixels in this release.

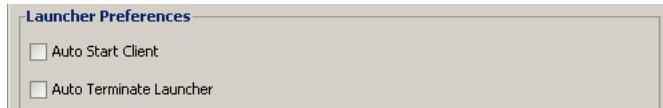
**14** Enter the **Number of Columns in Manual Select Mode**. Refer to “Select” on page 199.

**15** Check **Soft Proof CMYK Images** to create soft proofs of CMYK images.

**16** Check **Soft proof original** to create a soft proof of the original image.

**17** Check **Show Hot Folder Paths in Job List** if you want the paths to display as part of the job name in the Job List view at the top level local hot folder. Refer to “List” on page 96.

**18** Use the slider to adjust the **List Thumbnail Size** in the Thumbnails view.



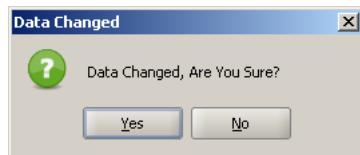
**19** Check **Auto Start Client** if you want the client to start automatically the next time IntelliTuneX is launched.

**20** Select **Auto Terminate Launcher** if you want Launcher to terminate after launching the client in a pure client installation.

#### ► To Accept Settings

- 1 To accept settings and continue making changes, click **Apply**.
- 2 To accept settings all at once, click **OK**.

- 3 To cancel settings, click **Cancel**. A Data Change message will display.



- Click **Yes** to confirm and close the dialog box.
- Click **No** to return to the **User Preferences** dialog box.

## System Log

The System Log contains server status logging and is used for diagnostics. Checkboxes can be set to filter log verbosity.

**Trivial** These messages are low level messages in the log. The default is OFF.

**Info** A message containing information.

**Warning** A warning message that will not stop processing.

**Error** An error message that means processing has stopped.

### Columns

**Timestamp** Date and Time the message was received.

**Message** Text of the message.

**Severity** The message type is displayed here.

**Location** Which service generated the message. Services include J2EE Server, Scheduler, Image Processor, Hot Folder Scanner, and Client.

**NOTE:** Message check boxes act as both screen and log filters. If you export logs, unchecking a filter will prevent those messages from being exported. Unchecking all filters results in a log containing only a job number and timestamp information.

### ► To Display Messages

- 1 To display a particular message type, click the appropriate checkbox.

SystemLog			
Timestamp	Message	Severity	
Feb 26, 2009 1:45:26 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 10.61 seconds	Warning	InternalMe:
Feb 26, 2009 1:45:35 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 5.047 seconds	Warning	MessageHa
Feb 26, 2009 1:45:35 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 5.094 seconds	Warning	MessageHa
Feb 26, 2009 1:45:51 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 5.047 seconds	Warning	InternalMe:
Feb 26, 2009 2:23:56 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.SchedSetHotfolder took longer than expected, 5.157 seconds	Warning	InternalMe:

- 2 Clicking the **Export** button exports the log to the location set in System Preferences, “Job Log Preferences” on page 58.
- 3 Click the **Close** button in the upper right corner to close System Log.
  - “Log Tab” on page 144

## Closing the IntelliTuneX Application

Select **File > Exit** from the menu bar.



The IntelliTuneX Launcher window will display with the Client service component grayed out.



# Quick Tour of IntelliTuneX

This chapter provides a quick tour of IntelliTuneX. Its purpose is to familiarize you with the various ways in which you can use IntelliTuneX, and with the respective user interface and tools.

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# Looking at the IntelliTuneX Work Area

In this section you will find a brief overview of the IntelliTuneX work area. Take a few minutes to read through this section.

## Menu Commands

The table below gives an overview of all the IntelliTuneX menu commands. You can easily use this table as a quick reference.

Menu	Options	Description
File		
	Exit	Exits the application. Shortcut Key: <b>Ctrl+Q</b>
Tools		
	User Administration...	Opens the User Administration dialog box. Shortcut Key: <b>Ctrl+A</b> Refer to "Changing Users and Passwords" on page 37.
	System Preferences...	Opens the System Preferences dialog box. Shortcut Key: <b>Ctrl+S</b> Refer to "Setting System Preferences" on page 43.
	User Preferences...	Opens the User Preferences dialog box. Shortcut Key: <b>Ctrl+M</b> Refer to "Specifying User Preferences" on page 63.
	View System Log...	Opens the System Log display. Logs can be displayed for information, Warning, and Errors. Shortcut Key: <b>Ctrl+L</b> Refer to "System Log" on page 68.
	Edit Workflows...	
Folder		The display will vary based on what level you have clicked on to create the new folder.
	Delete Hot Folder	Deletes the selected hot folder. Shortcut Key: <b>Ctrl+D</b>
	New Root Folder	Used to define a Host, Share, and Folder Name of a root folder. Appears only at the Hot Folders level.

Menu	Options	Description
	New Hot Folder...	Creates a new hot folder. Appears at the Local Folders and Subfolder levels. Shortcut Key: <b>Ctrl+N</b>
	Edit Hot Folder Details...	Opens the details window for editing. Appears only at the Local Folders and Subfolder levels
	Delete Unknown Subfolders	Deletes the selected subfolder.
	Delete All Hot Folder Jobs	Deletes all hot folder jobs.
	Abort All Hot Folder Jobs	Aborts all hot folder jobs.
	Hold All Hot Folder Jobs	Holds all hot folder jobs. Hold must be placed on jobs in the incoming state. If status reaches Active state, a hold cannot be placed.
	Release All Hot Folder Jobs	Releases all hot folder jobs.
	Change All Job Priorities	Changes all job priorities in the job list.
Job		Grayed out unless there is a job in the job list.
	Job Edit...	Edits the selected job. Shortcut Key: <b>Ctrl+E</b>  When selecting jobs for Job Edit, the maximum number of jobs that can be selected is 20. When 21 or more jobs are selected, the menu selection for Job Edit turns gray.
	View PDF Subjobs	Displays subjobs in a PDF file.
	Delete Job	Deletes the job from the job list.
	Abort Job	Aborts the job from the job list.
	Hold Job	Holds the job. Hold must be placed on a job in the incoming state. If status reaches Active state, a hold cannot be placed.
	Release Job	Releases the job.
	Retry Job	Reprocesses the job from the job list.
	Skip Job	Skips the job. The priority is changed to 127.
	Expedite Job	Expedites the job in the queue. The priority level increases to 128.
	Approve Job	Approves the selected job(s). If multiple jobs are selected for approval, a confirmation message displays.

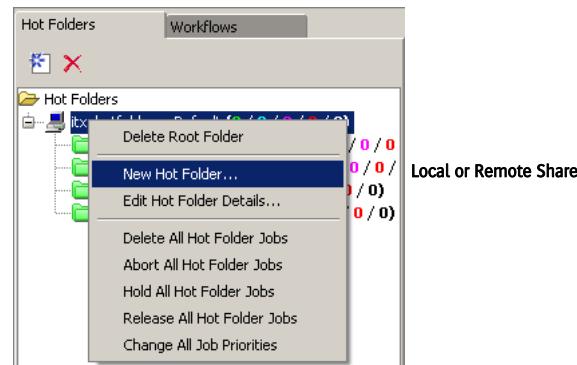
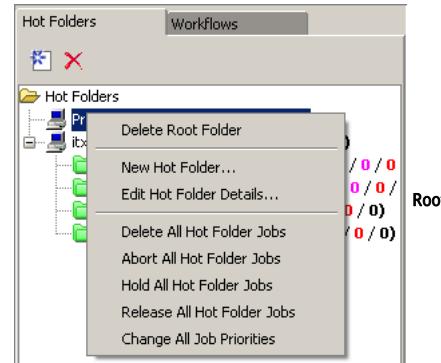
Menu	Options	Description
	Held For Retouch	"Held For Retouch" should be worked in conjunction with "Held For Approval". Its primary purpose is to put images, rather than PDF files, in a state for retouching later. Editing the held image in Photoshop or advanced/interactive edit will lead it to the "Held For Approval" state. Approving a "Held For Retouch" job will transition it to "Complete" state.
	Proof Source	Used to send one or more source images to the selected proofer.
	Proof Result	Used to send one or more result images to the selected proofer.
	Change Job Priority	Changes the job priority.
	View Job Log...	Opens the Job Log.
	Select All Jobs	Selects all the jobs in the job list.
	View Job Result In Acrobat	Opens the job in Adobe® Acrobat®.
Workflow		The Workflow tab must be selected first for these options to work.
	Open Image...	Allows you to browse to locate an image that was previously opened. These are .TIF images.
	Reopen	Reopens a closed image. Refer to "To Reopen an Image" on page 192.
	Update All	Updates all images. Refer to "To Update All" on page 193.
	Auto Refresh	Refreshes the display. Refer to "To Use Auto Refresh" on page 193.
View		
	List	Displays the jobs in a list view. Shortcut Key: <b>Ctrl+F1</b>
	Details	Displays the jobs in a details view. Shortcut Key: <b>Ctrl+F2</b>
	Thumbnail	Displays the jobs in thumbnails. Shortcut Key: <b>Ctrl+F3</b>
	Details View	Displays the column header view options for the List view. Refer to "Details" on page 100
Help		
	About	Displays copyright information on Intelli-TuneX. Shortcut Key: <b>Ctrl+F12</b>

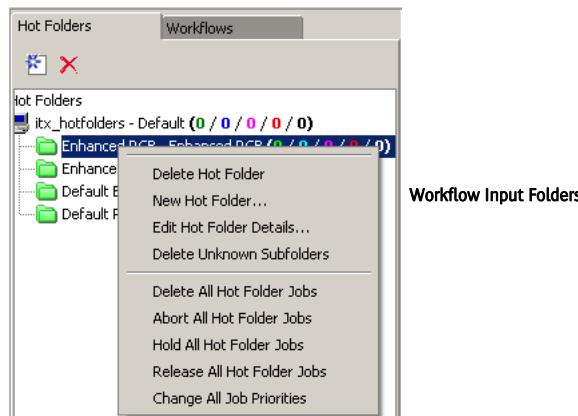
## Shortcut Menus

Right-clicking on a hot folder, workflow, operation, or job brings up a shortcut menu.

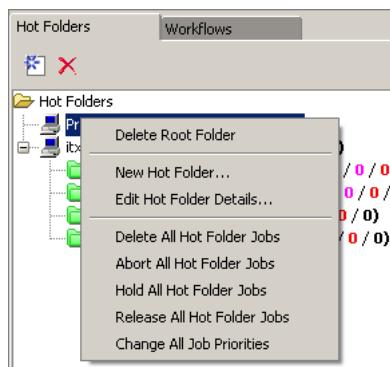
### Hot Folder

Depending on what level you right click on, a different shortcut menu will display.





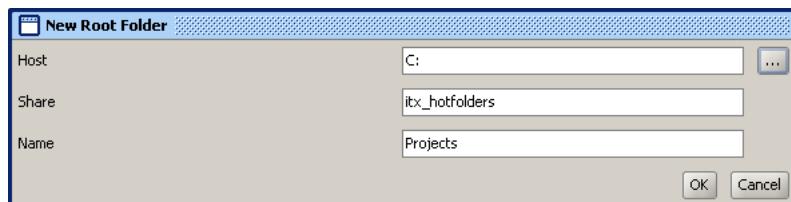
## Root Shortcut Menu



**New Root Folder** Defines a folder that is set up on another server. Refer to “Create a New Root Folder” on page 115.

**NOTE:** This folder will be created at the same level as **localhost/itx\_hotfolders**, which was created when IntelliTuneX was installed.

Opens the New Root Folder window.



**Host:** The IP address or path of the host.

**Browse:** Browse to the path of the host.

**Share:** Name of the share.

**Name:** The display name of the folder.

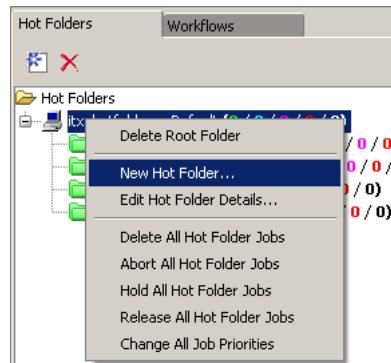
**Delete Root Folder** Used to delete a root folder.

**NOTE:** This option only displays when a new root folder has been created.

A confirmation message displays.



## Local or Remote IntelliTuneX Share Shortcut Menu



**Delete Root Folder** Used to delete a root folder. A prompt appears asking for confirmation.

**New Hot Folder** Creates a new hot folder at the same level as Default BW and Default RGB.

**Edit Hot Folder Details** Refer to “Edit Hot Folder Details” on page 79.

**Delete All Hot Folder Jobs** Deletes all jobs in the selected hot folder.

---

**CAUTION: All jobs in all workflows are deleted.**

This action will delete or modify all eligible jobs in all workflows under the IntelliTuneX share. Thorough knowledge of IntelliTuneX operation is needed before using these commands.

---

**Abort All Hot Folder Jobs** Aborts all jobs in the selected hot folder.

**Hold All Hot Folder Jobs** Holds all jobs in the selected hot folder.

**Release All Hot Folder Jobs** Releases all jobs in the selected hot folder.

**Change All Job Priorities** Changes all job priorities in the selected hot folder.

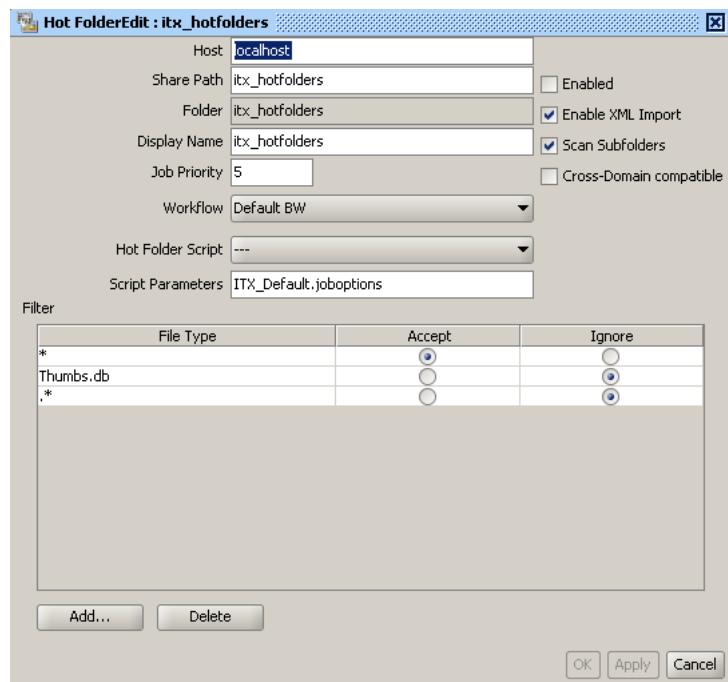
## Edit Hot Folder Details

---

**Edit Hot Folder Details** simplifies gives extra flexibility in handling different set up requirements of hot folders.

Configuration and behavior is directly controlled from the individual hot folder properties.

The scan tree becomes a series of one or more parent folders, which themselves may or may not have children, etc. Parents have the original path name to the scanning point, and their children just add to this path.



- Host** Network name or IP address of a host-machine
- Share Path** Share is a share name + path to the hot folder to be scanned. A browse button is provided to set the host name and share path by browsing where applicable.
- Folder** Hot Folders now have a display name distinct from their folder.
- Display Name** Name is a logical name to appear on the client tree display. The default is newhfc.
- Job Priority** Priority is the default priority to give to jobs scanned from this folder. Enter a value (0 lowest priority - 9 highest priority) in Job Priority to assign a priority to the hot folder. The default is 5.
- Workflow** Name of the workflow to apply to the hot folder. Default BW, Default RGB, Enhanced BW, and Enhanced RGB are the default workflow choices. When a new Workflow is created, the Workflow name is added to this list.

### Script and Parameters

Each Hot folder had a check box enabling PS to PDF conversion that invoked a specific script, PSConvertToPDF. The script passed the input file, the output file, the original scan folder, and a fixed parameter containing a conversion profile (ITX\_Default.joboptions). The sequence of operations did not allow the script to produce an accompanying XML to allow for dynamic XML job production.

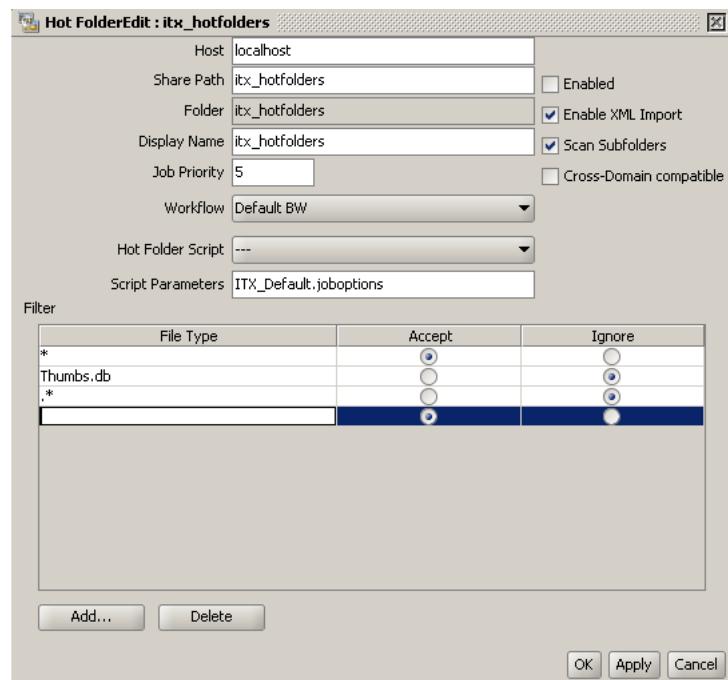
The HF script sequence allows for image conversion, editing of an incoming XML job description, and production of an accompanying XML job file from an image file entry.

---

**NOTE:** HF scripts are identified starting with HFnn and ending in .vbs, where nn is a two digit number from 02 - 15.

---

<b>Hot Folder Script</b>	Allows a choice of None, the existing HF01_PSConvertToPDF.vbs, and up to 14 further scripts, which are enumerated from the scripts folder.
<b>Script Parameters</b>	A text box allowing user entry of the script parameter. The default is ITX_Default.joboptions.
	<b>NOTE:</b> Each hot folder can have its own script name selected, and its own parameter.
<b>Enabled</b>	Enable is a check box to enable or disable scanning from this particular hot folder.
<b>Enable XML Import</b>	Enable XML Files is a check box to determine whether this hot folder accepts XML Jobs. The <i>Type II</i> and <i>Type III</i> configuration is supported. <i>Type I</i> cannot be processed in a shared input configuration. Refer to “XML Import” on page 327 for details.
<b>Scan Subfolders</b>	Scan Sub Folders is a check box which allows automatic scanning of any sub folders below this hot folder.
<b>Convert (E)PS to PDF</b>	If you have licensed PDF processing, checking this option converts PS or EPS to PDF. This feature requires additional set up to enable full operation. (Refer to the section for Ghostscript installation in the IntelliTuneX Installation Guide.)
<b>Cross Domain Compatible</b>	When unchecked the scanning mechanism performs an extra check for file stability, which is useful when scanning Apple Mac mounted folders to prevent files from being picked up before they are complete. The extra check can cause failures when shares are accessed across Windows domains; and this control should then be checked.
<b>Filter</b>	Filter is a configuration table which allows for wild card pattern matching of filenames, and allows them to be accepted or ignored. The first pattern in the table that applies determines the action to apply.



**File Type:** Wild card filename matches.

**Accept:** Accept the file based on the filter.

**Ignore:** Ignore the file based on the filter.

**Add:** Add a filter to the table.

**Delete:** Delete a filter from the table.

A newly created, top-level hot folder is by default enabled, has XML Jobs enabled, scan sub folders disabled, a priority of 5, and the first active workflow pre-selected. It allows browsing for the root hot folder point, or allows typing the names in explicitly.

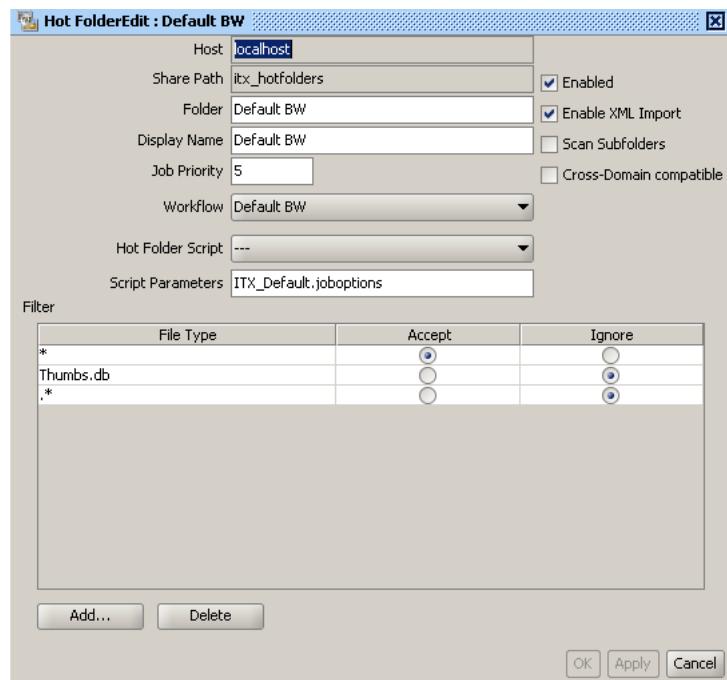
A hot folder newly created under an existing hot folder gets the defaults of its parent. The host is not changeable, browsing is allowed; but browsing outside of immediate children folders of the parent are rejected with a warning message.

The name of a hot folder defaults to the final element in the path name of the folder, but can be changed to give the name on the tree a more meaningful name.

When creating or editing a folder set up, no action will be performed until **Apply** or **OK** is pressed. When **Apply** or **OK** is used, then the folder is created, if it does not already exist.

The new scanning function has the following behaviors:

- There is no distinction between roots and hot folders. All nodes created below the Top level root are hot folders.
- All configured hot folders are scanned for jobs if they are enabled.
- If sub folder scanning is enabled, then all folders below the parent that have not been explicitly defined are scanned; and this scanning continues to any depth. All jobs found in this process belong to the parent folder and are processed according to its configuration. The actual path to the file should still be retained to control both the organization within the filestore, for use on job list displays, and for potential use in preserving the input folder structure on output.
- Where sub folder scanning is used, and there are defined folders within this range, then they should be scanned explicitly using the properties associated with their configuration.
- When the scanner is started up, it should check for the presence of all configured hot folders and attempt to create them. No folders should be deleted.



- Any number of rows of wild card filename matches may be set up, and each row is configured to be either an **Ignore** or **Accept** match criterion.
- The wild card pattern may contain explicit characters mixed with ? and \* characters. ? matches any single character. \* matches a sequence of 0 or more of any character. ? may be used a number of times in sequence to match a specific wild card length. \* may be used multiple times separated by other literal characters. Examples are:
  - \*.tif matches any file ending with the .tif extension
  - \*.??? Matches any file with a 3 character extension
  - temp\* matches any file beginning with temp
  - \*temp\* matches any file including temp in any position

When a file is recognized, then its name is compared with each filter row in order (from the top); and the first row that matches determines whether the file is accepted or ignored. If no rows match, then the file is accepted.

The default set up for a new folder matches the existing ignoreFiles set up. This is achieved with two rows:

.\* ignore

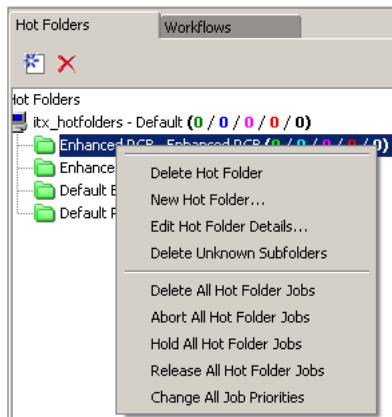
thumbs.db ignore

**OK** Applies the settings and closes the dialog box.

**Apply** Applies the settings.

**Cancel** Cancels the changes.

## Workflow Input Folders Shortcut Menu

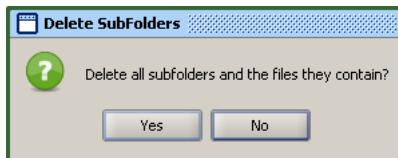


**Delete Hot Folder** Deletes the hot folder.

**New Hot Folder** Creates a new hot folder under the default folders.

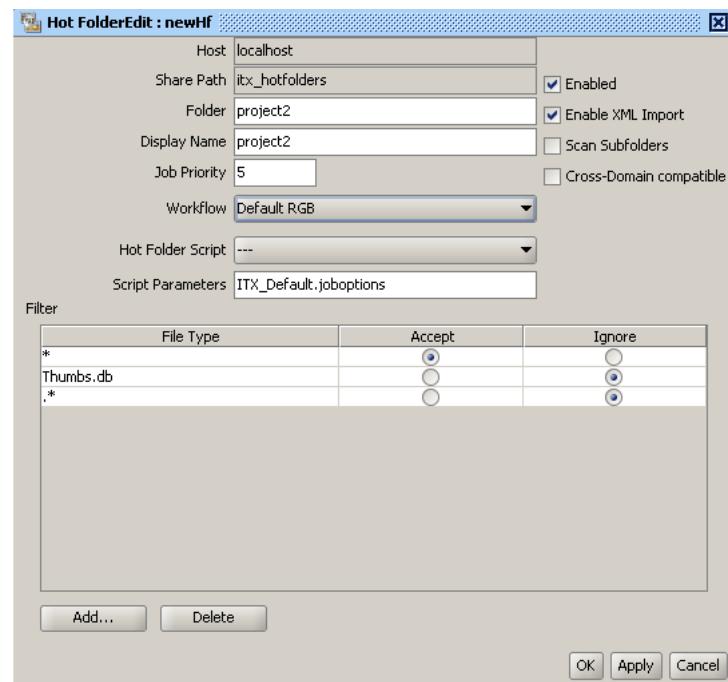
**Delete Unknown Subfolders** Deletes the selected subfolder.

A confirmation message displays.



**Edit Hot Folder Details** Opens the Hot Folder Details window.

**NOTE:** All the comments that apply to the Edit Hot Folder Details in the section above also apply to this instance of Edit HF. Refer to “Edit Hot Folder Details” on page 79.



**CAUTION: All jobs in all workflows are deleted.**

The following actions will delete or modify all eligible jobs in all workflows under the IntelliTuneX share. Thorough knowledge of IntelliTuneX operation is needed before using these commands.

**Delete All Hot Folder Jobs** Deletes all jobs in the selected hot folder.

**Abort All Hot Folder Jobs** Aborts all jobs in the selected hot folder.

**Hold All Hot Folder Jobs** Holds all jobs in the selected hot folder.

**Release All Hot Folder Jobs** Releases all jobs in the selected hot folder.

**Change All Job Priorities** Changes all job priorities in the selected hot folder.

## Workflow

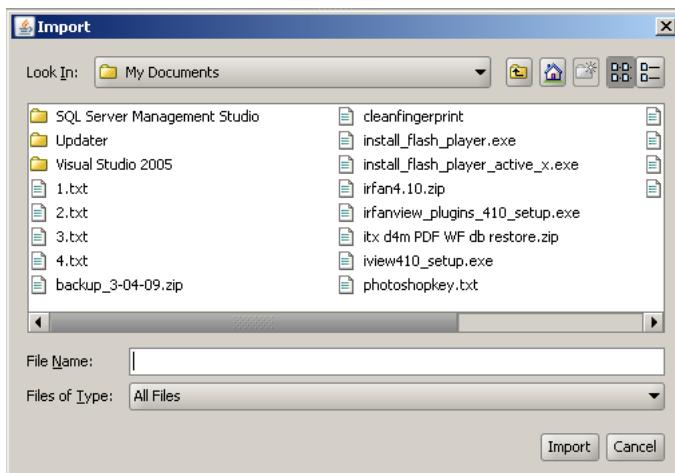
When a workflow is created, the following submenu is available:



- New** Used to create a new operation.
- Import** Imports an xml file.

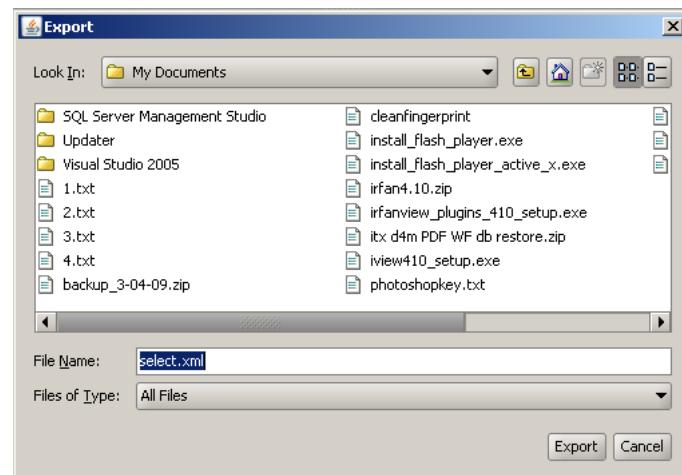
The Import function is allowed at the top level across all classes, or at one preset class.

- When used at the class level, the Import only processes importing presets that belong to this class. If there are none present, then the user is messaged.
- When used at the top level, then all presets are processed for importing.
- Where the name of the preset being imported does not clash with an existing preset, then it is silently imported using the name in the XML file.
- Where it does clash, the user has a choice of overwriting the existing setting, importing with a number added to make unique, or ignoring that import. An overwrite all option on this dialog is used to automate further clashes. If not used, then the choice should be repeated on further clashes which occur until the import is complete.



An import dialog displays. Select the xml file, and click **Import**.

**Export** Exports an xml file.

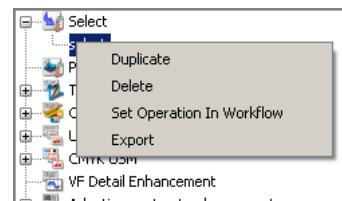


An export dialog displays. Select the xml file, and click **Export**.

**NOTE:** Exporting XML settings from an empty workflow displays a dialog explaining there is no data. No file is produced.

## Edit a Workflow

When a workflow is edited, the following submenu is available:

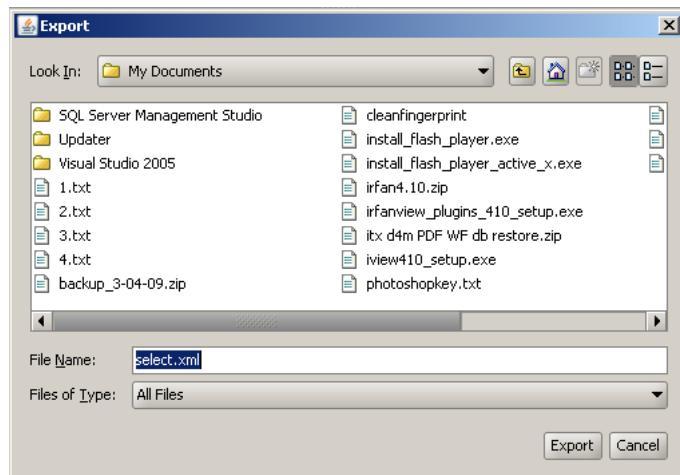


**Duplicate** Used to duplicate an existing operation.

**Delete** Used to delete an existing operation.

**Set Operation In Workflow** Used to set this operation into the workflow. The toolbar frame will display the new operation, or replace an existing operation.

**Export** Exports as an xml file.

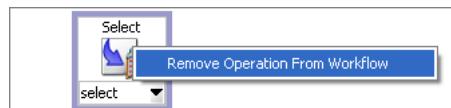


An export dialog displays. Click **Export**.

**CAUTION:** Export is not supported with the Select, PreProcess, Approve, and Post Process operations. If these are selected, a message will display:



## Operation



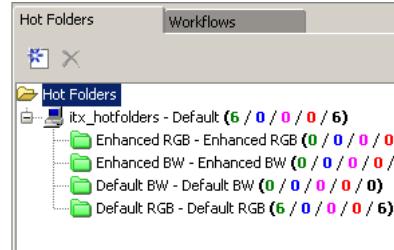
### Remove Operation From Workflow

Deletes the operation from the workflow.

**NOTE:** Some Workflows share operations. If you need to delete a Workflow that uses a shared operation, delete the operation from the Workflow, then delete the Workflow completely.

## State of Files

Hot folders have five status numbers that default to 0 when there are no jobs in the folder.

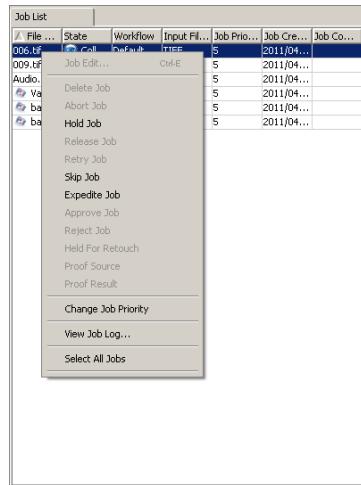


- The number of jobs processed successfully (green)
- The number of jobs awaiting approval (blue)
- The number of rejected jobs (magenta)
- The number of jobs in error (red)
- The total number of jobs in the job list (black)

An example is: Default RGB - Default RGB (25 / 50 / 3 / 0 / 78)

It will be possible to see at a glance what is remaining to approve at any time during the production.

## Job List and Shortcut Menu



**Job Edit** Edit the job.

**NOTE:** When selecting jobs for Job Edit, the maximum number of jobs that can be selected is 20. When 21 or more jobs are selected, the menu selection for Job Edit turns gray.

**View PDF Subjobs** View subjobs contained in the PDF job.

**Delete Job** Deletes the job.

**NOTE:** The Delete key can also be used to delete jobs from the job list.

**Abort Job** Aborts the job.

**Hold Job** Holds the job. When a job is on hold, it cannot be deleted until it has been edited and a decision made on the hold.

**Release Job** Releases the held job.

**Retry Job** Retries the job if it fails.

**Skip Job** Skips the job.

**Expedite Job** Expedites job processing.

**Approve Job** Approves the job.

- Reject Job** Rejects the job.
- Proof Source Image** Used to send one or more source images to the selected proofer.
- Proof Result Image** Used to send one or more result images to the selected proofer.
- Change Job Priority** Changes the job priority.
- View Job Log** Opens the job log.
- Select All Jobs** Selects all jobs in the job list.

## An Overview of the IntelliTuneX Tools

In this section you will find a brief overview of the various IntelliTuneX image editing and configuration tools. Take a few minutes to read through this section.

### Main Area

Button	Click to
	Open User Administration
	Open User Preferences
	Open System Preferences
	View System Log
	Close All Job Windows
	Open List View
	Open Details View
	Open Thumbnail View

## Hot Folders Tab

Button	Click to
	Create a new hot folder
	Delete a hot folder
	Job Active
	Job Collecting
	Job Ready
	Job Complete
	Job Aborted
	Job Failed
	Job OK Warn
	Job Purged
	Job Edit
	Job Edit Abort
	Job Edit Failed
	Job Edit OK
	Job Edit Reject
	Job Held
	Job Held Approve
	Job Held Rejected
	Job Held Select

Button	Click to
	Job View
	Job View Abort
	Job View Failed
	Job View OK
	Job View Reject
	Close the job
	Job Log
	Job being edited
	Hot folder with completed jobs
	Job failed
	Job on hold
	Job waiting for approval

## Workflows Tab

Button	Click to
	Create a new workflow
	Export to an xml file
	Import an xml file
	Copy a workflow
	Delete a workflow
	Turn on edit mode

Button	Click to
	Edit/create the Select operation
	Edit/create the Preprocess operation
	Edit/create the Tonal Gradation operation
	Edit/create the Cast Removal operation
	Edit/create the USM operation
	Edit/create the CMYK USM operation
	Edit/create the VFD Detail Enhancement operation
	Edit/create the CMYK/Gray Min Max Dot operation
	Edit/create the Artifact Removal operation
	Edit/create the Size operation
	Edit/create the Selective Color operation
	Edit/create the Color Management operation
	Edit/create the Output operation
	Edit/create the GCR operation (GCR is an optional operation)
	Edit/create the PDF operation
	Edit/create the Approve operation
	Edit/create the PostProcess operation

## Hot Folders

IntelliTuneX comes with four pre-installed hot folders: Enhanced RGB, Enhanced BW, Default BW, and Default RGB that have been linked to default workflows.

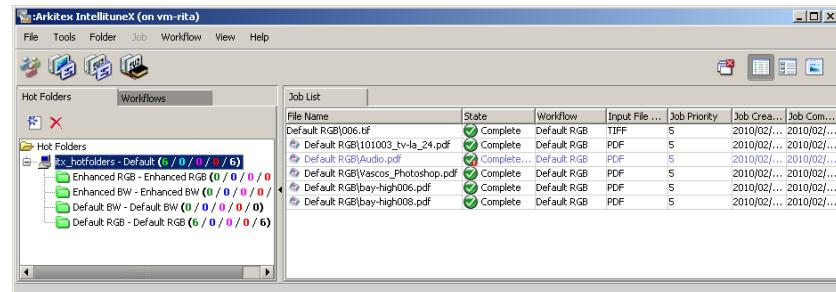
You can assign a priority level for hot folder job processing. A higher priority number will cause a hot folder to process its jobs before a lower priority number hot folder.

**NOTE:** Avoid making changes to the structure of hot folders while files are arriving.

## Job List

Jobs are activated by putting them into the active hot folder. Three views are available: List View, Details View, and Thumbnails View.

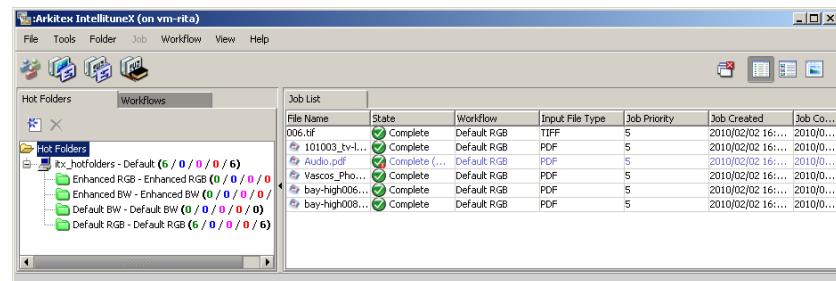
### List



### Columns

**Name** Name of the file. If **Show Hot Folder Paths in Job List** has been selected under User Preferences, the path will also display when the top level local folder is selected. Refer to “Specifying User Preferences” on page 63.

**NOTE:** Selecting a subfolder will not display the hot folder path.



<b>State</b>	Refer to “Hot Folders Tab” on page 93.
<b>Workflow</b>	Workflow associated with the job.
<b>Original File Type</b>	Tiff, JPEG, BMP, PS, EPS, PDF (PDF if licensed).
<b>Priority</b>	Refer to “Change All Job Priorities” on page 79.
<b>Time Job Created</b>	Date and time the file was input to the system.
<b>PubName</b>	The Publication Name will display when an XML import script includes PubName.
<b>Operator</b>	Host system of the operator who applied any edits to the job. The Approve operation must be enabled in the workflow.
	<ul style="list-style-type: none"> <li>■ Local/Remote Share without Hot Folder Paths</li> </ul>

## Details

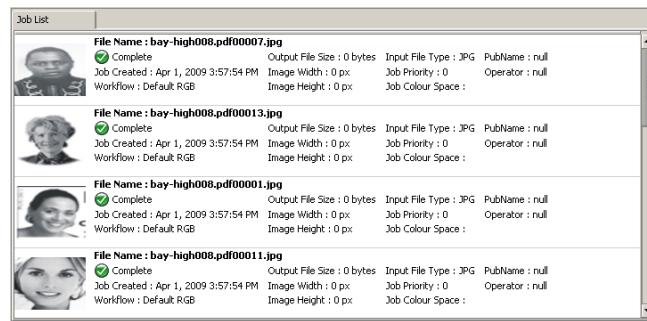


## PDF

<b>File Name</b>	Name of the file.
<b>State</b>	Refer to “Hot Folders Tab” on page 93.
<b>Job Created</b>	Date and time the job was created.
<b>Workflow</b>	Workflow associated with the job.
<b>Input File Type</b>	PDF (if licensed).

- Job Priority** Refer to “Change All Job Priorities” on page 79.
- Subjobs** Number of subjobs contained in the PDF. Only displays with PDF files.
- PubName** The Publication Name will display when an XML import script includes PubName.
- Operator** Host system of the operator who applied any edits to the job. The Approve operation must be enabled in the workflow.

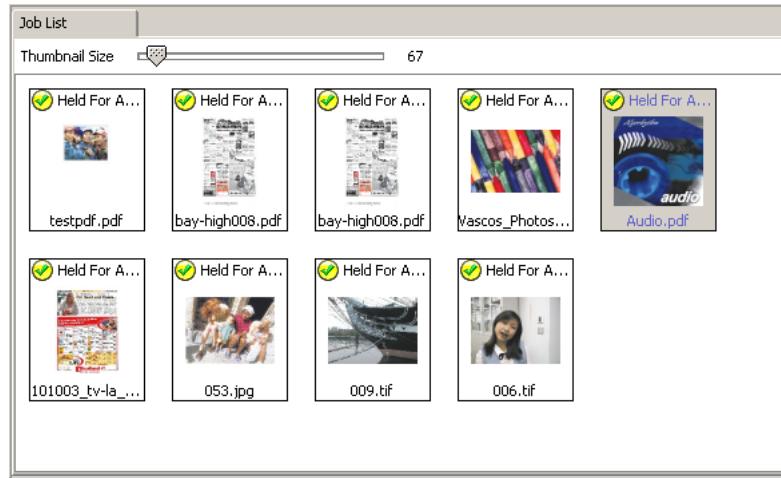
## JPEG, TIFF



- File Name** Name of the file.
- State** Refer to “Hot Folders Tab” on page 93.
- Job Created** Date and time the job was created.
- Workflow** Workflow associated with the job.
- Job Colour Space** CMYK, RGB.
- Output File Size** Size in MB of output file.
- Image Width** Displayed as cm, mm, inch, or pixel according to the **Unit** value in User Preferences. Only displays with TIFF or JPEG files.
- Image Height** Displayed as cm, mm, inch, or pixel according to the **Unit** value in User Preferences. Only displays with TIFF or JPEG files.
- Input File Type** Tiff, JPEG, BMP, PDF, PS, EPS: if licensed.
- Job Priority** Refer to “Change All Job Priorities” on page 79.
- PubName** The Publication Name will display when an XML import script includes PubName.

**Operator** Host system of the operator who applied any edits to the job. The Approve operation must be enabled in the workflow.

## Thumbnail View



**State** Refer to “State of Files” on page 90.

**Thumbnail** Thumbnails of images. The zoom control can be set from 60 to 150.

**File Name** Name of the file.

## Details

---



Optional details can be selected from the **View > Details View**, or by right clicking on a column heading in the Job List view. Selected details will display as additional columns in the Job List.

---

**NOTE:** When adding a new column, it is placed and displayed right next to where the mouse is situated.

---

**ImageTag** Data extracted from IPTC/EXIF Tags.

<b>ImageTag</b>	▶	Object Name (Title)
Ink	▶	Priority
✓ Input File Type		Category
Internal Job Number		Supplemental Categories
Job Approved		Keywords
✓ Job Completed		Special Instructions
✓ Job Created		Creation Date
Job Edited		Creation Time
✓ Job Priority		By-line (Author)
Operator		By-line Title (Author position)
✓ Original File Size		City
✓ Original Size		Province/State
Publication	▶	Country/Primary Location Name
Process Time		Original Transmission Reference
✓ Result Color Space		Headline
Result File Size		Credit
Result Size		Source
SISR Estimated Profile		Copyright Notice
✓ Source Color Space		Caption/Abstract
✓ State		Writer/Editor
✓ Subjobs		
✓ Workflow		

**IPTC/EXIF Tags:**

Object Name (Title)	City
Priority	Province/State
Category	Country/Primary Location Name
Supplemental Categories	Original Transmission Reference
Keywords	Headline
Special Instructions	Credit
Creation Date	Source
Creation Time	Copyright Notice
By-line (Author)	Caption/Abstract
By-Line Title (Author position)	Writer/Editor

**Ink** Ink Saved: Average Ink Saved.  
 Original Ink: Average Ink Totals in Original.  
 Result Ink: Average Ink Totals in Result.  
 Saved %: Percentage of ink saved.

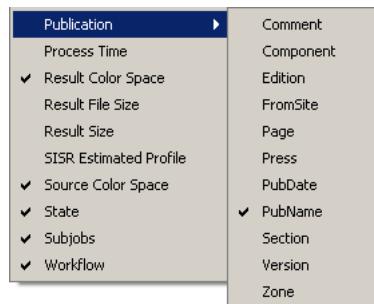
**Input File Type** PDF.

**Internal Job Number** Internal Job Number.

**Job Approved** Date Time Job Approved.

**Job Completed** Date Time Job Completed.

<b>Job Created</b>	Date/Time Job first created.
<b>Job Edited</b>	Date Time Job Edited. Blank if not edited.
<b>Job Priority</b>	Priority assigned to Job.
<b>Operator</b>	Name of operator editing/approving job.
<b>Original File Size</b>	Size of Job in Kbytes.
<b>Original Size</b>	Width / Height of Job in User Preference Units.
<b>Publication</b>	Data extracted from XML PublicationInfo.



**Comment:** This information will show up in InkSave reports.

**Component:** Graphic object.

**Edition:** The edition name.

**FromSite:** The site originating the publication.

**Page:** The page number.

**Press:** The press.

**PubDate:** The publication date.

**PubName:** The publication name.

**Section:** The section name.

**Version:** The version number.

**Zone:** The zone.

**Process Time** Time taken to process Job.

**Result Color Space** The colorspace of the result .jpg or .tiff file.

**Result File Size** Size of file in Kbytes.

**Result Size** Size of file in Kbytes.

**SISR Estimated Profile** SISR estimated profile.

**Source Color Space** The colorspace of the source .jpg or .tiff file.

**State** Current Job State.

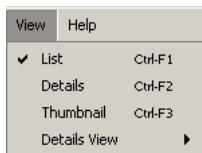
**Subjobs** PDF subjobs.

**Workflow** Name of workflow being used.

## Changing the View

---

Go to the menu bar, and select **View**.



Or go to the toolbar, and select the desired **View** tool.

Button	Click to
	Open List View
	Open Details View
	Open Thumbnail View

## Thumbnail Job Status

---

When jobs are submitted, in Thumbnails View they will display in these states.

 bay-high008....	Incoming PDF
 Audio.pdf	PDF Ready
 Audio.pdf	Collecting PDF
 bay-high006....	PDF Active
 bay-high008....	PDF Complete
 24P-037-13Q.pdf	PDF Complete with Warning
 073.15T.20.V...	PDF Failed
 Vascos_Phot...	PDF Deleted

 002.jpg	Incoming JPG
 008.JPG	JPG Ready
 053.jpg	Collecting JPG
 007.JPG	JPG Active
 008.JPG	JPG Complete
 002.jpg	Jpeg Failed
 002.jpg	JPG Deleted
 006.tif	Incoming Tiff

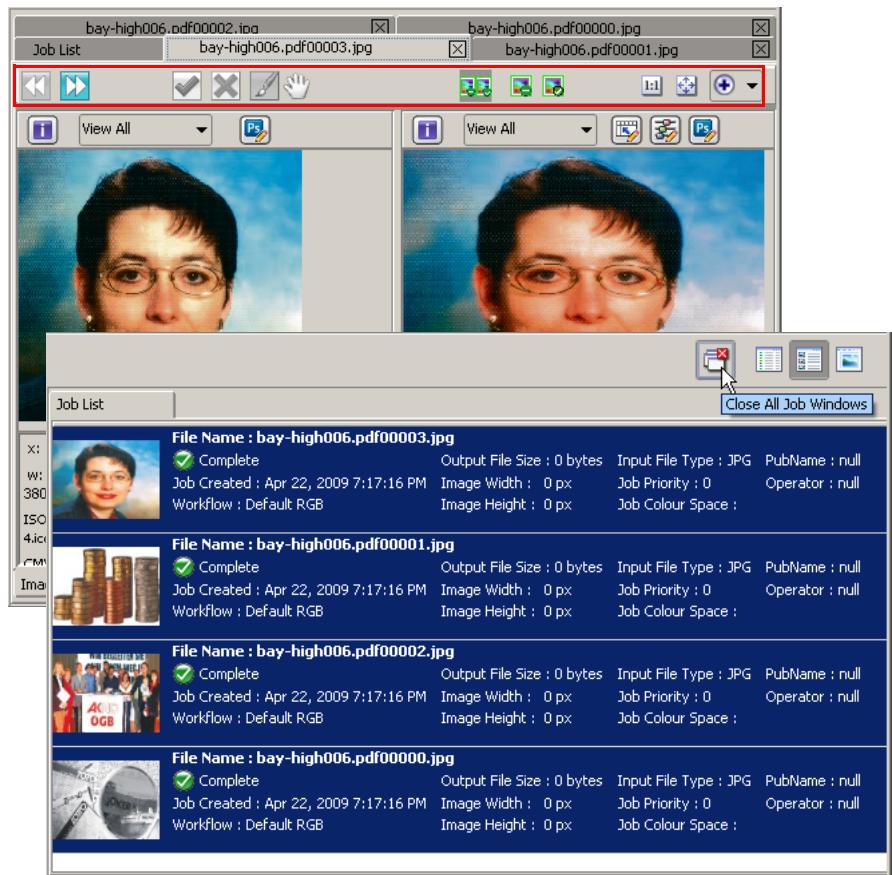
 Ready   009.tif_093928	Tiff Ready
 Collecting   009.tif	Collecting Tiff
 Active   009.tif	Tiff Active
 Complete   009.tif	Tiff Complete
 Deleted   009.tif	Tiff Deleted
 Failed   Shortcut to b...	Unknown File Type (Failed)

## Closing All Job Windows

You can close all open jobs in edit mode by clicking the **Close All Job Windows** button.

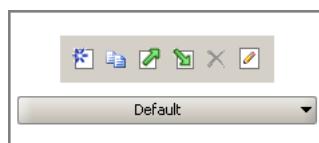


This can be useful when you are editing multiple jobs and PDF subjobs.

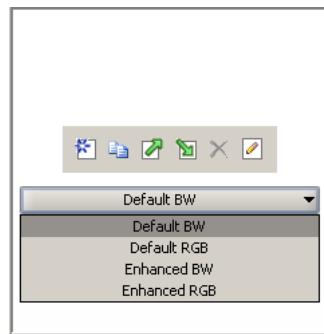


## Workflows

IntelliTuneX comes with four pre-installed workflows (refer to “Default Installations” on page 196).



All workflows, task lists, and operations are sorted in ascending order when clicking the dropdown list arrow.



Workflows cannot be changed in any way unless the system is in **Edit** mode. Click the **Edit** icon in the top left of the Workflow panel to enable this.



The system will leave **Edit** mode if **Edit** is clicked again, or if you move to the Hotfolders tab.

---

**NOTE:** Workflow items can only be deleted if they are not used anywhere. A workflow is in use if it is attached to a hotfolder, used by any existing job, or if it is referenced in a PDF operation (Process Gray, Process RGB, Process CMYK). An operation is in use if it is included in any workflow.

---

## Operations

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The following operations are available for processing images in workflows.

**Select** Refer to “Select” on page 199

**PreProcess** Refer to “PreProcess” on page 203

**Tonal Gradation** Refer to “Tonal Gradation” on page 206

“Default BW” on page 210

“Default RGB” on page 211

“Enhanced BW” on page 211

“Enhanced RGB” on page 212

**Cast Removal** Refer to “Cast Removal” on page 212

- “Default BW” on page 216
- “Default RGB” on page 217
- “Enhanced BW” on page 217
- “Enhanced RGB” on page 218
- USM** Refer to “USM” on page 218
  - “Default BW” on page 222
  - “Default RGB” on page 222
  - “Enhanced BW” on page 223
  - “Enhanced RGB” on page 223
- CMYK USM** Refer to “CMYK USM” on page 223
  - “Default Operation” on page 228
- VF Detail Enhancement** Refer to “VF Detail Enhancement” on page 229
- Adaptive Contrast Enhancement** Refer to “Adaptive Contrast Enhancement (ACE)” on page 230
  - “Enhanced BW” on page 234
  - “Enhanced RGB” on page 234
- CMYK/Gray Min Max Dot** Refer to “CMYK/Gray Min Max Dot” on page 235
- Artifact Removal** Refer to “Artifact Removal” on page 236
  - “Default BW” on page 238
  - “Default RGB” on page 239
  - “Enhanced BW” on page 239
  - “Enhanced RGB” on page 240
- File Size** Refer to “File Size” on page 240
  - “180PPI” on page 242

“No Resizing” on page 243

**Selective Color** Refer to “Selective Color” on page 243

“Default RGB” on page 249

“Enhanced RGB” on page 250

**Color Management** Refer to “Color Management” on page 250

“Default BW” on page 257

“Default RGB” on page 258

“Enhanced BW” on page 259

“Enhanced RGB” on page 260

**Output** Refer to “Output” on page 260

“Default BW” on page 265

“Default RGB” on page 266

“Enhanced BW” on page 267

“Enhanced RGB” on page 268

**GCR** Refer to “GCR” on page 268

**PDF** Refer to “PDF” on page 274

**Approve** Refer to “Approve” on page 285

**PostProcess** Refer to “PostProcess” on page 289

“Default BW” on page 293

“Default RGB” on page 293

“Enhanced BW” on page 293

“Enhanced RGB” on page 293

# Create a Workflow

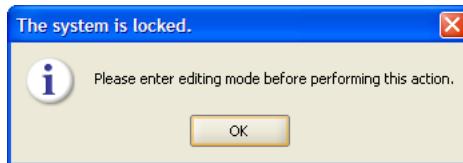
New workflows are created first, and operations are added to the workflow. Then hot folders are created. The hot folder is linked to the workflow through the Hot Folder details dialog. The hot folder will then process files based on the linked workflow.

## ► To Create a Workflow

- 1 Click the **Workflows** tab. The Workflow editor will display.
- 2 Click **Edit** to activate the workflow tools.



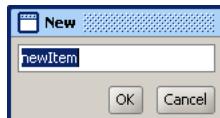
**NOTE:** If the **Edit** button is not on, a system lock message will display if you click the **New** button, or right-click on an operation.



- 3 Click the **New** button.



- 4 Choose a name for the new workflow.



- 5 Click **OK**.

**NOTE:** The workflow is empty when first created. All operations will perform their default behavior, which in most cases is no processing.

### ► To Create a New Operation

- 1 Select the newly created workflow.
- 2 Be sure the **Edit** button is turned on.

If the **Edit** button is not turned on, default operations will be marked as READ ONLY and cannot be edited.



When the **Edit** button is turned on, default operations will be marked as Default.



- 3 Right-click an operation icon.
- 4 Select **New** from the shortcut menu.



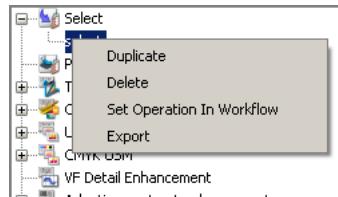
- 5 Enter a name for the operation.
- 6 Click **OK**.

### ► To Configure Operations

- 7 To configure operations, refer to the “:Arkitex IntelliTuneX Operations” on page 195.

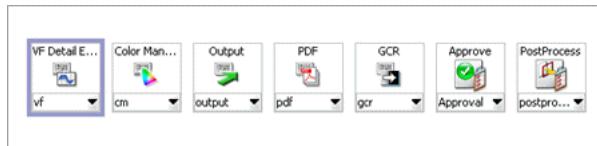
### ► To Set an Operation in a Workflow

- 8 Right-click on the operation.



- 9 Select **Set Operation In Workflow** from the shortcut menu.

- 10 An icon for the new operation will display in the workflow pane at the top of the window.



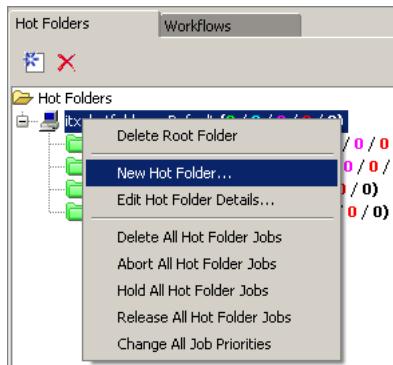
## Create a Hot Folder

You can automatically run images in a given workflow by specifying an input folder and a destination folder (a default is always configured, but a user-configured destination folder is recommended). The input folder is a workflow hot folder. Upon arrival of one or more original images in this folder, IntelliTunex will automatically process these images. Hot Folders can be assigned a priority for processing.

Input folders can be located either on the local PC or a remote PC.

### ► To Create a Hot Folder

- 1 Click the **Hot Folders** tab.
- 2 Right-click on **localhost/itx\_hotfolders**, and select **New Hot Folder** from the shortcut menu.

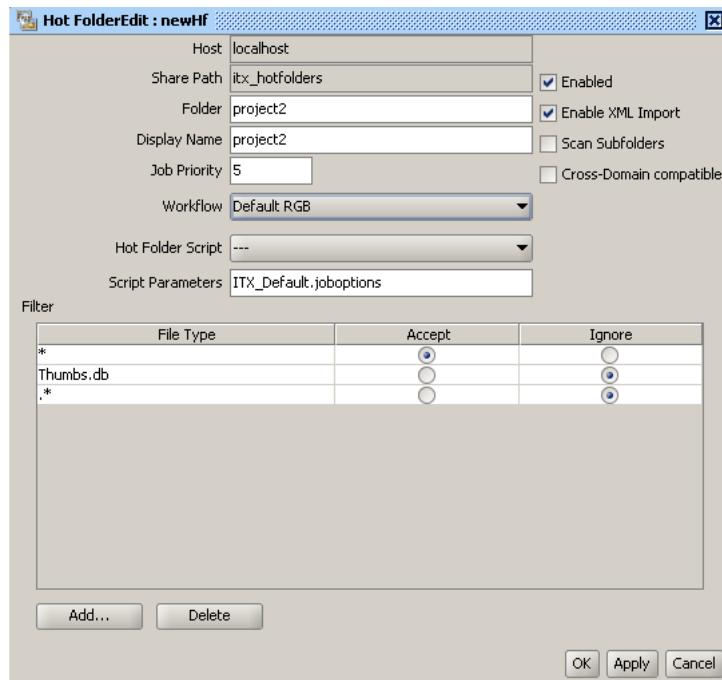


- Or click the **New** button.



**NOTE:** A new hot folder will be created initially with the name **newHf**.

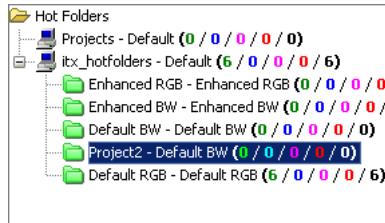
- 3 In the **Hot Folder Details** window enter a **Folder** and **Display Name**.



- 4 Enter a **value** (0 lowest priority - 9 highest priority) in the **Priority** box to attribute a priority to the hot folder.
- 5 Click the **Workflow** dropdown list, and select a workflow to link to the hot folder.
- 6 Click the **Hot Folder Script** dropdown list, and select a script.
- 7 Leave the **Script Parameters** at default, or enter other parameters.
- 8 Leave **Enabled** checked so the hot folder will be active.
- 9 **Enable XML Import** is checked by default. The work flow can be configured for XML importing. The *Type II* and *Type III* configuration is supported. *Type I* cannot be processed in a shared input configuration. Refer to “XML Import” on page 327 for details.
- 10 Checking **Scan Subfolders** allows automatic scanning of any sub folders below this hot folder.
- 11 Enable **Cross-Domain**, if necessary.

**12 Filter** is a configuration table which allows for wild card pattern matching of filenames, and allows them to be accepted or ignored. The first pattern in the table that applies determines the action to apply.

**13 Click OK.**



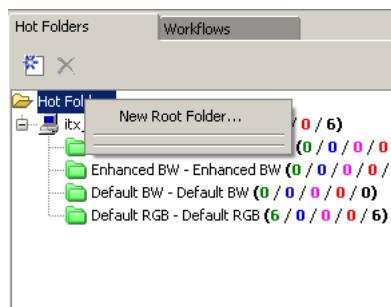
The new hot folder will be created in the **localhost/itx\_hotfolders** share, which was created when IntelliTuneX was installed.

## Create a New Root Folder

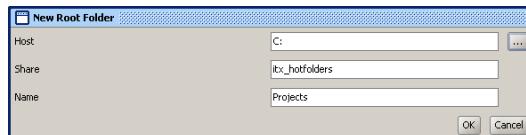
IntelliTuneX already comes with a root folder created so you can begin processing files. If you need to create a new root folder, follow these procedures.

### ► Steps

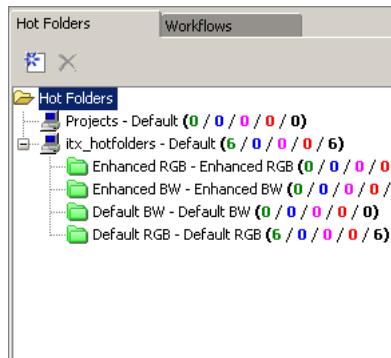
**1** Right-click on **Hot Folders** in the tree.



**2** Select **New Root Folder** from the shortcut menu.



- 3 Enter the **Host IP Address**. A host name in accordance with the Windows host table may be used. A remote shared folder can also be entered and will become a remote input point. You can also browse to a location.
- 4 Enter the name of the **Share** on the server.
- 5 Enter a **Name** for the folder.
- 6 Click **OK**.
- 7 The root folder appears in the tree below **Hot Folders** and at the same level as **localhost/itx\_hotfolders**.



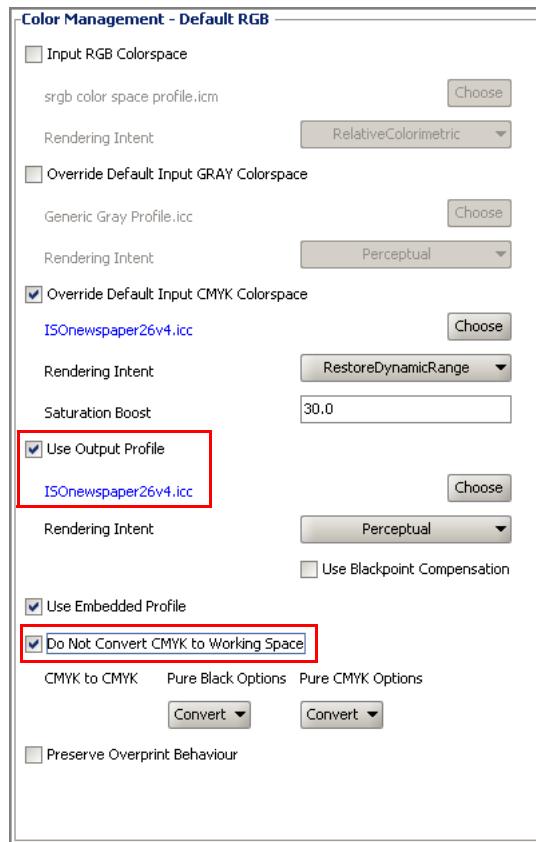
## PDF Processing

To process PDFs you must modify the Default RGB Color Management operation prior to importing PDFs.

---

**NOTE:** IntelliTuneX must be licensed for PDF processing.

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- 1 Check **Use Output Profile**.
- 2 Select a CMYK profile.

**NOTE:** ISOnewspaper24v4.icc is the default CMYK profile installed with IntelliTuneX.

You must check **Use Output Profile** and have a CMYK profile in Color Management for PDF processing. If not, this message will display when you try and open a PDF.



- 3 Check **Do Not Convert CMYK to Working Space**.

You will get this error message when attempting to open a PDF if **Color Management** is not configured correctly.



## Uploading Files

Once you have established workflows and hot folders, you will use them in your production environment. Jobs can be dropped in input folders based on how your network is configured to transmit images.

Upon arrival of jobs in the input folder, IntelliTuneX will automatically process the jobs. You can then view the job from the job list.

## Viewing the Processed File

You can compare the before and after result; select the full-color representation; or just the Cyan, Magenta, Yellow, Black, or CMY.

Two tabs are available when editing a job:

- **Image** (refer to “Info” on page 180)
- **Log** (refer to “Log Tab” on page 144)

### Image Tab

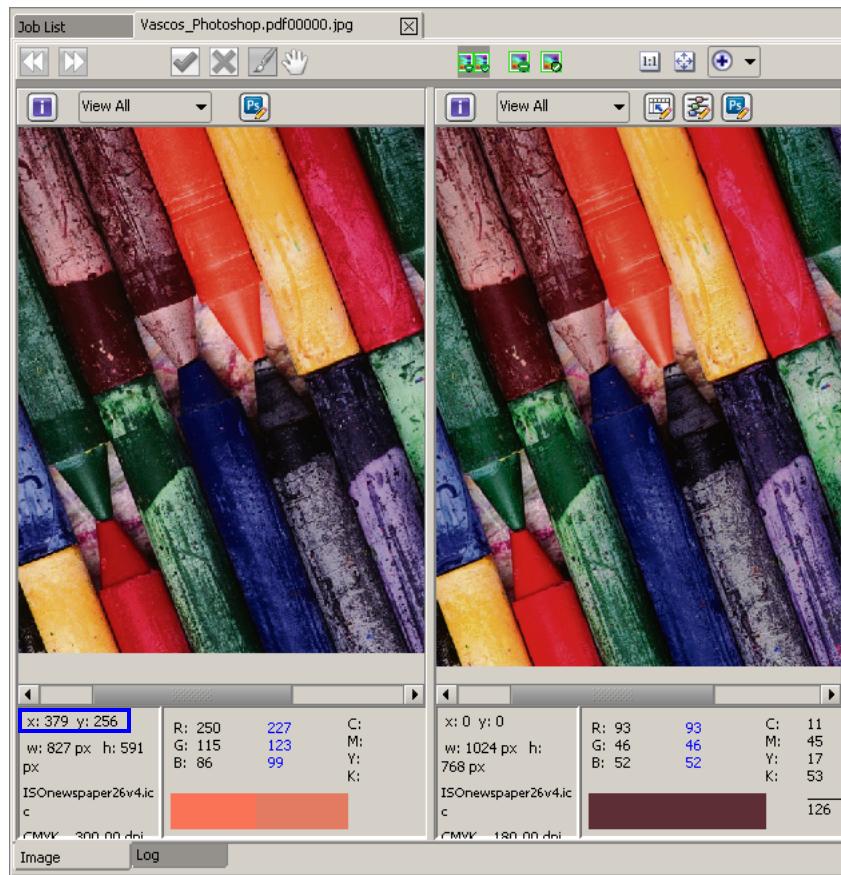
Use the Job Toolbar to view the source file, result file, simulation, compare source and result, remove, and approve the job.

---

**NOTE:** In single view mode, you can hot key to the source file by using Alt+S, and to the result file by using Alt+R.

---

The Image Tab is the default tab.



## Location and Color Coordinates

- X/Y** The X and Y coordinates of the image part being viewed.
- RGB** The Red, Green and Blue values of the image coordinates being viewed.
- CMYK** The Cyan, Magenta, Yellow and Black values of the image coordinates being viewed.
- Average** Displays in the Source and Results images.
- Difference** Displays in the results images.
- ICC Profile** The icc profile in use.
- DPI** Dots per inch value.
- Source/Result** Identifies if the image is the source or result.

## Job Toolbar

Button	Click to
	Show Previous Job
	Show Next Job Next job scrolling always checks for new jobs which are higher in the selected sort order. If jobs are sorted on priority, and a new higher priority job arrives, it will be the next job opened while scrolling rather than the job in the next physical position in the job list.
	Approve job
	Reject job
	View in Acrobat (displays for PDF jobs)
	Edit image Photoshop
	Display dual view
	Show result
	Show source
	Show Original Pixels. For every image pixel, there is a screen pixel.
	Fit to Window
	Approve Job
	Reject Job
	Held For Retouch This button allows an operator to set the state of a Job to Held for retouch. The purpose of this is that an operator may decide a particular image needs detailed Photoshop editing but this needs to be done by another operator. Setting the job into this state means that other operators know that the job has already been assessed.

Button	Click to
	<p>Enable Hand Tool Hand Grab Pan</p> <p>To start panning, click the "Hand Icon" in the toolbar to enter "panning" mode.</p>  <p>Click and drag the cross shaped pointer to move around the image.</p> <p>Hot Key Pan</p> <p>The "Hot Key" functions similarly but instead of selecting the "Hand Tool", the user moves the image by dragging the left button mouse and pressing the "Shift" key simultaneously.</p>
	Magnify
	Zoom In
	Zoom Out

## Subjob Toolbar

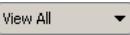
When a PDF subjob is opened, the following tools display.

### ■ Source Toolbar

Button	Click to
	Info (refer to "Info" on page 180)
	Advanced Edit
	<p>View All (PDF, Tiff, Jpeg)</p> <p>View Cyan, View Magenta, View Yellow, View Black, View CMY</p> <p>View All (Jpeg), View Red, View Green, View Blue</p>

Button	Click to
	Interactive Edit
	Edit image Photoshop (displays only if Photoshop is installed)
	Proof Image

■ Result Toolbar

Button	Click to
	Info (refer to "Info" on page 180)
	View All (PDF and Tiff) View Cyan, View Magenta, View Yellow, View Black, View CMY View All (Jpeg), View Red, View Green, View Blue
	Advanced Edit
	Interactive Edit
	Edit image Photoshop
	Proof Image

## Image Tab Tools

Clicking source, result, compare, high resolution, original pixels, fit to window, and View produce different display results.

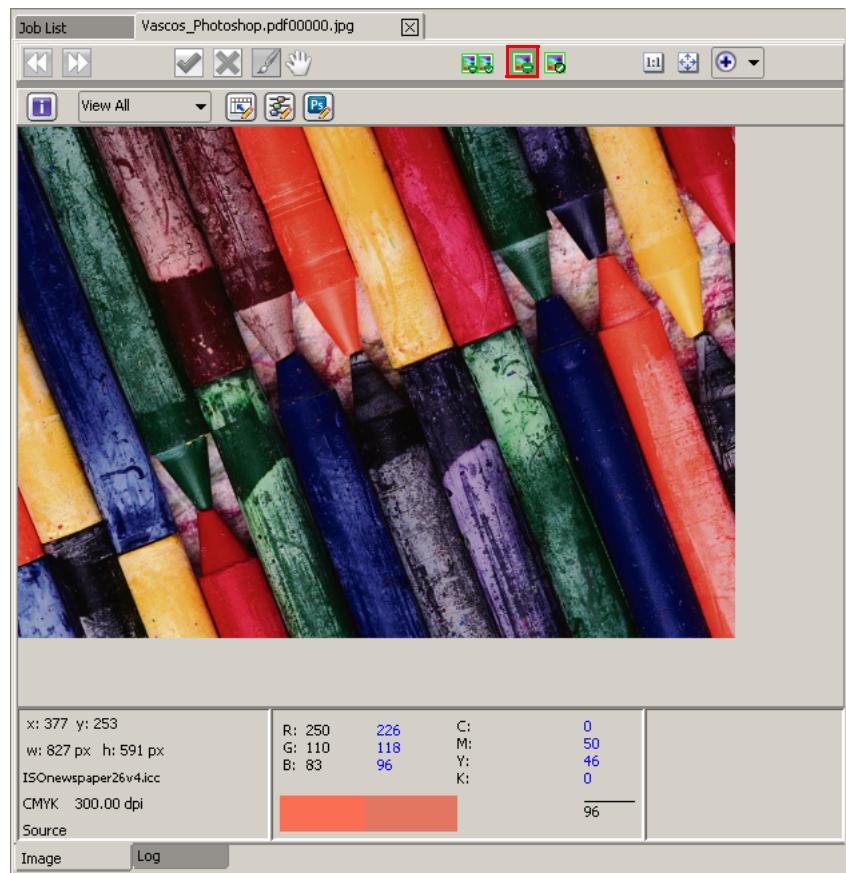
- For a CMYK output profile you can compare the before and after result, select the full-color representation, or just the CMY.
- For an RGB output profile, you can compare the before and after result, view all, or select Red, Green, or Blue.

---

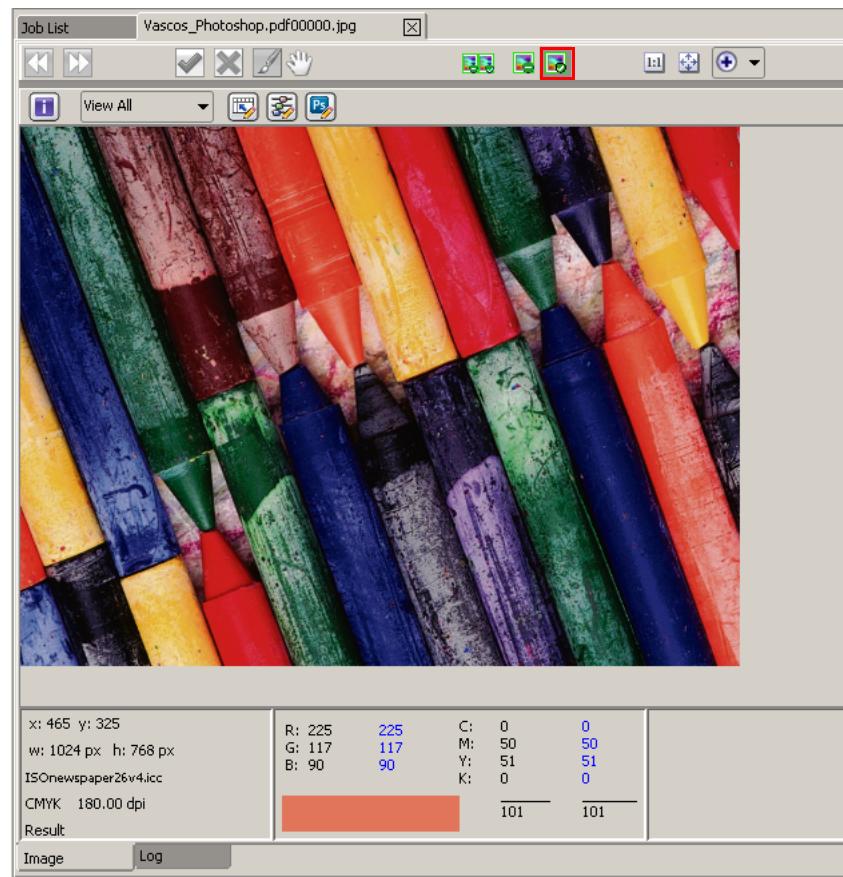
**NOTE:** The output profile is controlled through the Color Management operation (refer to "Color Management" on page 250).

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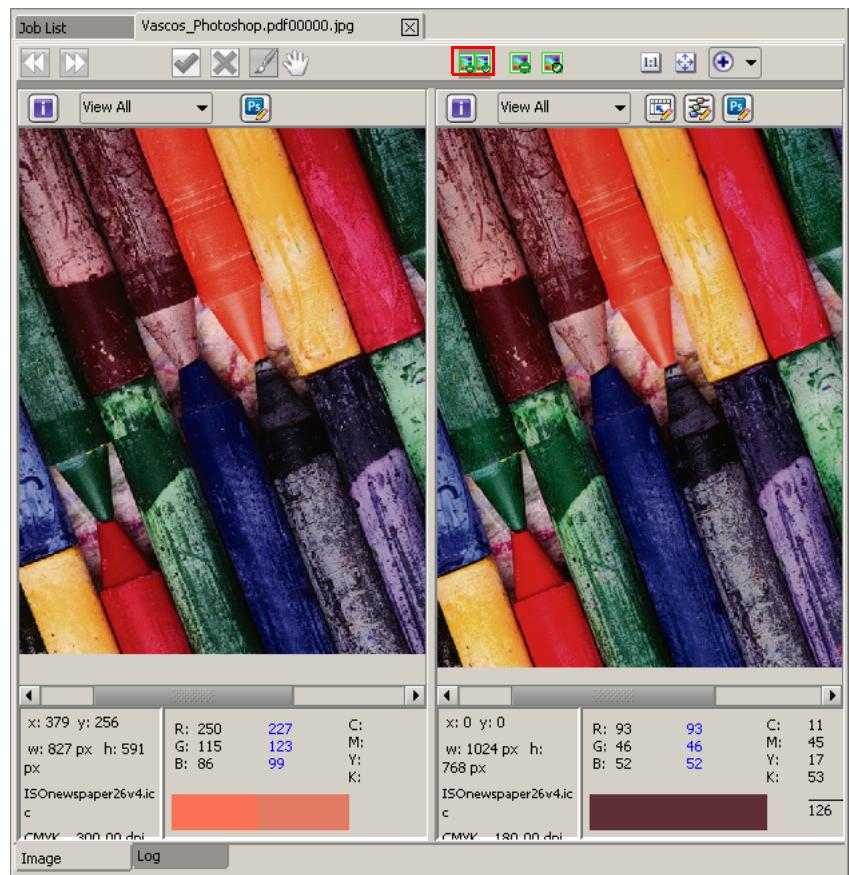
## ■ Source



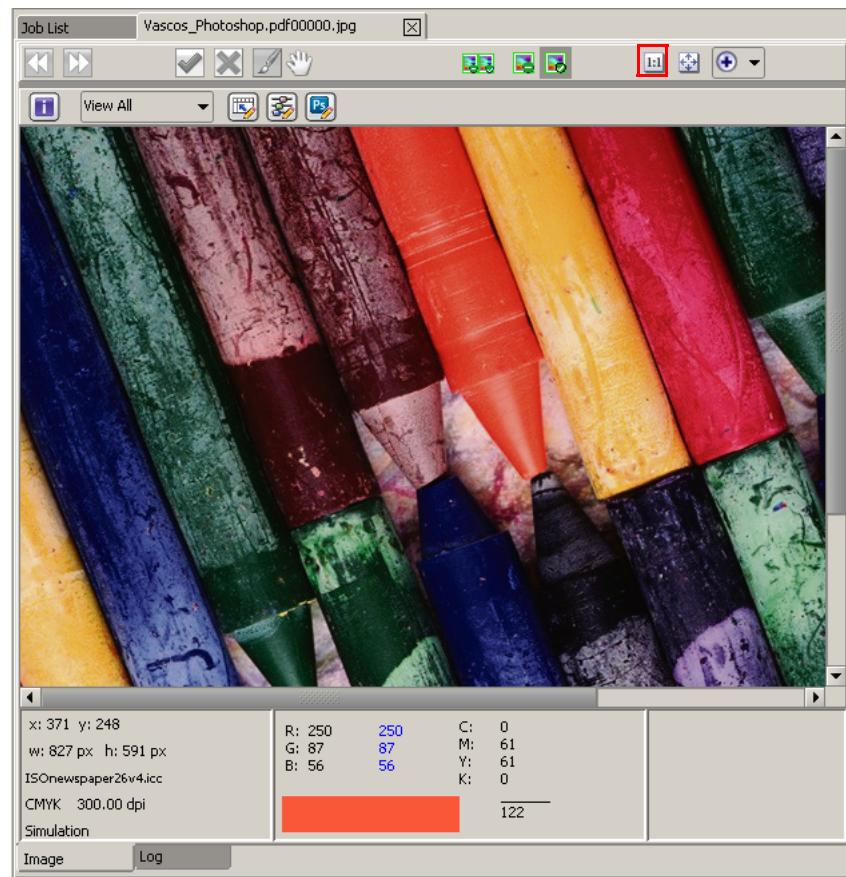
## ■ Result



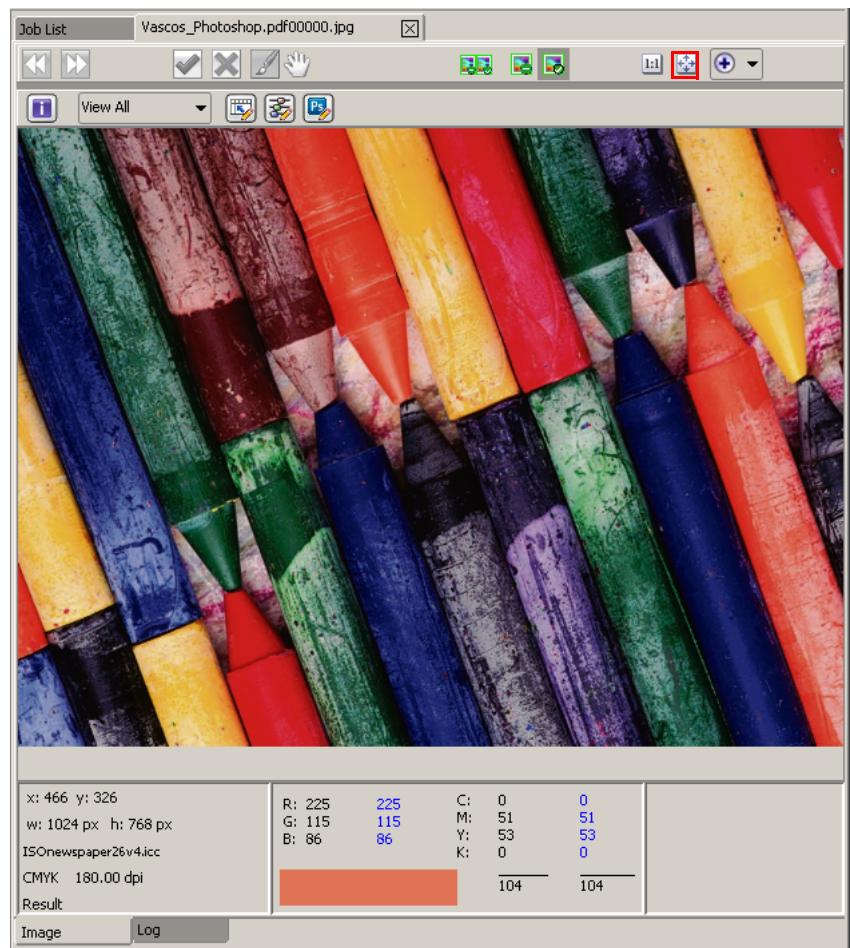
### ■ Dual View



### ■ Show Original Pixels

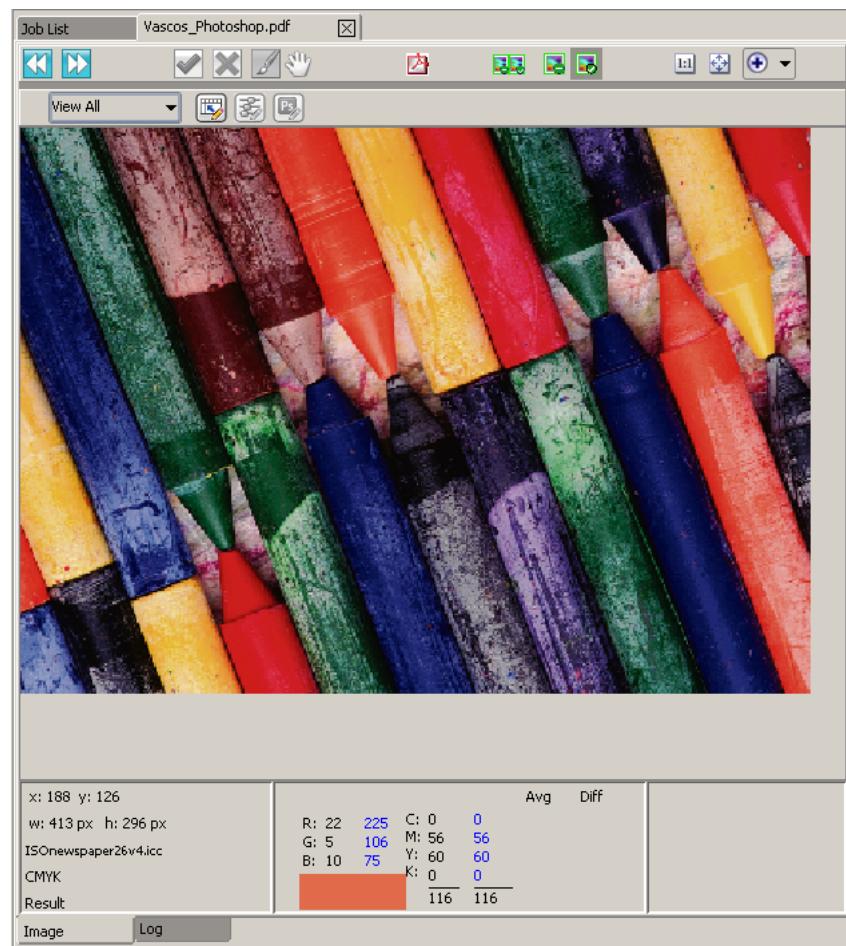


■ Fit to Window

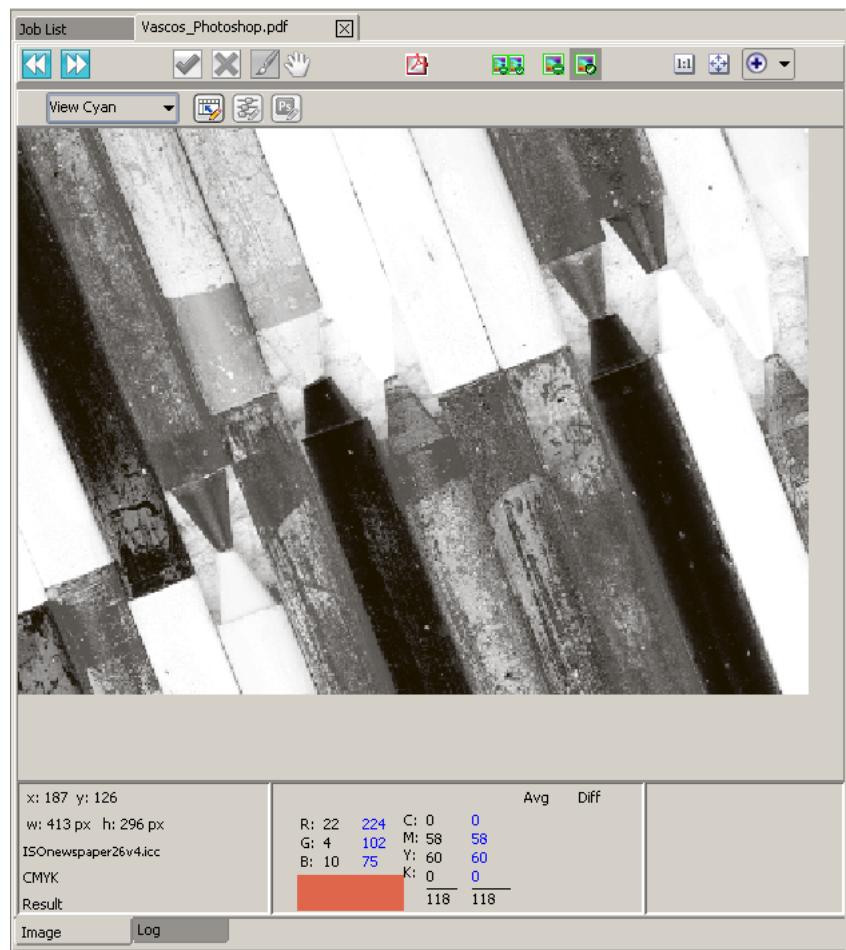


## ▷ PDFs and Tiffs

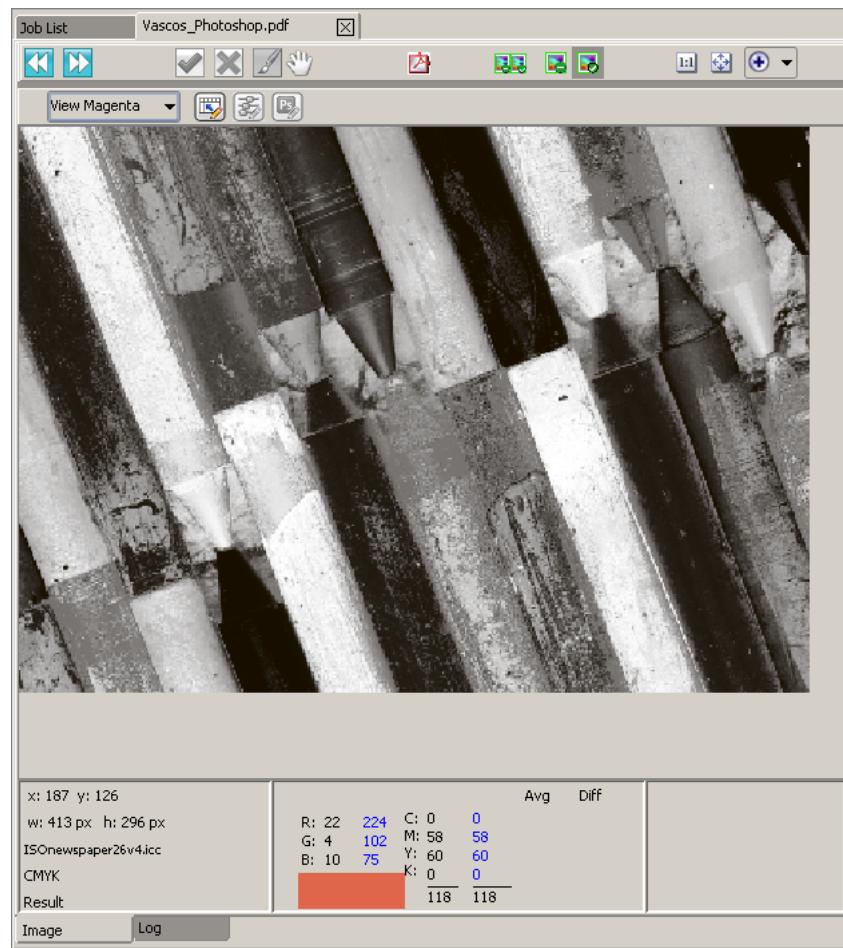
CMYK Profile ■ View All



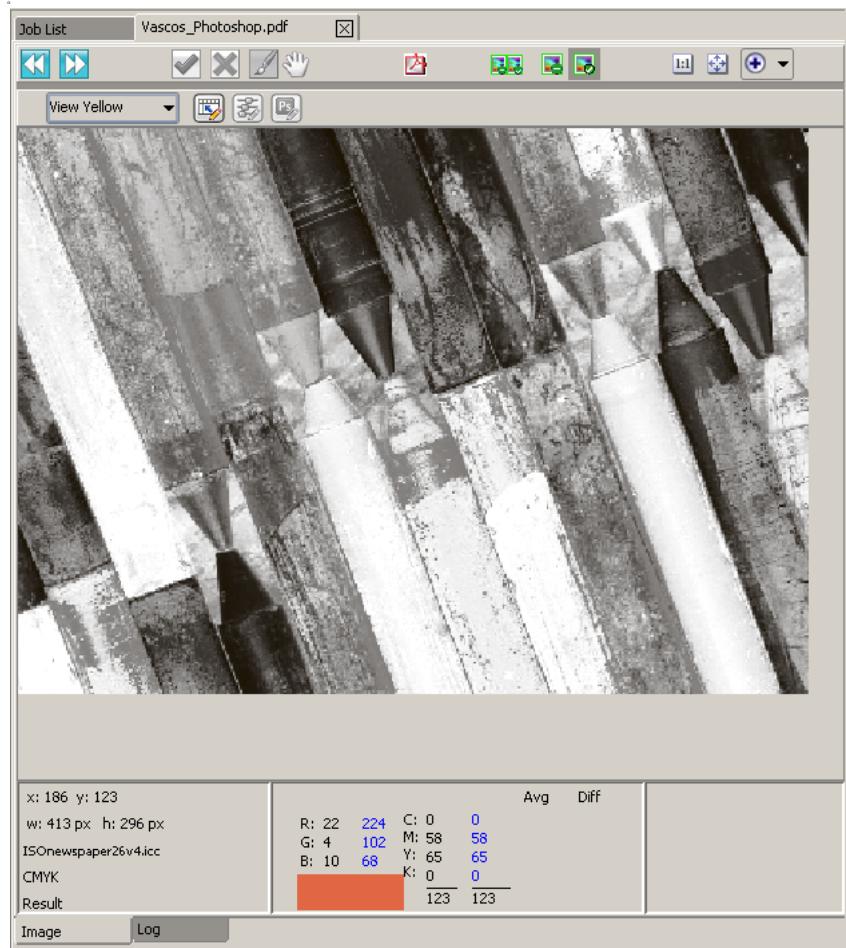
■ View Cyan



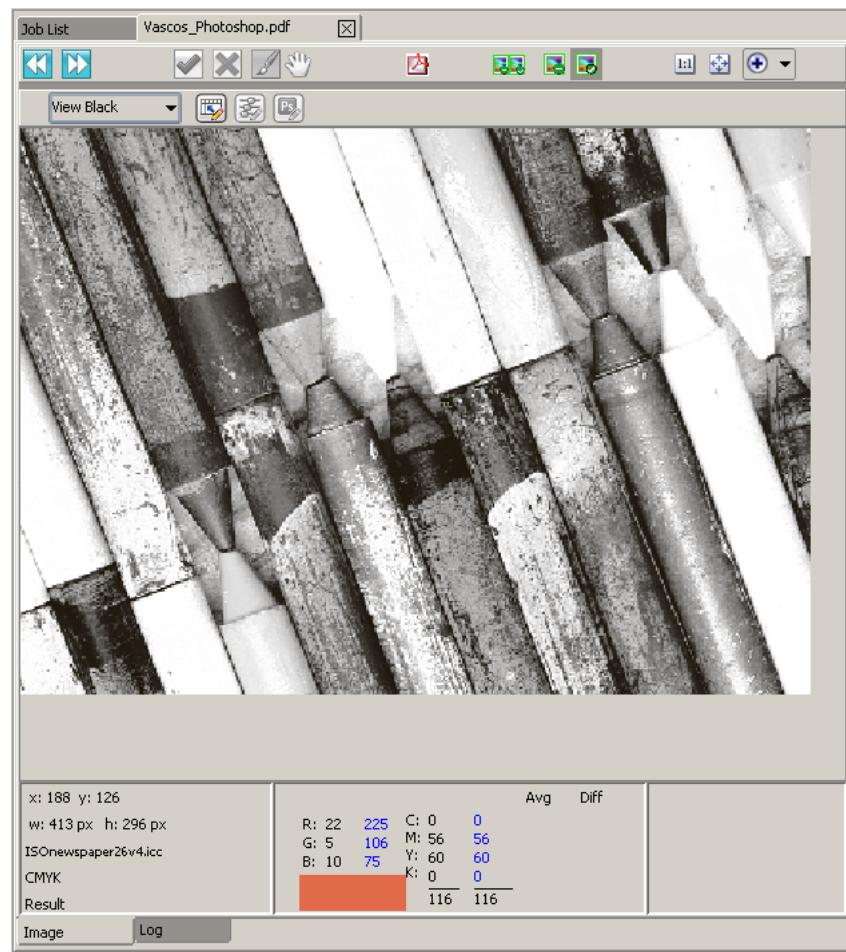
### ■ View Magenta



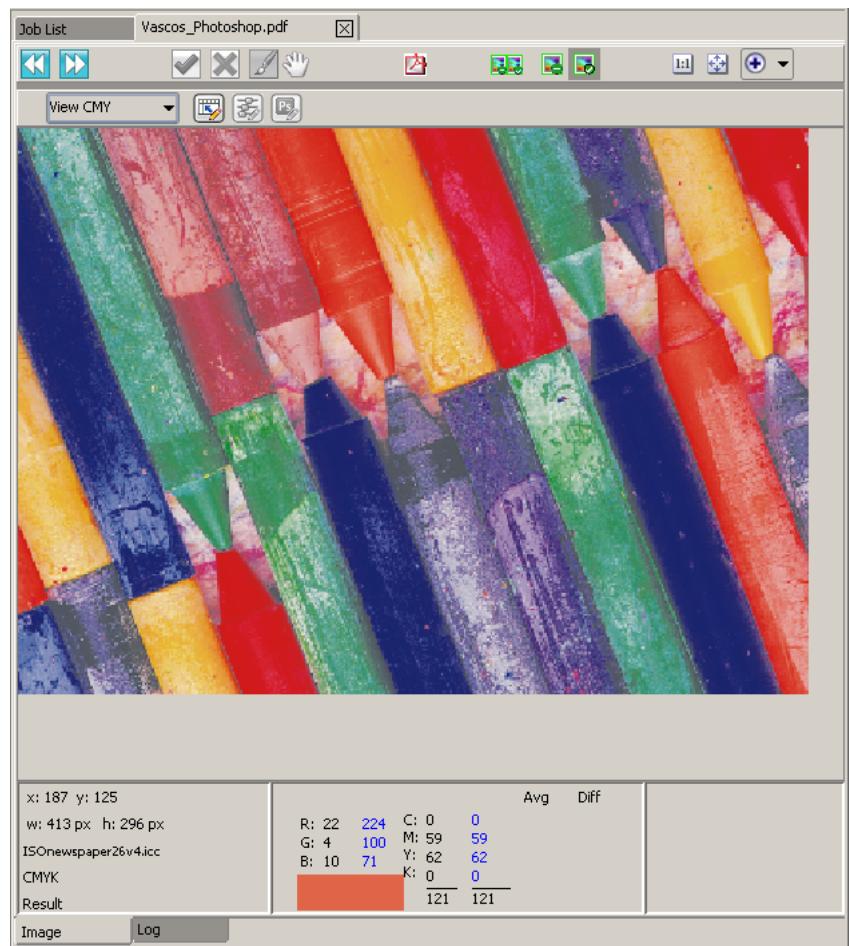
■ View Yellow

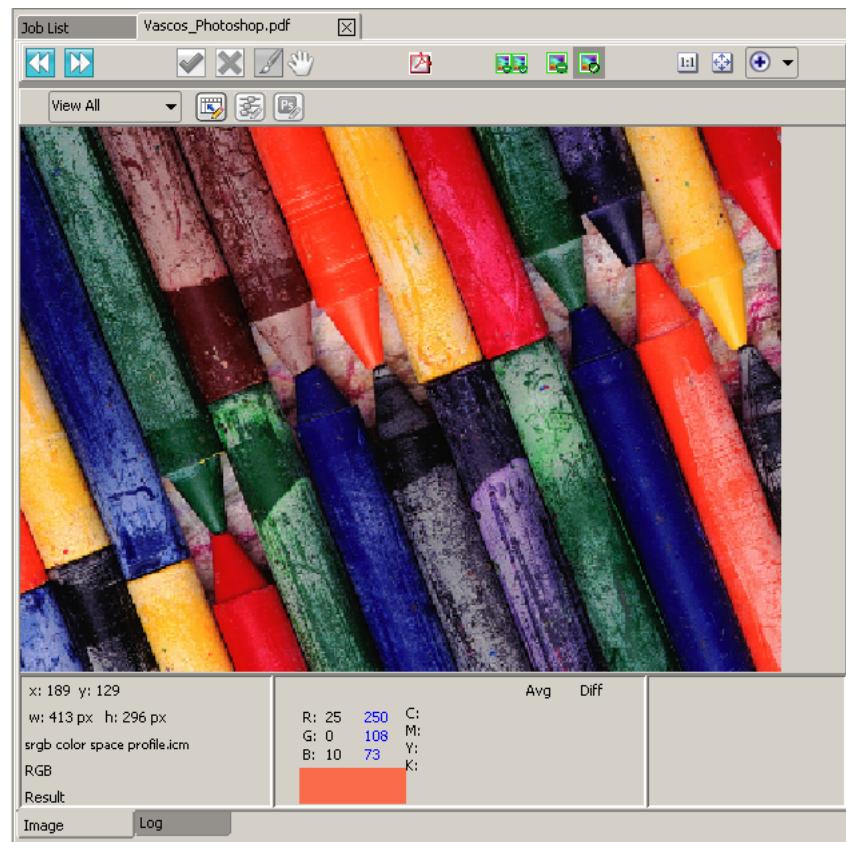


### ■ View Black

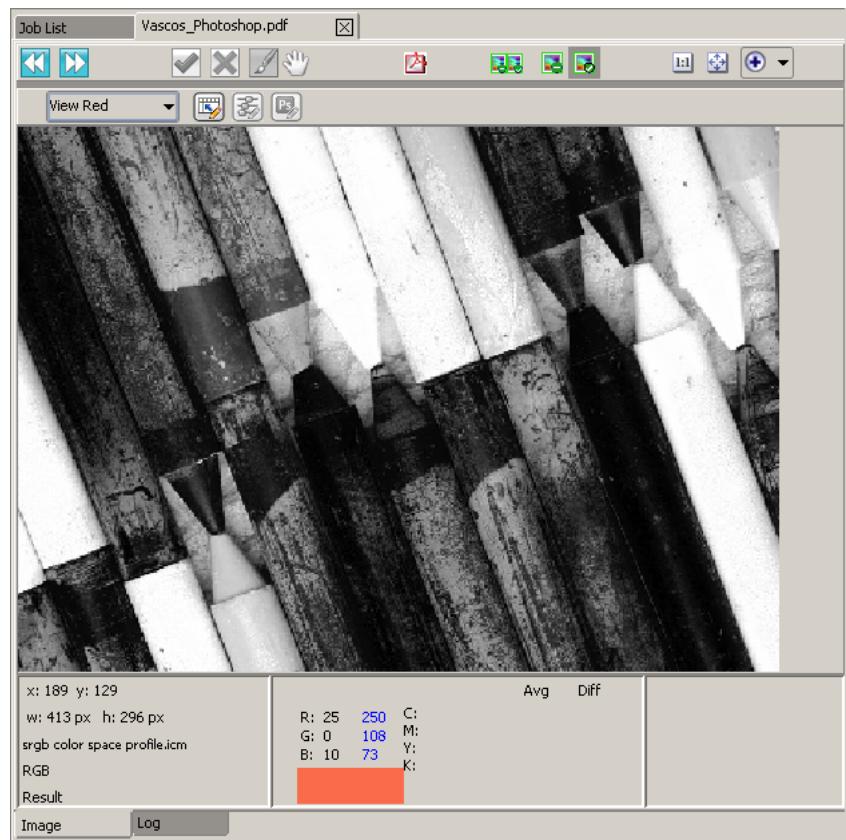


### ■ View CMY

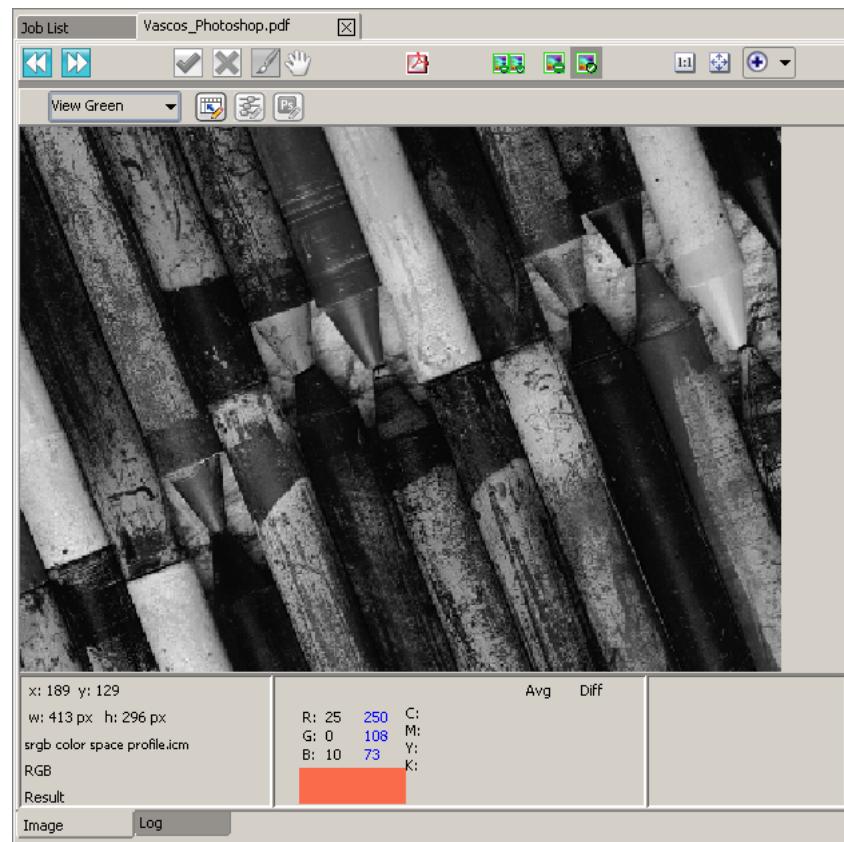


**RGB Profile** ■ View All

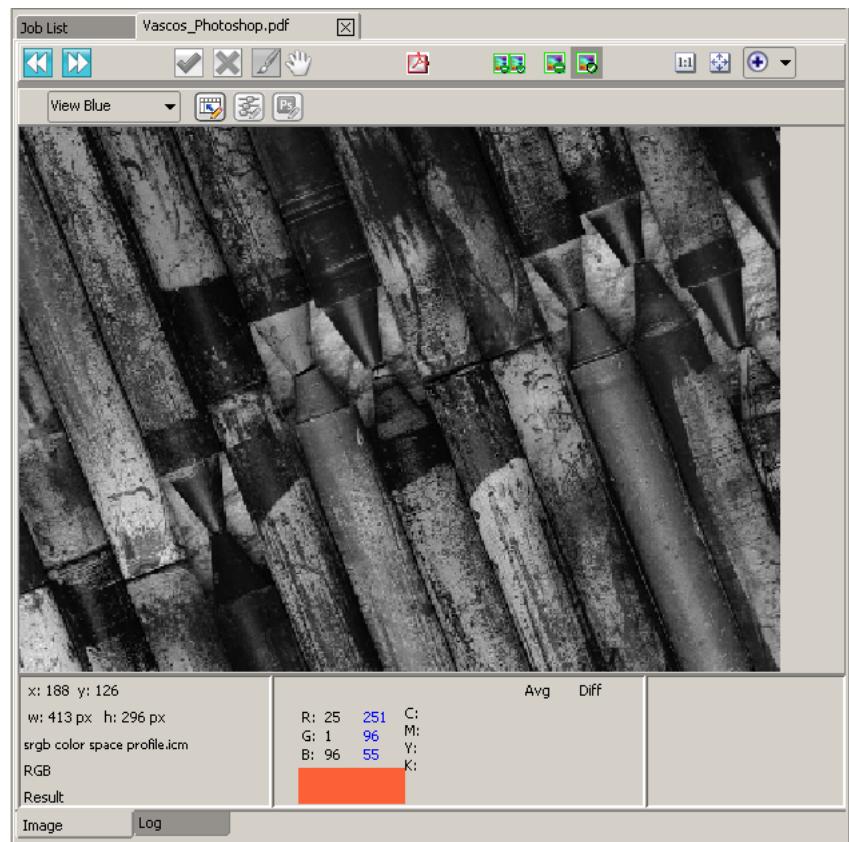
### ■ View Red



### ■ View Green

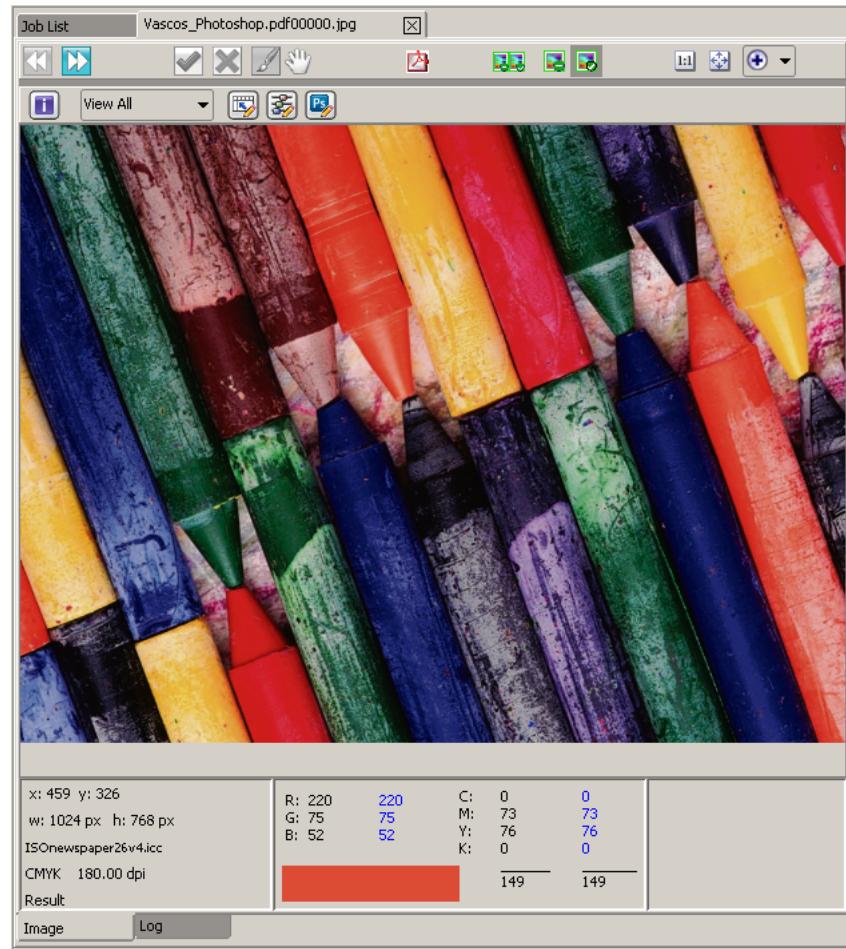


### ■ View Blue

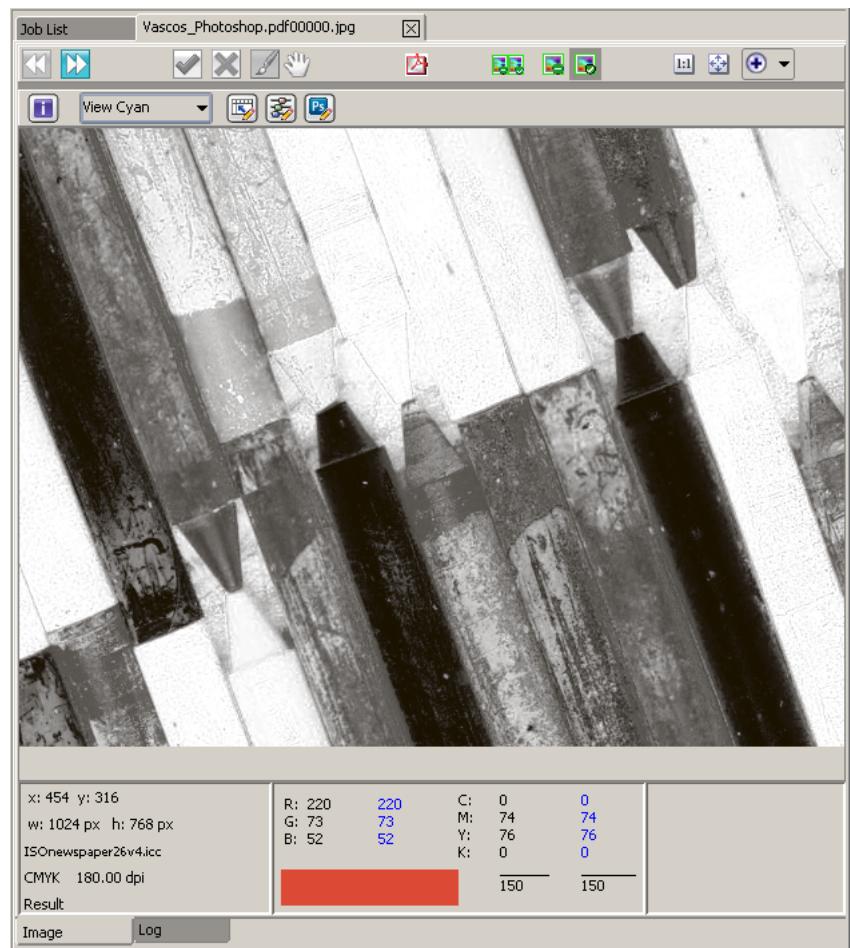


## ► Jpegs

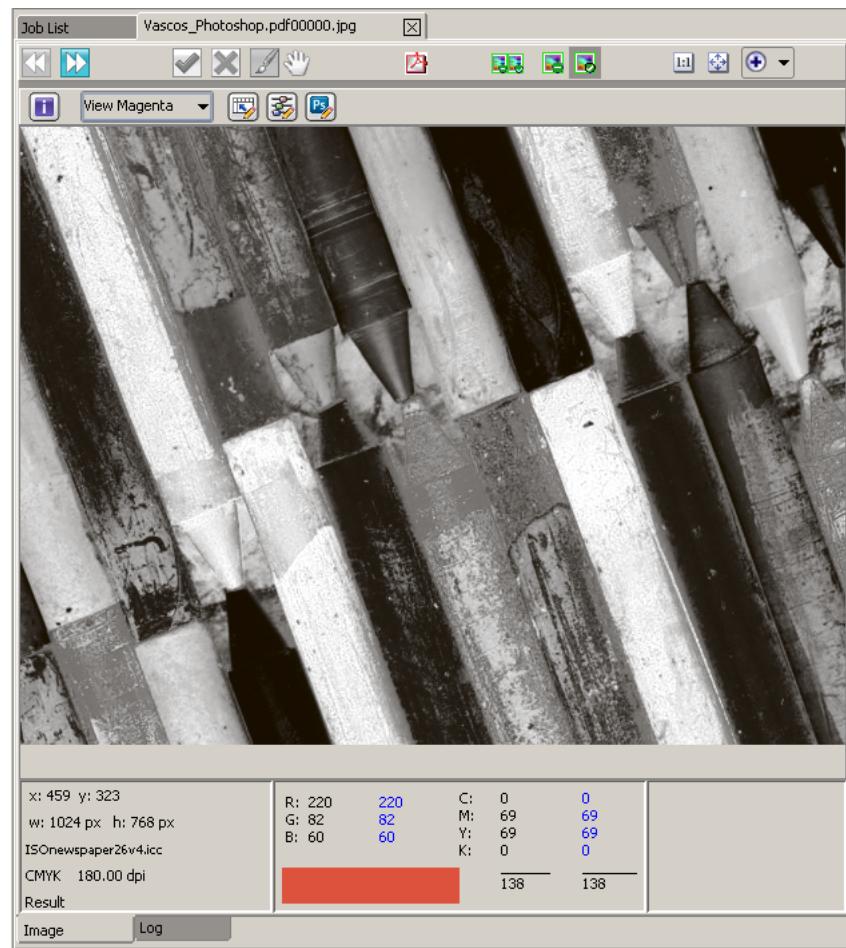
### ■ View All



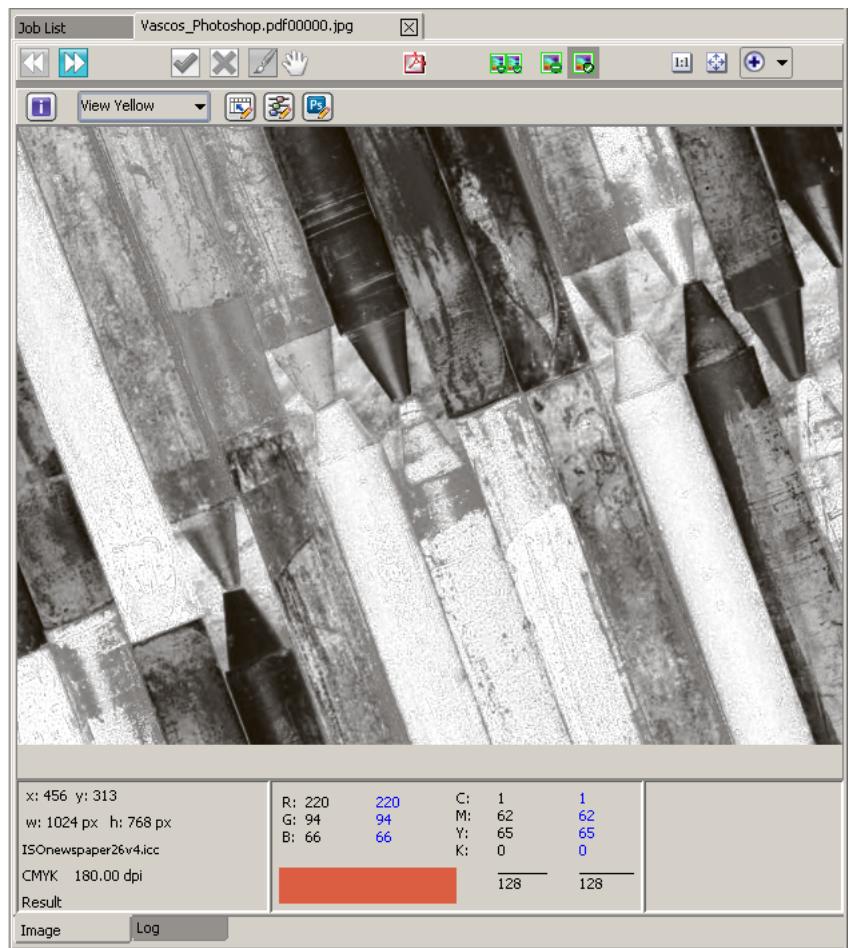
### ■ View Cyan



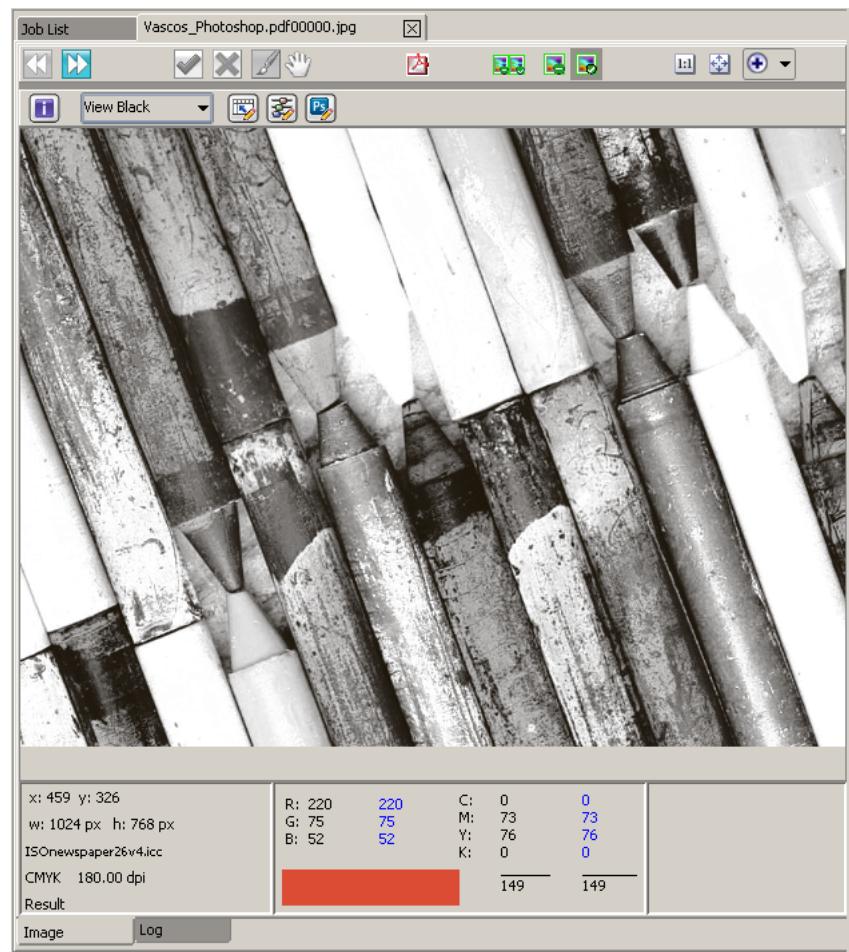
### ■ View Magenta



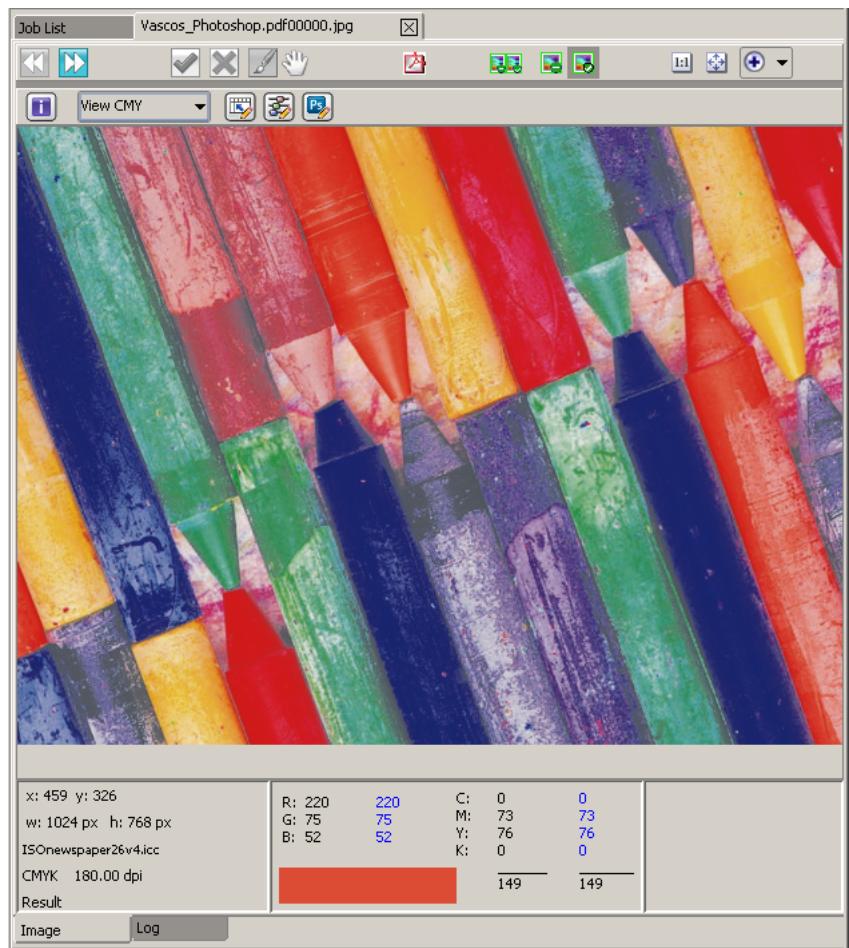
### ■ View Yellow



### ■ View Black

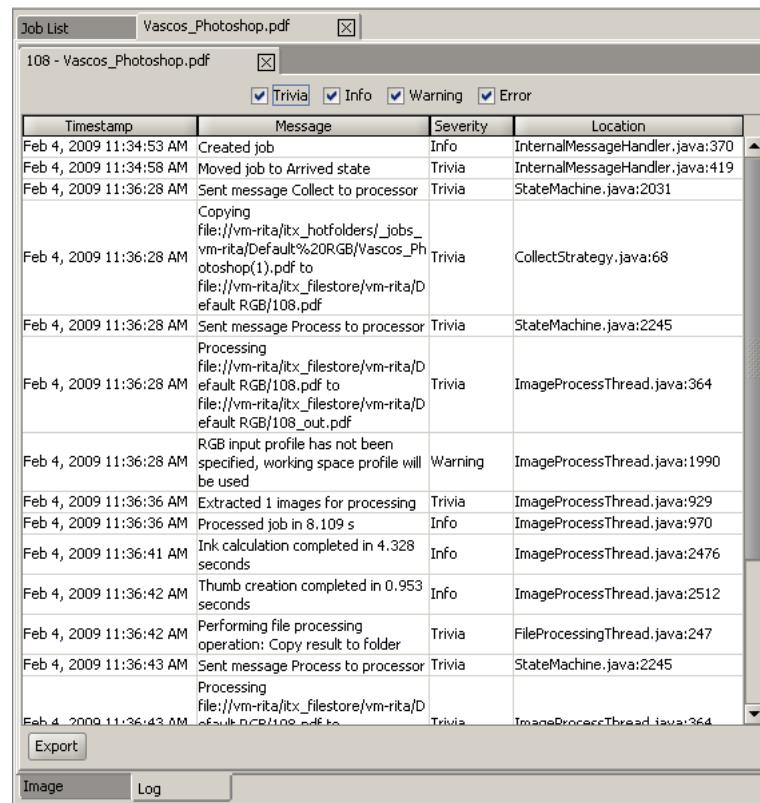


### ■ View CMY



## Log Tab

The Log tab displays messages about that job. By checking the desired filters (Trivial, Info, Warning, and Error), only those messages will display.



The screenshot shows a window titled 'Job List' with the job name 'Vascos\_Photoshop.pdf'. The window contains a table with the following columns: Timestamp, Message, Severity, and Location. The table lists various processing events for the job, such as 'Created job', 'Moved job to Arrived state', and 'Sent message Collect to processor'. The 'Severity' column includes 'Info', 'Trivial', 'Warning', and 'Error' levels. The 'Location' column provides the source code file and line number for each message. At the bottom of the window, there are tabs for 'Image' and 'Log', and a button labeled 'Export'.

Timestamp	Message	Severity	Location
Feb 4, 2009 11:34:53 AM	Created job	Info	InternalMessageHandler.java:370
Feb 4, 2009 11:34:58 AM	Moved job to Arrived state	Trivial	InternalMessageHandler.java:419
Feb 4, 2009 11:36:28 AM	Sent message Collect to processor	Trivial	StateMachine.java:2031
	Copying		
Feb 4, 2009 11:36:28 AM	File:/vm-rita/itx_hotfolders/_jobs_vm-rita/Default%20RGB/Vascos_Photoshop(1).pdf to File:/vm-rita/itx_filestore/vm-rita/Default RGB/108.pdf	Trivial	CollectStrategy.java:68
Feb 4, 2009 11:36:28 AM	Sent message Process to processor	Trivial	StateMachine.java:2245
	Processing		
Feb 4, 2009 11:36:28 AM	file:/vm-rita/itx_filestore/vm-rita/Default RGB/108.pdf to File:/vm-rita/itx_filestore/vm-rita/Default RGB/108_out.pdf	Trivial	ImageProcessThread.java:364
Feb 4, 2009 11:36:28 AM	RGB input profile has not been specified, working space profile will be used	Warning	ImageProcessThread.java:1990
Feb 4, 2009 11:36:36 AM	Extracted 1 images for processing	Trivial	ImageProcessThread.java:929
Feb 4, 2009 11:36:36 AM	Processed job in 8.109 s	Info	ImageProcessThread.java:970
Feb 4, 2009 11:36:41 AM	Ink calculation completed in 4.328 seconds	Info	ImageProcessThread.java:2476
Feb 4, 2009 11:36:42 AM	Thumb creation completed in 0.953 seconds	Info	ImageProcessThread.java:2512
Feb 4, 2009 11:36:42 AM	Performing file processing operation: Copy result to folder	Trivial	FileProcessingThread.java:247
Feb 4, 2009 11:36:43 AM	Sent message Process to processor	Trivial	StateMachine.java:2245
	Processing		
Feb 4, 2009 11:36:43 AM	File:/vm-rita/itx_filestore/vm-rita/Default RGB/108_out.pdf to	Trivial	ImageProcessThread.java:364

Four message filters are available:

- Trivial** When checked Trivial messages are displayed.
- Info** When checked information messages are displayed.
- Warning** When checked warning messages are displayed.
- Error** When checked error messages are displayed.

### Column Headings

**Timestamp:** Column displaying the time the file was processed.

**Message:** Column displaying processing messages.

**Severity:** Column displaying the severity of the message. Messages are classed as trivial, info, warning, and error.

**Location:** Column displaying java processing locations.

Columns contents can be sorted by clicking the column heading. A sort arrow will display. Contents can be sorted in ascending and descending order.



**Export** Log information can be exported to a **.txt** file using **Export**.

## Approving Jobs

Files requiring approval will remain in a "Held for Approval" state until an operator accepts, or rejects them. Typically, a job is held for edit and approval, but an editing action is not needed to approve a job.

An operator can select, view, edit, and approve a job (or job groups) from the list, detail, or thumbnail view of the Job List. A more efficient procedure is to scroll between held jobs using the toolbar buttons for "Show previous job" and "Show next job". All job operations are available, and the operator can approve or reject the job using the toolbar buttons. Scrolling will automatically skip all jobs that have already been accepted or rejected. Use User Preferences to configure how scrolling moves through the job list.

At this point, the operator has these choices:

### Immediate Right-Click Approve

The operator can, if time is limited approve the job from the Job List without the overhead of softproofing. In this case, a right-click would include the choice **Approve Job**, which would be greyed out unless the job is in **Held for Approval** state.

### Approval Following Softproof

The operator can double-click the job, issue a **Job Edit**, or scroll to the next job using the arrow icons. At this point the image compare screen appears, and the job goes into a new status - Viewing (Held). Then they may immediately approve the job by clicking the **Approve** icon. Or they would choose to edit via **Advanced Edit**, **Interactive Edit**, or calling PhotoShop.

Whatever is chosen, the job goes into the status Editing (Held). When a value is typed in during edit (for example, Target Gamma), the client will respond to the data entry with a short time delay. There is no need to tab out to another field.

On completion of the edit, whether cancelled or not, the operator can click the **Approve** icon, and job processing is finalized, and shown as Completed. Following an Approval, the next available image in "Held for Approval" state will be displayed as a softproof.

## Rejection Following Softproof

The operator can Reject the job, either immediately or following attempts to edit it. The original file can then be copied into a folder configured by the operator to receive rejected jobs, and the job will go into a Rejected state.

---

**NOTE:** The magenta color in the User interface indicates how many files have been rejected.

---

Following a Rejection, the next available image in "Held for Approval" state will be displayed as a softproof.

## Status Flow for Workflow Without Approve

It may be useful to present the job status changes to compare and contrast the workflow with and without Approve. This section shows the workflow in a system where there is no Approve set up.

## The User Interface - Folder Icon Colors

These have been increased to five:

- The number of jobs processed successfully.
- The number of jobs awaiting approval.
- The number of rejected jobs.
- The number of jobs in error.
- The total number of jobs in the job list.

An example is: Default RGB - Default RGB (25 / 50 / 3 / 0 / 78)

The operator can see at a glance what is remaining to approve at any time during the production.

## The User Interface - Folder Icon Colors

With more available statuses, the hierarchy of folder overview is important. If everything is going well with no errors, each icon folder is shown as green. Otherwise, the following hierarchy is used from highest to lowest:

- Job in error
- Job held awaiting approval
- Job rejected
- Job being edited (by any client on the system, visible to all)
- Job being viewed (by any client on the system, visible to all)

## The User Interface Icons

The icon arrangement of the User interface is based on the following:

	Edit image in Photoshop or Acrobat.
	The edit buttons. These are generic, and do not depend on the Approve workflow being active. These buttons do not, in themselves, scroll the edit/view to the next available image.
	The Next/Previous buttons will scroll to the next image in the Job List. This allows an operator/manager to quickly scroll through and review all images that have been edited. Scrolling will stop at end of the job edit list.
	The Approve/Reject buttons are active only when viewing/editing a job that is in Held for Approval state. Otherwise they are either grayed out, or do not appear at all. The use of these always scrolls to the next available "Held for Approval" image. In the case that there are no further images to approve, the operator view returns to the job list.

## Lifetime of Viewing and Editing Status

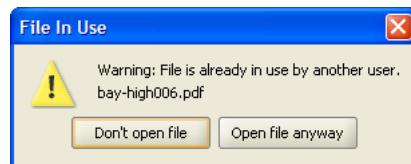
Any job in Viewing or Editing status shall be returned to its pre-editing status (either Completed, or Held for Approval) if the operator closes the client or if the connection between the client and server is lost. This includes a reboot of the machine while the client is still running.

## Multi-Operator Considerations

The following should be considered in a multi-operator IntelliTuneX environment.

### Image Already Being Edited

If an operator tries to edit an image that is being edited by another operator, a dialog box will appear asking the operator whether to proceed or cancel.



If the operator cancels having selected the job from the job list, the screen will return to the preview of that image, and the operator returned to the job list view.

If an operator cancels the edit/view without having issued an approval or rejection, IntelliTuneX will automatically progress to the next available image as if the operator had pressed the scrolling arrow key.

## Client-Specific Configuration Options

There are two client-specific options that allows the operator to select how to scroll, edit and lock.

### Operator Scrolling

The first option is for operator scrolling. The default will be to scroll through all images, whatever status they are in. Or the operator can select so that the Next/Previous arrow keys can only scroll through images with status "Held for Approval".

---

**NOTE:** For this setting jobs that have not been approved, but are in Viewing (Held) and Editing (Held) status, will also be skipped when scrolling. They are explicitly not in Held for Approval status. Refer to "Specifying User Preferences" on page 63 to configure Job List Viewing and Editing.

---

## Lock on View

The second option is for the lock itself. The default is to only apply the lock when the image is being edited by another operator. Or the operator can choose to apply the lock when another operator is also viewing the same image.

## Logging of Approve and Reject

All approval and rejection actions are recorded, along with the login name of the user who initiated the action. This appears in the system log, and each job log.

The lock will not be necessary when an operator scrolls if the option to only see jobs waiting for approval is set (as a job being edited will never be selected, subject perhaps to unusual conditions).

As long as remote clients have their status updated in a responsive manner, an operator will usually see in advance whether a job is currently being viewed, or edited before selecting it for viewing.

As long as the status flow and options are implemented, the edit and view lock are likely to be very rare events, and this enables multiple operators to work seamlessly together on a production run.

## Advanced Edit

**Advanced Edit** is available for PDF jobs and PDF subjobs. Profiles can be changed, disabled, or enabled.

---

**NOTE:** Under User Preferences **Deferred Processing of Edit** controls job edit processing for Advanced Edit. Refer to “Specifying User Preferences” on page 63.

If checked, the **OK** button will be shown in the Advanced Edit dialogs. Changes will not be applied until exiting from editing.

---

If unchecked, the **Apply** button will be shown, and changes will take effect immediately after clicking the button.

## Import/Export

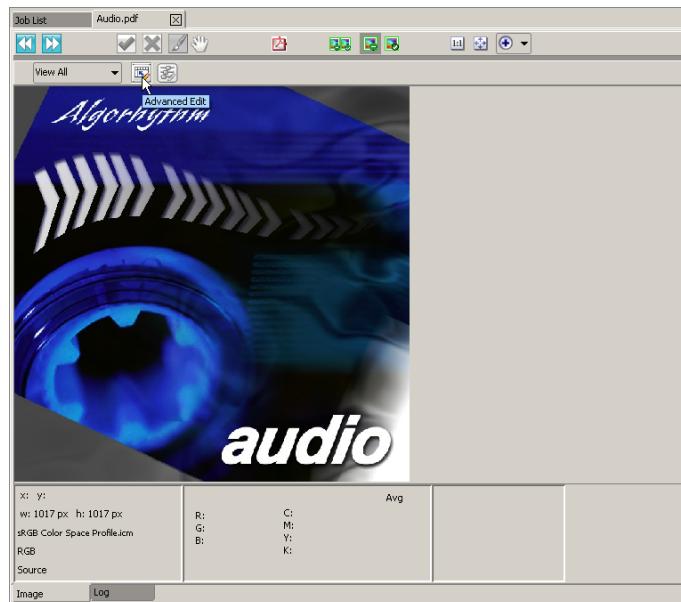
A facility is available to Export all the workflow settings and new presets from the Advanced Edit control panel to the same XML file format, including the

workflow name with the Advanced edit identifier and the individual presets for each class.

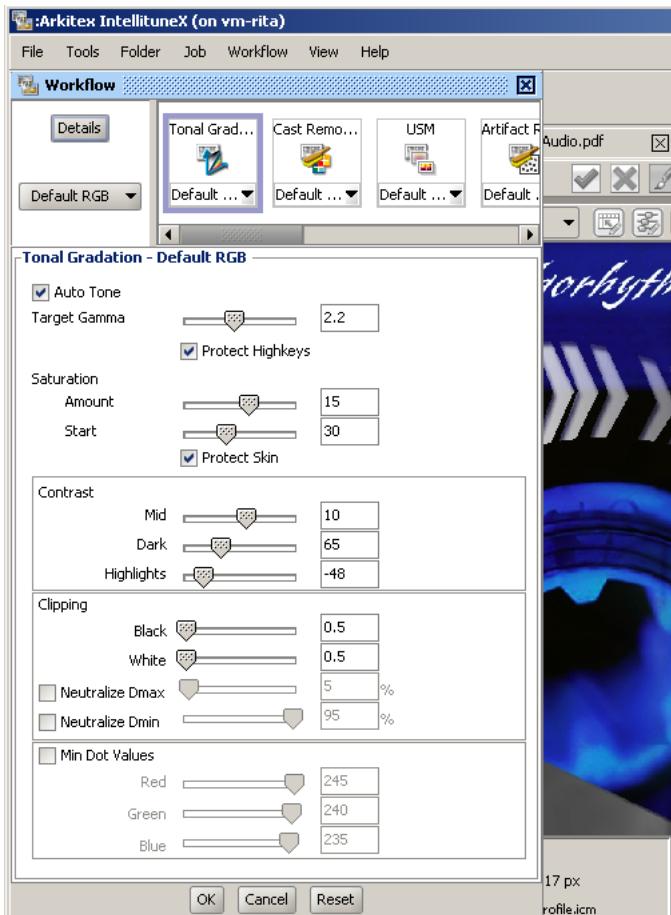
An Import button on the workflow toolbar allows the workflow name and new presets to be imported.

### ► To Use Advanced Edit without Deferred Processing

- 1 From the job list open a PDF Job or subjob.



- 2 Click the Advanced Edit tool
- 3 The Workflow operations will display.

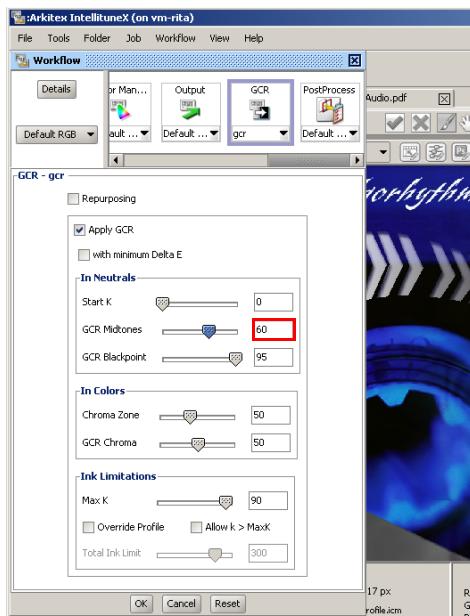


- 4 The Advanced Edit window defaults to the first operation (Tonal Gradation), and opens with the Details visible.

**NOTE:** Clicking **Details** closes the operation display. The next time Advanced Edit is opened, IntelliTuneX will remember if Details was visible or not.



- 5 Select an Operation from the display, and click **Details**.



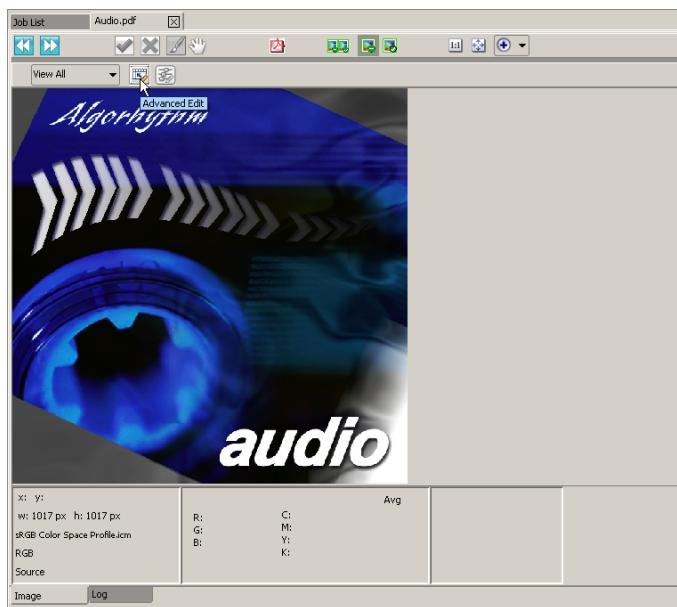
- 6 Make a change in a parameter. Click **Okay**.
- 7 Close the Workflow display.
- 8 Close the image.

**NOTE:** If a job requires approval, use the **Approve Job** button to both apply edits and approve the job.

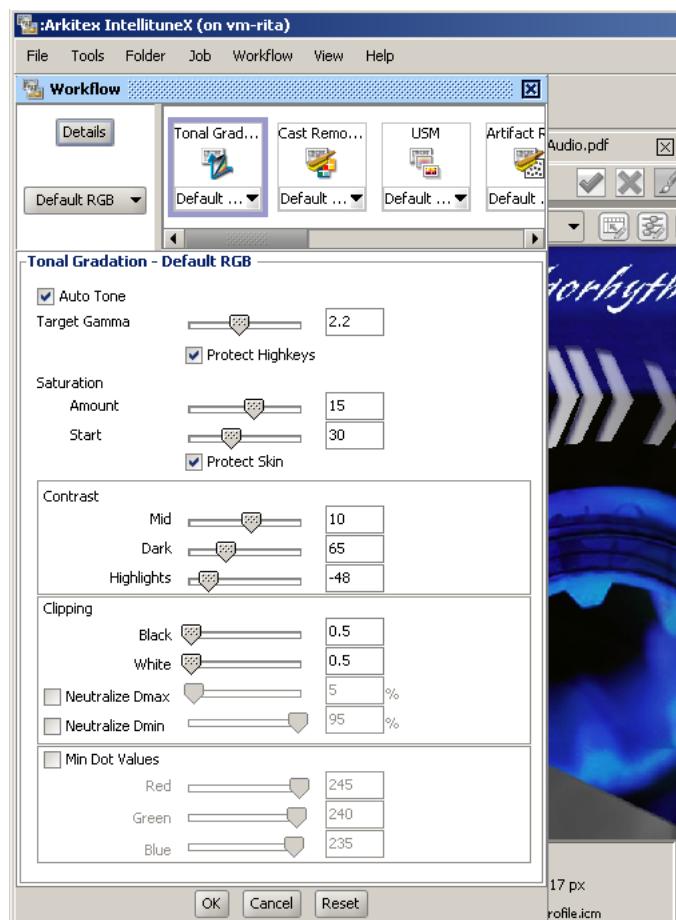


### ► To Use Advanced Edit with Deferred Processing

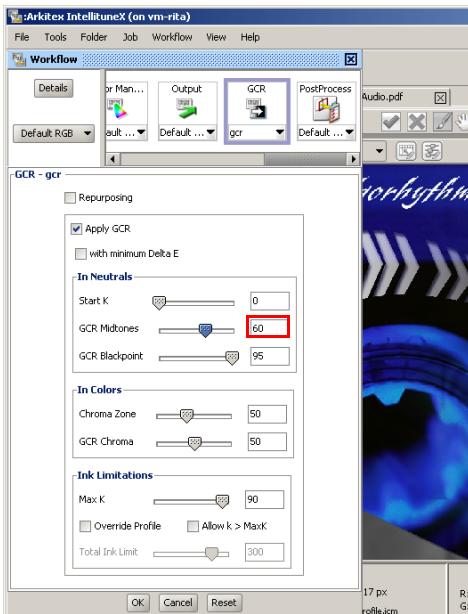
- 1 From the job list open a PDF Job or subjob.



- 2 Click the **Advanced Edit** tool
- 3 The Workflow operations will display.



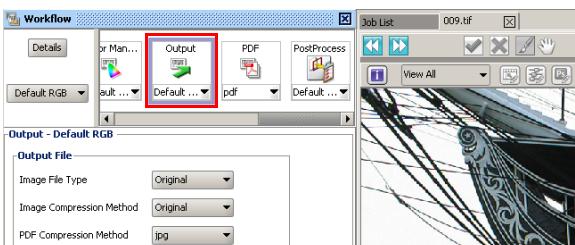
- 4 Select an Operation from the display, and click **Details**, if necessary.



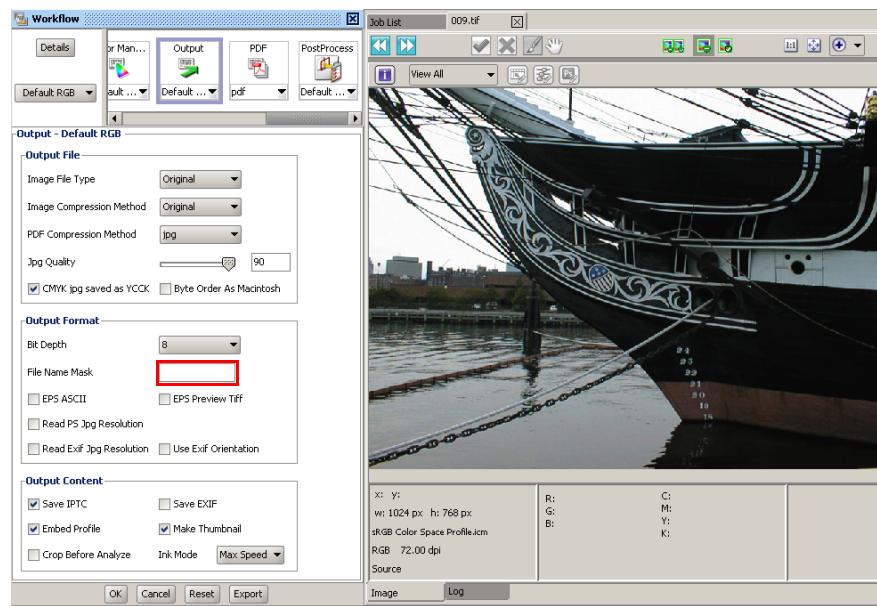
- 5 Make a change in a parameter. Click **OK**.
- 6 Close the Workflow display.
- 7 Close the image. Changes will be applied.

### ► Use Advanced Edit with Output

- 1 From the job list open a PDF Job or subjob.



- 2 Click the **Advanced Edit** tool
- 3 The Workflow operations will display.
- 4 Select the Output Operation from the display, and click **Details**, if necessary.



## 5 Enter a value in the **File Name Mask** field.

The flags are used to specify how the IntelliTuneX output filename is created.

**%F** = original filename, unmodified

**%X** = extension associated with the output file format, one of tif, jpg, pdf, eps, or bmp

**%N** = job id of the job creating the file

**%D** = date the output file was created in the format yyyyymmdd

**%T** = time the output file was created in the format hhmmss

**%f** = The original filename with the extension removed only if the extension exactly matches one of tif, tiff, jpg, jpeg, pdf, eps, bmp

**%g** = The original filename with any extension removed

**%%** = the % character

---

**NOTE:** These flags may be combined in any order. Any intermediate literal strings are preserved.

---

A blank field (the default) is internally interpreted as **%f.%X**, which is the original basename + the output filetype extension. Refer to “File Name Mask” on page 262.

Any other parts of the mask appear as they are in the output name. For example, the mask %F\_%N could produce a filename *myimage\_100.jpg* if the original file was called *myfile* and the job number is *100*.

- 6 Click **OK**.
- 7 Close the Workflow display.
- 8 Close the image. Changes will be applied.

## Interactive Edit

**Interactive Edit** is available for PDF subjobs, .jpeg, .bmp (IntelliTuneX converts to tiff), and tiff files.

When the Advanced Edit window is open, all workflows and task lists are sorted in ascending order, except the XXX\_jobid\_XX workflow and operations, which are displayed at the end of the list.

---

**NOTE:** Under User Preferences **Deferred Processing of Edit** controls job edit processing for Interactive Edit. Refer to “Specifying User Preferences” on page 63.

If checked, the **OK** button will be shown in the Interactive Edit dialogs. Changes will not be applied until exiting from editing.

---

If unchecked, the **Apply** button will be shown, and changes will take effect immediately after clicking the button.

---

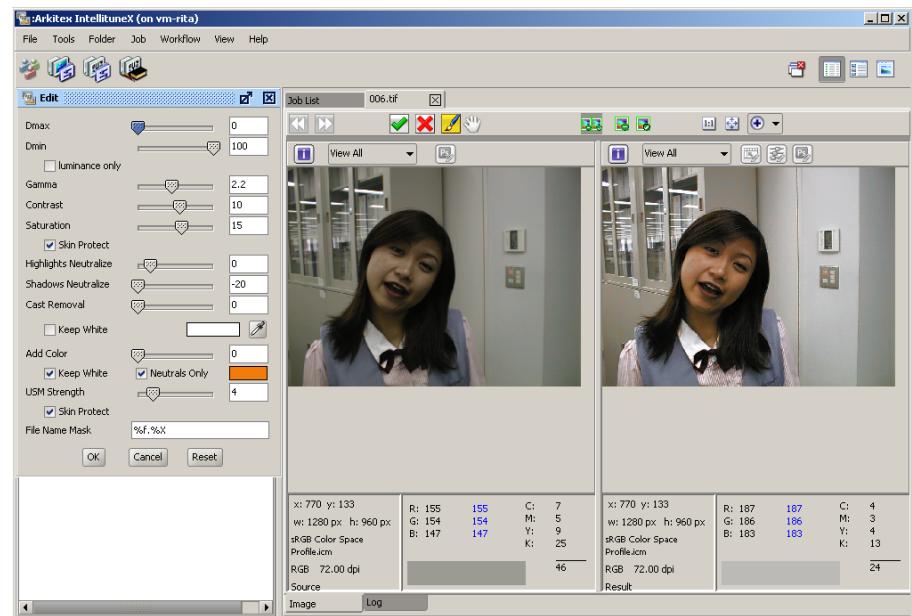
**CAUTION:** When applying a different workflow to a PDF job in Advanced Edit, make sure the destination workflow contains the necessary PDF parameters.

### ► To Use Interactive Edit without Deferred Processing

- 1 Uncheck **Deferred Processing of Edit** under User Preferences.
- 2 Display PDF subjobs from the job list, and open a job (or select a image file).
- 3 Click **Interactive Edit** to make minor changes to the selected image.



4 The following window is displayed.



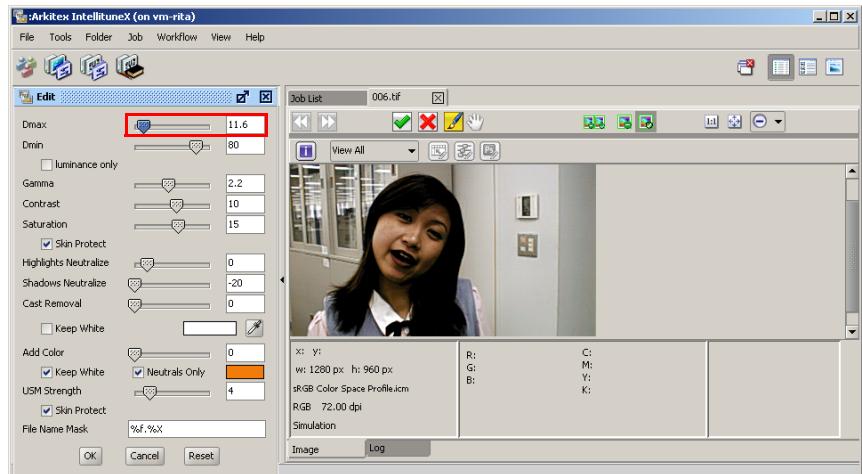
## Options

You can apply modifications directly on the selected image. Hold the corresponding slider to modify the following options:

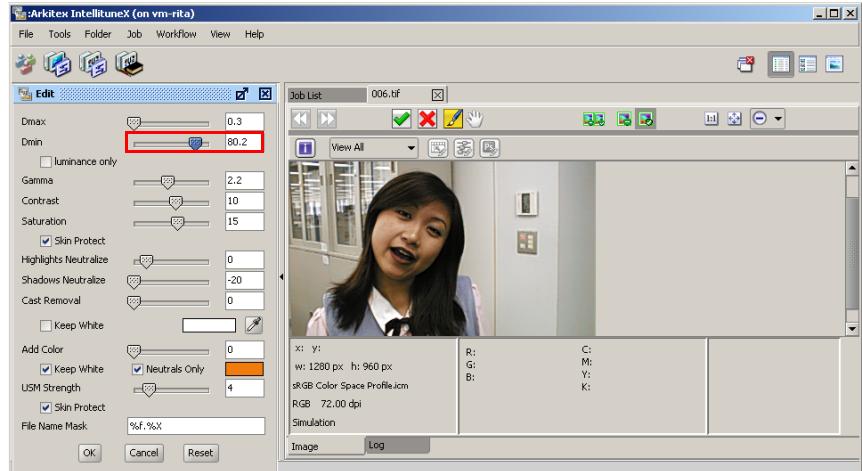
**NOTE:** For grayscale images, only the options Dmax, Dmin, Gamma, Contrast and USM strength are applicable.

- **Dmax, and Dmin with luminance only** check box option. **Luminance only** is used to darken or lighten skin tones.

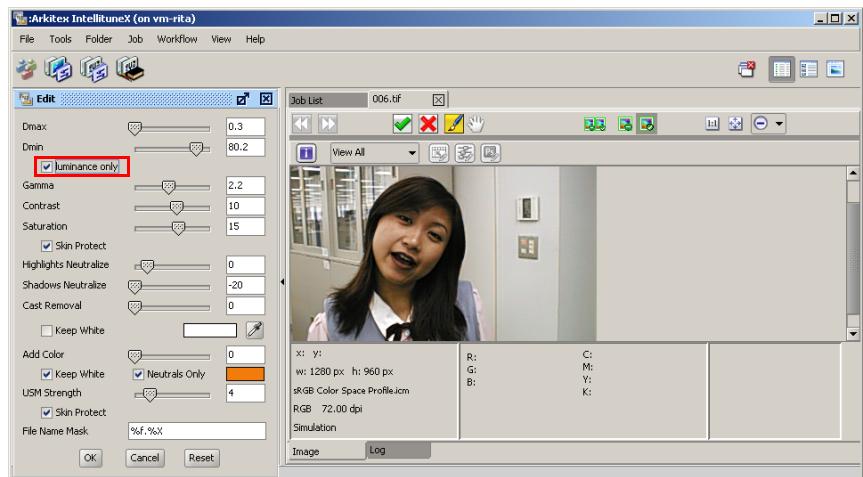
□ **Dmax**



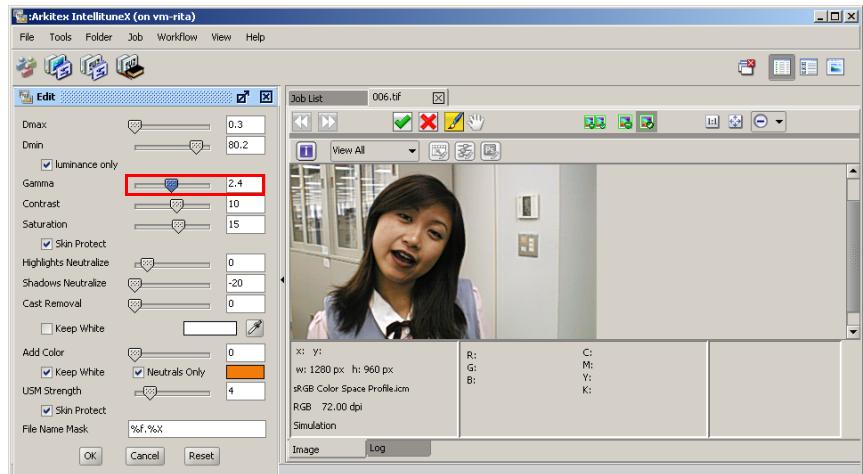
□ **Dmin**



□ **Luminance**



## ■ Gamma



Gamma is the gamma of the standard working space. Use to compress or expand dark and light shade ranges in an image. Most commonly, a gamma of 2.2 for color images will be used. This definition is not applied to grayscale images; therefore, a default gamma of 1.0 will be used.

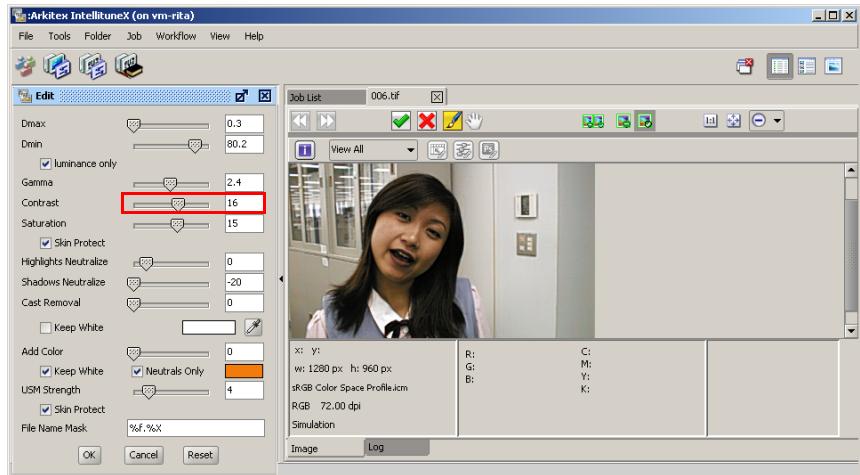
Enter the recommended value of 2.2 for color images (1.0 for grayscale images).

---

**NOTE:** A higher value than 2.2 (or 1.0) makes the image lighter. A lower value than 2.2 (or 1.0) makes the image darker.

---

## ■ Contrast



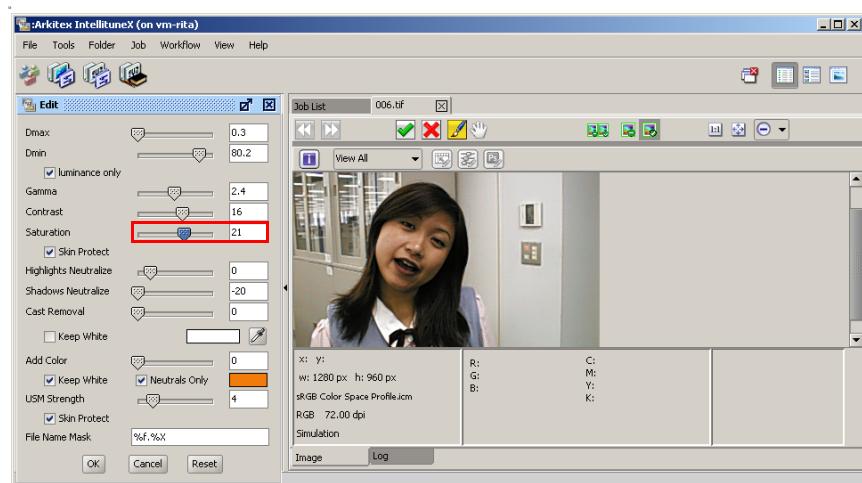
Contrast is the relationship between the lightest and darkest areas in an image.

Set the **contrast** value by doing one of the following:

- Drag the slider to the left or right within the specified range of -100 and +100.
- Enter a value between -100 and +100 in the value box.

**NOTE:** This setting affects the contrast in the mid-tones of an image. Moving the slider to the left decreases the contrast, and moving the slider to the right increases the contrast.

## ► Saturation



Saturation is the relation between the color component and the gray component in a color. The higher the gray content, the lower the saturation. High saturation corresponds to an intense, vivid color. Low saturation results in a dull, grayish color.

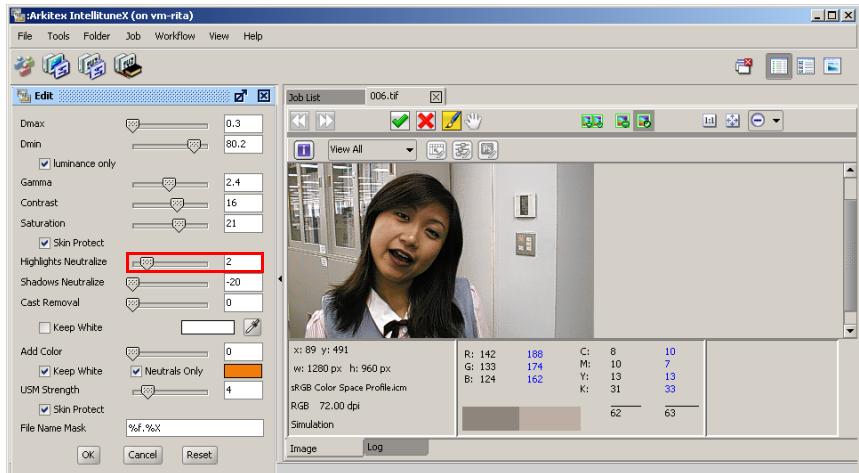
Set the saturation **Saturation** value by doing one of the following:

- Drag the slider to the left or right within the specified range of -100 and +100.
- Enter a value between -100 and +100 in the value box.

**NOTE:** Moving the slider to the left decreases the saturation and dulls the color. Moving the slider to the right increases the saturation and makes the color vivid. Entering zero as the value already saturates the color slightly.

- Select **Skin Protect** to prevent saturation influence in skin tone areas.

## ■ Highlights Neutralize



By selecting **Highlights Neutralize**, color casts in near neutral tones (gray) are removed using selective color correction. This is handy when removing color from street images.

Set the **Highlights Neutralize** value using one of the following:

- Drag the slider to the left or the right within the specified range of -100 and +100.
- Enter a value between -100 and +100 in the value box.

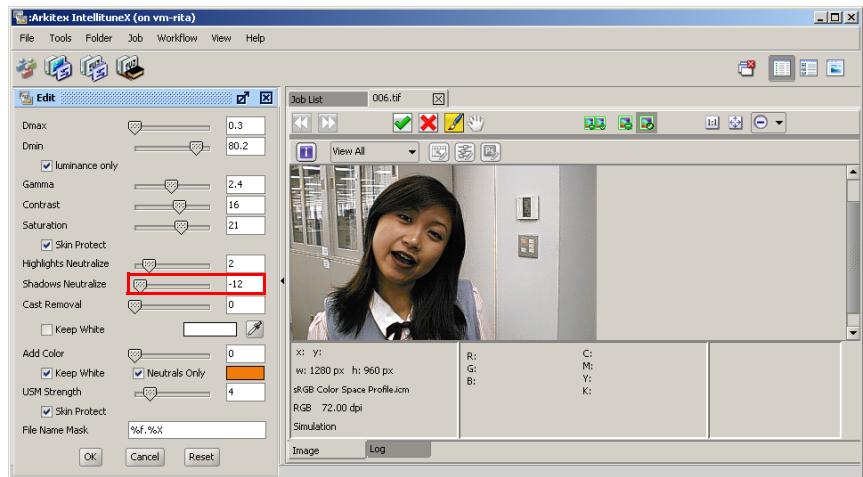
---

**NOTE:** Moving the slider to the left will include midtones. Moving the slider to the right will only neutralize highlights.

---

Check **Skin Protect** to avoid skin colors being neutralized.

## ■ Shadows Neutralize



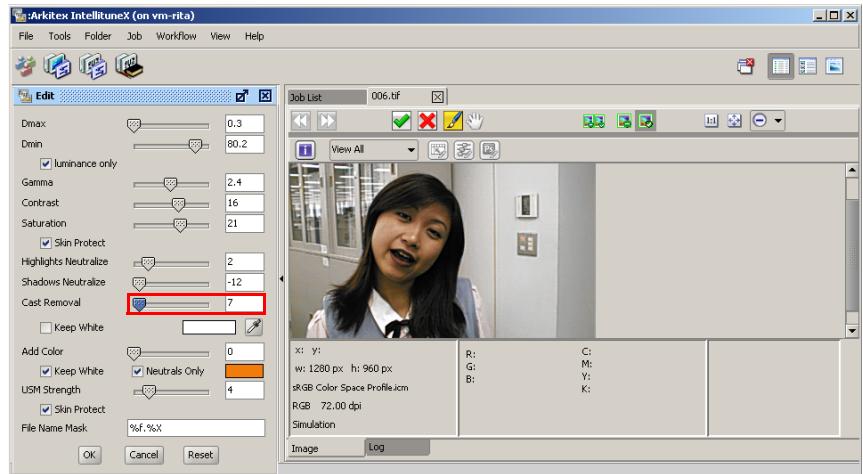
Color casts in shadow tones are neutralized using selective color correction.

Set the **Shadows Neutralize** value using one of the following:

- Drag the slider to the left or the right within the specified range of -100 and +100.
- Enter a value between -100 and +100 in the value box.

**NOTE:** Moving the slider to the left will only neutralize shadows. Moving the slider to the right will include midtones.

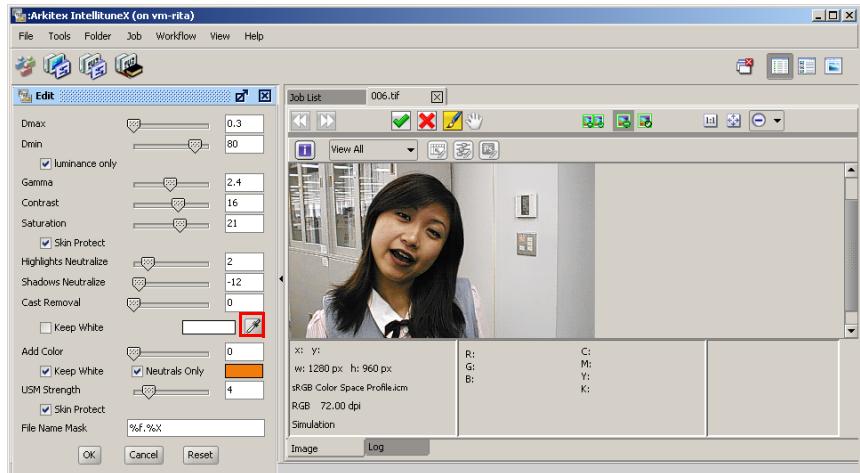
## ■ Cast Removal



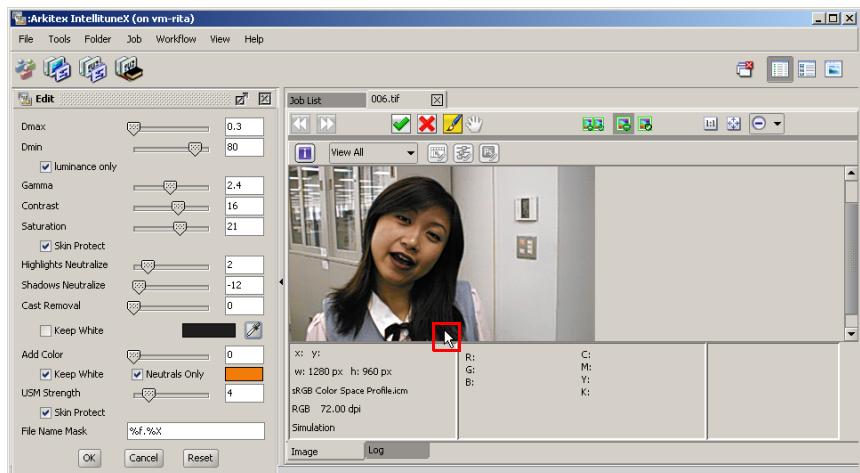
By selecting Cast Removal, dominant colors will be removed.

### Using the Eye Dropper:

- 1 Click on the **eye dropper** to the right of the color field.

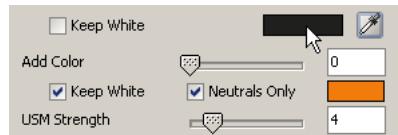


- 2 Select a color on the original image.

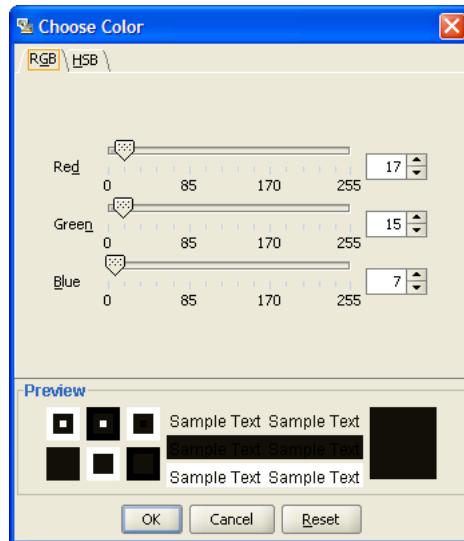


### Using the Color Field:

- 3 Unhighlight the **eye dropper** if selected.
- 4 Click in the color field.



5 The color palette will display.



6 Select a color from the palette, and click **OK**.

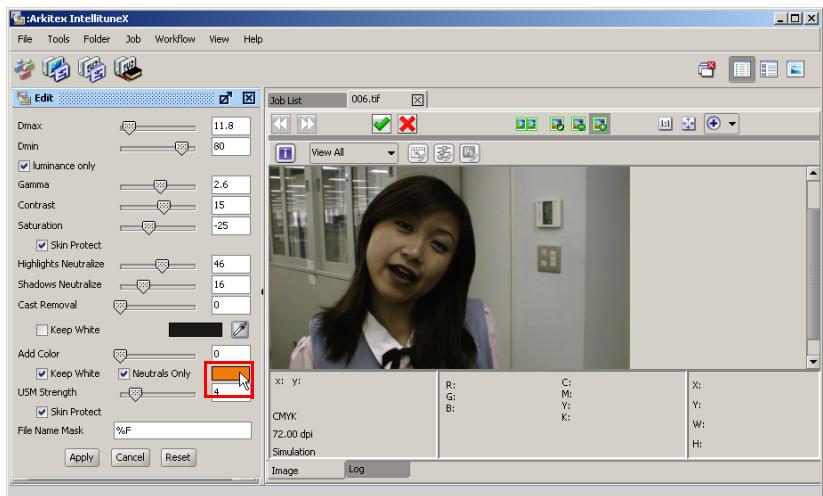
7 Check the **Keep white** check box if necessary.

You can now move the slider and check for results on the selected image.

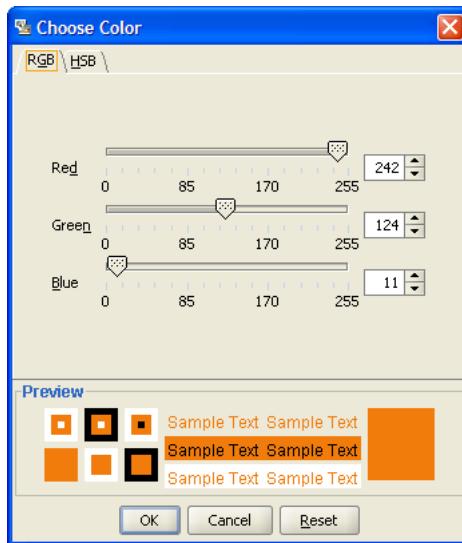
#### ■ Add Color

The displayed color will be added to the image.

1 Click on the color field to the right of the slider.



2 The color palette will display.



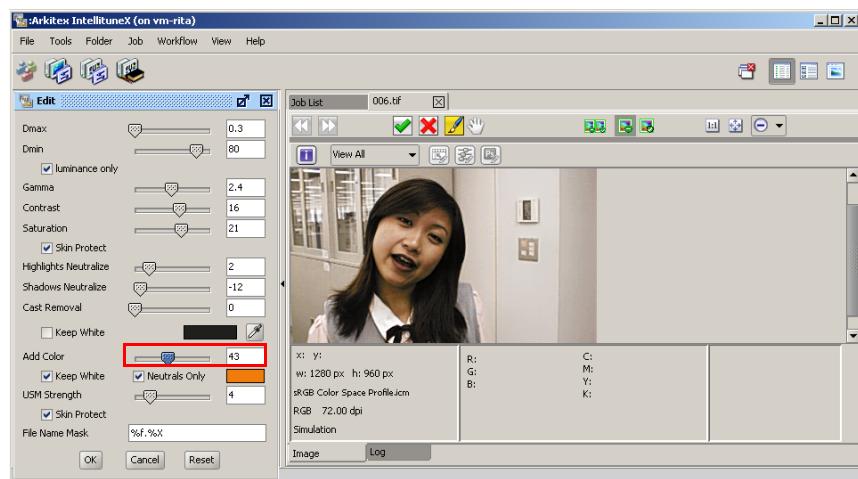
3 Select a color from the palette, and click **OK**.

4 Check the **Keep white** check box if necessary.

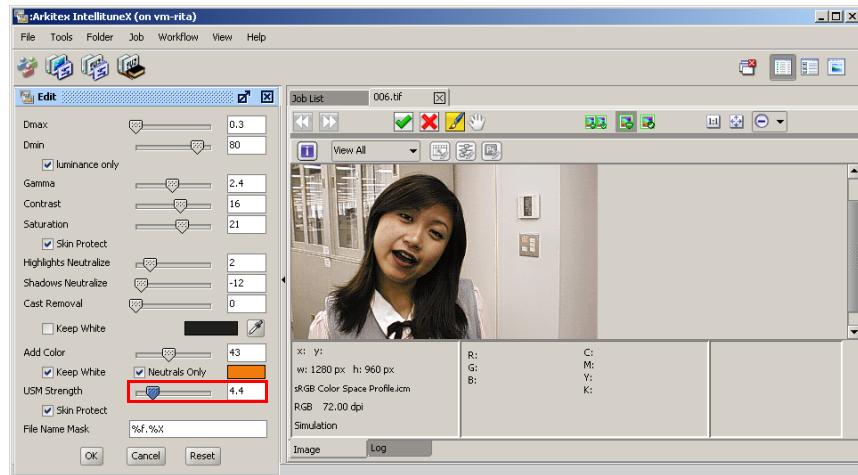
5 Check the **Neutrals only** if necessary.

You can now move the slider and check for results on the selected image.

**NOTE:** Drag the slider to the left or the right within the specified range of 0 and 100. Or enter a value between 0 and 100 in the value box.



## ■ USM Strength



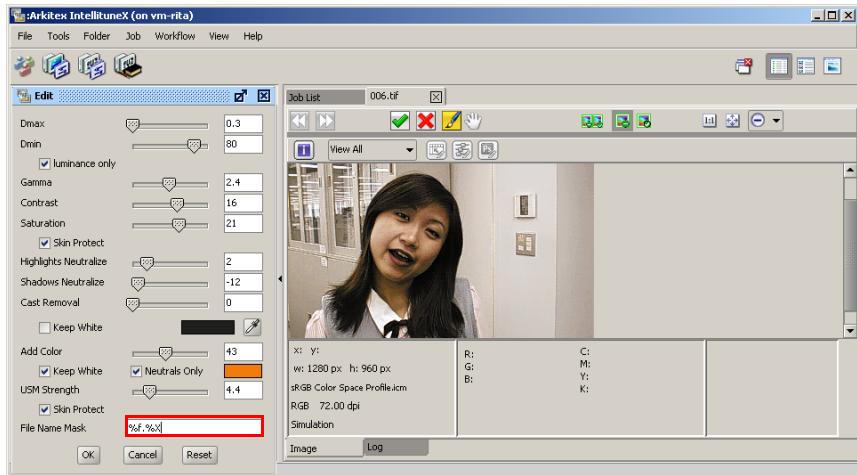
This defines the percentage used of USM strength in the different tonal ranges of the image.

- Drag the slider to the left or right within the specified range 0 and +100.
- Enter a value between 0 and +100 in the value box.

**NOTE:** Low values means no unsharp masking (USM) in that tonal range. High values means full unsharp masking (USM) in that tonal range.

- Select **Skin Protect** to prevent USM influence in skin tone areas which result in faces appearing too crispy.

## ■ File Name Mask



If you need to apply a **File Name Mask**, enter it in the **Mask** value box. The flags are used to specify how the IntelliTuneX output filename is created.

**%F** = original filename, unmodified

**%X** = extension associated with the output file format, one of tif, jpg, pdf, eps, or bmp

**%N** = job id of the job creating the file

**%D** = date the output file was created in the format yyyyymmdd

**%T** = time the output file was created in the format hhmmss

**%f** = The original filename with the extension removed only if the extension exactly matches one of tif, tiff, jpg, jpeg, pdf, eps, bmp

**%g** = The original filename with any extension removed

**%%** = the % character

---

**NOTE:** These flags may be combined in any order. Any intermediate literal strings are preserved.

---

A blank field (the default) is internally interpreted as **%f.%X**, which is the original basename + the output filetype extension. Refer to “File Name Mask” on page 262.

Any other parts of the mask appear as they are in the output name. For example, the mask **%F\_%N** could produce a filename *myimage\_100.jpg* if the original file was called *myfile* and the job number is *100*.

## ► To Apply Changes

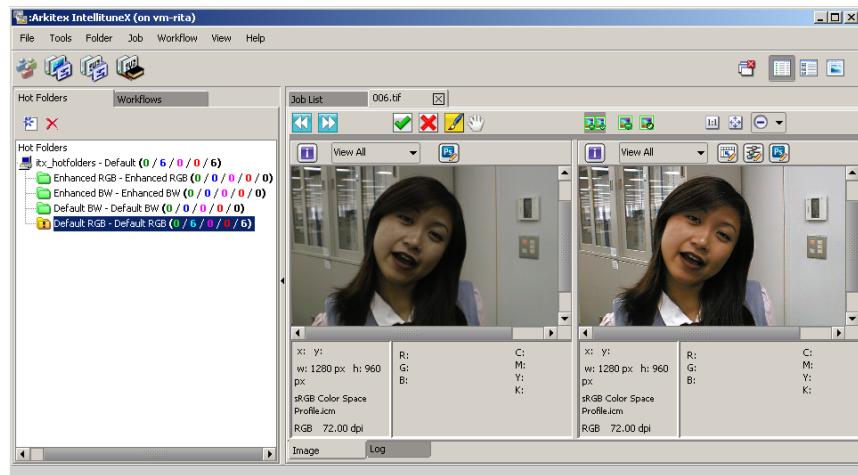
- 1 To apply changes, click **Apply**.

**NOTE:** Clicking **Apply** will function like the previous **Submit** button. Selected workflows are applied immediately at the time of clicking **Apply**. The current images remain in both source and result windows. However, the Processor will not be invoked to replace the icons and result files until disposing the images by clicking the X on the tab.

**NOTE:** Use **Reset** to set the parameters back to default, or click **Cancel** if you change your mind.

**NOTE:** If **Cancel** is selected, the right hand image will be reverted to **Result** instead of **Simulation**.

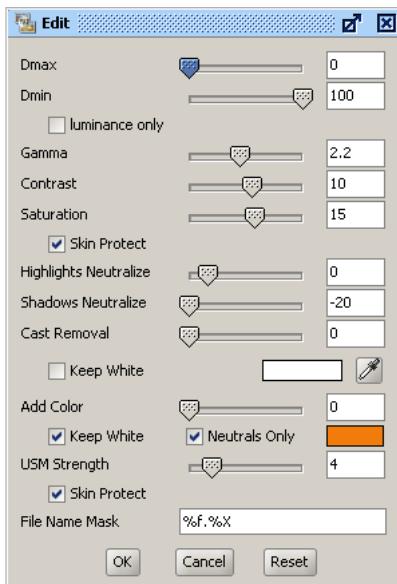
- 2 The **Interactive Edit** dialog will close.



- 3 Close the image.

## ► to Use Interactive Edit of Deferred Processing

- 1 Check **Deferred Processing of Edit** under User Preferences.
- 2 Display PDF subjobs from the job list, and open a job (or select a image file).
- 3 Click **Interactive Edit** to make minor changes to the selected image.
- 4 Make changes as desired.



- 5 Click **OK**.
- 6 Close the job. The changes will be applied.

## Proofer

Named proofing folders can be set up to proof source and image files. These folders are entry points into particular proofing systems.

A proofing request is then fulfilled by copying the relevant image file (source or result) to the folder associated with a proofer's name. The image file used will be either the original source file as entered into the system, or the result file as processed by the system.

The filename placed in the Proofer destination is `OriginalImage-Name[_out]_JobNumber.FileTypeExtension`, where the optional `_out` indicates that it is a result image that is being proofed.

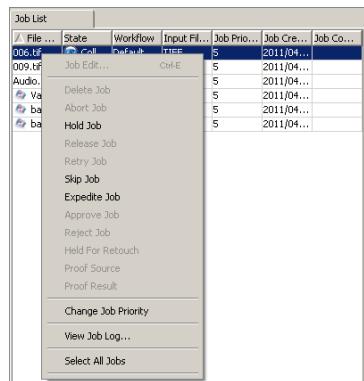
The contents of the file do not have to be modified in anyway before being sent to the proofer destination.

---

**NOTE:** Proofing folders are configured under System Preferences. Refer to “Proofer” on page 45.

## ■ Proofer Menu items

Two Job menu items have been added to the Job right click menu and made available from all the Job list views where the menu can be used.



□ **Proof Source Image** - Used to send one or more source images to the selected proofer.

□ **Proof Result Image** - Used to send one or more result images to the selected proofer.

These menu items are enabled when at least one proofer has been defined. The Proof result image is enabled when a result image is available.

If multiple jobs are selected, then the menu items are enabled, and whether a particular job image is sent will depend upon its availability.

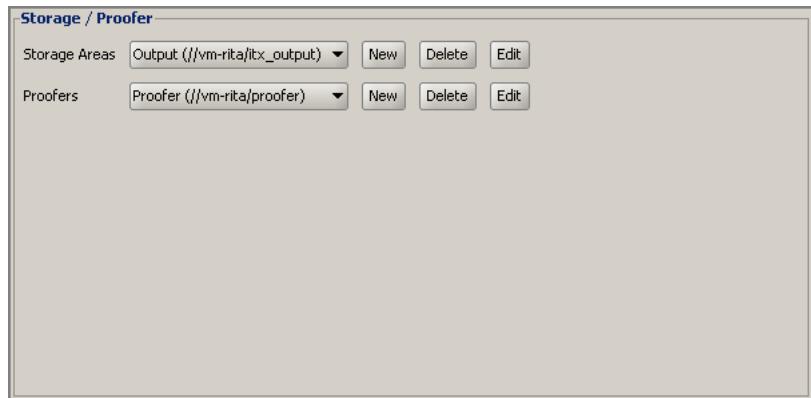
## ■ Job Edit buttons

When a Job edit window is displayed, the Proof Image button appears next to the Photoshop edit button, providing at least one Proofer has been defined.



#### ■ Proofer Selection

When either a Proofer menu item is selected, or a Job Edit Proofer button is pressed, a pop up menu appears with the list of defined Proofers, and a Cancel item.



When a valid Proofer is selected, the Job image(s) are sent to that location.

#### ■ Logging

When a Job Image is sent to a Proofer, a log message is added to the Job Log and LogViewer output detailing the Job Image, the Machine name where the operation was initiated, and the Proofer output selected.

Job List		006.tif	18 - 006.tif		
			<input checked="" type="checkbox"/> Trivia	<input checked="" type="checkbox"/> Info	<input checked="" type="checkbox"/> Warning
Timestamp		Message	Severity	Location	
Apr 2, 2009 2:41:07 PM		Created job	Info	InternalMessageHandler.java:363	
Apr 2, 2009 2:41:13 PM		Moved job to Arrived state	Trivia	InternalMessageHandler.java:413	
Apr 2, 2009 2:41:13 PM		Sent message Collect to processor	Trivia	StateMachine.java:2103	
		Copying			
Apr 2, 2009 2:41:13 PM		File:///C:/itx_filestore/vm-rita/itx_hotfolders/_jobs/Default%20RGB/006.tif to file:///vm-rita/itx_filestore/vm-rita/Default.RGB/18.tif	Trivia	CollectedStrategy.java:68	
Apr 2, 2009 2:41:16 PM		Thumb creation completed in 1.609 seconds	Trivia	CollectedStrategy.java:238	
Apr 2, 2009 2:41:16 PM		Collect completed in 2.563 seconds	Info	CollectedImage.java:106	
Apr 2, 2009 2:41:16 PM		Sent message Process to processor	Trivia	StateMachine.java:2317	
Apr 2, 2009 2:41:17 PM		Processing file:///vm-rita/itx_filestore/vm-rita/Default.RGB/18.tif to file:///vm-rita/itx_filestore/vm-rita/Default.RGB/18_out.tif	Trivia	ImageProcessThread.java:365	
Apr 2, 2009 2:41:25 PM		priority set to 5	Error	ImageProcessThread.java:1214	
Apr 2, 2009 2:41:25 PM		Processed job in 8.594 s	Info	ImageProcessThread.java:719	
Apr 2, 2009 2:41:25 PM		Performing file processing operation: Copy result to folder	Trivia	FileProcessingThread.java:249	
Apr 2, 2009 2:41:27 PM		Sent message Process to processor	Trivia	StateMachine.java:2317	
Apr 2, 2009 2:41:27 PM		Processing file:///vm-rita/itx_filestore/vm-rita/Default.RGB/18.tif to file:///vm-rita/itx_filestore/vm-rita/Default.RGB/18_out.tif	Trivia	ImageProcessThread.java:365	
Apr 2, 2009 2:41:27 PM		Performing file processing operation: Copy result to folder	Trivia	FileProcessingThread.java:249	
Apr 2, 2009 2:41:27 PM		Completed	Info	StateMachine.java:2017	

## Edit Image in Photoshop

Selecting **Edit image in Photoshop** launches Photoshop to view the result of a .jpeg file.

### ► To View in Photoshop

- 1 Open a file from the job list.
- 2 Click **Edit image in Photoshop**.
- 3 Photoshop will display the file.



## Editing Images with Photoshop

For editing operations a copy of Photoshop must be present on each client machine where editing is to take place.

For automated server side operations, a copy of Photoshop must be present on the server machine.

Photoshop CS2 and CS3 are the supported versions.

## User Interface

In a dual view mode the left hand source image has one external edit button linked to source image editing, and the right hand result image has one external edit button grouped with the Interactive edit and Advanced edit buttons, and linked to result image editing.

In single view, Source mode the image window has one external edit button grouped with the Interactive Edit and Advanced Edit buttons. The Interactive Edit and Advanced Edit buttons are linked to result image editing; but the external edit button is linked to source image editing.

In single image, Result or Simulation Mode, the image window has one external edit button grouped with the Interactive Edit and Advanced Edit buttons, and linked to Result image editing.

## Enabling Photoshop Editing

The client detects when a copy of Photoshop is present as configured, and only enables the Photoshop editing buttons when true.

### Opening an Image for editing

When the Photoshop edit button is pressed, a temporary copy of the linked image is opened in the local client copy of Photoshop. This will be the source or the result depending on which edit button is used.

The name of the temporary file shall include the original file name, the internal job number, and identification of whether it is source or result. This makes it easier to identify in Photoshop; e.g., XYZ.jpg with a job number 1170 would open a source file XYZ\_1170.jpg and a result file XYZ\_1170\_out.jpg.

If the operator has previously performed Interactive Edit or Advanced Edit, the operation of Photoshop editing of result files will depend on whether these operations have been submitted or not.

- Unsubmitted changes mean Photoshop editing works on the original result file.
- Submitted changes means the Photoshop editing will work on the edited result file after processing completion. It will not be possible to work on the original result file before submitted Interactive Edit or Advanced Edit changes have been submitted.

### Editing and Saving

The user can use all Photoshop functionality to edit the image in any fashion.

Any save operations performed will be regarded as committing edits to be acted on later. But multiple save operations can be used to incrementally work on an image without triggering operations in IntelliTuneX at that stage.

Only saves to the result file format are regarded as genuine save operations.

'Save as' operations may be used in Photoshop to store edited images in any location available to the platform / user permissions. However, only normal Saves back to the original file location will have any impact on IntellituneX. It may be possible to use the 'Recent Documents' navigation in the Photoshop 'Save As...' dialog to pick up the original Save name.

## Editing a Source File

The file saved at the end of a Photoshop edit must match the expected result in both colorspace and format type, otherwise you get a blank result file in edit, and the wrong output is produced.

When editing the result file, there is no issue here as the colorspace and format type already match what is expected.

When editing a source file, then you have to make sure the edited file is saved in the expected result colorspace and format. What you have to do depends on how the output format type has been set up, and what the setting of the output colorspace profile.

Some examples:

- 1 Start with an RGB JPEG, Output format set Original, No Output profile set (so uses RGB workspace), then the expected result is JPEG RGB. In this case that is the same as the source, so a simple save in PS will do the trick.
- 2 Start with an CMYK TIFF, Output format set TIFF, Output profile set to ISOv26 (CMYK), then the expected result is TIFF CMYK. In this case that is the same as the source, so a simple save in PS will do the trick.
- 3 Start with an RGB JPEG, Output format set Original, Output profile set to ISOv26 (CMYK), then the expected result is JPEG CMYK. In this case the colorspace has changed, so an Image Mode operation in PS is needed before the file is saved.
- 4 Start with an RGB JPEG, Output format set TIFF, No Output profile set (so uses RGB workspace), then the expected result is TIFF RGB. In this case the colorspace is OK, but the format has changed. So a Save As Tiff is needed to get the expected format.
- 5 Start with an RGB JPEG, Output format set TIFF, Output profile set to ISOv26 (CMYK), then the expected result is TIFF CMYK. In this case both the colorspace and format have changed. Do both an Image Mode change to CMYK and a Save As Tif to get it to work.

## Closing an image and subsequent processing

An image is closed using normal Photoshop close operations.

When an image is closed, if the original temporary image file has been changed (as measured by its date stamp or by Photoshop Save operation monitoring), it will replace the result file in IntelliTuneX.

If an image is closed without changes, no further action is taken. The result files are unchanged; and no postprocess or approval operations are triggered or enabled.

Changed results files will be processed in exactly the same fashion as a newly produced IntelliTuneX result file. This includes approval operations if necessary, or post processing as configured.

---

**NOTE:** With no approval the original IntelliTuneX result file will have already been post-processed. This task should be repeated with the new result file. **Submit Edits or Approve with Edits** will not be necessary as the result file is already present.

---

## Other IntelliTuneX Operations While an Image is Open

While an IntelliTuneX image is open in Photoshop, all other IntelliTuneX operations associated with this image are suppressed until the Photoshop image is closed. The operations are grayed out, or dialog boxes are used to warn the user the operation is not supported while the image is open.

If an Image is being **Interactively Edited** or **Advance Edited**, the Photoshop launch of either source or result is not allowed until these are closed. The Photoshop buttons are grayed out to show the user the operation is not supported while other edits are active.

Launching other Photoshop operations on other images from IntelliTuneX is not supported; i.e., only one IntelliTuneX Photoshop editing operation may be active at a time.

## Color Management and Output Format Changes

If the workflow introduces colorspace changes or output format changes, this significantly complicates Photoshop editing of the source images, as the expected result is different. This would not be taken into account by the standard Photoshop Save.

Files are post-processed in its saved format. It is the Photoshop operator's responsibility to save in the required format and colorspace.

## Portrait and Landscape

PhotoShop will open images in normal fashion according to any information contained in the metadata. It is expected that these will be preserved when Photoshop saves the image.

## Temporary Files

After completing Photoshop editing operations, any temporary files created by IntelliTuneX will be purged. Photoshop will be expected to perform its own normal clean up when closing images.

## Photoshop Open Save

Sometimes image format incompatibilities can be handled by opening the image with PhotoShop, and saving it again without any additional processing to refresh the structure of the image format.

To automate this, select "PhotoShop Open Save" in the PostProcess workflow. If this is switched on, the result image should automatically be opened in PhotoShop, and resaved before continuing with any PostProcess steps.

---

**NOTE:** For this to be functional, Photoshop must be present on the server.

---

## Logging

Photoshop activities are posted to the associated job log, LogViewer export, and general application logs. The logged events include:

- Launching instances of Photoshop
- Opening Images in Photoshop
- Closing Images in Photoshop
- Detected edits having taken place in Photoshop
- Performing an automated Save close cycle during PostProcess
- User name associated with these activities

## Error Handling

The following errors are handled and logged:

- Photoshop not launching successfully on an edit operation. Warn user and return to normal image display after acknowledgement.
- Problems creating and managing the temporary image files. Warn user and return to normal image display after acknowledgement. Do not continue with Photoshop launch.
- Problems detecting or handling edited temporary result files. Warn user and return to normal image display after acknowledgement.
- Photoshop not successfully opening and saving during an automated step should place the Job into an error state. No user warning should be given.

## Crop Before Analyze

**Crop Before Analyze** is used to crop the picture to a preset size before color management, SISR, or other image processing steps are applied. The cropped image excludes the image area that is not needed in the result image. Image processing is applied only to the actual result. This can eliminate unwanted bias to the area that is not in the result image. Use XML to apply Crop Before Analyze. Refer to “Crop (Element)” on page 337.

---

**NOTE:** Crop before analyze is also available in the Output operation of the IntelliTuneX workflow.

---

## Info

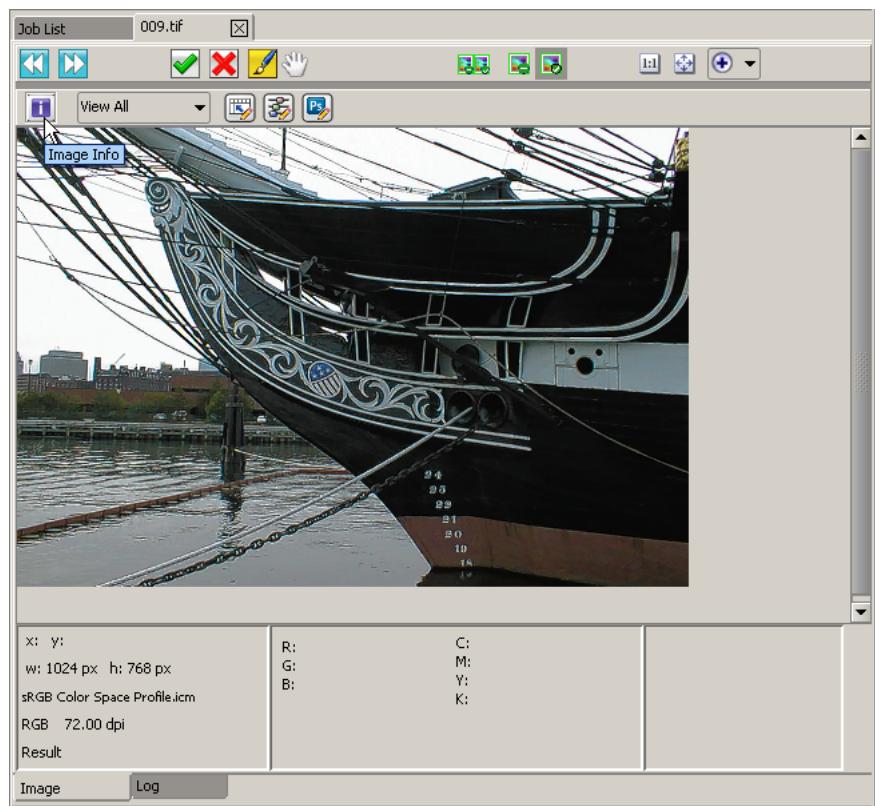
Click the **Image Info** button to bring up information on the image.



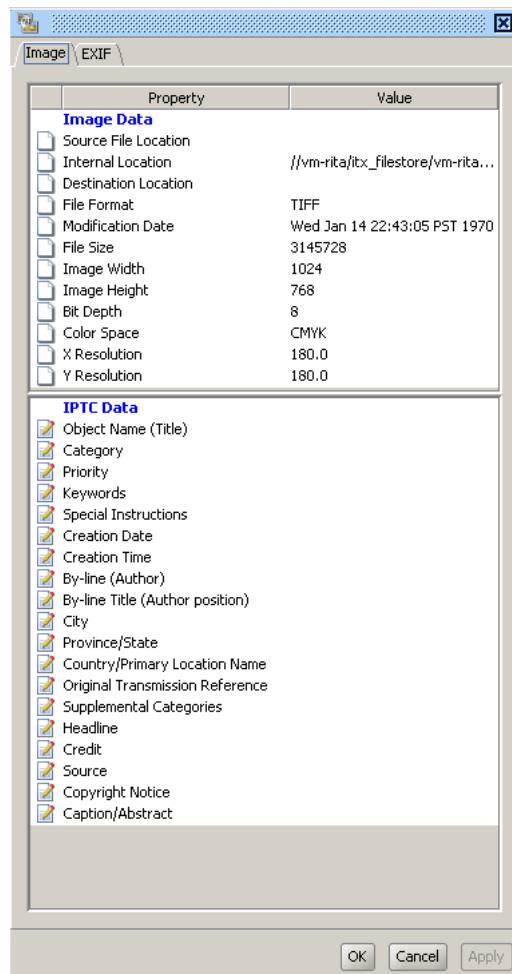
---

**NOTE:** The **Image Info** button becomes available if a PDF subjob has been opened.

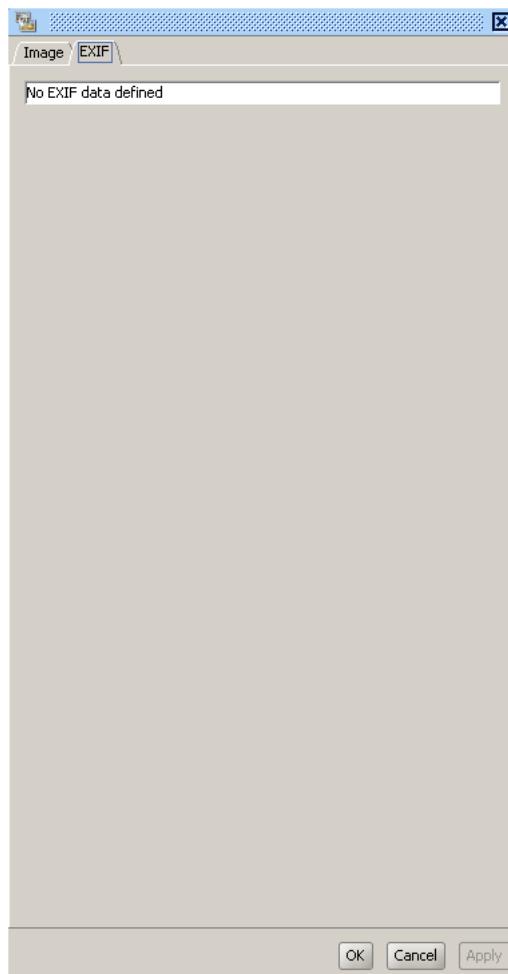
---



- **Image** - Restores display to image after viewing the log.



- **Image Data** - Information on the image (file locations, formats, modification date, size, width, height, bit depth, color space, X and Y resolution).
- **IPTC Data** - Information on the ownership of the image (photographer, copyright owner, etc.)
- **EXIF** - How the image was produced (model of camera, shutter speed, etc.).



## Information Tabs

Two information tabs are available at the top of the display image: image and EXIF.

### Image and EXIF

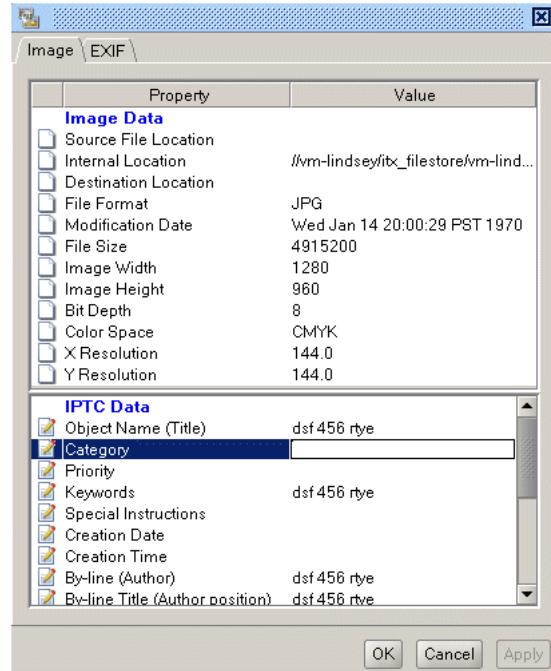
The Image and EXIF tabs allow operators to view information embedded in the original job, and also to edit or add to the IPTC data that is embedded in the job. Not all image formats or IPTC header fields are supported. In these cases, the information is missing or is not passed through to the processed job.

The Info Panel contains two sub-headings with one showing the basic file image data. The EXIF panel has the EXIF parameters/values.

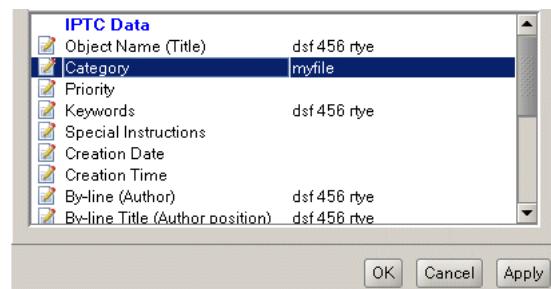
## Panel Operation

The overall window is resizable with the parameter column being a fixed size (matched to longest name,) and the data column being of variable width taking up all remaining horizontal space.

IPTC values in the **Result view** are editable. These can be changed by clicking in the value column or press F2. This opens an editing box with the existing value and allows it to be edited.



The editing box allows for a multi-line display. Cut, copy and paste operations bring in text from outside as required.



After entering a value, click in the IPTC Data column so the **Apply** button displays. Click **Apply** to save the information.

IPTC fields have maximum size constraints. These should be observed when editing the data.

If any parameter is not present in the source data, it is shown as blank.

## Basic Image Info Data

When the Info Tab is viewed, the table shows a list of supported parameters and their corresponding values under the Image Sub-Heading.

Values include:

Values
Source File Name/Location
Internal Job Location
Destination File Name and Location
File Format
Modification Date
File Size
Image Width
Image Height
Bit Depth
Color Space

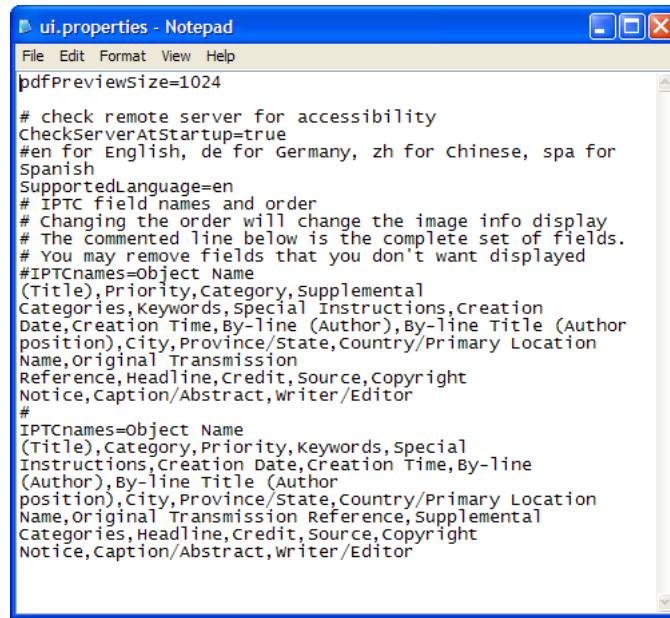
## Supported IPTC Base Fields

The supported fields are configurable in **ui.properties**. You can change the sort order or reduce the number of fields displayed.

Parameter
Object Name / Title
Urgency
Category
Supplemental Categories
Keywords
Special Instructions
Creation Date

Parameter
Creation Time
By-Line (Author)
By Line Title (Author Position)
City
Province/State
Country/Primary Location Name
Original Transmission Reference
Headline
Credit
Source
Copyright Notice
Caption/Abstract
Writer/Editor

The file **ui.properties** is located in **C:\Program Files\Agfa\IntellituneX\config**.



```
ui.properties - Notepad
File Edit Format View Help
pdfPreviewSize=1024
# check remote server for accessibility
CheckServerAtStartup=true
#en for English, de for Germany, zh for Chinese, spa for
Spanish
SupportedLanguage=en
# IPTC field names and order
# Changing the order will change the image info display
# The commented line below is the complete set of fields.
# You may remove fields that you don't want displayed
#IPTCnames=Object Name
>Title,Priority,Category,supplemental
categories,Keywords,Special Instructions,Creation
Date,Creation Time,By-line (Author),By-line Title (Author
position),City,Province/State,Country/Primary Location
Name,Original Transmission
Reference,Headline,Credit,Source,Copyright
Notice,Caption/Abstract,Writer/Editor
#
#IPTCnames=Object Name
>Title,Category,Priority,Keywords,special
Instructions,Creation Date,Creation Time,By-line
(Author),By-line Title (Author
position),City,Province/State,Country/Primary Location
Name,Original Transmission Reference,Supplemental
Categories,Headline,Credit,Source,Copyright
Notice,Caption/Abstract,Writer/Editor
```

## Supported EXIF Base Fields

The following base fields are supported per the EXIF 2.2 specification.

Tag Description	TagID	TagType	TagLength
MakerNote	37500	UNDEFINED	Any
UserComment	37510	UNDEFINED	Any
DateTimeOriginal	36867	ASCII	20
DateTimeDigitized	36868	ASCII	20
SubSecTime	37520	ASCII	Any
SubSecTimeOriginal	37521	ASCII	Any
SubSecTimeDigitized	37522	ASCII	Any
ExposureTime	33434	RATIONAL	1
FNumber	33437	RATIONAL	1
ExposureProgram	34850	SHORT	1
SpectralSensitivity	34852	ASCII	Any
ISOSpeedRatings	34855	SHORT	Any
OECF	34856	UNDEFINED	Any
ShutterSpeedValue	37377	SRATIONAL	1
ApertureValue	37378	RATIONAL	1
BrightnessValue	37379	SRATIONAL	1
ExposureBiasValue	37380	SRATIONAL	1
MaxApertureValue	37381	RATIONAL	1
SubjectDistance	37382	SHORT	1
MeteringMode	37383	SHORT	1
LightSource	37384	SHORT	1
Flash	37385	SHORT	1
FocalLength	37386	RATIONAL	1
SubjectArea	37396	SHORT	2 or 3 or 4
FlashEnergy	41483	RATIONAL	1
SpatialFrequencyResponse	41484	UNDEFINED	Any
FocalPlaneXResolution	41486	RATIONAL	1
FocalPlaneYResolution	41487	RATIONAL	1
FocalPlaneResolutionUnit	41488	SHORT	1
SubjectLocation	41492	SHORT	2
ExposureIndex	41493	RATIONAL	1
SensingMethod	41495	SHORT	1
FileSource	41728	UNDEFINED	1
SceneType	41729	UNDEFINED	1
CFAPattern	41730	UNDEFINED	Any
CustomRendered	41985	SHORT	1
ExposureMode	41986	SHORT	1
WhiteBalance	41987	SHORT	1

Tag Description	TagID	TagType	TagLength
DigitalZoomRatio	41988	RATIONAL	1
FocalLengthIn35mmFilm	41989	SHORT	1
SceneCaptureType	41990	SHORT	1
GainControl	41991	RATIONAL	1
Contrast	41992	SHORT	1
Saturation	41993	SHORT	1
Sharpness	41994	SHORT	1
DeviceSettingDescription	41995	UNDEFINED	Any
SubjectDistanceRange	41996	SHORT	1

## Supported Image Formats

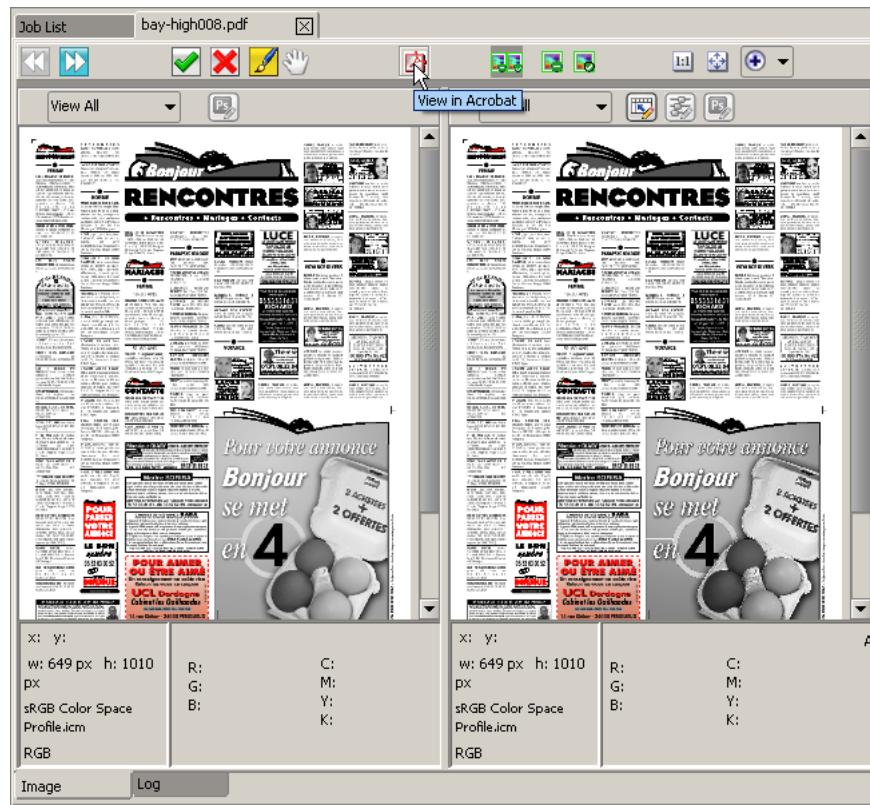
Image Format	IPTC Read	IPTC Write	EXIF Read	EXIF Write
JPEG	X	X	X	X
TIFF	X	X	X	X
EPS	X	X	X	X

## View in Acrobat

Selecting **View in Acrobat** launches a reader to view the result in PDF form.

### ► To View in Acrobat

- 1 Open an image from the job list.



2 Click View in Acrobat to view the PDF in Acrobat.



3 The Acrobat reader will display the PDF.

## Workflow Menu Commands

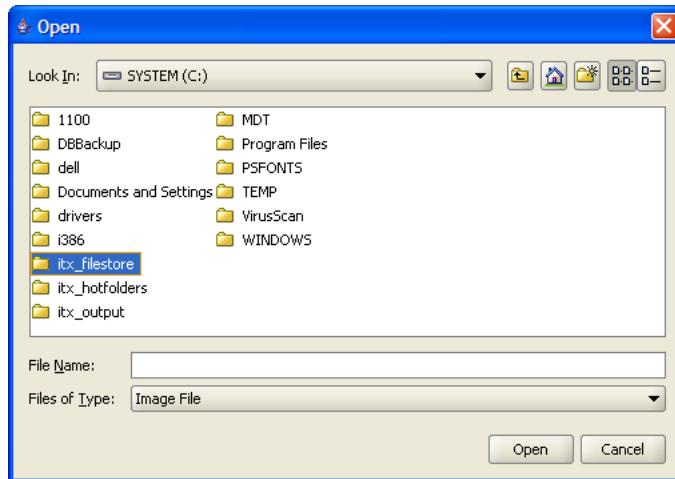
Once a job has been processed, it can be reopened if it contains a TIFF image. Processed jobs are placed in **output** under **Default BW** or **Default RGB**.

The following job is being edited from the Job List and contains a TIFF image. The **Image** tab is displayed.

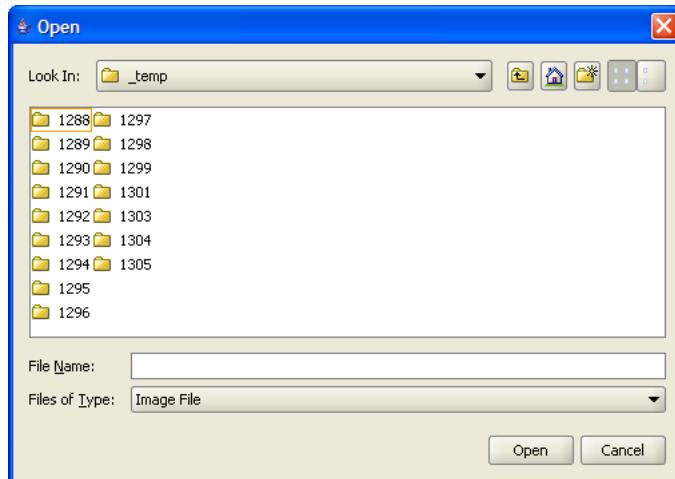
You can open individual images in a PDF, alter the parameters using the **Advanced Edit** and **Interactive Edit** tools, and see the result. You will need to resubmit the main PDF job after you have edited the subjobs to see the effect.

## ► To Open an Edited Image

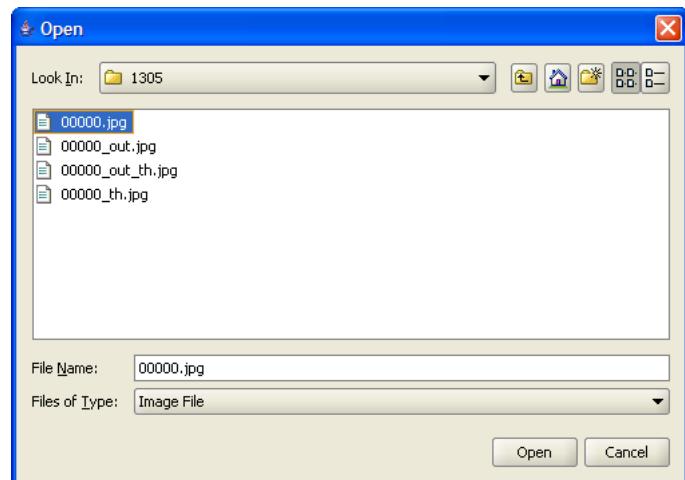
- 1 From the Workflow menu select Open Image.
- 2 Browse to the itx\_filestore folder.



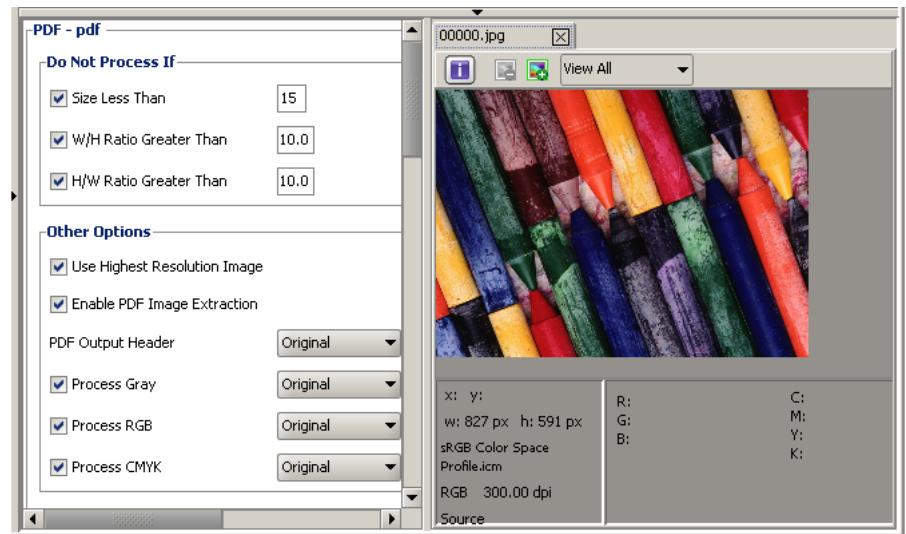
- 3 Open **itx\_filestore**, and then open the **temp** folder.



- 4 Select the desired job folder, and open it.



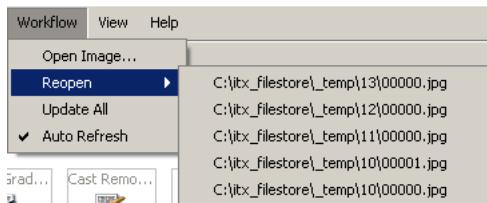
5 Choose an image, and select **Open**.



6 The image opens in the job edit window.

#### ► To Reopen an Image

- 1 Close the job.
- 2 Switch from the **Hot Folders** tab to the **Workflow** tab.



A list of recently opened images will display.

3 Select from the list.

6 A processing bar will display, and the image will open.

#### ► To Update All

If changes have been made to the Workflow operations, click **Update All**. All the changes will be applied.

#### ► To Use Auto Refresh

You can enable **Auto Refresh** to update displays.

1 First select the **Workflow tab**.

2 Go to **Workflow** on the menu.

3 Check **Auto Refresh**.



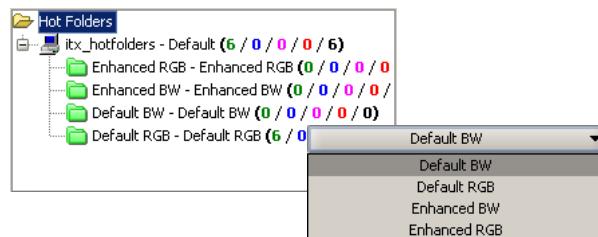
# :Arkitex IntelliTuneX Operations

This chapter is intended as a reference chapter. All the operation settings for images are listed.

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## Default Installations

IntelliTuneX comes with pre-installed hotfolders, workflows, and workflow operations. The operations have predefined settings that can be added to new workflows.



## ■ Hot Folders

- The Enhanced RGB hot folder is linked to the Enhanced RGB workflow.
  - The Enhanced BW hot folder is linked to the Enhanced BW workflow.
  - The Default BW hot folder is linked to the Default BW workflow.
  - The Default RGB hot folder is linked to the Default RGB workflow.

## ■ Workflows

- ❑ The **Default BW** contains the operations Tonal Gradation--Default BW, Cast Removal--Default BW, USM--Default BW, Artifact Removal--Default BW, Size--No Resizing, Color Management--Default BW, Output--Default BW, and PostProcess--Default BW.
  - ❑ The **Default RGB** workflow contains the operations Tonal Gradation--Default RGB, Cast Removal--Default RGB, USM--Default RGB, Artifact Removal--Default RGB, Size--No Resizing, Selective Color--Default RGB, Color Management--Default RGB, Output--Default RGB, and PostProcess--Default RGB.
  - ❑ The **Enhanced BW** workflow contains the operations Tonal Gradation--Enhanced BW, Cast Removal--Enhanced BW, USM--Enhanced BW, Adaptive Contrast Enhancement--Enhanced BW, Artifact Removal--Enhanced BW, Size--No Resizing, Selective Color--Enhanced BW, Color Management--Enhanced BW, Output--Enhanced BW, and PostProcess--Enhanced BW.

- The **Enhanced RGB** workflow contains the operations Tonal Gradation--Default RGB, Cast Removal--Default RGB, USM--Default RGB, Adaptive Contrast Enhancement--Enhanced RGB, Artifact Removal--Default RGB, Size--No Resizing, Selective Color--Default RGB, Color Management--Default RGB, Output--Default RGB, and PostProcess--Default RGB.

- Operations

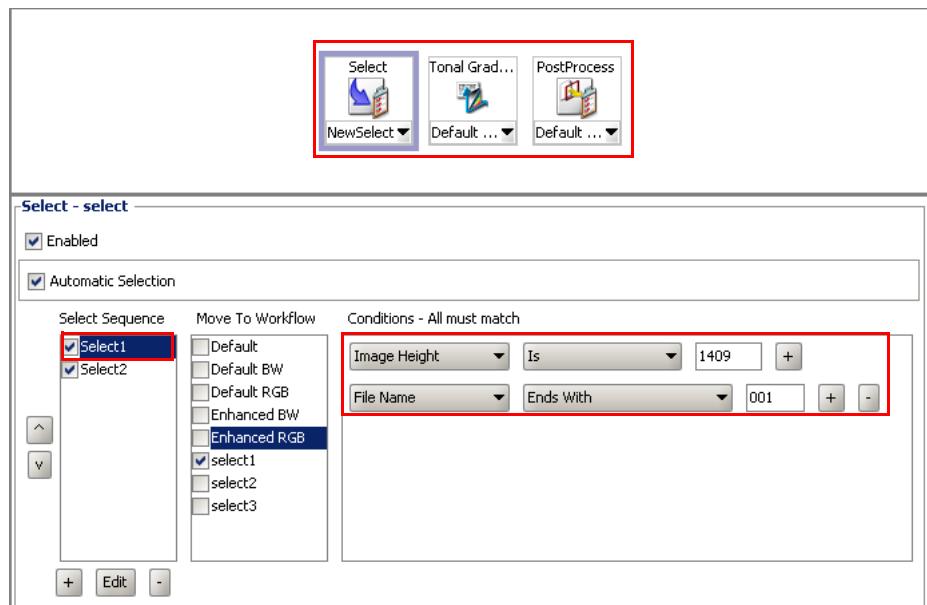
- “Select” on page 199
- “PreProcess” on page 203
- “Tonal Gradation” on page 206
  - “Default BW” on page 210
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  - “Enhanced BW” on page 211
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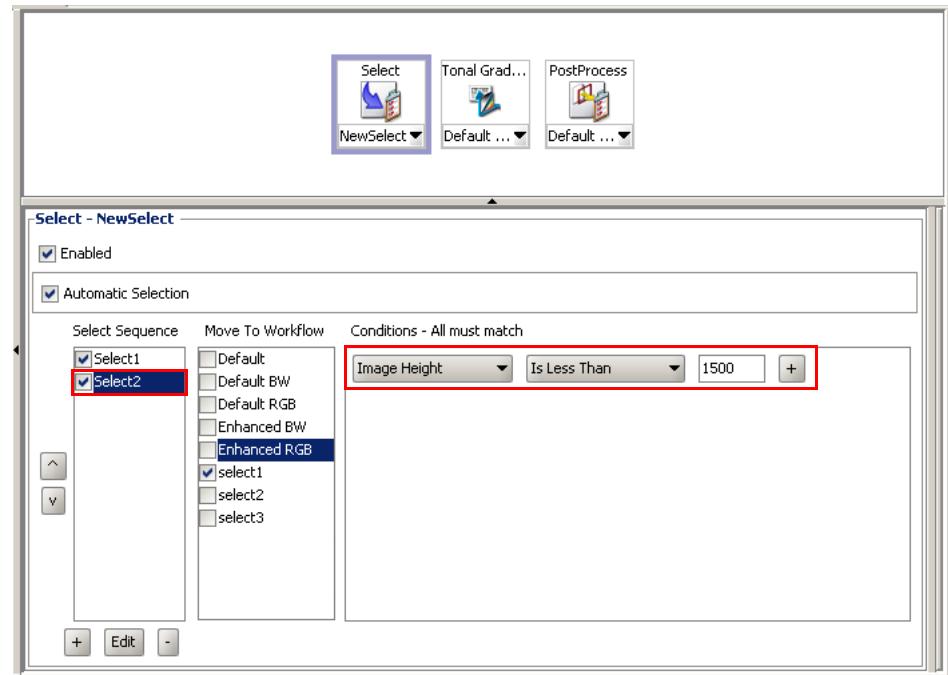
- “PDF” on page 274
- “Approve” on page 285
- “PostProcess” on page 289
- “Default BW” on page 293
- “Default RGB” on page 293
- “Enhanced BW” on page 293
- “Enhanced RGB” on page 293

## Select

You can apply conditions to PDFs and send them to a different workflow when the condition is met.

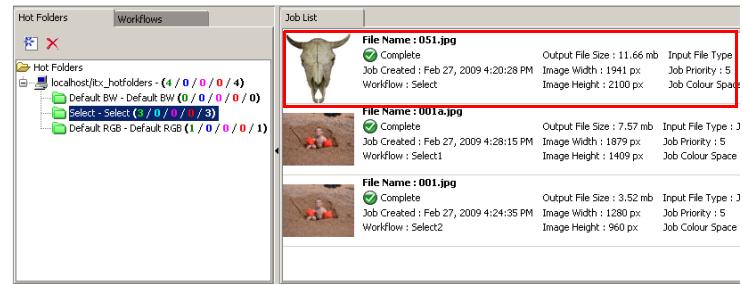


The Select function is activated when it is put into a workflow. For example, with **Automatic Select** the user can put the **Select** function into the *NewSelect* workflow. Defined *Conditions* direct all files with an image height of 1409, and a filename that starts with 001, to go through the *Select1* sequence. Files that have an image height of 1500 will go through the *Select2* sequence.



**NOTE:** Files will go through each Select sequence until all conditions match.

If all conditions do not match, they go through the *Select* workflow.



**Enabled** Enables the Select operation.

**Automatic Selection** Sequences are automatically selected based on the conditions set. Files meeting the condition criteria will process through one sequence. Files not meeting the criteria process through an alternate sequence.

**Select Sequence** Identifies the selected move to workflow.

**Move To Workflow** Identifies the workflow that files will be moved to based on the conditions that match the incoming files.

**Conditions** The following conditions are available as filters.

Condition	Field	Operator	Field
True (Always)	N/A	N/A	N/A
File Name	N/A	Ends With Starts With Match String With Wildcards	Fill in Variable
File Type	N/A	Is Is Not	TIFF JPEG JPEG2000 PDF EPS
Color Space	N/A	Is Is Not	RGB CMYK Gray DeviceN LAB
Resolution	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	Fill in Variable
Image Width	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	Fill in Variable
Image Height	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	Fill in Variable
Image Size	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	Fill in Variable

Condition	Field	Operator	Field
Number of Channels	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	Fill in Variable
Number of Bits	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	Fill in Variable
Specific File Types	N/A	Is Is Not Is Greater Than Is Less Than Is Not Greater Than Is Not Less Than	TIFF JPEG JPEG2000 PDF EPS

### ► To Configure Automatic Select

- 1 Turn on **Edit** mode.
- 2 Right-click on the Select operation, and select **New**.
- 3 Enter a name, and select **OK**.
- 4 Check **Enabled** to turn on the **Select** operation.
- 5 Click **Automatic Selection** to activate **Selection Conditions**.
- 6 Click the **Plus Sign** to create a new **sequence**.



- 7 Click **OK** to make the sequence display in the sequence list.

**NOTE:** To delete the condition, **check** it from the list, and click the **Minus** sign.

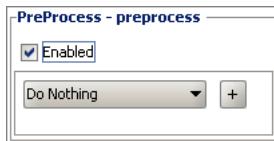
- 8 Under **Move To Workflow**, check the desired workflow box.
- 9 Select the desired condition.

- To add additional conditions, click the **Plus** sign.
- To delete a line, click the **Minus** sign.

**10** Set the Select operation in the appropriate workflow.

## PreProcess

Settings control how files are transferred into the system.



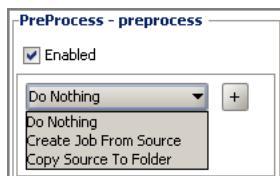
**Enabled** Enables the PreProcess operation.

**Source Files** You have the options of creating jobs from source files, and copying source files to folders, or the Filestore.

Object	Operand	Operator
Do Nothing	N/A	N/A
Create Job From Source	Workflow	Plus/Minus
Copy Source To Folder	Browse to folder	Plus/Minus

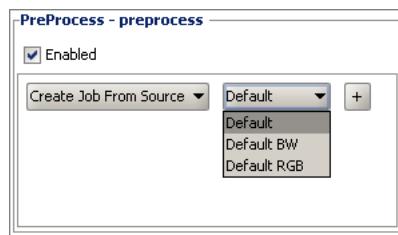
### ► To Configure PreProcess

- 1 Be sure that **Enable** is checked.
- 1 **Do Nothing** is the default selection.

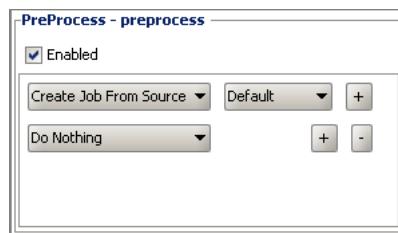


**2** Select **Create Job From Source**.

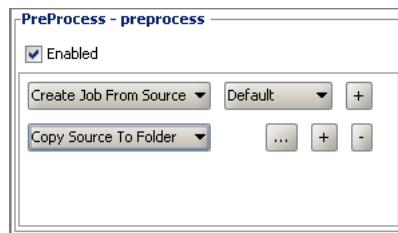
- Select the **Workflow** name.



- Click **Plus** to add a new line if needed. Click **Minus** to delete the line.

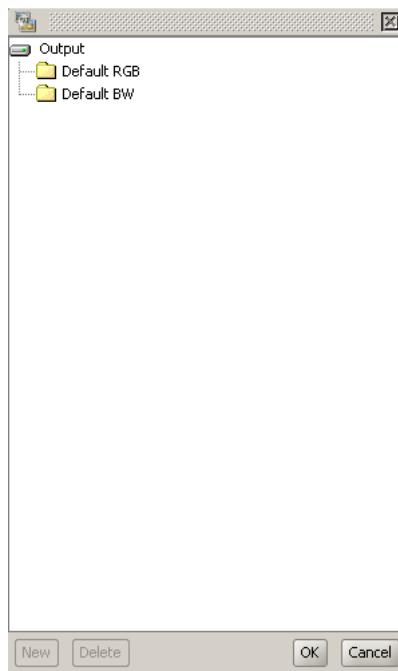


- 3 Check **Copy Source To Folder** to activate a folder to hold source files.



- Click the **Browse** button.

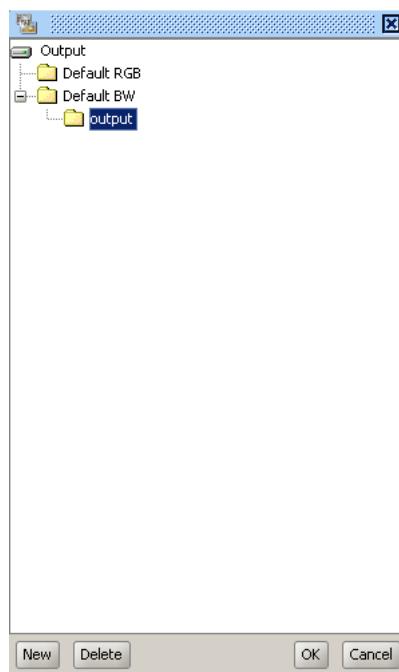
An **Output** dialog box will appear.



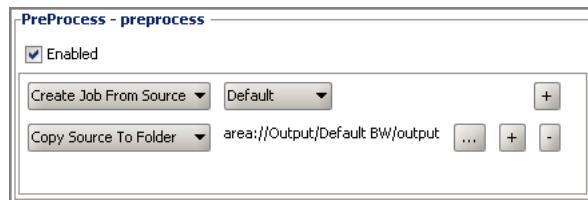
- Select **Default BW** or **Default RGB** under Output.
- The **New** and **Delete** buttons will activate.
- Click **New**. A New dialog box displays.



- Enter the name of the folder.
- The new folder appears under the parent folder.



4 Select the new folder, and click **OK**.



The file location will display.

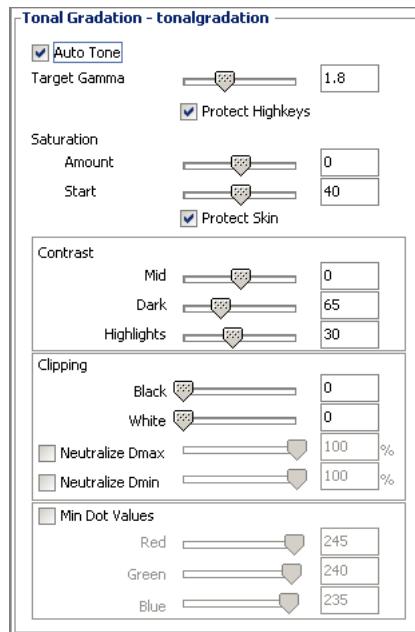
## Tonal Gradation

The main functions of Tonal Gradation are:

- Analyzing the tonal behavior of the image and applying a tonal gradation curve calculated from the image data, together with the specified target gamma.
- Clipping black and white for each image.
- Adding contrast to each image in relation to the original image.

- Adding more contrast to flatten images.
- Darkening overexposed images and brightening underexposed images.

The target gamma, saturation, contrast, clipping values, and minimum dot values can be set.



**AutoTone** By selecting the Auto Tone check box, you activate the tonal gradation settings. The auto tone main functions are: analyzing the tonal behavior of the image and applying a tonal gradation curve, calculated from the image data together with the specified target gamma; clipping black and white for each image; adding contrast to each image in relation to the original image; adding more contrast to flatten images; darkening overexposed images and brightening underexposed images.

**Target Gamma** Target Gamma is the gamma of the standard working space. Most commonly, a target gamma of 2.2 for color images will be used. This definition is not applied to grayscale images; therefore, a default target gamma of 1.0 will be used. You can compress or expand dark and light shade ranges in an image by adjusting the target gamma range.

**NOTE:** Enter the recommended value of 2.2 for color images (1.0 for grayscale images). A higher value than 2.2 (or 1.0) makes the image lighter. A lower value than 2.2 (or 1.0) makes the image darker.

**Protect Highkeys** IntelliTuneX will detect and maintain highkey originals. If this option is unchecked, a correction will be applied, resulting in a higher contrast.

---

**NOTE:** Protect Highkeys will disable the clipping black option.

---

**Saturation** Saturation makes colors more vivid and intense and must be used with caution as it affects skin tones. With **Protect Skin** selected, it will not over (or under) saturate the skin tones (this only works on images converting to CMYK). Start defines a point between 0 and 80 where the saturation process will start. The higher the gray content, the lower the saturation. High saturation corresponds to an intense, vivid color. Low saturation results in a dull, grayish color. Saturation can be used with **Auto Tone** enabled or disabled.

**Amount:** Set the saturation **increase/decrease amount** value by dragging the slider to the left or right within the specified range of -100 and +100. Or enter a value between -100 and +100 in the value box.

---

**NOTE:** Moving the slider to the left decreases the saturation and dulls the color. Moving the slider to the right increases the saturation and makes the color vivid. Entering zero as the value saturates the color slightly.

---

**Start:** The saturation start value allows you to protect near neutral colors. Set the saturation **start value** by dragging the slider to the left or right within the specified range of 0 and +80. Or enter a value between 0 and +80 in the value box.

---

**NOTE:** If the saturation of the pixel is equal to or higher than the **Start** value, IntelliTuneX will perform saturation corrections based on the saturation **Amount** value.

---

**Protect Skin:** Check **Protect Skin** to prevent Saturation influence in skin tone areas.

**Contrast** Contrast is the relationship between the lightest and darkest areas in an image. Contrast has three separate controls for the Mids, Shadows, and Highlights. Adjust the Mid first, then Dark and Highlights.

**Mid:** This setting affects the contrast in the mid-tones of an image. Moving the slider to the left decreases the contrast; moving the slider to the right increases the contrast.

---

**NOTE:** For images with a normal range of colors, a higher **mid relative value** can be given (for example 60 instead of 10).

---

**Dark:** This setting affects the contrast in the shadow of an image. Increasing the contrast **dark value** will darken the darkest areas in the image to black. Set the contrast **dark value** by dragging the slider to the left or right within the specified range of 0 and +200. Or enter a value between 0 and +200 in the value box.

**Highlights:** This setting affects the contrast in the highlight areas of an image. Increasing the highlights value will brighten the lightest areas in the image to white. Set the contrast highlight value by dragging the slider to the left or the right within the specified range of 0 and +300. Or enter a value between 0 and +300 in the value box.

**Clipping** Clipping White and Clipping Black values specifies the percentage of pixels that will be clipped to absolute white and black in the white and black areas of your image. Clipping darkens or brightens an image.

**Black:** Increasing the black value will make certain areas in your image black. For example, a value of 0.5 means that 0.5% of the pixels will be clipped to absolutely black. Enter a value in the **black** value box.

**White:** Increasing the white value will make certain areas in your image white. For example, a value of 0.5 means that 0.5% of the pixels will be clipped to absolutely white. Enter a value in the **white** value box.

**Neutralize Dmax/Neutralize Dmin:** Neutralize Dmax and Dmin should only be used in extreme cases of cast as it can take too much color out of normal images.

**Min Dot Values** Min/Max Dot Values limit the maximum allowed highlight on the processed RGB image. It is possible to map the Min Dot Values to a value lower than 255.

---

**NOTE:** Enter the **Min Dot Value** on the first line, the **Max Dot Value** on the second line.

---

RGB--Red, green, and blue are the primary colors of light perceived by the eye. RGB are also the primary colors in the additive color model, and is used in monitors, scanners, etc., in order to emulate human perception.

**Red:** Enter a value.

**Green:** Enter a value.

**Blue:** Enter a value.

## ► To Configure Tonal Gradation

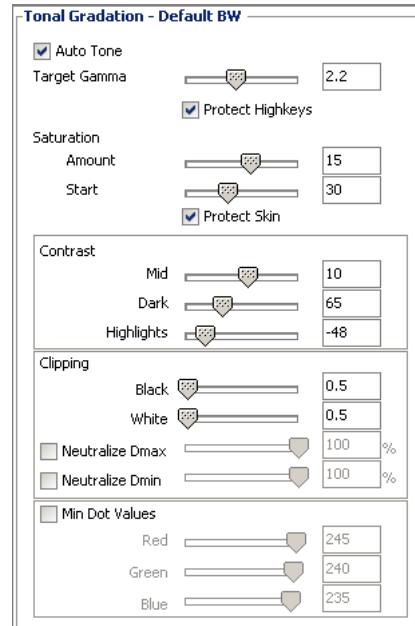
**1** Select **Tonal Gradation** to activate the settings.

- 2 Change the **Target Gamma** by moving the slider or entering a value.
- 3 Check **Protect Highkeys**.
- 4 Set the saturation **Amount** value by moving the slider or entering a value.
- 5 Set the saturation **Start** value by moving the slider or entering a value.
- 6 Check **Protect Skin** to prevent Saturation influence in skin tone areas.
- 7 Set the contrast **Mid** value by moving the slider or entering a value.
- 8 Set the contrast **Dark value** by moving the slider or entering a value.
- 9 Set the **Highlights** value by moving the slider or entering a value.
- 10 Change the **Clipping** settings.
- 11 Change the **Min/Max Dot Values**.

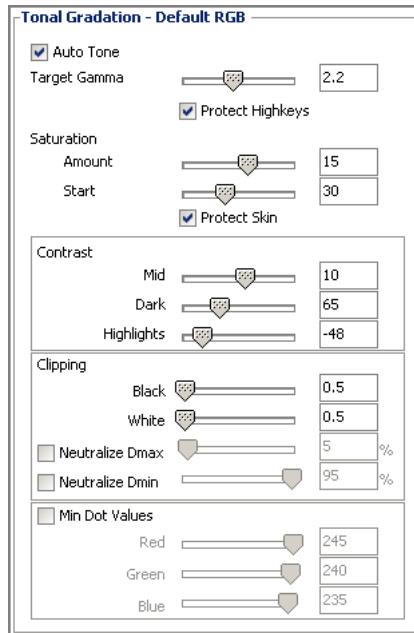
## Tonal Gradation Default Operations

Tonal Gradation comes with four predefined operations.

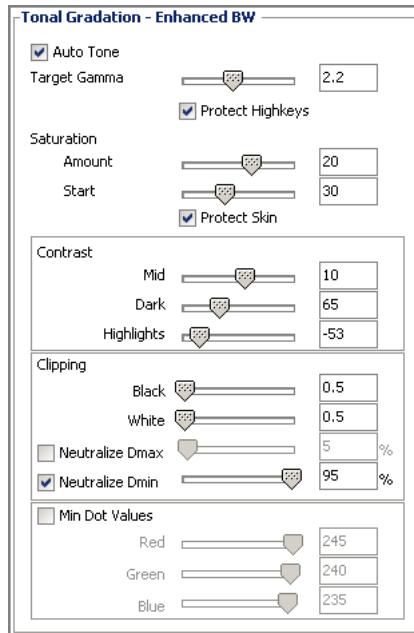
### Default BW



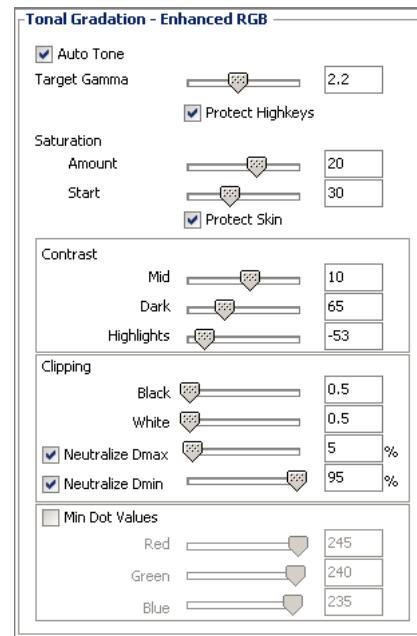
## Default RGB



## Enhanced BW

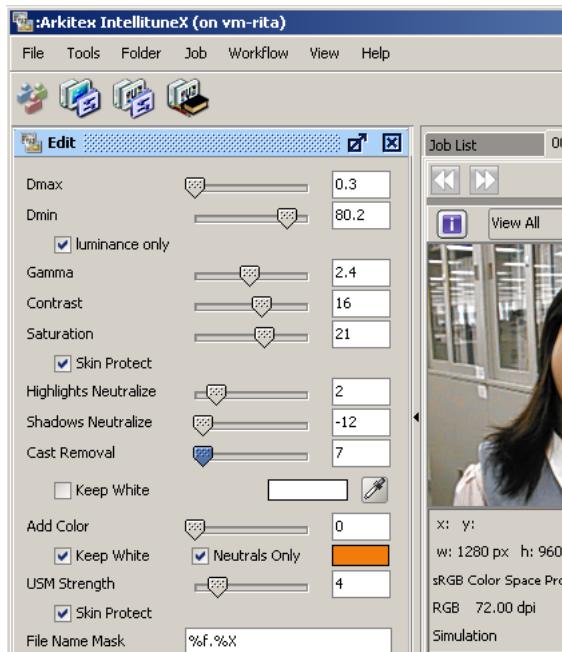


## Enhanced RGB



## Cast Removal

This operation is only relevant for color images, allowing you to specify cast removal settings and skin correction values.



**Cast Control** By selecting **Cast Control**, you activate the **Image Quality - Cast Removal** settings. The main function of cast control is removing global color casts. Cast Control will try to neutralize casts in the Highlights and Shadows separately. Less color or more color can be added or taken away from the highlights. The range of color can be increased by moving it toward the midtones, or decreased by moving it toward the highlights. The same can be done for the shadows.

**Cast Removal** By selecting Cast Removal, dominant colors will be removed. For example, if a photo contains too much magenta or cyan, the cast removal feature electronically removes it.

**Highlights Neutralize** By selecting **Highlights Neutralize**, color casts in near neutral tones (gray) are removed using selective color correction. This is handy when removing color from street images. You can specify the: **Color range**, **Midtones/Highlights**, **Skin protection**, and **Sky protection**.

**Less/More Color:** Set the **Less/More Color** value by dragging the slider to the left or the right within the specified range of -20 and +100. Or enter a value between -20 and +100 in the value box. Moving the slider to the right increases the number of colors that belongs to the near neutral highlight tones.

**Midtones/Highlights:** Set the **Midtones/Highlights** value by dragging the slider to the left or the right within the specified range of -100 and +100. Or enter a value between -100 and +100 in the value box. Moving the slider to the left will include midtones. Moving the slider to the right will only neutralize highlights.

**Skin Protect:** Check **Skin Protect** to protect skin from color removal, as this is in the highlight and quarter tone range.

**Sky Protect:** Check **Sky Protect** to will protect sky from color removal, as this is in the highlight and quarter tone range.

#### **Shadows Neutralize**

By selecting the Shadows neutralize check box, color casts in shadow tones are neutralized using selective color correction. You can specify the Color range and the Midtones-Highlights range to be included.

**Less/More Colors:** Set the **Less/More Colors** value by dragging the slider to the left or the right within the specified range of -20 and +100. Or enter a value between -20 and +100 in the value box. Moving the slider to the right, increases the number of colors that belongs to the near neutral shadow tones.

**Shadows/Midtones:** Set the **Shadows/Midtones** value by dragging the slider to the left or the right within the specified range of -100 and +100. Or enter a value between -100 and +100 in the value box. Moving the slider to the left will only neutralize shadows. Moving the slider to the right will include midtones.

#### **Add Color**

The displayed color will be added to the image. You can specify the Amount and the Range. Set the **Add Color** value by dragging the slider to the left or the right within the specified range of 0 and 100. Or enter a value between 0 and 100 in the value box.

**Keep White:** Select **Keep White** if you want to affect highlights.

**Neutrals Only:** Select **Neutrals Only** if you do not want to affect other colors.

#### **Skin Correction**

You can adjust the skin tones in an image to user-defined Target skin settings. The settings can be defined in such a way that IntelliTuneX removes excessive tones and adds more color to flat tones. Recognition is based on colors in the skin tone range, skin shape, and skin contrast (contrast between the eyes, nose, and skin). Correction is applied on recognized colors. If you have an image containing people with different skin colors. IntelliTuneX will adjust all skin tones to the target skin value in relation to each other.

Set the correction range by dragging the slider to the left or the right within the specified range of 50 and 100. Or enter a value between 50 and 100 in the value box.

---

**NOTE:** Increasing the slider value affects the correction range.

---

**Target Hue:** A negative value results in a red target skin. A positive value results in a yellow target skin. Set the **Target Hue** value by dragging the slider to the left

or the right within the specified range of -20 and +20. Or enter a value between -20 and +20 in the value box.

**Target Saturation:** A negative value results in a less intense skin color. A positive value results in intense skin color. Set the **Target Saturation** value by dragging the slider to the left or the right within the specified range of -100 and +100. Or enter a value between -100 and +100 in the value box.

**Target Luminescence:** A negative value darkens the skin tones. A positive value brightens the skin tones. Values between -10 and +10 are recommended. Set the **Target Luminescence** value by dragging the slider to the left or the right within the specified range of -100 and +100. Or enter a value between -100 and +100 in the value box. The color result of the settings are displayed in the square box next to the target skin slider bars.

---

**NOTE:** IntelliTuneX will use default settings for skin correction if you enter zero for **Target Hue**, **Target Saturation**, and **Target Luminescence**.

---

#### ► To configure Cast Control

- 1 Select **Cast Control** to activate the Cast Removal settings.
- 2 Select Cast Removal.
- 3 Check **Highlights Neutralize**.
- 4 Set the **Less/More Color** value.
- 5 Set the **Midtones/Highlights** value.
- 6 Check **Skin Protect** to avoid skin colors being neutralized.
- 7 Check **Sky Protect** to avoid sky colors being neutralized.
- 8 Check **Shadows Neutralize**.
- 9 Set the **Less/More Colors** value.
- 10 Set the **Shadows/Midtones** value.
- 11 Set the **Add Color** value.
- 12 Select **Keep White** if you want to affect highlights.
- 13 Select **Neutrals Only** if you do not want to affect other colors.
- 14 Set the correction range.
- 15 Set the **Target Hue** value.

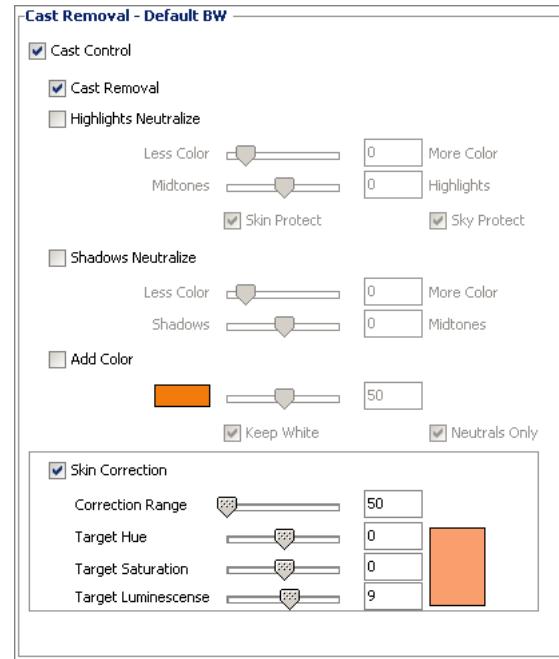
16 Set the **Target Saturation** value.

17 Set the **Target Luminescence** value.

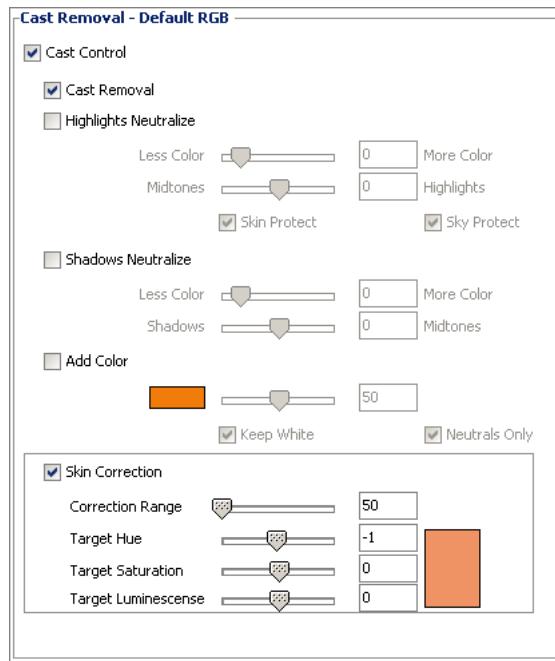
## Cast Removal Default Operations

Cast Removal comes with four predefined operations.

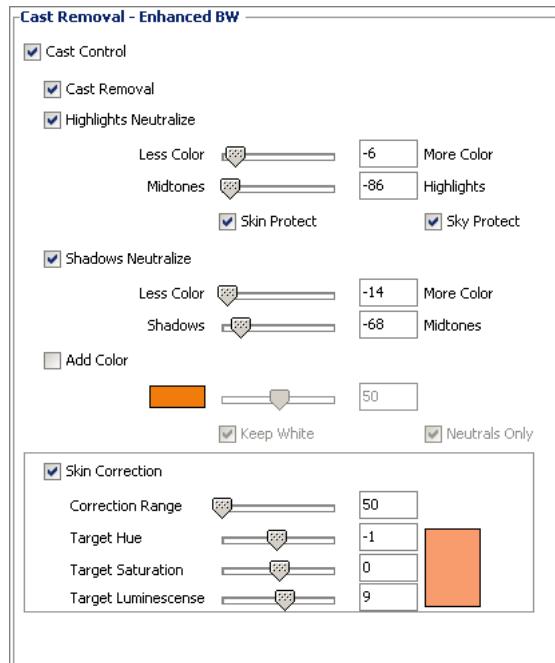
### Default BW



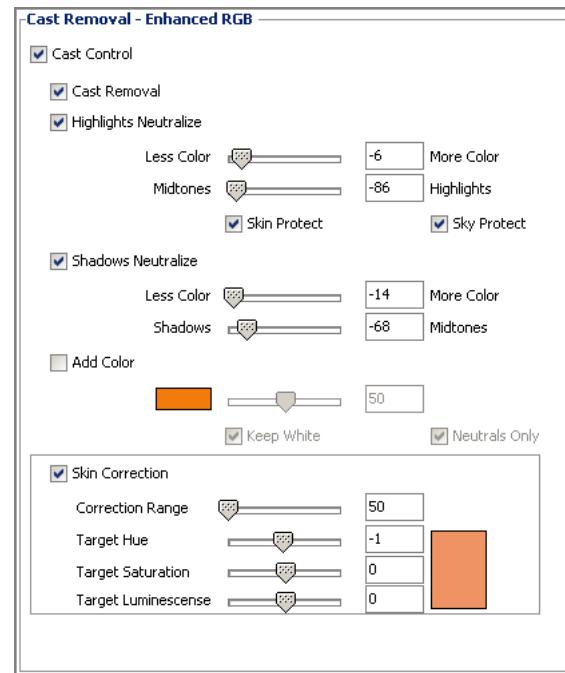
## Default RGB



## Enhanced BW

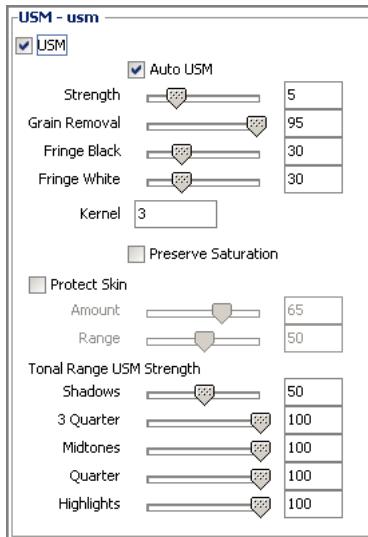


## Enhanced RGB



## USM

This operation allows you to set various USM (Unsharp Masking) settings. The USM main function is to alter the contrast and brightness levels of adjacent pixels to create a perception of increased sharpness, and to sharpen image details.



**USM** Select **USM** (unsharp masking) to activate the Image Quality - USM settings.

**Auto USM** Select **Auto USM** to cause IntelliTuneX to automatically detect if your image is already sharp enough. If this is the case, the auto USM function will automatically reduce the amount of sharpness requested.

**NOTE:** Select **Auto USM** as the default.

**Strength** Set the **sharpening strength** so that each image reaches the desired sharpness. Enter the recommended value of 4.0 for both color and grayscale images. Enter a **strength value** equal to zero to leave the image unchanged. Enter a higher **strength value** to increase sharpness.

Set the **Strength** value by dragging the slider to the left or right within the specified range of 0 and +20.00. Or enter a value between 0 and +20.00 in the value box.

**Grain Removal** A higher **grain removal** value results in less sharp low contrast image areas. A higher **grain removal** value puts less emphasis on the graininess of an image.

Set the **Grain Removal** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

**Fringe Black** A higher value protects the image more from black fringes. A lower value protects the image less from black fringes.

Set the **Fringe Black** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

**Fringe White** A higher value protects the image more from white fringes. A lower value protects the image less from white fringes.

Set the **Fringe White** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

**Kernel** The **Kernel** value defines the thickness of the sharpness of the lines. The minimum value is 3.0, and this is also the recommended value.

Set the **Kernel** value by entering a value in the value box.

**Preserve Saturation** Select **Preserve Saturation** to prevent small colored details from turning into black and white and losing their color detail (useful for text in advertising boards).

**Protect Skin** By selecting the **Protect Skin** check box, you can prevent USM influence in skin tone areas which result in too crispy faces.

**Amount:** A low value results in lower skin protection, which can result in crispy faces. A high value results in higher skin protection, which can result in smooth faces.

Enter an **Amount** value between 0 and +100 in the value box.

**Range:** A lower value means that less colors around the skin tone colors are affected, thus only a small range of colors are protected. A higher value means that more colors around the skin tone colors are affected, thus a wide range of colors are protected.

Enter a **Range** value between 0 and +100 in the value box.

**Tonal Range USM Strength** These settings define the percentage used of **USM strength** in the different tonal ranges of the image. Five fields allow a different amount of sharpening to be applied across the tonal range: **Shadows**, **3 Quarter Tones**, **Mid Tones**, **Quarter Tones**, and **Highlights**.

To change the **Tonal Range USM Strength** setting, set a value for each of the five field ranges by dragging the slider to the left or right within the specified range 0 and +100. Or enter a value between 0 and +100 in the value box.

---

**NOTE:** Low values means no unsharp masking (USM) in that tonal range. High values means full unsharp masking (USM) in that tonal range.

---

### ► To configure USM

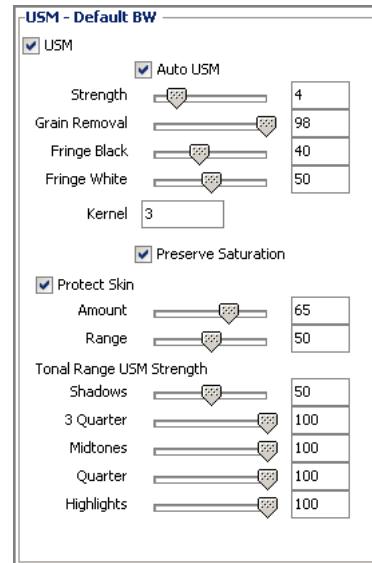
- 1 Select **USM** (unsharp masking) to activate the USM settings.
- 2 Select **Auto USM** to cause IntelliTuneX to automatically detect if your image is already sharp enough.
- 3 Set the **Strength** value.
  - 1 Set the **sharpening strength** so that each image reaches the desired sharpness.
  - 2 Enter the recommended value of 4.0 for both color and grayscale images.
  - 3 Enter a **strength value** equal to zero to leave the image unchanged.
  - 4 Enter a higher **strength value** to increase sharpness.
- 4 Set the **Grain Removal** value.
- 5 Set the **Fringe Black** value.
- 6 Set the **Fringe White** value.
- 7 Set the **Kernel** value.
- 8 Select **Preserve Saturation** to prevent small colored details from turning into black and white and losing their color detail (useful for text in advertising boards).
- 9 Select the **Protect Skin** check box to prevent USM influence in skin tone areas which result in too crispy faces.
- 10 Enter an **Amount** value between 0 and +100 in the value box.
- 11 Enter a **Range** value between 0 and +100 in the value box.
- 12 Change the **Tonal Range USM Strength** setting.

## USM Default Operations

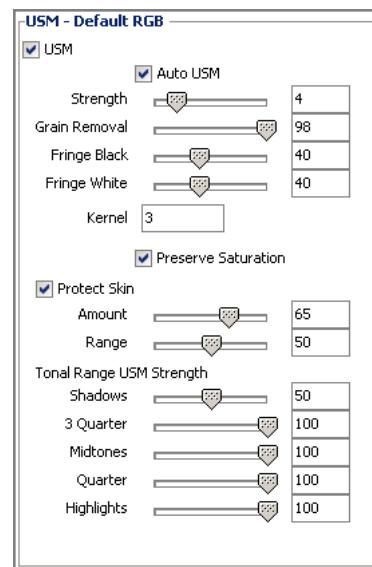
---

USM comes with four predefined operations.

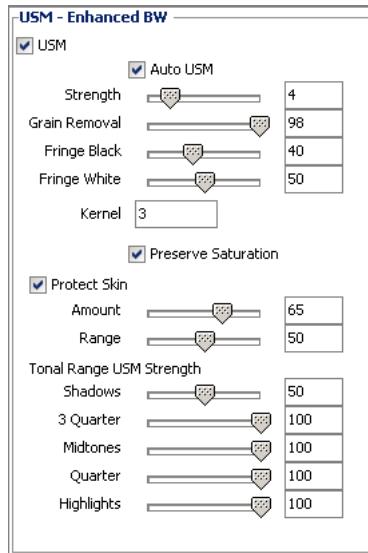
## Default BW



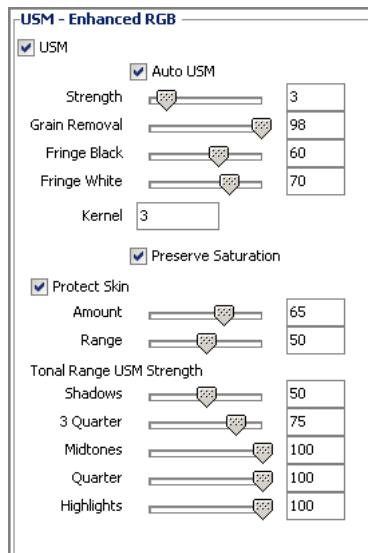
## Default RGB



## Enhanced BW

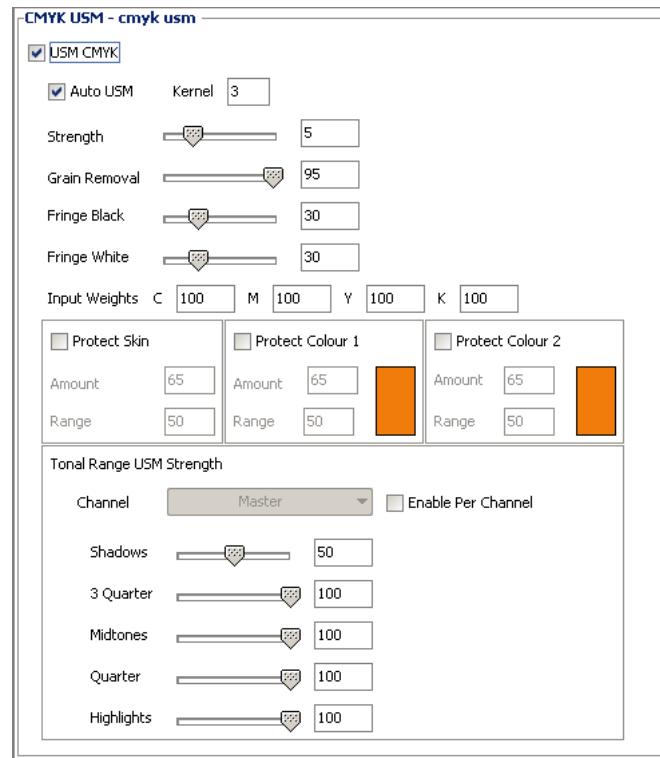


## Enhanced RGB



## CMYK USM

This operation allows you to set various USM settings and saturation values on CMYK images.



### USM CMYK

The **USM CMYK** main function is to alter the contrast and brightness levels of adjacent pixels to create a perception of increased sharpness, and to sharpen image details of CMYK images. Select the **USM CMYK** check box to activate the Image Quality - USM CMYK settings.

### Auto USM

Select the **Auto USM** check box to have IntelliTuneX automatically detect if your image is already sharp enough. If this is the case, the **Auto USM** function will automatically reduce the amount of sharpness requested.

**NOTE:** Select Auto USM as the default.

### Kernel

The **Kernel** value defines the thickness of the sharpness of the lines. The minimum value is 3.0, and this is also the recommended value.

Set the **Kernel** value by entering a value in the value box.

### Strength

The **sharpening** strength value defines the desired sharpness for each image to reach.

Set the **Strength** value by doing dragging the slider to the left or right within the specified range of 0 and +20.00. Or enter a value between 0 and +20.00 in the value box.

- Enter the recommended value of 4.0 for CMYK color images.
- Enter a **strength value** equal to zero to leave the image unchanged.
- Enter a higher **strength value** to increase sharpness.

#### Grain Removal

A higher **grain removal** value results in less sharp low contrast image areas and puts less emphasis on the graininess of an image. Set the **Grain Removal** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

#### Fringe Black/Fringe White

A higher value protects the image more from black/white fringes. A lower value protects the image less from black/white fringes. Set the **Fringe Black** and **Fringe White** values by dragging the respective slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the respective value box.

#### Input Weights

**Input Weights** define how much of the specific channel is used to calculate sharpening, which is then applied to the different channels.

Set the **Input Weights** for all channels by entering a value between 0 and +100 in the respective channel value box.

---

**NOTE:** Lower the **Input Weight** value for a specific channel if it contains a lot of noise.

---

#### Protect Skin

By selecting the **Protect Skin** check box, you can prevent USM influence in skin tone areas which result in too crispy faces. A low value results in lower skin protection, which can result in crispy faces. A high value results in higher skin protection, which can result in smooth faces.

#### Amount

Enter an **Amount** value between 0 and +100 in the value box.

A low value results in lower color protection, a high value results in higher color protection.

#### Range

Enter a **Range** value between 0 and +100 in the value box.

A lower value means that less colors around the skin tone colors are affected, thus only a small range of colors are protected.

A higher value means that more colors around the skin tone colors are affected, thus a wide range of colors are protected.

**Protect Color 1/Protect Color 2** By selecting **Protect Color 1** and **Color 2**, you can prevent USM influence in maximum 2 extra color tone areas.

#### ► **Define Extra Protect Color value**

1 Click on the color field to define an extra color tone to protect.

2 Select a view mode and define a color.

3 Enter an **Amount** value between 0 and +100 in the value box.

A low value results in lower color protection, a high value results in higher color protection.

4 Enter a **Range** value between 0 and +100 in the value box.

A lower value means that less colors around the defined tone color are affected, thus only a small range of colors are protected.

A higher value means that more colors around the defined tone color are affected, thus a wide range of colors are protected.

**Tonal Range USM Strength** These settings define the percentage used of USM strength in the different tonal ranges of the image. You can specify the ranges for the master channel or all channels separately. Up to 6 channels can be defined. Five field ranges can be used: **Shadows**, **3 Quarter Tones**, **Mid Tones**, **Quarter Tones**, and **Highlights**.

**Channel:** Select **Master** to define the settings for all channels.

**Master:** The **Master** settings are always used for all channels. The specific channel settings are only used when the **Enable Per Channel** check box is selected.

**Enable Per Channel:** Select **Enable Per Channel** to define the settings per channel.

**Shadows:** The darkest areas in an original or an image, represented in a halftone by the largest dots. The dot area of shadows ranges from about 80% to 100%.

**3 Quarter:** The 3 Quarter tone layer.

**Midtones:** Tonal values are midway between highlight and shadow.

**Quarter:** The Quarter tone layer.

**Highlights:** The lightest areas in an original or an image. The maximum value is 255 (fully white) of a 0 - 255 range.

Low values means no unsharp masking (USM) in that tonal range. High values means full unsharp masking (USM) in that tonal range.

## ► To Configure CMYK USM

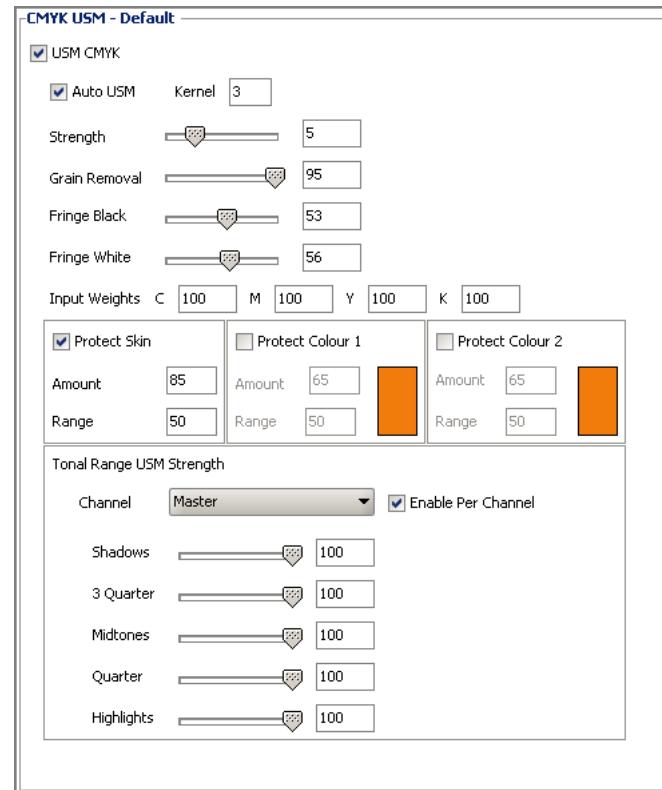
- 1 Select the **USM CMYK** check box to activate the USM CMYK settings.
- 2 Select the **Auto USM** check box to have IntelliTuneX automatically detect if your image is already sharp enough.
- 3 Set the **Kernel** value by entering a value in the value box.
- 4 Set the **Strength** value.
  - 1 Set the **Sharpening** strength so that each image reaches the desired sharpness.
  - 2 Enter the recommended value of 4.0 for CMYK color images.
  - 3 Enter a **Strength value** equal to zero to leave the image unchanged.
  - 4 Enter a higher **Strength value** to increase sharpness.
- 5 Set the **Grain Removal** value.
- 6 Set the **Fringe Black** and **Fringe White** values.
- 7 Set the **Input Weights** for all channels by entering a value between 0 and +100 in the respective channel value box.
- 8 Select the **Protect Skin** check box to prevent USM influence in skin tone areas which result in too crispy faces.
- 9 Enter an **Amount** value between 0 and +100 in the value box.
- 10 Enter a **Range** value between 0 and +100 in the value box.
- 11 Click on the color field to define an **Extra Color Tone** to protect.
- 12 Select a view mode and define a color.
- 13 Enter an **Amount** value between 0 and +100 in the value box.
- 14 Enter a **Range** value between 0 and +100 in the value box.
- 15 Select the channel you wish to define.
  - 1 Select **Master** to define the settings for all channels.

- 2 Select **Enable Per Channel** to define the settings per channel.
- 3 Set the Shadows value.
- 4 Set the 3 Quarter value.
- 5 Set the Midtones value.
- 6 Set the Quarter value.
- 7 Set the Highlights value.

## Default Operation

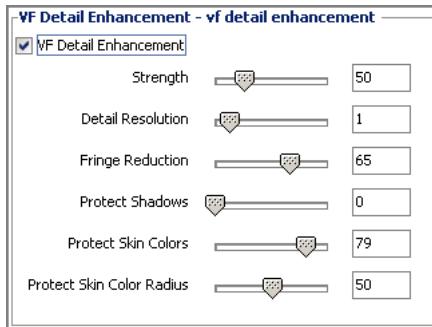
CMYK USM comes with one predefined operation.

### Default



## VF Detail Enhancement

Variable-Frequency Detail (VFD) is an image-enhancement algorithm that is already implemented in Medusa, and has well-specified interface calls.



VFD uses wavelet analysis to provide a very intelligent image processing capability. As a result, it requires significantly more CPU processing power to perform its operations on an image.

As a direct result, it has been separated from other image processing operations.

VFD is implemented as its own workflow step, so that it is only activated by selecting it as part of the workflow.

An arbitrary number of configuration settings can be defined, each with its own combination of slider settings, such as: VF Detail1, VF Detail2.

By default, VFD will not be activated in the software, or in the IntelliTunex default database.

A series of presets has been defined at installation/configuration time. The presets are:

**Strength** Enter a higher strength value to increase detail enhancement. Set the strength value equal to zero to leave the image unchanged. The default value is 50 (Range 0 - 200).

**Detail Resolution** A higher detail resolution value results in enhancing only higher resolutions. A lower detail resolution value results in including lower resolutions to enhance. The default value is 1 (Range 0 - 8).

**Fringe** A higher value reduces the fringes considerably. A lower value will show more fringes. The default value is 65 (Range 0 - 100).

**Protect Shadows** A higher value means less shadow tones will be enhanced. When the protect shadows value equals 100, only midtones to highlights will be enhanced. A lower value means more shadow tones will be enhanced. The default value is 0 (Range 0 - 100).

**Protect Skin Colors** The default value is 79 (Range 0 - 100).

**Protect Skin Color Radius** The default value is 50 (Range 0 - 100).

#### ► **To configure the VF Detail Enhancement Settings**

- 1 Set the **Strength** value by dragging the slider to the left or the right within the specified range of 0 and +200.
- 2 Set the **Strength** so that each image reaches the desired detail enhancement.
- 3 Set the **Detail Resolution** value by dragging the slider to the left or the right within the specified range of 0 and +8.
- 4 Set the **Fringe Reduction** value by dragging the slider to the left or the right within the specified range of 0 and +100.
- 5 Set the **Protect Shadows** value by dragging the slider to the left or the right within the specified range of 0 and +100.
- 6 Set the **Protect Skin Colors** value by dragging the slider to the left or the right within the specified range of 0 and +100.
- 7 Set the **Protect Skin Color Radius** value by dragging the slider to the left or the right within the specified range of 0 and +100.

## Adaptive Contrast Enhancement (ACE)

This new algorithm consists of two major parts:

- Multiresolution contrast enhancement
- An HDR block, which will do a local tonal correction

Additionally, it will also estimate the amount of noise in the image, and reduce the enhancement strength dependent on the amount of noise, and can even do some smoothing on the noise. It also has a skintone protect.

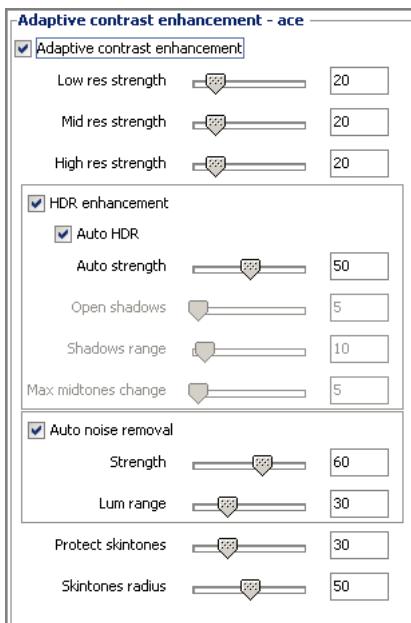
### Multiresolution

Multiresolution will increase spacial contrast on different scales from low frequencies (slowly varying landscape), to high frequencies (leaves, hair, etc.).

This is opposed to USM, which will only enhance the high frequencies or edges, which are only a few pixels wide.

Multiresolution also replaces the older VFD algorithm, which has the same enhancement purpose, but showed artifacts at higher strengths.

**NOTE:** When writing XML, use the syntax "ace".



<b>Adaptive contrast enhancement</b>	Enables overall ACE operation. Multiresolution will increase spacial contrast on different scales from low frequencies (slowly varying landscape), to high frequencies (leaves, hair, etc.).
<b>Low res strength</b>	0 to 100. The amount of enhancement can be set for low resolutions (frequencies).
<b>Mid res strength</b>	0 to 100. The amount of enhancement can be set for mid resolutions (frequencies).
<b>High res strength</b>	0 to 100. The amount of enhancement can be set for high resolutions (frequencies).
<b>HDR enhancement</b>	<p>Enables overall HDR enhancement options.</p> <p>When parts of an image are too dark, which can definitely occur in HDR (high dynamic range) or Raw images, the IntellituneX Auto-tone algorithm will calculate a tone curve, which will brighten those darker areas. However, as this is</p>

done by using one curve which will expand (slope > 1) a certain (dark) area, inevitably another part of the tonal range will be compressed resulting in a loss of detail. Therefore, this algorithm does not use one fixed tone curve, but adapts itself locally, thereby avoiding this loss of detail in midtones and highlights when brightening up the shadows.

**Auto HDR** The HDR advanced parameters can be set/calculated automatically by setting the checkbox.

The HDR advanced parameters can be set/calculated automatically by setting the "auto HDR" checkbox. In this case, the calculated strength can still be modulated by the "auto strength" slider. As usual this slider should only be changed after processing/judging a large number of images, and then reflecting the trend or average behavior into the slider.

When not pleased with the "auto HDR," the parameters can be set manually.

**Auto strength** 0 to 100. The calculated strength can be modulated by the auto strength slider. This slider should only be changed after processing/judging a large number of images, and then reflecting the trend or average behavior into the slider.

**Open shadows** 0 to 100. Determines the average level (in %) to which the shadows will be mapped.

**Shadows range** 0 to 100. Determines which input range (from absolute black to the given %) is considered to be shadows.

**Max midtones change** 0 to 100. Allows the midtones to be slightly brightened up as well to get a more natural image.

**Auto noise removal** Enables overall Auto noise removal options. Auto noise allows neutralizing dmin and/or dmax. Two fields set the amount of neutralizing (in %). Zero % would have the same effect as switching it off, while 100% means a fully neutral darkest and/or lightest part.

**Strength** 0 to 100. The amount of smoothing will be done conditionally on the amount of noise detected.

**Lum range** 0 to 100. Sets the maximum luminance under which smoothing will be done.

**Protect skintones** 0 to 100. Protect skintones has an amount of protection slider (100% means skintones will not be changed).

**Skintones radius** 0 to 100. Determines the range of colors to be considered as skin color.

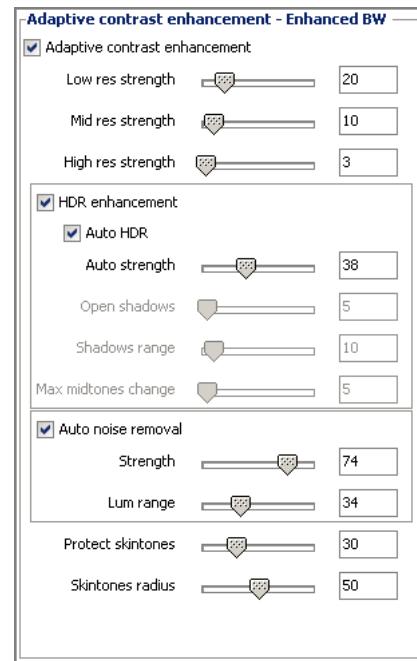
## ► To Configure ACE

- 1 Check **Adaptive contrast enhancement** to enable these options.
  - Change the **Low res strength** by moving the slider or entering a value.
  - Change the **Mid res strength** by moving the slider or entering a value.
  - Change the **High res strength** by moving the slider or entering a value.
- 2 Check **HDR enhancement** to enable these options.
  - Change **Open shadows** by moving the slider or entering a value.
  - Change **Shadows range** by moving the slider or entering a value.
  - Change **Max midtones change** by moving the slider or entering a value.
- 3 Check **Auto HDR** to enable this feature.
  - Change **Auto strength** by moving the slider or entering a value.
- 4 Check **Auto noise removal** to enable these options.
  - Change the **Strength** by moving the slider or entering a value.
  - Change **Lum range** by moving the slider or entering a value.
  - Change **Protect skintones** by moving the slider or entering a value.
  - Change **Skintones radius** by moving the slider or entering a value.

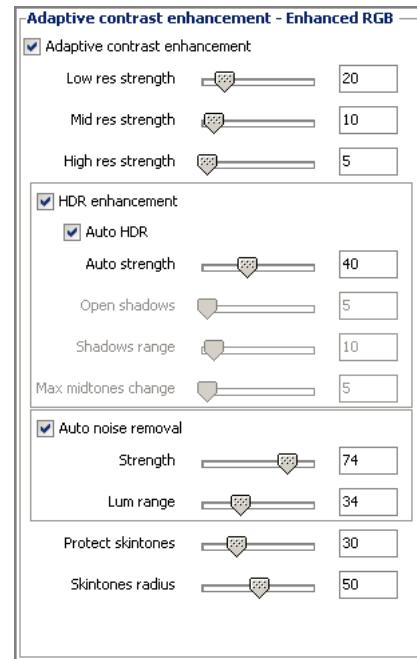
## Adaptive Contrast Enhancement Default Operations

Adaptive Contrast Enhancement comes with two predefined operations.

## Enhanced BW



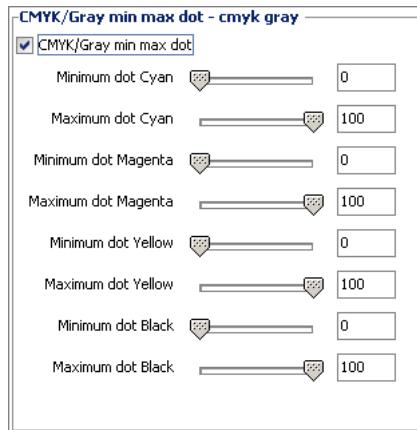
## Enhanced RGB



## CMYK/Gray Min Max Dot

CMYK/Gray MinMax Dot control allows the limitation of CMYK dot values after main processing.

**NOTE:** When writing XML, use the syntax "cmykminmaxdot."



### CMYK/Gray min max dot

Enables overall CMYKMinMax operation. Determines the minimum and maximum values of dot gain for CMYK/Gray images per channel.

Minimum dot Cyan: 0 to 100.

Maximum dot Cyan: 0 to 100.

Minimum dot Magenta: 0 to 100.

Maximum dot Magenta: 0 to 100.

Minimum dot Yellow: 0 to 100.

Maximum dot Yellow: 0 to 100.

Minimum dot Black: 0 to 100.

Maximum dot Black: 0 to 100.

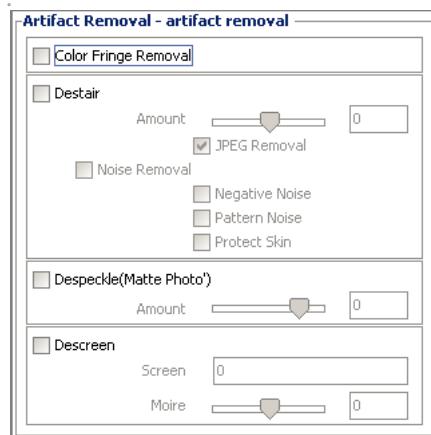
### ► To Configure CMYK/Gray Min Max Dot

- 1 Check **CMYK/Gray min max dot** to enable these options.
  - Change **Minimum dot Cyan** by moving the slider or entering a value.

- Change **Maximum dot Cyan** by moving the slider or entering a value.
- Change **Minimum dot Magenta** by moving the slider or entering a value.
- Change **Maximum dot Magenta** by moving the slider or entering a value.
- Change **Minimum dot Yellow** by moving the slider or entering a value.
- Change **Maximum dot Yellow** by moving the slider or entering a value.
- Change **Minimum dot Black** by moving the slider or entering a value.
- Change **Maximum dot Black** by moving the slider or entering a value.

## Artifact Removal

This operation allows you to select a number of artifact removal settings, such as **Color Fringe Removal**, **Destair**, **Despeckle**, **Descreen**, and **JPEG Compression Artifacts**.



- |                             |   |
|-----------------------------|---|
| <b>Color Fringe Removal</b> | Select <b>Color Fringe removal</b> , and unnatural colored lines surrounding high contrast transitions (misregistration) in an image are removed.   |
| <b>Destair</b>              | Select <b>Destair</b> to smooth a staircase effect, or the square bit maps. Photographs taken with digital cameras often have blocky pixels. <b>Destair</b> repairs it. Use the slider to set the <b>Amount</b> between -10 and +10, or enter a value between -10 and +10 in the value box. |
| <b>JPEG Removal</b>         | Select <b>JPEG Removal</b> to remove JPEG compression artifacts that were introduced when converting the image to a JPEG format. JPEG compression artifacts   |

can be defined as the number of horizontal and vertical lines on a grid of 8x8 pixels.

To change the JPEG removal setting, set the **JPEG Removal** value by dragging the slider to the left (weak) or right (strong) to define how many JPEG lines will be removed. Or enter a value between -10 and + 10 in the value box.

---

**NOTE:** A high (strong) **JPEG Removal** value can distort the image, and the JPEG compression feature will remove some detail. With a low or weak setting, the artifact can produce a suitable contrast. Suppose you have a grainy image. Use a high JPEG removal value to diminish the grains.

---

**Noise Removal** By selecting **Noise Removal**, noise is removed from dark and low contrast areas of an image. If you want IntelliTuneX to first remove noise before removing JPEG compression artifacts, select **Noise Removal**.

**Negative:** Select **Negative Noise** to remove noise in the highlights from negative images, which have been processed to positive.

**Pattern Noise:** Select **Pattern Noise** to remove pattern noise in the image. Pattern noise is often visible on digital photographs taken indoors.

**Protect Skin:** Select **Protect Skin** to protect skin tone areas and to avoid losing subtle facial details.

**Despeckle(Matte Photo')** Scanning photographs may result in excessive white dots on the scanned image. Select **Despeckle** to remove white spotmarks.

To change the setting, set the **Despeckle** value by dragging the slider to the left or right within the specified range of -30 and + 10. Or enter a value between -30 and + 10 in the value box.

**Descreen** Select **Descreen** to remove the pattern of scanned printed originals.

**Screen:** Enter the **Lines per Inch** value of the original image. The scanned resolution should be at least two times the Lines per Inch to remove the pattern.

---

**NOTE:** When no value is entered, default values will be used.

---

**Moire:** A higher value will lead to more descreening; a lower value will filter less.

To define the **Moire** value, dragging the slider to the left or right within the specified range of -10 and + 10. Or enter a value between -10 and + 10 in the value box.

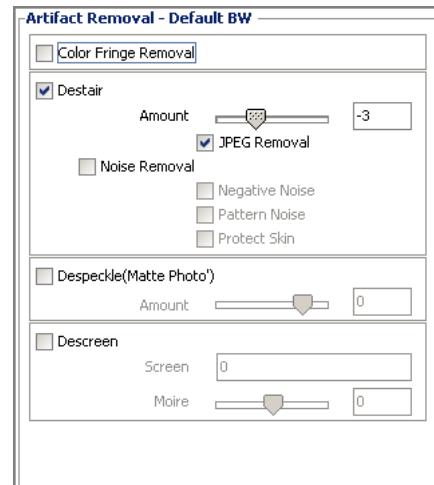
## ► To configure Artifact Removal

- 1 Select **Color Fringe** removal to activate the **Artifact Removal** settings.
- 2 Select **Destair**.
- 3 Use the slider to set the **Amount** between -10 and +10, or enter a value between -10 and +10 in the value box.
- 4 Change the **JPEG removal** setting.
- 5 Select **Noise Removal**.
  - 1 Select **Negative Noise**.
  - 2 Select **Pattern Noise**.
  - 3 Select **Protect Skin**.
- 6 Select **Despeckle** to remove white spotmarks.
- 7 Select **Descreen** to remove the pattern of scanned printed originals.
  - 1 Enter the **Lines per Inch** value of the original image.
  - 2 To define the **Moire** value.

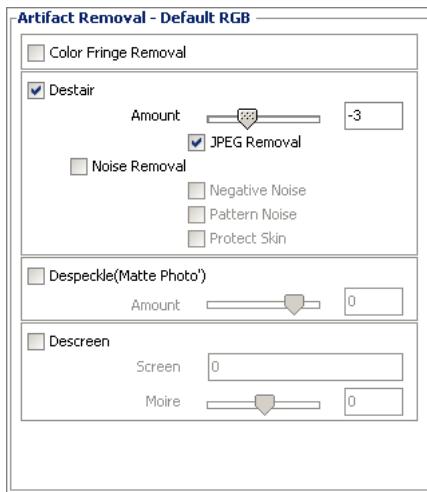
## Artifact Removal Default Operations

Artifact Removal comes with four predefined operations.

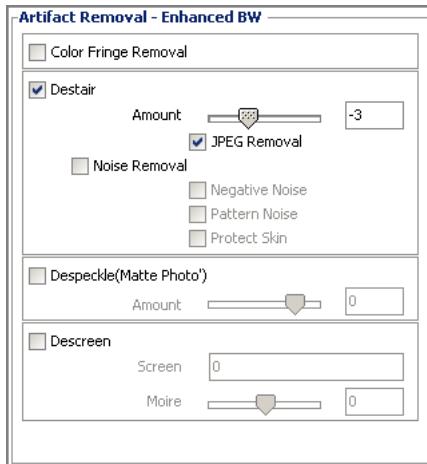
### Default BW



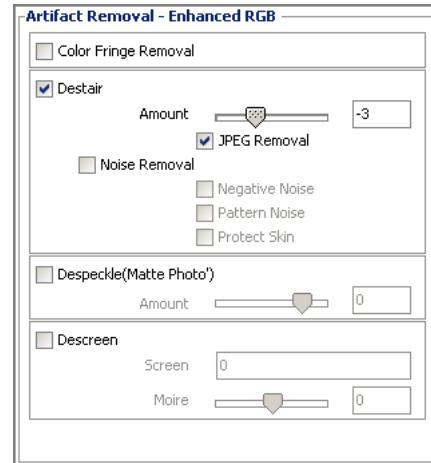
## Default RGB



## Enhanced BW

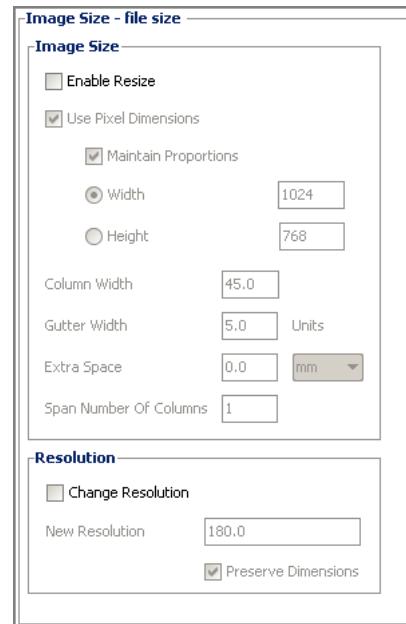


## Enhanced RGB



## File Size

You can control resizing, dimensions, and resolution.



### Enable Resize

Click **Enable Resize** to activate **Column Width**, **Gutter Width**, **Extra Space**, and **Span Number Of Columns**.

**Use Pixel Dimensions** Activates **Maintain Proportions, Width, and Height**.

**Maintain Proportions:** Maintains the proportions of the original image.

**Width:** The image width.

**Height:** The image height.

**Column Width** Specifies the column width of your newspaper columns.

**Gutter Width** Specifies how much space should be left between two columns.

**Extra Space** Specifies an extra margin for pictures. This is sometimes done to avoid optical illusion and to have some flexibility in placing the pictures.

**Span Number Of Columns** Image will span the selected the number of columns entered.

**Change Resolution** Click **Change Resolution** to activate the **New Resolution** and **Preserve Dimensions** parameters.

**New Resolution:** Use to change the image resolution in ppi.

**Preserve Dimensions:** Select this option if you want to maintain the width and height of your image when downsampling or upsampling. Your file size will, however, increase or decrease.

---

**NOTE:** When this option is not selected, your file size will be maintained. Your file dimensions (width and height), however, can change.

---

#### ► **To configure File Size**

1 Click **Enable Resize** to activate the **File Size** settings.

2 Click **Use Pixel Dimensions**.

1 Set **Maintain Proportions**.

2 Enter a value for **Width**.

3 Enter a value for **Height**.

3 Click **Enable Resize**.

1 Enter a value for **Column Width**

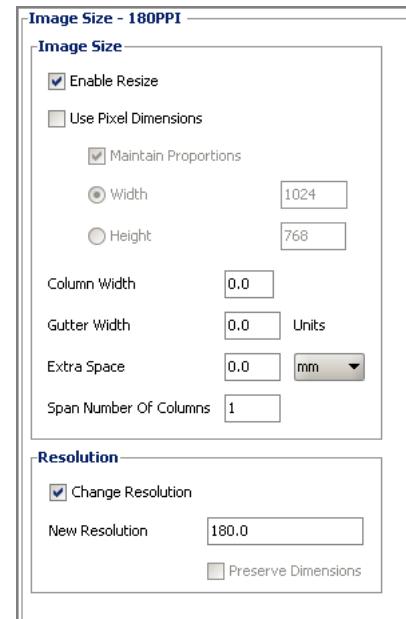
2 Enter a value for **Gutter Width**

- 3 Enter a value for **Extra Space**
- 4 Enter a value for **Span Number Of Columns**.
- 4 Click **Change Resolution**.
  - 1 Enter a value for **New Resolution**.
  - 2 Click **Preserve Dimensions**.

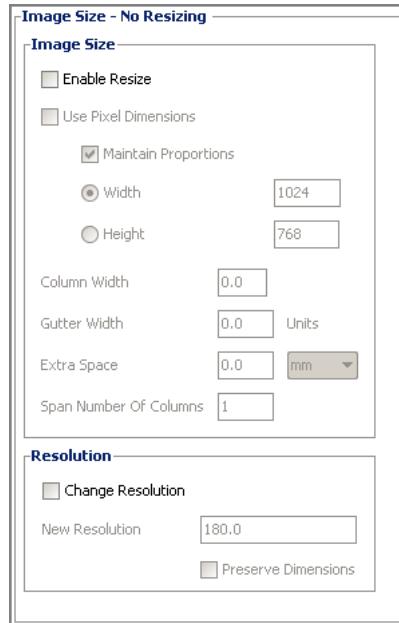
## File Size Default Operations

Size comes with two predefined operations.

180PPI



## No Resizing



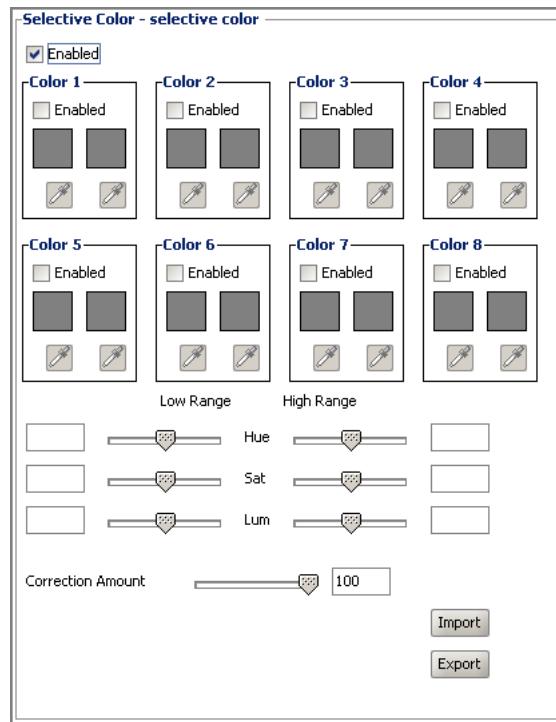
## Selective Color

This function is only relevant for color images and allows you to correct specific color areas in an image.

---

**NOTE:** The Selective Color correction option can be very useful when used instead of re-profiling a coldset press in the case of common press profile problems.

---



**Enabled** Enables the Selective Color options.

**Color1...Color 8** By selecting a **Color** check box, you activate the Image Quality - Selective Color settings. You can define up till 8 different color tones to be corrected. For each color, you can set source and target value; specify the range on hue, saturation and luminance; and specify the correction amount.

**Enabled:** Checking enables this color and displays the Low and High range values.

**Color Box1:** The left color field defines the source color to correct.

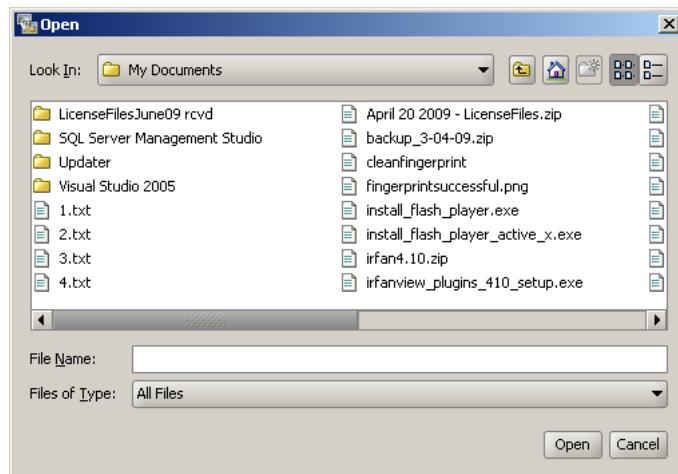
**Color Box 2:** The right color box defines a target color.

**Eyedropper1:** Use to select an area of the image as the source color.

**Eyedropper2:** Use to select an area of the image as the target color.

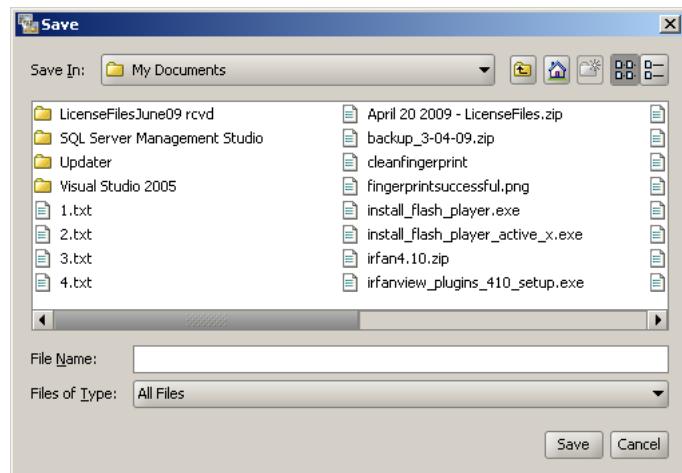
**Low and High Hue Range** Define the low and high **Hue** range of the source color by dragging the corresponding slider to the left or the right within the specified range 0 and +100. Or enter a value between 0 and +100 in the corresponding Hue value box.

- Low and High Sat Range** Define the low and high **Sat** range of the source color by dragging the corresponding slider to the left or the right within the specified range 0 and +100. Or enter a value between 0 and +100 in the corresponding Sat value box.
- Low and High Lum Range** Define the low and high **Lum** range of the source color by dragging the corresponding slider to the left or the right within the specified range 0 and +100. Or enter a value between 0 and +100 in the corresponding Lum value box.
- Correction Amount** Define the **Correction Amount** of the Selective Color Correction definitions by dragging the corresponding slider to the left or the right within the specified range 0 and +100. Or enter a value between 0 and +100 in the corresponding Hue value box. Entering a zero correction amount means no correction will be effected.
- Import** You can import its selective color settings from a file. The **Import** button can import setting files created by the IntelliTuneX product. When **Import** is clicked, an **Open** dialog box displays.



Locate the file to import, and click **Open**.

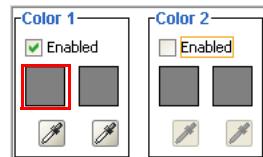
- Export** You can export its selective color settings from a file. The **Export** button can export setting files created by the IntelliTuneX product. When **Export** is clicked, a **Save** dialog box displays.



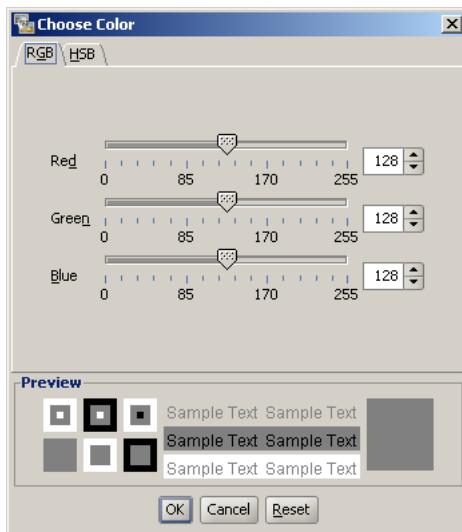
Locate the file to export, and click **Save**.

#### ► To configure Selective Color

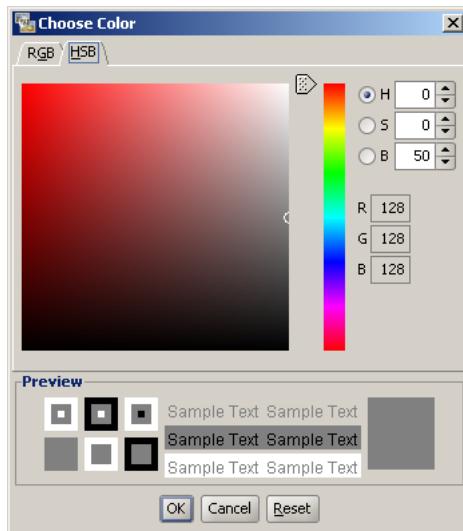
- 1 Select **Enable** to activate the **Selective Color** settings.
- 2 Select the corresponding **Color** check box.



- 3 Define a source color to correct by doing one of the following:
  - Click the corresponding **eyedropper**. Then click in the image to select that color.
  - Click on the left color field to define the source color to correct.
  - The **Choose Color** dialog box displays.



- Enter the RGB values in the value boxes, use the horizontal sliders, or the incrementing up/down arrows.
- Click the HSB tab, and enter the values in the HSB value boxes, use the vertical slider, or the incrementing up/down arrows.



**NOTE:** A preview of the color changes displays at the bottom of the dialog box.

- Click **OK** to accept, **Cancel** to discard, or use **Reset** to put the display back to the default colors.

**4** Define a target color by doing one of the following:

- Click on the right color field to define the target color.



- Click the corresponding **eyedropper**. Then click in the image to select that color.
- The **Choose Color** dialog box displays.
- Enter the RGB values in the value boxes, use the horizontal sliders, or the incrementing up/down arrows.
- Click the HSB tab, and enter the values in the HSB value boxes, use the vertical slider, or the incrementing up/down arrows.

---

**NOTE:** A preview of the color changes displays at the bottom of the dialog box.

---

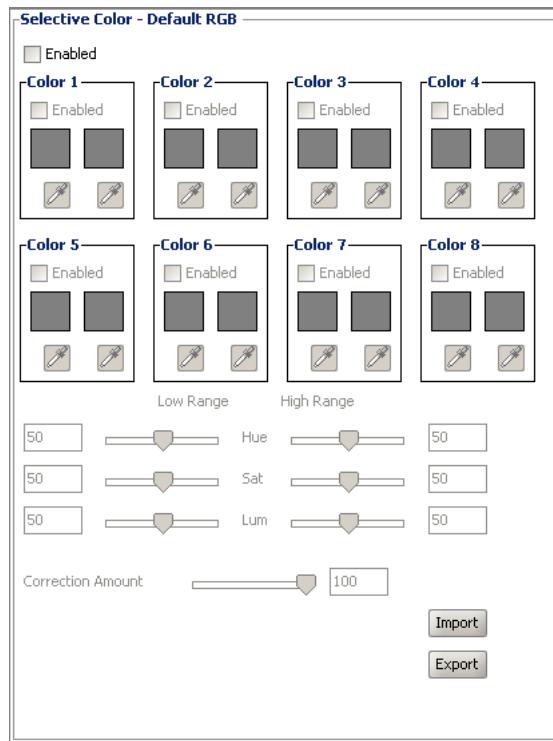
**5** Click **OK** to accept, **Cancel** to discard, or use **Reset** to put the display back to the default colors.

## Selective Color Default Operations

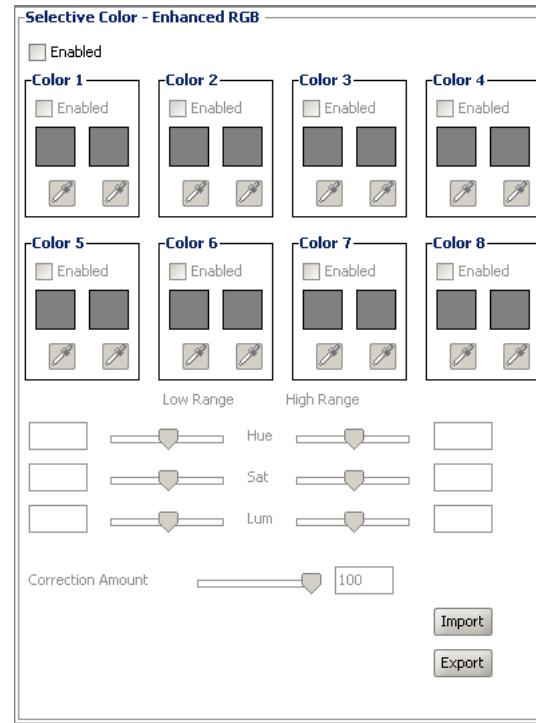
---

Selective Color comes with two predefined operations.

## Default RGB



## Enhanced RGB

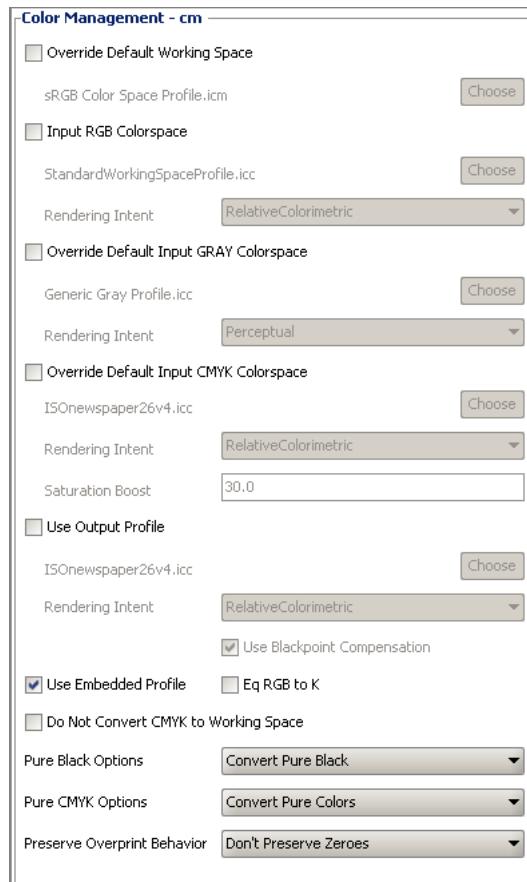


## Color Management

The **Color Management Input** property allows you to work with ICC profiles. You can: specify an input RGB Colorspace and respective rendering intent; override default input CMYK Colorspace and respective rendering. This function applies to both color and grayscale images.

The **Color Management Output** property allows you to work with ICC profiles. You can: specify not to convert a CMYK image to a working space by making a CMYK to CMYK link on the fly; specify an output profile and respective rendering intent; allow for grayscale conversion; and specify a CMYK to CMYK Device Link without going over the working space intent.

The **Color Management Input** property allows you to work with ICC profiles. You can: specify an input RGB colorspace and respective rendering intent; Override your default input CMYK colorspace and respective rendering intent.



#### Override Default Working Space

Allows the user to override the default Working Space profile. When this checkbox is disabled (off), the processor will replace the working space profile with the one specified in the System Preferences at run time. When the checkbox is enabled, the provided working space profile will override the default value specified from System Preferences (refer to “Working Space” on page 43).

#### Input RGB Colorspace

Select **Input RGB Colorspace** if the input profile of the images is known, but not embedded. IntelliTuneX will use this profile to convert the RGB images into the RGB working space.

**NOTE:** If no input RGB profile is defined and no profile is embedded, IntelliTuneX will consider the image in the RGB working space. Embedded profiles are recognized in PDF files.

**ICC Profile:** A list of available profiles will be displayed when **Choose** is selected.

**Rendering Intent:** Open the **Rendering Intent** list, and select the rendering intent best suited for the images.

When the gamut of source color space exceeds that of the destination, saturated colors are liable to become clipped (inaccurately represented). The color management operation can deal with this problem in several ways. The ICC specification includes four different rendering intents: absolute colorimetric, relative colorimetric, perceptual, and saturation.

Intent	Description
Default	Intent as supplied in the original file.
RelativeColorimetric	The default rendering intent on systems. Corrects for the media while staying truthful to the specified color.
Perceptual	Recommended for color separation.
Saturation	A measure of the amount of gray in color in the HSL and HSV color models. The less gray in a color, the higher the saturation.
AbsoluteColorimetric	Obtains an exact specified color, or quantifies the mapping method accuracy.
RestoreDynamicRange	Restores the range of luminances between the lightest and darkest areas of an image.

#### Override Default Input GRAY Colorspace

Select **Override Default Input GRAY Colorspace** to have IntelliTuneX use another Input GRAY Colorspace than the one defined in the default settings.

**ICC Profile:** A list of available profiles will be displayed when **Choose** is selected.

**Rendering Intent:** Open the **Rendering Intent** list, and select the rendering intent best suited for the images.

Intent	Description
Default	Intent as supplied in the original file.
Perceptual	Recommended for color separation.
RelativeColorimetric	The default rendering intent on systems. Corrects for the media while staying truthful to the specified color.
Saturation	A measure of the amount of gray in color in the HSL and HSV color models. The less gray in a color, the higher the saturation.
AbsoluteColorimetric	Obtains an exact specified color, or quantifies the mapping method accuracy.

#### Override Default Input CMYK Colorspace

Select **Override Default Input CMYK Colorspace** to have IntelliTuneX use another Input CMYK Colorspace than the one defined in the default settings.

**ICC Profile:** A list of available profiles will be displayed when **Choose** is selected.

**Rendering Intent:** Open the **Rendering Intent** list, and select the rendering intent best suited for the images.

Intent	Description
Default	Intent as supplied in the original file.
Perceptual	Workflow list
RelativeColorimetric	Workflow list
Saturation	Browse to folder
AbsoluteColorimetric	Browse to folder
RestoreDynamicRange	N/A

**Saturation Boost:** When selecting **Rendering Intent**, you can define the **Saturation Boost** value. The default value is 30.0.

**Use Output Profile** Select **Use Output Profile** to convert processed images from the RGB working space to another output color space (for example CMYK).

**NOTE:** Depending on the Output Profile chosen, if RGB, the View options under the Image Tab will be All, Red, Green, and Blue. If CMYK, the options will be All, Cyan, Magenta, Yellow, Black, and CMY.

**ICC Profile:** A list of available profiles will be displayed when **Choose** is selected.

**Rendering Intent:** Open the **Rendering Intent** list, and select the rendering intent best suited for the images.

Intent	Description
Default	Intent as supplied in the original file.
Perceptual	Recommended for color separation.
RelativeColorimetric	The default rendering intent on systems. Corrects for the media while staying truthful to the specified color.
Saturation	A measure of the amount of gray in color in the HSL and HSV color models. The less gray in a color, the higher the saturation.
AbsoluteColorimetric	Obtains an exact specified color, or quantifies the mapping method accuracy.

**CAUTION:** PDF processing requires that you check **Use Output Profile** and select a CMYK profile. Refer to “PDF Processing” on page 116.

**Use Blackpoint Compensation:** Check **Use Blackpoint Compensation** to generate images corresponding to the most common editing applications.

**Use Embedded Profile** Select to use the embedded profile in the images.

**eq RGB to K** Check if you want the RGB color to equal K (black).

**Do Not Convert CMYK to Working Space** Select **Do Not Convert CMYK to Working Space** to convert the CMYK image directly to an output profile (usually CMYK, but may also be a Gray profile or RGB) without specific IntelliTuneX editing or processing except for USM on CMYK and scaling.

---

**CAUTION:** PDF processing requires that you check **Do Not Convert CMYK to Working Space**. Refer to “PDF Processing” on page 116.

---

**Pure Black Options** Select **Pure Black** to keep the exact black (K) value from the input profile in the output profile (i.e., 0-0-0-K remains 0-0-0-K).

**Convert Pure Black:** This will convert a pure color to the new profile, where 0, 0, 80, 0 might translate into 2, 0, 69, 0.

**Dotgain Pure Black + Keep 100%:** This will keep a pure color as is and does not convert to the new profile.

**Dotgain Pure Black:** This will calculate the dot gain difference between the input and output profile, and will only compensate the lightness value for a color, not chroma. The color 0, 0, 80, 0 might translate into 0, 0, 69, 0.

**Pure CMYK Options** Select **Pure CMYK** colors to keep the exact CMYK values from the input profile in the output profile (i.e., 0-0-80-0 remains 0-0-80-0).

**Convert Pure Colors:** This will convert a pure color to the new profile, where 0, 0, 80, 0 might translate into 2, 0, 69, 0.

**Dotgain Pure Colors + Keep Solid Primaries:** This will keep a pure color as is and does not convert to the new profile.

**Dotgain Pure Colors Only:** This will calculate the dot gain difference between the input and output profile, and will only compensate the lightness value for a color, not chroma. The color 0, 0, 80, 0 might translate into 0, 0, 69, 0.

The **Color Management Input** property allows you to work with ICC profiles. You can:

- Specify an input RGB Colorspace and respective rendering intent.

- Override default input CMYK Colorspace and respective rendering.
  - This function applies to both color and grayscale images.

The **Color Management Output** property allows you to work with ICC profiles. You can:

- Specify not to convert a CMYK image to a working space by making a CMYK to CMYK link on the fly.
- Specify an output profile and respective rendering intent.
- Allow for grayscale conversion.
- Specify a CMYK to CMYK Device Link without going over the working space.intent.

The **Color Management Input** property allows you to work with ICC profiles. You can:

- Specify an input RGB colorspace and respective rendering intent.
- Override your default input CMYK colorspace and respective rendering intent.

#### **Preserve Overprint Behaviour**

Some PDFs containing white objects on top of an image can trigger a change in the overprint behavior in the output PDF when processed by IntelliTuneX. Checking this control forces the current overprint behavior to be preserved.

**Don't Preserve Zeroes:** This allow changes to values even when one of the CMYK values is zero. This may result in changes in overprint behavior for these regions.

**Preserve Zero CMY:** This prevents changes when one or more of the CMY values are 0.

**Preserve Zero CMYK:** This prevents changes when one or more of the CMYK values are 0.

#### ► **To configure Color Management**

- 1 Select **Input RGB Colorspace**.
- 2 **Browse** and select an **Input RGB Profile**.
- 3 Open the **Rendering Intent** list, and select the rendering intent best suited for the images.

- 4 Select **Override Default Input GRAY Colorspace**.
- 5 **Browse** and select an **Input GRAY Colorspace**.
- 6 Open the **Rendering Intent** list, and select the rendering intent best suited for the images.
- 7 Select **Override Default Input CMYK Colorspace**.
- 8 **Browse** and select an **Input CMYK Colorspace**.
- 9 Open the **Rendering Intent** list, and select the rendering intent best suited for the images.
- 10 Define the **Saturation Boost** value.
- 11 Select **Use Output Profile**.
- 12 **Browse** and select an output profile.
- 13 Open the **Rendering Intent** list, and select the rendering intent best suited for the images.
- 14 Check **Use Blackpoint Compensation** to generate images corresponding to the most common editing applications.
- 15 Select **Use Embedded Profile** to use the embedded profile in the images.
- 16 Check **Do Not Convert CMYK to Working Space**.
- 17 Select a **Pure Black** value (Convert, Keep, Dotgain).
- 18 Select a **Pure CMYK** value (Convert, Keep, Dotgain).
- 19 Check **Preserve Overprint Behavior**, if necessary.

## Color Management Default Operations

Color Management comes with four predefined operations.

### Default BW

**Color Management - Default BW**

Override Default Working Space  
sRGB Color Space Profile.icm

Input RGB Colorspace  
StandardWorkingSpaceProfile.icc   
Rendering Intent

Override Default Input GRAY Colorspace  
Generic Gray Profile.icc   
Rendering Intent

Override Default Input CMYK Colorspace  
ISOnewspaper26v4.icc   
Rendering Intent   
Saturation Boost

Use Output Profile  
ISOnewspaper26v4\_gr.icc   
Rendering Intent   
 Use Blackpoint Compensation

Use Embedded Profile  Eq RGB to K

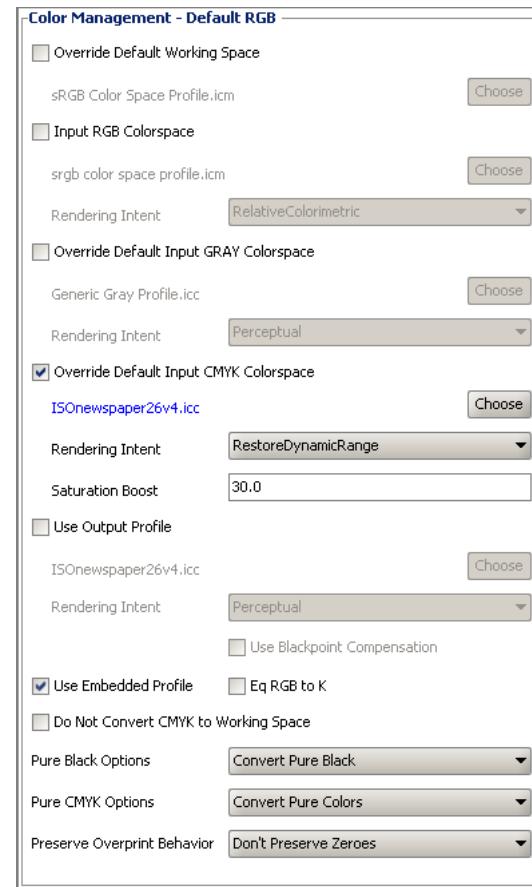
Do Not Convert CMYK to Working Space

Pure Black Options

Pure CMYK Options

Preserve Overprint Behavior

## Default RGB



## Enhanced BW

**Color Management - Enhanced BW**

Override Default Working Space  
sRGB Color Space Profile.icm

Input RGB Colorspace  
StandardWorkingSpaceProfile.icc   
Rendering Intent

Override Default Input GRAY Colorspace  
Generic Gray Profile.icc   
Rendering Intent

Override Default Input CMYK Colorspace  
[ISOnewspaper26v4.icc](#)   
Rendering Intent   
Saturation Boost

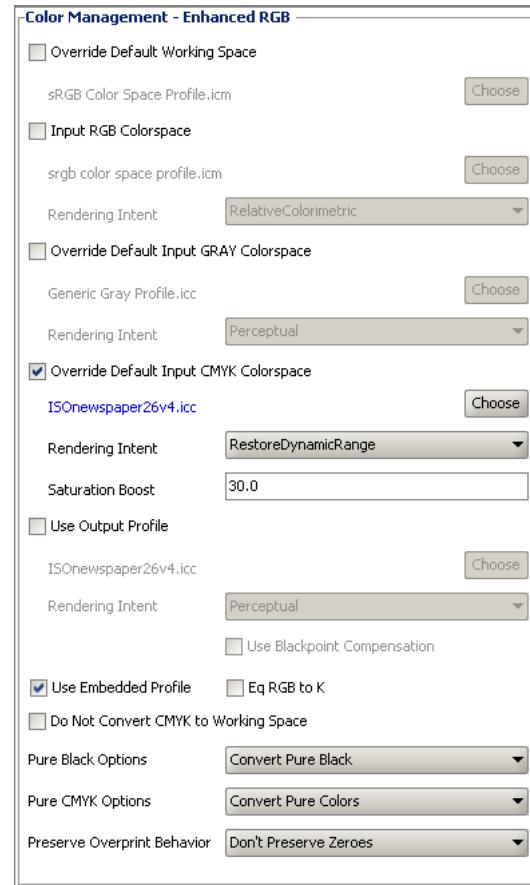
Use Output Profile  
[ISOnewspaper26v4\\_gr.icc](#)   
Rendering Intent   
 Use Blackpoint Compensation

Use Embedded Profile  Eq RGB to K

Do Not Convert CMYK to Working Space

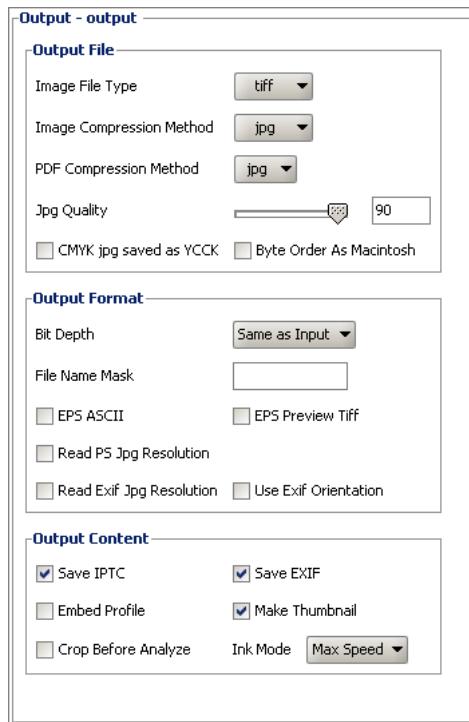
Pure Black Options   
Pure CMYK Options   
Preserve Overprint Behavior

## Enhanced RGB



## Output

This operation allows you to choose ICC profiles for image color conversions from a working space to a chosen profile, or to specify a CMYK to CMYK device link (without going over a working space).



**Image File Type** Select the **Image File Type** from the dropdown list. These can be tiff, jpg, and eps. The default relationship between File Type and Image Compression is:

File Type	Image Compression
Original	Original
Tiff	Raw
Jpg	Jpg
EPS	Jpg

**Image Compression Method** Select the **Image Compression Method**. Choose **raw**, **LZW**, or **jpg**. The selections change based on the **Image File Type** selected.

**NOTE:** Ink Save reporting is available on CMYK TIFF images. Both the source and result images have to be CMYK TIFF format. The Image Compression Method has to be set to “raw” to calculate the image ink save values.

**PDF Compression Method** Select the **PDF Compression Method**. Choose **jpg** or **Flate**.

**Jpg Quality** A **Jpg Quality** of 10 (minimum compression) will result in a high quality image with a large file size. Conversely, a value of 0 (maximum compression) will

result in a lower-quality image with a small file size. A compression value of 8 is recommended, but a lot depends on the quality of your output media.

Drag the slider until you reach the desired value for **Jpg Quality**.

**CMYK jpg saved as YCCK** Enables or disables YCCK transforms.

**Byte Order As Macintosh** If checked then Tiff files will be written in Motorola byte order. If unchecked then they will be written in Intel byte order. This option may be used to write compatible Tiff files for older applications that do not support both reading both formats.

**Bit Depth** **Bit Depth** can be **Same as Input**, **8**, or **16** bits. By using 8, the bit depth of the image is 8 bits per pixel.

Select a **Bit Depth** from the dropdown list.

**File Name Mask** If you need to apply a **File Name Mask**, enter it in the **Mask** value box. The flags are used to specify how the IntelliTuneX output filename is created.

**%F** = original filename, unmodified

**%X** = extension associated with the output file format, one of tif, jpg, pdf, eps, or bmp

**%N** = job id of the job creating the file

**%D** = date the output file was created in the format yyyyymmdd

**%T** = time the output file was created in the format hhmmss

**%f** = The original filename with the extension removed only if the extension exactly matches one of tif, tiff, jpg, jpeg, pdf, eps, bmp

**%g** = The original filename with any extension removed

**%%** = the % character

A blank field (the default) is internally interpreted as %f.%X, which is the original basename + the output filetype extension.

Any other parts of the mask appear as they are in the output name. For example, the mask **%F\_%N** could produce a filename *myimage\_100.jpg* if the original file was called *myfile* and the job number is *100*.

Values entered in Output operations can be changed in a completed image. To do this, open an image in Advanced or (Interactive Edit--IntelliTuneX only), and make necessary changes. Refer to “Advanced Edit” on page 149 and “Interactive Edit” on page 157.

**EPS ASCII** Checking **EPS ASCII** saves EPS files as ASCII encoded.

**EPS Preview Tiff** By checking **EPS Preview Tiff** both EPS and DCS images will be saved with a TIFF preview. DCS 2.0 single will always be saved with an EPS preview TIFF. Select EPS preview TIFF when the file will be used on a different Operating System (i.e., not Macintosh).

**Read PS Jpeg Resolution** Controls reading the resolution in a .jpg file from the Photo Shop data.

**Read Exif Jpeg Resolution** Controls reading the resolution in a .jpg file from the Exif data. When checked the values from the Exif will override the values from the workflow.

---

**NOTE:** Jpeg images from Adobe Photoshop have their resolution information stored on a standard and a private place.

**Use Exif Orientation** Overrides rotation with the job's Exif orientation. When checked the values from the Exif will override the values from the workflow.

**Save ITPC/Save EXIF** By default **Save ITPC** and **Save EXIF** are checked. IPTC headers store information (captions) about the image. Image-editing programs, such as Adobe Photoshop, add extra tags to the JPEG, TIFF, and EPS files that are maintained after processing with IntelliTuneX (refer to “Viewing the Processed File” on page 118).

**Embed Profile** Profiles can be embedded for TIFF, JPEG, and EPS files.

**Make Thumbnail** To display thumbnails in Thumbnails view, check the **Make Thumbnail** check box. A thumbnail preview is saved together with your image.

---

**NOTE:** The Make thumbnail control when enabled will require a render of the result file independent of the Ink Mode control.

---

**NOTE:** Disabling Make Thumbnail with Ink Mode set to Max Speed or Fast Edit will not create the result Tiff when processing PDF jobs. This feature is recommended when processing large PDF jobs, as well as when the user will not likely make frequent job edits. Make Thumbnail does not have any effect with jpg or Tiff files.

**Crop Before Analyze** First crop and then analyze an image. For example, if an image contains white or black borders or redundant information, it is better to crop first, and then analyze the image.

**Ink Mode** Implements Ink calc control (ISCEnable) from Output workflow. A drop-down menu controls the mode levels: Max Speed, Fast Edit, and Ink Report. Ink Report must be selected to generate ink values.

**Max Speed:** Max Speed will optimize performance by doing the minimum rendering and no preparation of colour managed source files.

**Fast Edit:** Fast Edit will prepare the colour managed source file at the same time as processing the result but will do extra rendering.

**Ink Report:** Ink Report will prepare the colour managed source file, render both source and result and perform an ink save calculation.

When a Job is viewed / edited, then any necessary source color management and rendering will be performed if the necessary view files do not exist. Reviewing the job (either by the same user, or a different client) will not require re-rendering.

---

**NOTE:** Multiple output settings with different Ink Modes may be defined and deployed in different workflows.

---

## ► To Configure Output

- 1 Select the **File Type** from the dropdown list.
- 2 Select the **PDF Compression Method**.  
Choose **jpg** or **Flate**.
- 3 Drag the slider until you reach the desired value for **Jpg Quality**.
- 4 Check **CMYK jpg saved as YCCK**, if necessary.
- 5 Check **Byte Order As MacIntosh**, if necessary.
- 6 Select a **Bit Depth** from the dropdown list.
- 7 To apply a **File Name Mask**, enter it in the **Mask** value box.
- 8 Check **EPS ASCII**, if necessary.
- 9 Check **EPS Preview Tiff**, if necessary.
- 10 Check **Read PS Jpeg Resolution**, if necessary.

- 11** Check **Read Exif Jpeg Resolution**, if necessary.
- 12** Check **Use Exif Orientation**, if necessary.
- 13** By default **Save IPTC** and **Save EXIF** are checked.
- 14** Check **Embed Profile**.
- 15** Check the **Make Thumbnail** check box. A thumbnail preview is saved together with your image.
- 16** Enable **Crop Before Analyze**.
- 17** Set the **Ink Mode**.

## Output Default Operations

Output comes with four predefined operations.

### Default BW

**Output - Default BW**

**Output File**

Image File Type: Original  
Image Compression Method: raw  
PDF Compression Method: jpg  
Jpg Quality: 90  
 CMYK jpg saved as YCCK  Byte Order As Macintosh

**Output Format**

Bit Depth: 8  
File Name Mask: %F  
 EPS ASCII  EPS Preview Tiff  
 Read PS Jpg Resolution  Read Exif Jpg Resolution  Use Exif Orientation

**Output Content**

Save IPTC  Save EXIF  
 Embed Profile  Make Thumbnail  
 Crop Before Analyze Ink Mode: Max Speed

## Default RGB

**Output - Default RGB**

**Output File**

Image File Type: Original ▾  
Image Compression Method: Original ▾  
PDF Compression Method: jpg ▾  
Jpg Quality:  90  
 CMYK jpg saved as YCCK  Byte Order As Macintosh

**Output Format**

Bit Depth: 8 ▾  
File Name Mask: %F  
 EPS ASCII  EPS Preview Tiff  
 Read PS Jpg Resolution  Read Exif Jpg Resolution  Use Exif Orientation

**Output Content**

Save IPTC  Save EXIF  
 Embed Profile  Make Thumbnail  
 Crop Before Analyze Ink Mode: Max Speed ▾

## Enhanced BW

**Output - Enhanced BW**

**Output File**

Image File Type	Original <input type="button" value="▼"/>
Image Compression Method	Original <input type="button" value="▼"/>
PDF Compression Method	jpg <input type="button" value="▼"/>
Jpg Quality	<input type="range" value="90"/> 90
<input checked="" type="checkbox"/> CMYK jpg saved as YCCK	<input type="checkbox"/> Byte Order As Macintosh

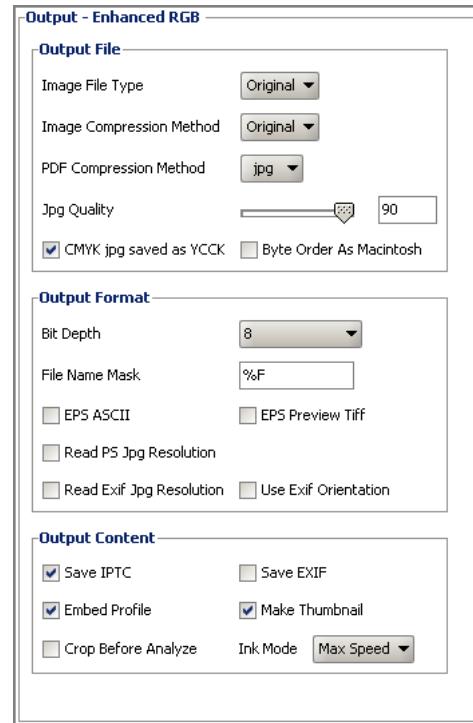
**Output Format**

Bit Depth	8 <input type="button" value="▼"/>
File Name Mask	%F
<input type="checkbox"/> EPS ASCII	<input type="checkbox"/> EPS Preview Tiff
<input type="checkbox"/> Read PS Jpg Resolution	<input type="checkbox"/> Use Exif Orientation
<input type="checkbox"/> Read Exif Jpg Resolution	

**Output Content**

<input checked="" type="checkbox"/> Save IPTC	<input type="checkbox"/> Save EXIF
<input checked="" type="checkbox"/> Embed Profile	<input checked="" type="checkbox"/> Make Thumbnail
<input type="checkbox"/> Crop Before Analyze	Ink Mode <input button"="" type="button" value="▼"/>

## Enhanced RGB



## GCR

The substitution process of the gray component of a color by black is known as Gray Component Replacement (GCR). GCR can be applied over the entire tonal range and in all colors. Black will be used as the equivalent result to what would be printed as product of the neutral or achromatic component of C, M, and Y.

This operation applies to images when using an output profile. The Gray Component Replacement (GCR) specifications replace partly or totally the gray (or neutral) color components of a color by an appropriate amount of black.

GCR is expressed as a percentage of the neutral component replaced by black.

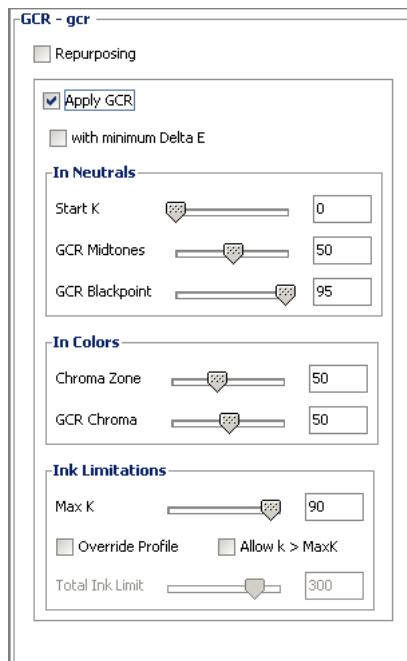
You can:

- Define IntelliTuneX to apply GCR.
- Define maximum ink coverage values, overriding the profile.

The Gray Component Replacement function has a positive impact on the printing process as one ink (K) does the job of three (CMY):

- GCR improves printability
- GCR economizes on ink usage and drying time
- GCR improves better ink transfer, which results in a more uniform color quality throughout the print process
- GCR improves and stabilizes the gray neutrality, enhancing detail and contrast in an image

Use **Apply GCR** to substitute calculated amounts of Cyan, Magenta, and Yellow ink by Black ink. A high GCR value enforces ink saving.



**Repurposing** Repurposing creates web-ready PDF output. If you check **GCR Repurposing**, the other options will be disabled.

**Apply GCR** If you check **Apply GCR**, the other options will be enabled.

**with Minimum Delta E** Calculates the minimum distance for two colors that are not touching to be placed near each other.

## In Neutrals

**Start K** Start K defines the actual start point of the replacement of CMY by K on the lightness axis within the Lab colorspace, requesting a curve from that point on the neutral axis to the GCR Blackpoint value set. Since all ISO standard profiles already apply a certain amount of GCR, using a higher value than 0 for Start K will lower the possible ink save, or even result in a negative ink save compared to the original separation if extreme, and unwanted, high values are used. Since the GCR algorithm has been designed to calculate smooth curves for banding free results, requesting a Start K higher than 0 forces the software to plot CMY curves from 0 onwards instead. This is the reason why you see a hugh difference between a Start K 0% and Start K 5%.

Set the **Start K** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

---

**NOTE:** Enter the recommended value of 0. Enter a higher value to avoid applying GCR in the (near neutral) highlights.

---

## GCR Midtones

GCR Midtones can be used to change the amount of maximum GCR set at the GCR Blackpoint. GCR Midtones describes the steepness or angle for the curve between Start K and GCR Blackpoint. When Start K is set to 0%, and GCR Blackpoint to 100%, a GCR Midtones setting of 100% equals to a 900 curve, which is Full GCR. Putting a lower number for GCR Midtones will reflect in a lower angle in the curve created between Start K and GCR Blackpoint.

By default, a GCR Midtones setting of 100% is advised, since highest graying agents are found in this area. Lowering this setting can be useful in cases where a separation closer towards the profile used is required, or when jpeg artifact is more pronounced in the inksaved results. This is always at the expense of possible ink savings. (IntelliTuneX users can suppress jpeg with the option Artifact Removal, while not losing ink save). However the GCR algorithm tries to prevent the user from creating negative ink save, compared to the original separation where possible. It is possible to generate situations that seems to do the opposite. The GCR algorithm always calculates a smooth curve between Start K and GCR Blackpoint to prevent banding issues in the results. This is the reason why over a short range a low setting of GCR Midtones might produce a higher GCR than a somewhat higher setting for GCR Midtones. The bandwidth of GCR Midtones is 0 to 100.

Set the **GCR Midtones** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

**NOTE:** Enter the recommended value of +50. Enter a higher value to apply more GCR in the (near neutral) midtones.

**GCR Blackpoint** This setting is used to steer the amount of GCR to the darkest neutral point as defined by the Output Profile used. Logically when you start to lower the GCR Blackpoint (GCR on darkest neutral) setting, you will lower the entire curve, and also influence the effect of the value set in the GCR Midtones. From a quality and ink savings view point, it is recommended to use the highest settings possible. The bandwidth of GCR Blackpoint is 0 to 100.

Set the **GCR Blackpoint** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

### In Colors

**GCR Chroma Zone** When this slider is set to 128, it is deactivated, meaning all values between 0 and 128 on the a and b axis will get the same GCR value as applied on similar lightness value for the neutrals. Lowering this value will activate Chroma Zone, enabling a different amount of GCR on colors by creating a threshold between the setting for colors and neutrals. The GCR Neutral setting will gradually change to the GCR set in Chroma Zone.

Set the **GCR Chroma Zone** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

**GCR Chroma** This setting is used to set an independent color GCR value from the neutrals settings. Typically when a different value is needed, it will be a lower value, taking out GCR from color areas. This value will work until the point is reached where the color does not contain a graying agent or a neutral component anymore. When GCR Chroma or Saturation Colors is set to zero (0), any value set for Start K will not have any effect. The bandwidth of GCR Chroma is 0 to 100.

Set the **GCR Chroma** value by dragging the slider to the left or right within the specified range of 0 and +100. Or enter a value between 0 and +100 in the value box.

### Ink Limitations

**Max K** The setting for Max K defines the highest value for K replacing CMY. This value should be kept to 100% when possible, which overrules the Output Profile used. The 100% can be kept if the printing process is stable, and the actual measured dot gain is exactly linearized to the pre-compensated curve in the profile.

The "Max K" value is not dependent on "Override profile" being checked. This feature is provided for image and vector line art. The bandwidth of Max K is 0 to 100.

---

**NOTE:** Make sure you know the actual profile Max K setting before altering the slider. If you override the profile setting with a lower value, you will increase CMY under the color or graying agent.

---

Set the **Max K** value by dragging the slider to the left or right within the specified range of +90 and +100. Or enter a value between +90 and +100 in the value box.

---

**NOTE:** Set the **Max K** value to define the Max percentage of Black ink to be printed. The maximum value of +100 is recommended.

---

#### Override Profile

When Override Profile is unchecked, it is possible to change the value for Max K. If K is set lower than K as set in the profile with override profile unchecked, the CMY undercolor will not increase, but any TIL value higher than the profile setting is left as it. There are some Smooth Blends test files in the field containing blends up to 400% TIL. The smoothest results can be obtained when lowering the GCR Chroma values. With override profile unchecked, these types of files will stay smooth when viewed as separate channels, but will never print correctly since no press can hold 400%.

If Override Profile is checked, the blends will not show smooth when viewing the separate channels. When printed to normal densities, this effect will not be visible in print, and set-off problems will not show, since the total ink limit is not exceeded.

The only real practical use of unchecking Override Profile is when Rich Black must be maintained as is. Leave it selected in all other cases to avoid issues with TIL.

When Override Profile is checked, a different value can be set for Total Ink Limit (TIL). This selection is preferred, and use Max K values as high as possible. Do not use values lower than the profile K setting since it will start to compensate for any loss in density by increasing CMY, causing more ink usage in these areas.

---

**NOTE:** If you convert between two colorspace, **GCR Repurposing** can also be considered. Although it disables the GCR and ink limitations options, it still produces a smoother result than GCR with the **Override Profile** checked.

---

**Allow k > MaxK** Set the Allow k > MaxK value by checking the box. Applying GCR will change the colors to a maximum K value defined in Max K, but all colors above the Max K value will be kept when the option "Allow k > MaxK" is enabled.

**Total Ink Limit** This value expresses the total amount of ink built by the four process colors. Typically, this value must follow the TIL or TAC value set in the output profile. If set to a lower value, it can easily limit the color gamut of the profile since all values higher than this setting will be lost. Increasing the value above the TIL value set in the output profile will cause a lower ink savings, since more color is allowed. There is no CMYK printing process that can hold 400% coverage. Even on high quality commercial presses, the paper is unlikely to accept such an amount of ink. The increase of density in print will be shouldered or stopped long before you reach such high values; or density may even decrease when you allow higher values.

Set the **Total Ink Limit** value by dragging the slider to the left or right within the specified range of +200 and +400. Or enter a value between +200 and +400 in the value box.

Enter the recommended value of +240 for maximum ink cost savings without losing gamut. A lower value and thus less ink on paper will affect the gamut.

---

**NOTE:** A **Total Ink Limit** of 400 means that each color (CMYK) can be printed at a full 100%.

---

### ► To Apply GCR

- 1 Checking **GCR Repurposing** disables the other options.
- 2 Checking **Apply GCR** enables the other options.
- 3 Check **with Minimum Delta E** to calculate the minimum distance for two colors that are not touching to be placed near each other.
- 4 Set the **Start K** value.
- 5 Set the **GCR Midtones** value.
- 6 Set the **GCR Blackpoint** value.
- 7 Set the **Chroma Zone** value.
- 8 Set the **GCR Chroma** value.
- 9 Set the **Max K** value.
- 10 Select **Override Profile** to define ink limits.
- 11 Select **Allow k > MaxK**, if necessary.

## 12 Set the **Total Ink Limit** value.

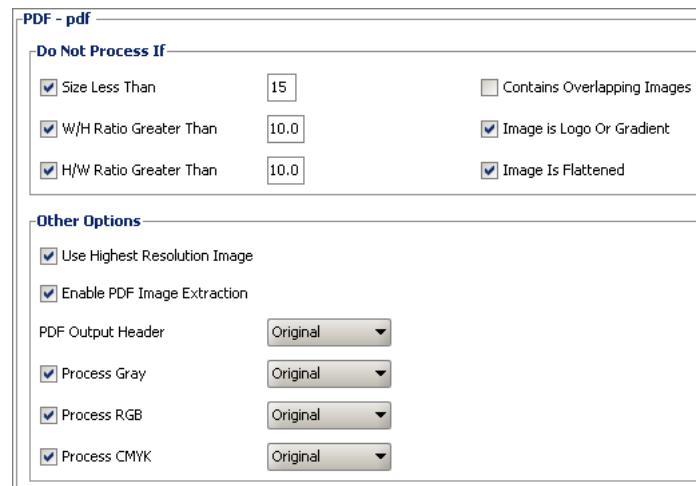
# PDF

All color profiles used by any workflow must be installed in the Windows system profiles folder. Any profile which needs to be available for automatic matching by SISR must be placed in the "code/input profiles" folder in the IntelliTuneX install area, and also in the Windows system profiles folder.

You can:

- Process the RGB images within a PDF file
- Process the CMYK images within a PDF file
- Process the Gray images within a PDF file
- Prevent specific images of being processed

### Do Not Process If



Conditions can be set to prevent certain images in a PDF file from being processed. Conditions are determined by image size or type. Images with disabled processing can still be converted to the output profile.

#### Size Less Than

Select **Size Less Than**, and fill in the amount of pixels to prevent small images from being processed. By default images with a height or width smaller than 15 pixels will be skipped during processing.

<b>W/H Ratio Greater Than</b>	Select <b>W/H Ratio Greater Than</b> , and fill in the maximum aspect ratio to prevent images with unusual proportions being processed. By default images with a ratio of width to height of more than 10 pixels will be skipped.
<b>H/W Ratio Greater Than</b>	Select <b>H/W Ratio Greater Than</b> , and fill in the maximum aspect ratio to prevent images with unusual proportions being processed. By default, images with a ratio of height to width of more than 10 pixels will be skipped.
<b>Contains Overlapping Images</b>	Select <b>Contains Overlapping Images</b> to avoid overlapping images being processed.
<b>NOTE:</b> Overlapping images may be generated, e.g., by InDesign, when creating a dropshadow on text located on an image.	
<b>Image is Logo Or Gradient</b>	Select <b>Image is Logo Or Gradient</b> to prevent logos and gradients being processed. IntelliTuneX will not make any distinction between images and logos saved in an image format (e.g., JPEG, EPS, or TIFF) to be displayed in the matrix view, or to be processed. To prevent images and logos being displayed and/or processed, select the appropriate filters.
<b>Image Is Flattened</b>	Select <b>Image Is Flattened</b> to avoid images composed of several parts from being processed as they would be treated as separate images. <b>Overlapping Images</b> , <b>Logo or Gradient</b> , and <b>Flattened</b> are configured along with Error Handling.
<h3>Other Options</h3>	
<b>Use Highest Resolution Image</b>	PDFs can contain the same image with different resolutions. When checked the highest resolution of that image will be used for processing. IntelliTuneX renders default to a resolution of 72 dpi, but high rendering at 200 dpi is possible. The total Ink used on the page can be seen directly.
<b>Enable PDF Image Extraction</b>	Check <b>Enable PDF Image Extraction</b> to turn on PDF subjobs for editing.
<b>CAUTION:</b> Unless this option is checked, you will not be able to access PDF subjobs from the Job Edit menu.	
<b>PDF Output Header</b>	Workflows attached to some older RIPs fail because the RIP does not support more recent PDF header formats. PDF Output Header allows the workflow to specify the header format of the result file. Three options are available: Original, PDF 1.3, and PDF 1.5.
Original: This selection will retain the format of the input file. The exception is if the header is simply "%!PDF". In that case the 1.3 format is enforced.	
PDF 1.3: The output header will always be "%!PDF-1.3".	

**PDF 1.5:** The output header will always be "%!PDF-1.5".

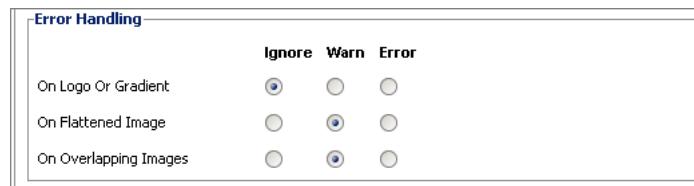
**Process Gray** Gray will be processed. Select a workflow from the dropdown list.

**Process RGB** RGB will be processed. Select a workflow from the dropdown list.

**Process CMYK** IntelliTuneX can recognize and attribute a CMYK input profile to images without an embedded input profile (Smart Input CMYK Space Recognition - SISR). If an embedded profile is present, SISR will not be activated. If a matching input profile is not found in the list of predefined profiles, the profile defined in the Default Input CMYK Color Space will be used.

**NOTE:** Checking **Process CMYK** enables **Smart Input CMYK Space Recognition** and the **Recognition Mode** dropdown list under **Input Profile Options**.

## Error Handling



**On Logo Or Gradient** By selecting **On Logo Or Gradient**, all PDF files containing logos or gradients will be listed in the Optiink.errors file. In the Optiink.errors file only the filenames of those files containing logos and/or gradients will be listed. A manual check should be performed to determine the concerned images.

**On Flattened Image** By selecting **On Flattened Image** all PDF files containing flattened images will be listed in the Optiink.errors file. In the Optiink.errors file only the filenames of those files containing flattened images will be listed. A manual check should be performed to determine the concerned images.

Sometimes, a PDF image can be composed of several separate images. In this case, images may be processed and displayed in semiautomatic mode. Select **On Flattened Image**, and manually verify the images detected as flattened.

Error handling is now enhanced with support for flattened PDF images. Flattened PDF alert settings for Ignore, Warning, and Error are included in the workflow operation for PDF. The error setting works in conjunction with the workflow operation for Post Process to reroute a flattened PDF job to a workflow that is suited for these images.

**On Overlapping Images** By selecting **On Overlapping Images**, all PDF files containing overlapping images will be listed in the Optiink.errors file.

When a job arrives that contains overlapping, logo/gradient, or flattened images, a status for the job will appear in the Job list based on the settings chosen in the PDF operation:

Ignore (Jobs are processed without interruption. Ignore any problem conditions in the job.)

Job List				
Name	State	Original File Type	Priority	Time Job Created
bay-high003.pdf	✓ Complete	PDF	1	Sep 13, 2006 4:44:45 PM
bay-high009.pdf	✓ Complete	PDF	1	Sep 13, 2006 4:44:45 PM
bay-high015.pdf	✓ Complete	PDF	1	Sep 13, 2006 4:44:45 PM

Warn (Jobs are processed with warnings.)

Job List				
Name	State	Original File Type	Priority	Time Job Created
bay-high003.pdf	✗ Complete (Warning)	PDF	1	Sep 13, 2006 4:48:10 PM
bay-high009.pdf	✗ Complete (Warning)	PDF	1	Sep 13, 2006 4:48:10 PM
bay-high015.pdf	✗ Complete (Warning)	PDF	1	Sep 13, 2006 4:48:10 PM

Error (Jobs fail to process, and no results appear.)

Job List				
Name	State	Original File Type	Priority	Time Job Created
bay-high003.pdf	✗ Failed	PDF	1	Sep 13, 2006 4:35:10 PM
bay-high009.pdf	✗ Failed	PDF	1	Sep 13, 2006 4:35:10 PM
bay-high015.pdf	✗ Failed	PDF	1	Sep 13, 2006 4:35:10 PM

A status line will also appear in the Job log.

## Input Profile Options

**Input Profile Options**

- Use Output Intent
- Smart Input CMYK Space Recognition
  - Number of Images To Estimate: 10
  - Recognition Mode: Use Most Recurrent For All Images
  - Tolerance: 10

**Output Profile Options**

- Missing SpotColors Strategy: Replace with alternate
- Process SpotColors (DeviceN)
- Keep Process Colors (only DeviceN)
- Output Profile Normalize Unprocessed Images
- Pure Black Noise Margin %: 0.0
- Output Profile Normalize Text/Vector Options

**Text & Vector Options**

- Input Profile From SISR
- Rendering Intent: RelativeColorimetric
- BPC
- Pure CMYK Options: Convert Pure CMYK
- Pure Black Options: Convert Pure Black
- Preserve Overprint Behavior: Don't Preserve Zeroes
- Keep 400%
- Eq RGB to K
- Pure RGB Black To 100% K
- Keep CMYK
  - 30
  - 24
  - 24
  - 0
- Keep CMYK Text File: None
- Protect Transparency

### Use Output Intent

Check **Use Output Intent** for processing of PDF pages containing abutting vector objects and images, which depended on Use embedded being set.

### Number of Images To Estimate

When estimating the CMYK profile a set of images from the input file are selected. This value determines the maximum number of images to use.

Generally speaking, the larger the number of images, the longer it takes to generate an estimate. The estimate will likely be more accurate in that case. The default value is ten (10).

### Smart Input CMYK Space Recognition

Enables the SISR profiling options. A lot of incoming files are not correctly separated for the intended printing process. A lot of PDFs do not contain an Output Intent or ICC based content, hence no color information is shared with the document. Sometimes even different device-CMYK spaces are combined in the same document while the input space is assumed to be known and correct. This can easily lead to problems if the separated gray balance differs from the

actual intended output. As a result unwanted color casts will be introduced, or images might look too dark or too pale on screen or in print.

IntelliTuneX is able to intelligently assign an input profile when it is not provided in the PDF file. This module is called Smart Input Space Recognition or SISR.

Each image separated to such ICC profile will always carry parts of the same “fingerprint” hidden in the characteristics of the separation. SISR is able to accurately calculate which original profile was used to separate an image. This calculation is based on a lot of characteristics such as total ink layer, gray balance, dot gain, gamut, etc. As default a “match” over 90% must be found before such calculated profile will be reassigned. If an image is flattened in different parts, it will be recognized and handled as one large image.

#### ► **SISR**

If all the different, incorrect, colorspaces in your files are confusing, enable **Smart Input Space Recognition** or SISR. SISR is capable of calculating the original CMYK colorspace used for your file contents by automatically assigning these profile(s). However in a production environment setup, typically a scaled SISR document profile is calculated and assigned to the entire contents. SISR is also capable of assigning on the object level.

SISR is capable of automatically calculating an SISR document profile based on a selectable amount of images in a document, and assign that profile to all images if the setting **Use Most Recurrent For All Images** is used. This is the default setting in a normal production environment.

If set to **Use Most Recurrent For All Images**, SISR will calculate and assign a profile for each image. If no match of 90% or better with any of the existing profiles in the input profiles folder is found, the most found profile is assigned instead.

#### ► **SISR and Standard Workflows**

When using SISR workflows, pay attention to the fact that by default an SISR document profile is calculated based on the preferences set, and content delivered in the file. Normally vector data will be color managed using the same calculated document profile, all meant to avoid any issues with flattened PDF files. If later only parts of this document, e.g., page 2 out of 10 pages are resent to IntelliTuneX, the content is different, hence the calculation could be different. To avoid this, it is advised to handle the documents always in the same way, by resending the entire document.

If it is known that pages are composed from various CMYK colorspaces, e.g., ads, the most accurate way is to send all ads separately before they are combined into

one page or document. You can set a value for the amount of images calculating a document profile, balancing between accuracy and speed.

- Recognition Mode** To activate, check **Process CMYK**, and then check **Smart Input CMYK Space Recognition**.
- Use Default For Non-Profile Images:** Select **Use Default For Non-Profile Images** to use the default profile.
- Use Most Recurrent For Non-Profile Images:** Select **Use Most Recurrent For Non-Profile Images** to apply the most recurrent recognized input profile to the images without a known input profile in the PDF file.
- Use Most Recurrent For All Images:** Select **Use Most Recurrent For All Images** to apply the most recurrent recognized input profile to all images within the PDF file.

---

**NOTE:** Other recognized profiles present in the PDF file will be overwritten. User-defined and embedded profiles have priority. If the profile cannot be recognized by SISR, the Default Input CMYK Color Space Profile will be used as defined in the Default Color Settings.

- Tolerance** This value is used for estimating the CMYK profile to be used by the Medusa library. The tolerance is the delta from a named point. If the delta is larger than the tolerance, a particular profile will be rejected.

The default value is ten (10). The value specified will now override the default.

## Output Profile Options

- Missing SpotColors Strategy** Converts Spot Colors to their corresponding CMYK values. To enable **Missing SpotColors Strategy**, check the **Output Profile Normalize Text/Vectors Options** box.

---

**NOTE:** When IntelliTuneX finds a spot color, if **Missing SpotColors Strategy** is unchecked, then ALL spot colors are left unchanged. No ink save is applied, and it is up to the RIP to sort out the CMYK conversion. If the box is checked, IntelliTuneX will convert spot colors to CMYK and optimize whenever it can find the spot color in its color books.

### ► Missing Spot Strategy

If a given spot color name is not found, IntelliTuneX will use a missing spot strategy to decide how to continue. The following strategies are available:

### ■ Replace with alternate

PDF files can include a CMYK alternative for spot colors. This option will take the CMYK value from the PDF file.

Alternate are default values available in the spot color. This will never produce precise color for the output profile selected, but at least generates a generic CMYK value if speed and ease of use are more important than precise conversions.

### ■ Error if not found

This option will give an error if a spot in the PDF cannot be found in the color books.

### ■ Keep spot colors

This option will leave the spot color unchanged if it is not in the color books. No ink save is applied, and it is up to the RIP to sort out the CMYK conversion.

**Process SpotColors (DeviceN)** Converts Spot Colors to their corresponding CMYK values. To enable **Spot Colors to CMYK**, check the **Output Profile Normalize Text/Vectors Options** box..

**Keep Process Colors (only DeviceN)** Select **Keep Process Colors (only DeviceN)** if there are only processed colors and you do not want ink savings. Any DeviceN color which actually describes a process color (e.g., Process Cyan 20%), will not be handled as spot color, but as process color instead.

**Output Profile Normalize Unprocessed Images** Select **Output Profile Normalize Unprocessed Images** if all skipped images still need to be converted to the output color profile.

**Pure Black Noise Margin %** A setting to overcome issues with scanned text and other image material with a certain noise level in CMYK. Typically when text is scanned in as an image, text is not exactly 100%K. Moreover, when placed together with other content in a CMYK page, such scanned text is often converted to a combination of CMYK, where K should be 100%, and all other channels should be 0%, but is not. In practice, this will result in ranges where K is, e.g., 96%-100%, and CMY values can be found in ranges, e.g., below 4%.

When apply ink save, all image content will be color managed as long as it is not Pure CMYK or Pure K, set by default to be kept in the color managed settings. This means any combination in scanned text not exactly C0%, M0%, Y0%, K100%, will be color managed and ink saved to possibly quite different results depending on the settings used. When Max K is set to a lower value than 100%, CMY will be increased to keep the same appearance in print.

This is unwanted for both registration issues on press, and ink savings issues; more expensive CMY ink is used instead of cheaper black ink. The setting **Override Profile** does not influence this behavior. To set the behavior of images containing scanned text or logos, **Pure Black Noise Margin** can be used.

**Practical Use:** **Black Noise Margin** consists of one parameter, which converts near Pure Black (e.g., C 3%, M 2%, Y 2%, K 96%) to Pure Black (C 0%, M 0%, Y 0%, K 100%), when the option **Keep Pure Black** is activated. If Black Noise Margin is set to 0%, it is deactivated. Any value set for **Black Noise Margin** (K) is 2 times the noise value for CMY:

#### **Black Noise Margin=2**

K 98% and higher will be 100%  
CMY noise 1% and lower will be 0%

#### **Black Noise Margin=6**

K94% and higher will be 100%  
CMY noise 3% and lower will be 0%

---

**NOTE:** If the BNM (Black Noise Margin) is greater than zero, and the CMY values are less than the margin, and the K value is near 100 (greater than 100% - (2 \* BNM)), then the values for that object are set to 0,0,0,100 (pure Black).

---

### **Output Profile Normalize Text/Vector Options**

Select **Output Profile Normalize Text/Vector Options** to activate the Text & Vector Options.

---

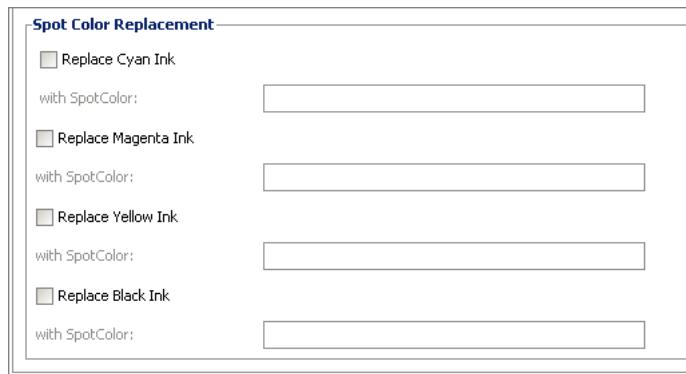
**NOTE:** Text & Vector Options will be enabled if you have purchased an IntelliTuneX license with these options. Refer to “Optional Operations” on page 294.

---

### **Spot Color Replacement**

#### **Spot Color Replacement Options**

Replaces the color of an object with the selected CMYK channel.



**NOTE:** To use the Spot Color Replacement, you must check the **Spot Colors To CMYK <replace with alternate>** in the Output Profile options above. Using this feature will cause objects in the named Spot Color to be converted to the CMYK channel selected with the checkboxes. For example, selecting Replace Cyan Ink and entering Sky Blue as the Spot Color will convert the Sky Blue objects to Cyan. This would allow the press to run with Sky Blue in the Cyan slot and output as a 4-color rather than 5-color.

**Replace Cyan Ink:** Check to replace the object with the Cyan channel.

**With Spot Color:** Enter the name of the spot color.

**Replace Magenta Ink:** Check to replace the object with Magenta channel.

**With Spot Color:** Enter the name of the spot color.

**Replace Yellow Ink:** Check to replace the object with Yellow channel.

**With Spot Color:** Enter the name of the spot color.

**Replace Black Ink:** Check to replace the object with Black channel.

**With Spot Color:** Enter the name of the spot color.

#### ► To configure the PDF Operation

- 1 Select **Size Less Than**, and fill in the amount of pixels.
- 2 Select **W/H Ratio Greater Than**, and fill in the maximum aspect ratio.
- 3 Select **H/W Ratio Greater Than**, and fill in the maximum aspect ratio.
- 4 Select **Contains Overlapping Images**.

- 5 Select **Image is Logo or Gradient**.
- 6 Select **Image Is Flattened**.
- 7 Set the **PDF Output Header**.
- 8 Enable **PDF Image Extraction** to turn on PDF subjobs for editing.
- 9 Select **Use Highest Resolution Image** if needed.
- 10 Check **Process Gray**, and select a workflow from the dropdown list.
- 11 Check **Process RGB**, and select a workflow from the dropdown list.
- 12 Check **Process CMYK**, and select a workflow from the dropdown list.
- 13 Select the **Image is Logo or Gradient** radio buttons.
- 14 Select the **Image is Flattened** radio buttons.
- 15 Select the **Overlapping Images** radio buttons.
- 16 Check **Use Output Intent** for processing of PDF pages containing abutting vector objects and images, which depended on Use embedded being set.
- 17 Set **Number of Images To Estimate**.
- 18 **Smart Input CMYK Space Recognition** enables the SISR profiling options.
- 19 Select the type of **Recognition Mode**.
  - 1 Select **Use Default For Non-Profile Images** to use the default profile.
  - 2 Select **Use Most Recurrent For Non-Profile Images** to apply the most recurrent recognized input profile to the images without a known input profile in the PDF file.
  - 3 Select **Use Most Recurrent For All Images** to apply the most recurrent recognized input profile to all images within the PDF file.
- 20 Set **Tolerance** by moving the slider.
- 21 Select **Process Colors (DeviceN)** if there are only processed colors and you do not want ink savings.
- 22 Check **Keep Process Colors (only DeviceN)** to convert Spot Colors to their corresponding CMYK values.
- 23 Select an action from the dropdown list (**Replace with alternate**, **Keep spot colors**, **Error if not found**).
- 24 Select **Output Profile Normalize Unprocessed Images** if all skipped images still need to be converted to the output color profile.

**25** Set the **Pure Black Noise Margin %** value.

**26** Select **Output Profile Normalize Text/Vector Options** to activate the Text & Vector Options.

---

**NOTE:** Text & Vector Options will be enabled if you have purchased an IntelliTuneX license with these options. Refer to “Optional Operations” on page 294.

---

► **Spot Color Replacement**

**27** Check the desired **CMYK channel**.

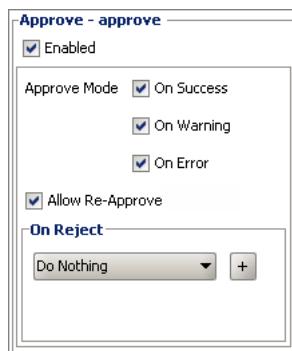
**28** Enter the **Spot Color Replacement** name.

**29** Repeat for additional CMYK channels and spot color replacement names.

## Approve

This operation is used to approve a processed image after comparing it with the original.

If approve is selected, the job stops after processing; and the user can accept it, reject it, or change the settings and resubmit it.



**Enabled** Activates the Approve settings.

**Approve Mode** Select from the **Approve Mode** check boxes.

**On Success:** Enable approve on success.

**On Warning:** Enable approve on warning.

**On Error:** Enable approve on error.

**Allow Re-Approve** This controls what happens after resubmitting (whether you have to approve the job again, or whether the job goes straight to complete on the second pass).

**On Reject** You can determine what to do with a file if it is rejected. You have the options of creating jobs from source files or result files, copying source and result files, moving result files, deleting the source and result files, purging, saving in Photoshop, and retrying if an error occurs.

Object	Operand	Operator
Do Nothing	N/A	N/A
Create Job From Source	Workflow list	Plus/Minus
Create Job From Result	Workflow list	Plus/Minus
Copy Source To Folder	Browse to folder	Plus/Minus
Copy Result To Folder	Browse to folder	Plus/Minus
Move Result To Folder	Browse to folder	Plus/Minus
Script	Browse to folder	Plus/Minus
Delete Source	N/A	Plus/Minus
Delete Result	N/A	Plus/Minus
Purge	N/A	Plus/Minus
Photoshop Open Save	N/A	Plus/Minus
Error Retry	N/A	Plus/Minus

### ► To configure Approve

- 1 Check **Enabled** to activate the Approve settings.
- 2 Select the **Approve Mode**.
- 3 Check **Allow Re-approve on Submit**.
- 4 Select an **object** from the list.

**NOTE:** By default, **Do Nothing** is selected.

- 5 If you select the **Script** option, you can browse to a script.

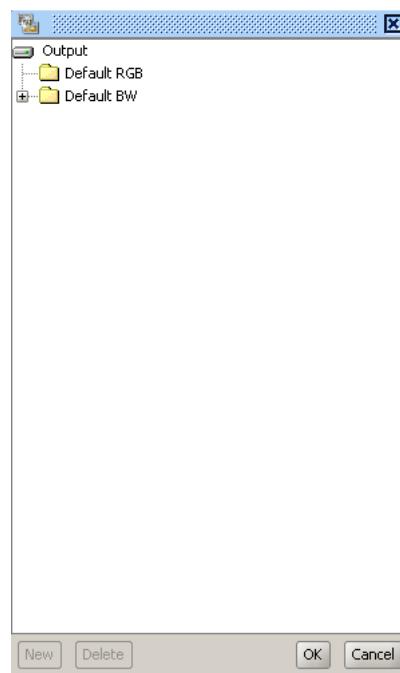


6 If you select **Copy Result To Folder**, **Browse** and **Plus** buttons will display.



□ Click **Browse**.

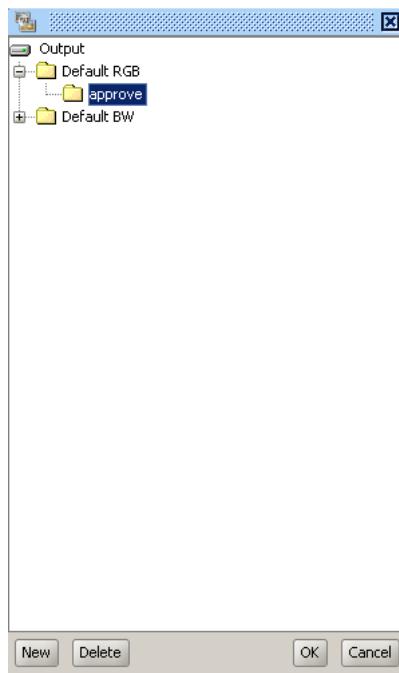
An **Output** dialog box will appear.



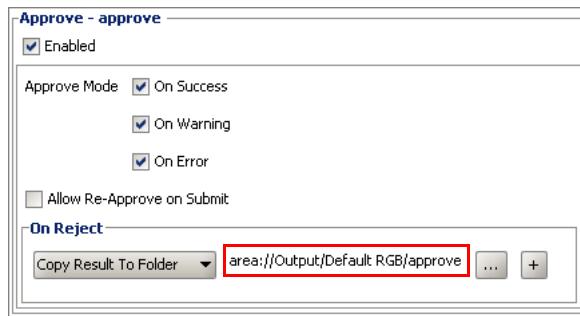
- Select **Default BW** or **Default RGB** under Output.
- The **New** and **Delete** buttons will activate.
- Click **New**. A New dialog box displays.



- Enter the name of the folder.
- The new folder appears under the parent folder.



- Select the new folder, and click **OK** to select it.

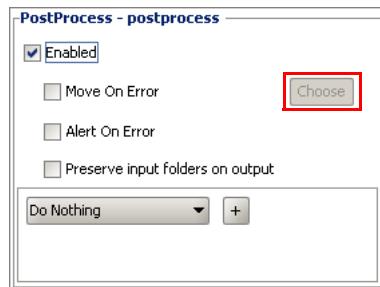


The folder location will display.

- 7 Click the **Plus** button to display another line.
- 8 To delete the line, click the **Minus** button.

## PostProcess

This operation is used to control processed images.



**Enabled** Activate the PostProcess options

**Move On Error:** Check **Move On Error** to activate a folder to hold errored result files.

**Alert On Error:** Check **Alert On Error** to receive an alert message if an error occurs. You will need to configure Email under System Preferences to get the alert. Refer to “Email Settings” on page 52.

**Preserve input folders on output:** Checking this option will use the input scan path below the scanning root to determine where to store the files in PostProcess output operations. For example, assume a file is dropped into Scan\SubScan where Scan is the path of the top level folder below a scanning root point. If the Output Path storage is configured to be itx\_output\Outfolder and Preserve is checked, then this file will be stored at itx\_output\Outfolder\Scan\SubScan.

---

**NOTE:** The Administrator must configure **hfscanner.properties**.

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#### ► Configure **hfscanner.properties**

- 1 Stop all processes if IntelliTuneX is running.
- 2 Edit the **hfscanner.properties** file located in **Program Files\Agfa\IntellituneX\config**.
- 3 Look for the variable **manageFolders**. The default setting at the time of installation for **manageFolders = true**.
- 4 Change to **manageFolders = false**.
- 5 Start all processes.

#### Source and Result Files

You have the options of creating jobs from source files or result files, copying source and result files, moving result files, deleting the source and result files, purging, and saving in Photoshop.

Object	Operand	Operator
Do Nothing	N/A	N/A
Create Job From Source	Workflow list	Plus/Minus
Create Job From Result	Workflow list	Plus/Minus
Copy Source To Folder	Browse to folder	Plus/Minus
Copy Result To Folder	Browse to folder	Plus/Minus
Move Result To Folder	Browse to folder	Plus/Minus
Script	Browse to folder	Plus/Minus
Delete Source	N/A	Plus/Minus
Delete Result	N/A	Plus/Minus
Purge	N/A	Plus/Minus
Photoshop Open Save	N/A	Plus/Minus
Error Retry	Workflow list	Plus/Minus

## Photoshop Open/Save

Sometimes image format incompatibilities can be handled by opening the image with PhotoShop, and saving it again without any additional processing to refresh the structure of the image format.

To automate this, select "PhotoShop Open Save." If this is switched on, the result image should automatically be opened in Photoshop, and resaved before continuing with any PostProcess steps.

---

**NOTE:** For this to be functional, Photoshop must be present on the server.

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## New Input/Output Support

New input/output formats are supported by running scripts on the postprocess step.

A script will perform format conversion from the standard formats supported to a wide range of outputs.

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**NOTE:** IntelliTuneX currently supports jpg, tiff, eps, and bmp input. It currently supports jpg, tiff, eps output.

---

## Error Entry

Error Retry is used to retry the job with another workflow. This also causes flattened image PDF files to be re-processed with another workflow, if the setup is there.

Jobs that error in the current workflow can be rerouted to a different workflow for revised processing. This feature is especially useful with flattened PDF jobs.

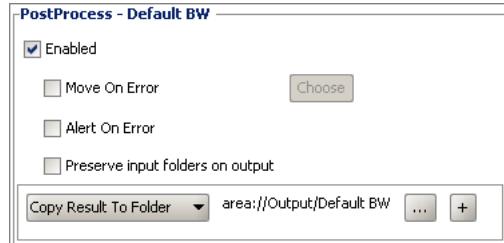
### ► To configure the PostProcess Operation

- 1 Check **Enabled** to activate the PostProcess settings.
- 2 Check **Move On Error**.
- 3 Click **Choose**. An **Output** dialog box will appear.
- 4 Select **Default BW** or **Default RGB** under **Output**.
- 5 Click **New**. The **New** dialog box displays.
- 6 Enter the name of the folder.
- 7 Select the new folder, and click **OK**.
- 8 Check **Alert On Error**.
- 9 Check **Preserve input folders on output**.
- 10 Select an **object** from the list.
- 11 Click the **Plus** sign to add another process.
- 12 Select **Create Job from Source** and a dropdown displays showing the current workflows.
- 13 Click the **workflow dropdown list** to select a workflow.
  - 1 Click the **Plus** sign to add another process.
  - 2 Click **Minus** to delete the process.

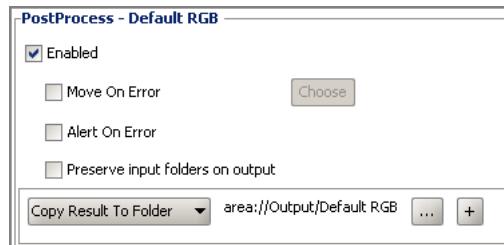
## PostProcess Default Operations

PostProcess comes with four predefined operations.

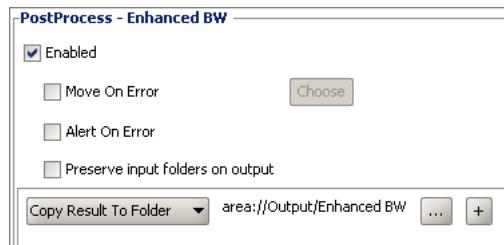
### Default BW



### Default RGB



### Enhanced BW

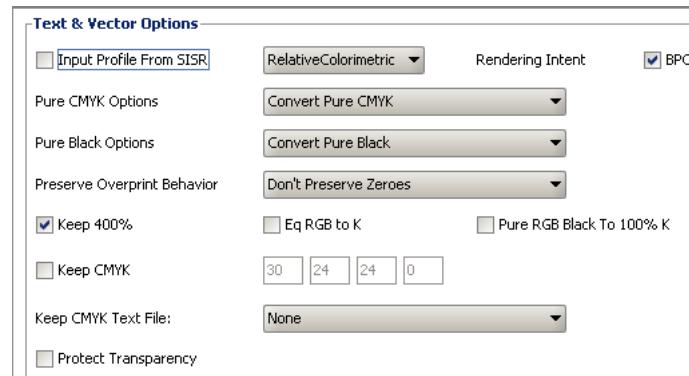


### Enhanced RGB



# Optional Operations

Depending upon the license types purchased, additional operations will display. You will have additional options under Output Profile Options in the PDF Workflow.



## Output Profile Normalize Text/Vector Options

By selecting **Output Profile Normalize Text/Vector Options**, you can define processing and output profile settings for all text, gradients, solid colors, and line art elements in PDF files.

Converting elements other than images in the PDF file may be of interest in order to save ink or to convert text, gradients, line art, etc., to the same output (CMYK) space as the images.

Ink saving can be obtained by choosing an output profile with a higher GCR percentage and lower total ink coverage, or by setting the GCR parameters.

## Text & Vector Options

### Input Profile from SISR

Check **Input profile from SISR** if needed.

Intent	Description
Default	Intent as supplied in the original file.
Perceptual	Recommended for color separation.
RelativeColorimetric	The default rendering intent on systems. Corrects for the media while staying truthful to the specified color.

Intent	Description
Saturation	A measure of the amount of gray in color in the HSL and HSV color models. The less gray in a color, the higher the saturation.
AbsoluteColorimetric	Obtains an exact specified color, or quantifies the mapping method accuracy.
Restore Dynamic Range	Select Restore Dynamic Range if images in a CMYK colorspace for newspaper printing needs to be processed by IntelliTune. Using Saturation boost in combination with the Restore Dynamic Range intent will increase the color gamut of the original CMYK image.

**Rendering Intent (RI)** Select a **Rendering Intent (RI)** from the list.

**NOTE:** You can define a separate rendering intent for text and line art. If no rendering intent is defined, the RI defined for the images will be used. Refer to “Specifying User Preferences” on page 63.

Intent	Description
Default	The default rendering intent (i.e. the rendering intent as specified in the default input profile).
Perceptual	Recommended for color separation.
RelativeColorimetric	The default rendering intent on systems. Corrects for the media while staying truthful to the specified color.
Saturation	A measure of the amount of gray in color in the HSL and HSV color models. The less gray in a color, the higher the saturation.
AbsoluteColorimetric	Obtains an exact specified color, or quantifies the mapping method accuracy.

**Blackpoint Compensation (BPC)** Check **Blackpoint Compensation (BPC)** if needed.

**Pure CMYK Options** Pure CMYK colors are colors in image or vector/lineart objects that are composed of a combination of a single color, and the other colors and K are zero. Select **Pure CMYK Options** to keep the exact CMYK values from the input profile in the output profile (i.e., 0-0-80-0 remains 0-0-80-0).

**Convert Pure CMYK:** This will convert a pure color to the new profile, where 0, 0, 80, 0 might translate into 2, 0, 69, 0.

**Dotgain Pure Colors + Keep Solid Primaries:** This will keep a pure color as is and does not convert to the new profile.

**Dotgain Pure Colors Only:** This will calculate the dot gain difference between the input and output profile, and will only compensate the lightness value for a color, not chroma. The color 0, 0, 80, 0 might translate into 0, 0, 69, 0.

**Pure Black** Pure Black is any K value in CMYK where the other channels are zero (e.g., 0, 0, 0, 72). Select **Pure Black** to keep the exact black value from the input profile in the output profile (i.e., 0-0-0-K remains 0-0-0-K).

**Convert Pure Black:** This will convert a pure black to the new profile.

**Dotgain Pure Black + Keep 100%:** This will keep a pure black as is and does not convert to the new profile.

**Dotgain Pure Black:** This will calculate the dot gain difference between the input and output profile.

**Preserve Overprint Behavior** Some PDFs containing white objects on top of an image can trigger a change in the overprint behavior in the output PDF when processed by OptiInk. Selecting an option forces the current overprint behavior to be preserved.

**Don't Preserve Zeroes:** This allow changes to values even when one of the CMYK values is zero. This may result in changes in overprint behavior for these regions.

**Preserve Zero CMY:** This prevents changes when one or more of the CMY values are 0.

**Preserve Zero CMYK:** This prevents changes when one or more of the CMYK values are 0.

**Preserve Zero CMY + K Overprint:** This prevents changes when one or more of the CMY values are 0 and the K value is overprinting.

**Keep 400%** Select the keep 400% check box if you want to retain all CMYK channels to 100%.

**eq RGB to K** Check if you want the RGB color to equal K (black).

---

**NOTE:** For PDF processing an internal flag for "HonorInkLimits" is fixed ON. When GCR sliders for **Max K** and **Total Ink Limit** are active, they will be honored. This is evident when **Keep 400%** is un-checked, and the ink values are set (**Max K** less than 100, and **Total Ink Limit** 240). Refer to "Enhanced BW" on page 267.

---

**Pure RGB black To 100% K** Check **Pure RGB black To 100% K** to convert RGB black (0-0-0) to pure CMYK black (0-0-0-100).

<b>Keep CMYK</b>	Check <b>Keep CMYK</b> , and enter the values for Cyan, Magenta, Yellow, and Black in the corresponding boxes that should not be modified when the job is processed. Values of 0,0,0,0 activate the <code>pdf_lineart_keep-cmyk_list.txt</code> file. Refer to “ <code>pdf_lineart_keep_cmyk_list.txt</code> ” on page 298.
<b>Keep CMYK Text File</b>	Enhanced control of processing for Keep CMYK colors in PDF. The PDF workflow operation includes a drop-down menu for selecting user-created .txt files containing Keep CMYK values.
	Users can place any number of customized “keep CMYK” text files with extension .txt in the <code>\intellituneX_filestore\ _scripts</code> folder. Select one “keepCMYK” .txt file for each workflow.
	CMYK Values are extracted from the .txt file selected in the comboBox. The cmyk values in the .txt file apply to the individual workflow.
	<b>NOTE:</b> The first combo-box entry is “None”, equivalent to not using a keep file.
	<b>NOTE:</b> Each PDF preset can have its own keep file selected.
<b>Protect Transparency</b>	Transparent objects are protected from GCR processing when this feature is enabled.
 <b>To configure Text &amp; Vector Options:</b>	<ol style="list-style-type: none"> <li>1 Selecting <b>Output Profile Normalize Text/Vector Options</b>.</li> <li>2 Check <b>Input profile from SISR</b> if needed.</li> <li>3 Select a <b>Rendering Intent (RI)</b> from the list.</li> <li>4 Check <b>Blackpoint Compensation (BPC)</b> if needed.</li> <li>5 Select an option from <b>Pure CMYK Options</b>.</li> <li>6 Select an option from <b>Pure Black Options</b>.</li> <li>7 Select an option from <b>Preserve Overprint Behavior</b>.</li> <li>8 <b>Keep 400%</b> is already checked.</li> <li>9 Check <b>eq RGB to K</b> if the RGB color should equal K (black).</li> <li>10 Check <b>Pure RGB black To 100% K</b>.</li> <li>11 Check <b>Keep CMYK</b>, and enter the values for Cyan, Magenta, Yellow, and Black in the corresponding boxes.</li> </ol>

12 Select the **CMYK Text File** from the dropdown list.

13 Check **Protect Transparency**, if necessary.

## **pdf\_lineart\_keep\_cmyk\_list.txt**

---

A single pdf\_lineart\_keep\_cmyk\_list.txt is provided in the code folder and is used globally in any workflow where this facility is enabled.

Keep files with a .txt extension will be kept in the \_scripts folder in the filestore. The checkbox on the PDF tab will be replaced by a combo box showing all available .txt files. The first combo-box entry is "None", equivalent to not using a keep file,

---

**NOTE:** Each PDF preset can have its own keep file selected.

---

The UI allows a single text/vector color to be protected against change when the PDF is processed.

The values in the four **Keep CMYK** boxes identify the combination of Cyan, Magenta, Yellow, and Black that are to be excluded from processing. This provides you with a single combination.

A special case is provided when more than one combination is desired, or if a translation is to be enabled. That case is identified when a zero (0) is entered in each of the boxes.

**pdf\_lineart\_keep\_c**

**myk\_list.txt**

### **► Protect Multiple Colors**

When zeros are present in each of the four boxes next to the **Keep CMYK** check box, the system is instructed to retrieve "keep and translation" values from this text file in the code folder:

---

**CAUTION:** These are new locations from previous releases. Copy any customized files to these locations.

---

**C:\optiink\_filestore\\_scripts\pdf\_lineart\_keep\_cmyk\_list.txt**

or

C:\itx\_filestore\\_scripts\pdf\_lineart\_keep\_cmyk\_list.txt

pdf\_lineart\_keep\_cmyk\_list.txt can also be a user created .txt file that is specified in the workflow, and will apply only the workflow in which it is selected.

---

**NOTE:** This is an ASCII file that describes translation and exception rules. Lines that start with "//" are comments. Blank lines are ignored.

The file can contain a list of CMYK values, 1 per line:

0 0 0 0

255 128 64 0

Etc...

---

**NOTE:** PDF jobs which contain an image composed entirely of pure white will fail. PDF jobs with >1000 images (approximately) may fail.

The general format is:

- 1 Three or four input values (rgb or cmyk), 4 output values (cmyk), "colorspace" "colorspace" "operator".
- 2 All values are separated by spaces. Colorspace and operator are in double quotes. Colorspace and operator are optional. When operator is omitted, "EQ" is assumed. The values for operator are: "LT", "EQ", "GT".
- 3 A line with only four entries is assumed to be a "Keep CMYK" definition. This provides a mechanism to specify multiple keep values.
- 4 A line with two sets of four values is assumed to be a translation from CMYK to CMYK color space.

- The following two lines are equivalent:

20 100 100 0 20 40 60 10 // translate cmyk value 20 100 100 0 to 20 40 60 10

20 100 100 0 20 40 60 10 "cmyk" "cmyk" "EQ" // translate cmyk general form

- The following example translates all CMYK values LESS THAN (1 2 3 10) to (5 6 7 8):

1 2 3 10 5 6 7 8 "cmyk" "cmyk" "LT"

- The following example translates all CMYK values GREATER THAN (0 0 0 90) to (10 11 12 100):

```
0 0 0 90 10 11 12 100 "cmyk" "cmyk" "GT"
```

- The following line translates all RGB values GREATER THAN (230 240 250) to (5 4 3 2); the range of RGB is 0 to 255:

```
230 240 250 5 4 3 2 "rgb" "cmyk" "GT"
```

## Special Conversion Options in IntelliTuneX

Some applications create equal RGB values instead of gray in images and other objects. However not visible on the screen, in the final output RGB will be converted to CMYK. Depending on the separation in the profile, a lot of the information will go into the CMY channels causing registration issues and color casts. IntelliTuneX can detect in both image and vector content if RGB values are equal. If RGB values are equal, IntelliTuneX can convert this data into gray automatically. Apart from the technical issues it will solve, this option again lowers the amount of ink used dramatically.

To be able to handle both image objects and text and lineart, check the options:

- **Convert equal RGB to Gray** under the “Color Management” on page 250.
- **Pure RGB black to 100% K** under PDF--Text & Vector Options in the “Optional Operations” on page 294.

Another option to convert pure RGB black to 100% (which, for example, can be created by Microsoft® Word) is to check the box **convert pure RGB black to 100%** in PDF--Text & Vectors.

# Glossary

This glossary defines many of the terms used in this document with which the user may not be familiar.

## B

**Black Point Compensation** An option checking the difference of the black points of the source and destination profile. When selected, the full dynamic range of the source space is mapped to the full dynamic range of the destination space.

**Brightness** A value indicating how light or dark a color is, how close it is to white or black. See also **Lightness**.

## C

**CIE L<sup>\*</sup>a<sup>\*</sup>b<sup>\*</sup>** (CIELAB) A device independent colorspace where values L<sup>\*</sup>, a<sup>\*</sup>, and b<sup>\*</sup> are placed at right angles to each other plotting a 3 dimensional coordinate system. L= color lightness; a= red/green scale (+a is red, -a is green); b=blue/yellow scale (+b is yellow, -b is blue).

**CMYK** Cyan, magenta, yellow, and black are the four basic colors used in printing processes. CMY are the primary colorants of the subtractive color model. Black is usually added for color depth and ink economizing.

**Color Management** A Color Management System (CMS) ensures color uniformity across input and output

devices so that final printed result match originals. The characteristics or profiles of devices are normally established by reference to standard IT8 color targets.

**Color Space** A scientifically defined portion of human vision. It may be defined with any color model. When using a color space definition, the RGB values (R=10,G=100,B=10) can be translated into one of the scientific color models, giving the values exact meaning. This allows for exact color reproduction.

**Compression** Software algorithms that reduce the number of binary digits in a digital file by eliminating redundant information. Data compression reduces file sizes.

**Contrast** The relationship between the darkest and the lightest area in an image.

## D

**Dot Gain (press gain)** An imperfection of printing that causes half-tone dots to print larger than they should. This imperfection is mainly caused by the absorption of ink by the paper (comparable to what happens when you drop ink on blotting paper). The reproduction thus becomes darker than it should. Calibration can remedy this through a calibration

curve. Dot gain is most noticeable in the mid-tones.

**DCS (Desktop Color Separation)** A format which creates five PostScript files for each color image.

## G

**Gamma** (Monitor Gamma) Gamma describes the relationship between the voltage input and the luminance of your monitor. The preferred value of your gamma also depends on the type of monitor you are using. The preferred gamma value for a CRT monitor 2.2, whereas the preferred value for an LCD screen is 1.0.

**Gamut** The tonal range of colors that a device can reproduce. The gamut is by definition smaller than its corresponding color space. A color is "out of gamut" when its position in one device's color space cannot directly be translated into another device's color space. A typical CMYK gamut is usually smaller than a typical RGB gamut.

### Gray Component Replacement (GCR)

A color separation technique that substitutes black ink for calculated amounts of cyan, magenta, and yellow ink. GCR economizes on inks because one ink (black) does the job of three (cyan, magenta, and yellow). It also economizes on time because only one ink has to dry. Good printing requires economical use of all ink to avoid exceeding the capacity of the paper to absorb it. Using black ink brings out better detail and contrast in an image.

**Grayscale** A range of grays with regular density intervals from white to black. A gray-scale image is an image that contains various levels (or shades) of gray.

## H

**Hue** Color, the main attribute of a color that distinguishes it from other colors. It is the attribute by which we distinguish red from green, blue from yellow, etc.

## I

### ICC (International Color Consortium)

The ICC was established in 1993 by eight industry vendors, including Agfa. Their main purpose was creating, promoting and encouraging the standardization and evolution of an open, vendor-neutral and cross platform color management system architecture and components.

**IPTC** International Press Telecommunication Council.

## L

**.log** This is the suffix used to describe the file created by the :Arkitex Director Engine if the 'LOG' option is turned on in the Arkitex Director Setup Utility. This log contains all the messages seen in the Engine log window.

**Lightness** Also known as luminosity. A value corresponding to the brightness of a color.

## M

**Mid-tones** Tonal values that are midway between highlight and shadow.

## P

**PDF** Portable Document Format. A file format used to describe cross-platform documents which are created using Adobe Acrobat Exchange or Distiller, and which can be viewed on-screen and printed, using Adobe Acrobat Reader.

**Pixel** A pixel is a picture element. Digital images are composed of an array of pixels, each having a specific color or tone. The eye merges differently colored pixels into continuous tones.

**PostScript** A language for describing graphic and typographic elements. The elements described in PostScript can be displayed or printed regardless of the output resolution of the monitor, printer, image setter or slide maker. This independence from resolution is achieved by describing the elements as a collection of vectors with specific shapes.

Printer description files are in either the System folder or a special folder with your application. They are provided by the printer manufacturers or come with applications.

**Profile** The color characteristics of an input or output device - including its gamut, colorants, and modes of operation - used by a color management system to ensure color fidelity.

**Proof** A single reproduction of an image as a sample to verify its density or its color without actually having to print it on a printing press.

## R

**Rendering Intent** The method a CMM uses for converting, i.e., mapping colors from one device's gamut to another. The four different rendering intents are: perceptual, saturation, relative colorimetric, and absolute colorimetric.

**Resolution** A measure of the fineness of spatial detail that a device can record or produce. The higher the resolution, the finer the detail. Resolution is expressed in elements per unit; for example, pixels per inch (ppi) for scanners and monitors, and dots per inch (dpi) for printers and image setters.

**RGB** Red, Green, Blue - the primary colors in the additive color model. The RGB model is used in color televisions, monitors, and scanners.

## S

**Saturation** A measure of the amount of gray in color in the HSL and HSV color models. The less gray in a color, the higher the saturation. High saturation corresponds to an intense, vivid color; low saturation to a quiet, dull grayish color.

**Shadow** The darkest areas in an original or an image, represented in a halftone by the largest dots. The dot area of shadows ranges from about 80% to 100%.

**Smart Input CMYK Space Recognition (SISR)** Smart Input CMYK Space Recognition. When an embedded profile is present, SISR will not be activated. When the profile is not recognized and attributed, the default Input CMYK Color Profile will be used.

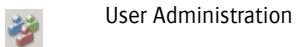
**USM** Unsharp Masking. Any of three different processes used to sharpen image detail with photographic, optical, or digital methods. USM is routinely applied to scanned images since the nature of the scanning process decreases image sharpness.

## U

# :Arkitex IntelliTuneX Toolbar

This Appendix provides specific information about the tools available in :Arkitex IntelliTuneX.

## Main Area



User Administration



User Preferences



System Preferences



View System Log



Close All Job Windows



List view



Details view



Thumbnail view

## Hot Folders Tab

-  New hot folder
-  Delete hot folder
-  Collecting
-  Active job
-  Ready
-  Complete job
-  Job Aborted
-  Job Purged
-  Failed job
-  Warning on job
-  Held job
-  Held for approval
-  Job Held Rejected
-  Job Held Select
-  Job Edit
-  Job Abort
-  Job Edit Failed
-  Job Edit OK

-  Job Edit Reject
-  Job View
-  Job View Abort
-  Job View Failed
-  Job View OK
-  Job View Reject
-  Close job
-  Job Log
-  Job being edited
-  Hot folder with completed jobs
-  Job failed
-  Job on hold
-  Job waiting for approval

## Workflows Tab

-  New workflow
-  Copy workflow
-  Export
-  Import
-  Delete workflow
-  Pen
-  Select
-  PreProcess
-  Tonal Gradation
-  Cast Removal
-  USM
-  CMYK USM
-  VFD Detail Enhancement
-  Adaptive Contrast Enhancement

-  CMYK/Gray MinMax Dot
-  Artifact Removal
-  Size
-  Selective Color
-  Color Management
-  Output
-  GCR (optional operation)
-  PDF
-  Approve
-  PostProcess

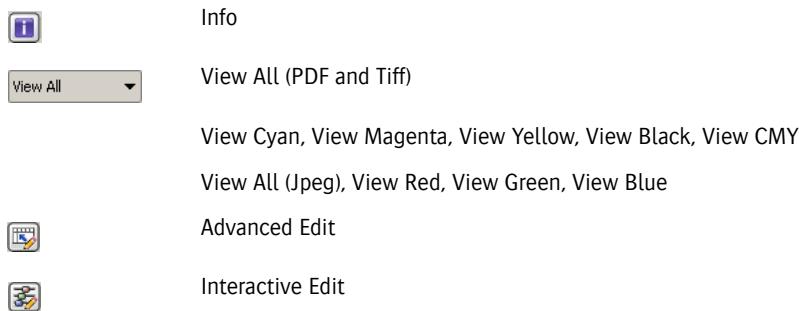
# Image Tab

## Job Toolbar

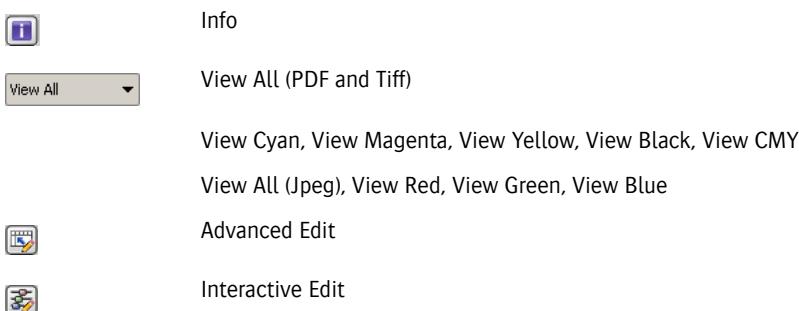
-  Show previous job
-  Show next job
-  Approve job
-  Reject job
-  Held For Retouch
-  Hand Grab Pan
-  Advanced Edit
-  Interactive Edit
-  Edit image in Photoshop
-  View in Acrobat (displays for PDF files)
-  Display dual view
-  Compare source and result
-  Display single view
-  Show result
-  Show source
-  Magnify
-  Zoom In
-  Zoom Out

## Subjob Toolbar

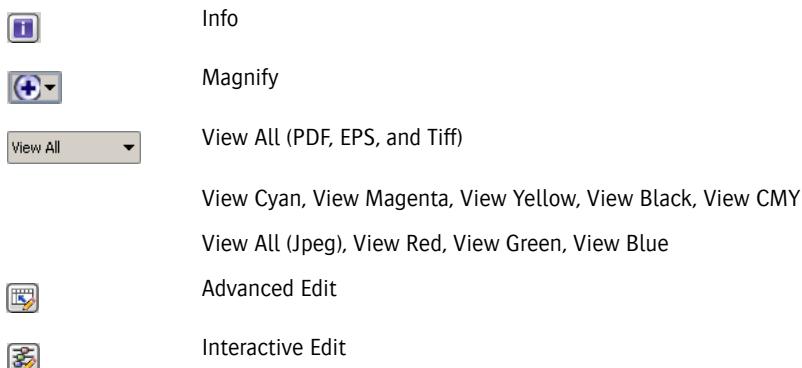
### Source Toolbar



### Result Toolbar



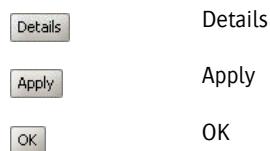
## Simulation Toolbar



## Interactive Edit



## Advanced Edit



## Edit Hot Folder Details

<input type="button" value="Add..."/>	Add a wild card filter
<input type="button" value="Delete"/>	Delete a wild card filter
<input type="button" value="OK"/>	Applies changes and closes dialog box.
<input type="button" value="Apply"/>	Apply changes and keeps dialog box open.
<input type="button" value="Cancel"/>	Cancels changes.

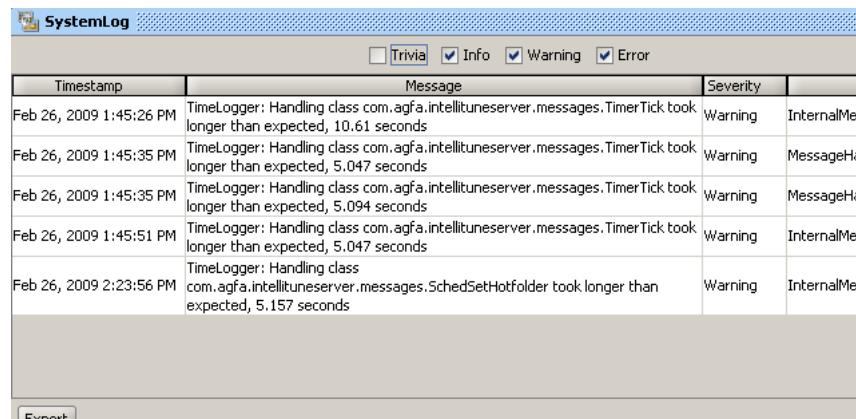


# Viewing Log Files

When troubleshooting issues, look inside log files.

## System Log

These logs are created using message filters and exporting to a file location. The System Log is located under **Tools > View System Log** in the IntelliTuneX Client.

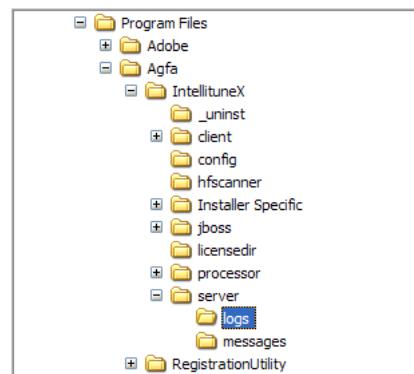


The screenshot shows a window titled "SystemLog" with a grid of log entries. The columns are "Timestamp", "Message", and "Severity". The "Severity" column includes checkboxes for "Trivia", "Info", "Warning", and "Error", with "Warning" and "Error" checked. The log entries are as follows:

Timestamp	Message	Severity
Feb 26, 2009 1:45:26 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 10.61 seconds	Warning InternalMe
Feb 26, 2009 1:45:35 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 5.047 seconds	Warning MessageHa
Feb 26, 2009 1:45:35 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 5.094 seconds	Warning MessageHa
Feb 26, 2009 1:45:51 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.TimerTick took longer than expected, 5.047 seconds	Warning InternalMe
Feb 26, 2009 2:23:56 PM	TimeLogger: Handling class com.agfa.intellituneserver.messages.SchedSetHotFolder took longer than expected, 5.157 seconds	Warning InternalMe

Messages are exported to the **logs** directory as **.txt** files.

They are located under **Program Files\AGFA\IntelliTuneX\server\logs**.



You can use Notepad to view the log.

# Shortcut Keys

This chapter describes a selection of shortcuts of IntelliTuneX.

## Shortcut Keys

### ► Main Area

Main Menu	Options	Shortcuts
File		
	Exit	Ctrl-Q
Tools		
	User Administration	Ctrl-A
	System Preferences	Ctrl-S
	User Preferences	Ctrl-M
	View System Log	Ctrl-L
Folder		
	Delete Hot Folder	Ctrl-D
	New Hot Folder	Ctrl-N
Jobs		
	Job Edit	Ctrl-E
View		
	List	Ctrl-F1
	Details	Ctrl-F2
	Thumbnails	Ctrl-F3
Help		
	About	Ctrl-F12

### ► Hot Folder Shortcut Menu

Hot Folder	Shortcuts
Delete Hot Folder	Ctrl-D
New Hot Folder	Ctrl-N

### ► Job List Shortcut Menu

Job List	Shortcuts
Job Edit	Ctrl-E

### ► Image Viewer

Image Viewer	Options	Shortcuts
Fit To Window		Alt-F
1:1		Alt-=
Zoom In Mode		Alt-Z
Zoom Out Mode		Alt-X
View Source		Alt+S
View Result		Alt+R
In CMYK Mode		
	Change Channels	
	C	Alt+1
	M	Alt+2
	Y	Alt+3
	K	Alt+4
	CMY	Alt+5
	All	Alt+6
	RGB Channels	
	R	Alt+1
	G	Alt+2
	B	Alt+3
	All	Alt+4

# Contents of a License File

When troubleshooting Licensing issues, look inside the License File. Open it with an Internet browser (e.g., Internet Explorer). A number of sections can be collapsed or expanded for convenient reading. All information in the License File is protected by a CheckSum and cannot be edited.

## License File Contents

- Fingerprint File
  - HardwareKey Value (MAC-address of the IntelliTuneX server network card)
  - Dongle LicenseID (ID of the IntelliTuneX dongle)
  - Installed SWComponents (Installed IntelliTuneX components at the time the Fingerprint file was created)
  - SystemConfiguration (Server name, hard disks, installed memory, etc.)
  - Satellites (Information about the additional IntelliTuneX Server Satellites)
  - InstalledProductName (Name and version of installed IntelliTuneX)
- ReceiptCodeFile
  - ReceiptCodes (Information about the different Receipt Codes that are in the License File)
  - TradedInProducts (Only available when there are Series 2/3 upgrade Receipt Codes in the License):
    - TradeInComplete (False = In Transition, True = Transition Ended);
    - UnknownProdName (The type of Series 2/3 dongle that is traded in);
    - UsedForSRC (The ID of the Sales Receipt Code where the dongle is linked);

- DongleID (A unique reference to the Series 2/3 dongle). There is a list of options read from the dongle by the Registration Utility.
- CompanyInfoFile (Information taken from the Customer database by the WebID)
- LicenseKeyFile (List of all Licenses that are in the License File)
- AuditTrail (List of events that passed during the lifetime of the License File)

A number of these items can also be retrieved using the Registration Utility as follows:

- View > Options = ReceiptCodes
- View > System Config = General system information
- View > Installed Components = Installed SWComponents
- View > Licenses = LicenseKeyFile
- View > Customer Details = CompanyInfoFile

# IntelliTuneX Licensing Summary

## IntelliTuneX Licensing Summary

After you have installed the IntelliTuneX System, you need to license the products prior to using the system. Licensing is performed in five steps:

- Locate your **Receipt Code File (RCF)**: This file is provided by the Agfa Sales office, and groups together the sales order codes for your particular installation or system upgrade.
- Generate a **Fingerprint File (FPF)**: This is an encrypted file that contains the dongle serial number, the unique hardware identification reference, and some customer information and configuration data used for registration and support of the product. You can generate the Fingerprint File using your IntelliTuneX Launcher.
- Generate a License Request File (LRF): Using the Registration Utility, merge the Fingerprint and Receipt Code File information into a single License Request File. To create your first License Request File, you must also provide your Customer Details.
- Upload your newly created LRF to the ELM system portal using the Registration Utility: The License File is generated online, and you can download it from the Portal to your local system.
- Load your **License File**: Start the IntelliTuneX Launcher, and select **Load License** to locate and load the License File that you downloaded from the Agfa ELM System Portal. All your sales order product options are then activated.

## Using a Trial License

The IntelliTuneX Licensing system allows you to run IntelliTuneX for a trial period. Individual IntelliTuneX options can also be run in Trial mode.

Trial licenses can be used for a limited amount of time and are based on three settings:

- **Valid From Date** - The Receipt code can be used for licensing starting from this date.
- **Expire Date** - The Receipt code becomes invalid when this date is reached.
- **Trial End Date** - Trial will end when this date is reached (when it is licensed in a configuration).
- **Max Trial Period** - This is the maximum time period during which the Receipt code can be used for licensing without re-licensing.

The trial period starts counting down from the moment you upload the License Request File to the Agfa ELM System Portal. If you wait a week before loading the license on your IntelliTuneX System, this time is subtracted from your available Trial license period.

When your Trial license expires, the Trial Receipt Code will revert to the **Available status** in the Digital Warehouse. As long as the expiration date is not reached, the code can be checked out again for a new license (even on the same system).

#### ► To use a trial license

- 1 Make sure you received a **Receipt Code File** (this is a special Trial Receipt Code), and check that the IntelliTuneX System is up and running.
- 2 **Generate a Fingerprint File.**
- 3 **Start** the Registration Utility.
- 4 **Load** the Fingerprint File, your (Trial) Receipt Code File, and Customer details (if not yet available).
- 5 Choose **View > Options** to check the Trial License.
- 6 Select **File > Upload LRF.**
- 7 Enter your **Agfa ELM System Portal User ID** and **password**, and click **OK**.  
A **Save As** dialog box appears for the created License File.
- 8 **Browse** to the desired location, and either click **Use Server FileName** (this will be something like 2005.01.01\_12.00.00.alf), or enter your own file name and click **Save**.
- 9 **Load** the Trial License File with the IntelliTuneX Client.

**10 Shutdown** IntelliTuneX, and **reboot** your computer.

**11 Restart** IntelliTuneX.

---

**NOTE:** A few days before the Trial period expiration date, a message will display indicating that you are running in Trial mode.

---

► **To remove “expired license” messages from the message board**

- 1** Start the **Registration Utility**.
- 2** Choose **File > Open**.
- 3** Click the file type list, and select **AgfaLicenseFiles (\*.alf)**.
- 4** Open your License File.
- 5** Choose **View > ReceiptCodeID**.
- 6** Highlight all expired options, and select **Edit > Delete**.
- 7** Select **File > Upload LRF**.
- 8** Enter your Agfa ELM System Portal user ID and password, and click **OK**.

A **Save As** dialog box appears for the created License File.

- 9** **Browse** to the desired location, and either click **Use Server FileName** (this will be something like 2005.01.01\_12.00.00.alf), or enter your own file name. Click **Save**.

**10 Load** your License File.

**11 Shutdown** IntelliTuneX, and **reboot** your computer.

**12 Restart** IntelliTuneX.

► **To extend the trial license**

While the trial period is still running, you can extend it, as long as this does not exceed the expiration date of the Receipt Code File (RCF). After the expiration date, a new Trial Receipt Code is required.

- 1** Start the **Registration Utility**.
- 2** Choose **File > Open**.
- 3** Click the file type list, and select **AgfaLicenseFiles (\*.alf)**.
- 4** Open your License File.

- 5 Choose **View > Options**.
- 6 Highlight the Trial license.
- 7 Choose **Edit > Extend Trial**.
- 8 Enter the number of days to extend the trial period, and click **OK**.

The maximum number of days you can extend the trial is limited to the predefined maximum trial length. Entering a higher value has no effect.

---

**NOTE:** If the new trial length exceeds the expiration date of the Receipt Code File, a warning is displayed when the License Request File is uploaded to the Agfa ELM System Portal. The Trial Length of the License File is automatically adjusted.

---

The Registration State changes from ReRegister to ExtendTrial.

- 9 Select **File > Upload LRF**.
- 10 Enter your Agfa ELM System Portal user ID and password, and click **OK**.  
A **Save As** dialog box appears for the created License File.
- 11 **Browse** to the desired location, and either click **Use Server FileName** (this will be something like 2005.01.01\_12.00.00.alf), or enter your own file name. Click **Save**.
- 12 **Load** your License File.
- 13 **Shutdown** IntelliTuneX, and **reboot** your computer.
- 14 **Restart** IntelliTuneX.

#### ► To install a new trial license

You will need a new Receipt Code File in either of the following situations:

- If the expiration date of the Receipt Code is reached.
  - If the trial period expires, without an extended trial.
- 1 Contact the Digital Warehouse Manager, and request a new Trial Receipt Code File.
  - 2 If the expired trial is just an option and not an entire configuration, save a Fingerprint File using the IntelliTuneX Client. If the expired trial is an entire configuration (e.g., a Trial Collection installed at a customer site), use a clean Fingerprint File (the one you backed up when doing the initial installation).

- 3 Start** the Registration Utility, and **open** the correct Fingerprint file.
- 4 Add** your new Trial Receipt Code File.
- 5 Select** **File > Upload LRF**.
- 6 Enter** your **Agfa ELM System Portal User ID** and **password**, and click **OK**.



# XML Import

This appendix specifies the functionality of IntelliTuneX associated with using XML files to control the workflow, and operations that may be controlled by using associated XML files.

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## XML Import

In many uses IntelliTuneX works by presenting a number of hot folders where the data files may be placed by external applications. Workflows / processing steps and settings are associated with these hot folders. Additionally, selection criteria based on filename or image parameters may be used to change the workflows used for files.

There are cases where it is desirable for external applications to provide more explicit control for particular files. This is what the XML import interface is designed to achieve. Each file processed may have an associated XML control file that provides override information to control the details of how the data file is processed.

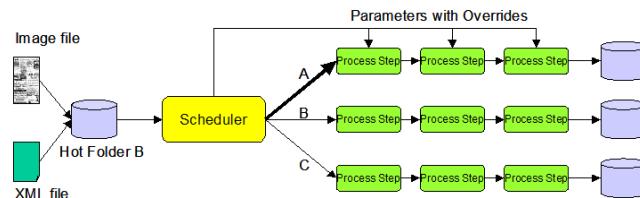
## Styles

Two styles of operation are supported. The first provides backwards compatibility with the Mac Intellitune XML operation (where the data file and associated XML are imported together using the hot folder mechanism).

The second style of operation provides a greater degree of control over the data file association by just importing XML instructions (which themselves contain reference to the data file that should be processed). The XML file contains an external reference to the file to be processed. This gives some extra flexibility and avoids any timing problems associated with the first technique. The third mode is an extension of the second mode. In the third mode, multiple files are specified and fetched for processing by the XML settings.

## Data and XML operation (Mac IntelliTune Compatible)

The diagram shows the overall system operation in this mode.



Data files that are dropped into Hot Folder B without an associated XML file, have been set up to be processed by the steps and parameters associated with Workflow B.

When a data file has been recognized as stable and ready to be processed, IntelliTuneX will perform a check for the presence of an associated XML file in the same hot folder. The XML file must have exactly the same name as the data file, but with an .xml extension. This XML extension may either replace an existing data file extension, or be appended to it. For example, when a data file called image.jpeg is found, IntelliTuneX will associate that with an XML file called image1.jpeg.xml or image1.xml. Conversely, an XML file called image1.xxx.xml will be associated with data file names like image1.xxx or image1.xxx.yyy, where yyy is a regular image extension name like jpg, tif, etc.

XML names and image filenames are compared in a case insensitive fashion so that, for example, iMaGe1.jpg is associated with ImAgE1.xMl.

If no corresponding XML file is found, processing will continue as normal using the steps and parameters normally configured (e.g., workflow B).

If a corresponding XML file is found, it will be imported. The settings contained within it will control how the data file is processed.

- 1 Firstly, it may contain a reference to a different workflow name (e.g., A); and if this is present, that workflow and settings will be used instead of the default associated with the folder.
- 2 Secondly, the XML may contain some override settings to control some parameters used within the workflow.

If a Mac compatibility XML is detected (and no corresponding data file is found within 1 minute), the file should be ignored.

If a Mac compatibility XML is detected (but has errors), the corresponding data file should be picked up, if present, and placed in the error state.

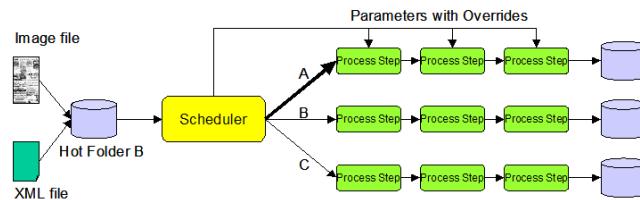
---

**NOTE:** Not all features described here are fully supported in the current application. In particular, some of the individual control of attributes under presets are not implemented yet. Refer to the table in process step presets to see which of these are currently supported.

---

## XML Operation with Referenced Data

The diagram shows the overall system operation.



An XML file is dropped into the Hot Folder associated with Workflow B.

IntelliTuneX or OptiInk will import the XML file and extract the external reference to a data file to be processed and the settings contained within it to control how the data file is processed. Note the external reference is not a Hot folder itself, it is just a location where to find the data file to be processed. The other settings may contain a reference to a different workflow name (e.g. A) and if this is present then that workflow and settings will be used instead of the default associated with the hot folder used to import the XML control. The XML may contain some override settings to control some parameters used within the workflow.

## Styles Operation

The handling of xml processing is governed by the following processes and rules that determine which style of operation is used for any file and how it is handled.

- Any xml file dropped into a hot folder is first stabilized and then parsed to determine whether it contains an external file reference.
- If there is no reference then it is potentially used for the Data plus xml style. If an associated data file is found within a time out period then its settings are used as described in section 2.1. Once an XML has been used with its associated job then it is not used again even if a subsequent matching data file arrives. If no data file is found within this period then the xml is deleted and an error logged.
- If there is an external reference within the xml then this is used to create a job using the data file referenced. The scheduler will check for the availability of the referred file and fetch it for subsequent processing using its settings as described in section 2.2 If the file is not available at this point then this is logged as an error. The control XML can have a setting to control whether the source file is deleted or left in place.
- Unmatched workflow name references or known settings errors in the XML files are regarded as fatal errors and will cause the job to abort and be logged

as failed. Settings in the XML file which are unknown to the system will be effectively ignored and not affect processing.

For effective use of the data plus xml into hot folder method, the xml must be placed in the hot folder first before the data file. Otherwise there is a risk that the system will data file will be processed as normal without an xml control and the subsequent recognition of the xml will be ignored.

For effective use of the xml with external reference method, the data file must be in position in its external folder before the xml file is dropped into the hot folder. If not then the xml job may fail and the external file never processed.

External folders used for referenced files must have the right permissions from the application. This must be at least read for fetching the file. Write permission is needed if the xml requests the source to be deleted.

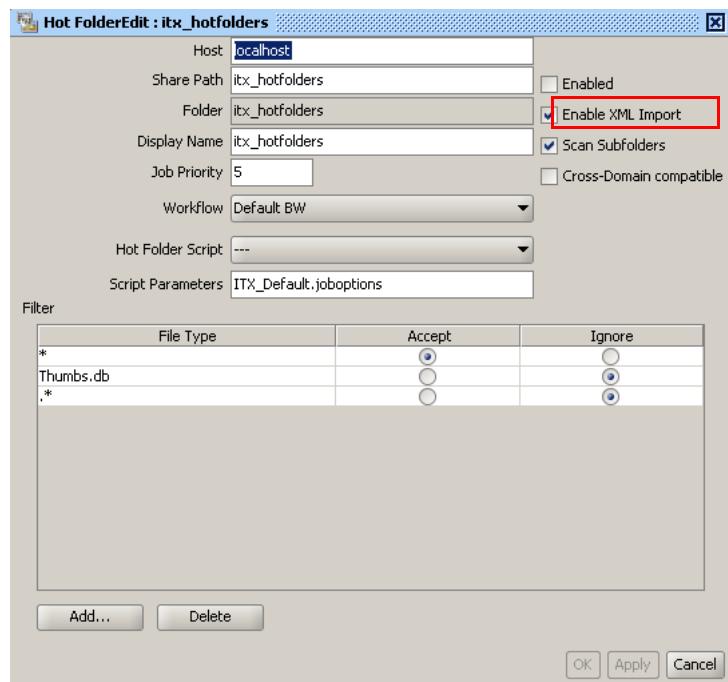
## Multi Job XML Files

The XML files can contain references to multiple job files to allow the creation of several job files from one xml. This will only work for the external data file reference model.

Each job reference in the xml can contain its own unique settings. Any job without an external data file reference will be ignored and logged but will not prevent other valid jobs in the xml from processing as instructed.

## Configuration

The only configuration option associated with XML import is a per hot folder **enable / disable** option. This is set using **Edit Hot Folder Details**.



The only configuration option associated with xml import is a per hot folder enable / disable option.

When this is true then both styles of xml operation are allowed for data entering this hot folder.

When it is false then neither xml operation is allowed for data entering this folder. Any xml files appearing will be logged and deleted.

## Miscellaneous Requirements

XML entered Jobs should behave like standard file entry jobs going through the normal processing sequence and obeying approval settings.

Any job specific workflows created for management purposes should be deleted automatically when the job is deleted or purged.

XML Jobs should be editable using the normal editing facilities starting from the settings dictated by the base workflow with any override settings included in the XML. If a specific workflow has been created for this XML job then this should be retained during editing rather than creating a further edit specific workflow as it does not effect any of the base configured workflows.

Job retries should be allowed which should apply the current workflow settings associated with the job.

## PDF Jobs

The XML workflow method is primarily intended for use with image files not PDF. Where a PDF file is associated with an XML then only the ITScript selection should be applied to select a workflow. The processing parameters should be ignored.

## Logging

Any Job arising from a XML entry should have a Job log item with the xml source file name.

Errors arising from XML processing should be logged. These will include bad XML, missing required parameters, mis-matched workflow names, and Job source data that can't be found or can't be deleted if the XML signals a delete.

## User Interface

XML entered Jobs should look and behave like standard file entry jobs.

Where a workflow name is shown then it should be displayed as Workflow\_JobNumber\_xml where workflow is the base workflow being used as defined in the XML file or by the Hot folder if not present and JobNumber is the internal Job Number.

Any job specific workflows created to hold the job processing characteristics should not appear in the workflow or process tree.

# XML Structure and Processing Features

Also in the Multiple Image Window (choose folder) corresponding XML files will be used to set the crop rectangle, etc. Of course those settings can then still be changed by the user via the normal UI controls. This allows to easily check and debug XML files coming in.

## Structure

Two basic structures of xml are supported. The underlying processing instructions are identical.

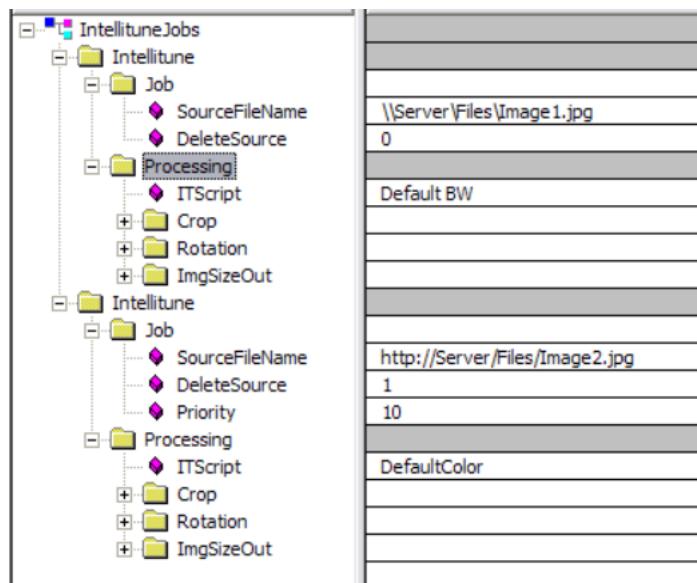
In the first case just the processing instructions are included within a container Intellitune element. This structure is compatible with the existing Mac version and is only appropriate for the data plus xml style of working.

Structure	Values
Intellitune	
Processing	Default BW
ITScript	
Crop	
X Beg	300
Y Beg	200
X End	480
Y End	546
Crop Before Analyse	false
Rotation	
Angle	-90
ImgSizeOut	
Width	1024
Height	768
Resolution	300

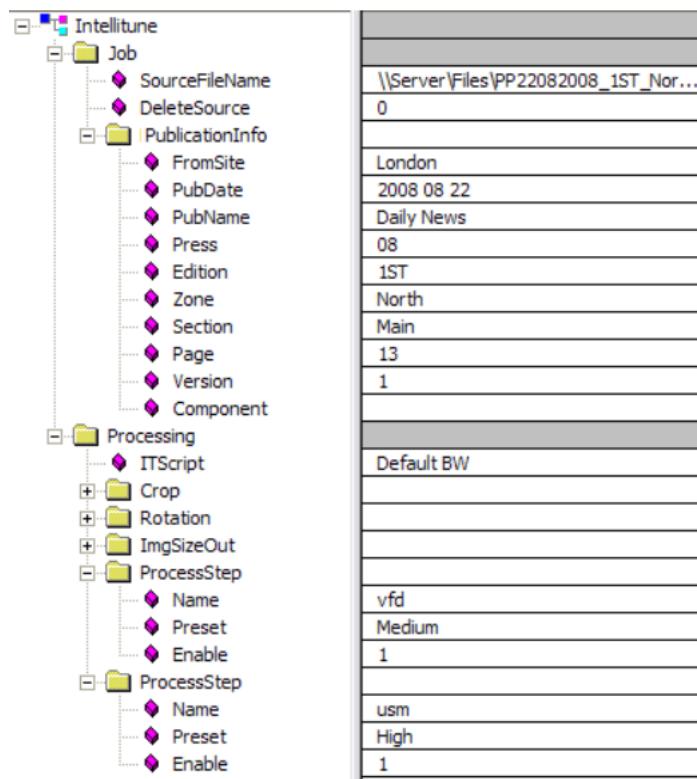
In the second case a job element is included together with the processing instructions defining the source file and extra instructions. This structure is used to define an xml plus externally referenced file style of operation. Both Job and Processing elements are held within an Intellitune block.

Structure	Values
Intellitune	
Job	
SourceFileName	\Server\Files\Image1.jpg
DeleteSource	0
Processing	Default BW
ITScript	
Crop	
X Beg	300
Y Beg	200
X End	480
Y End	546
Crop Before Analyse	false
Rotation	
Angle	-2.1300
ImgSizeOut	
Width	1024
Height	768
Resolution	300

In the third case multiple Intellitune blocks may be held within an Intellitune-Jobs element to allow multiple Jobs to be defined. Each of these must have a Job Element to be valid; i.e., it can only be used in the externally referenced mode. Different Jobs within the xml could refer to the same source file and they will create independent Jobs, but care must then be taken with the DeleteSource option to ensure the source file is not deleted.

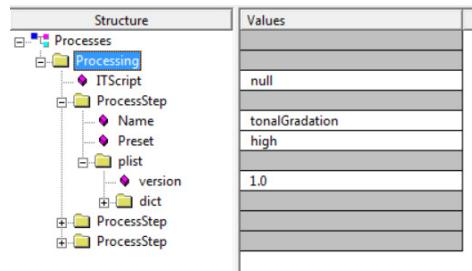


A job with Production ID and ProcessStep definitions would look like this.



## XML Format Extension

The XML Save format allows multiple presets and multiple preset types with appropriate extra identifiers to define what is being saved. A workflow name has been set to Null when there is no associated workflow.



The top level container is called Processes. This can contain one or more Processing elements. Each of these has an attribute called ITScript, which identifies the workflow name, or is set to null if there is no associated workflow name.

Each Processing element can contain one or more ProcessStep elements. These have an attribute Name which identifies the type of ProcessStep, and an attribute Preset which names the particular instance. The ProcessStep then contains a plist element, which contains the settings specific to that ProcessStep. Multiple ProcessSteps of the same Name but different Preset values may be present, as well as ProcessSteps for different types (Names).

Supported ProcessStep Names are preprocess, tonalGradation, castRemoval, usm, cmykUsm, vfd, artifactRemoval, size, selectiveColor, colorManagement, output, gcr, pdf, approve, postProcess, ace, and cmykMinMaxDot.

## Processing Features

Processing settings are contained within the processing element. This element may be completely absent in which case the default workflow and settings associated with the hot folder will be used.

### ■ ITScript (Attribute)

This attribute, if present, should contain the name of a configured workflow. The application will then use this workflow as the basic flow to process this file. If it is present but there is no corresponding workflow defined then this is a fatal job error. If it is not present then the workflow corresponding to the hot folder entry point will be used.

## ■ Crop (Element)

The Crop element, if present, contains attributes that control the cropping process in the application. If no crop element is present then the image is still processed but without cropping.

XBeg, YBeg define the offsets to the first pixel of a rectangular crop. XEnd, YEnd define the last pixel of the rectangular crop. If XEnd, YEnd extend beyond the image then the image boundaries will be used instead. All values must be present and contain numeric values if the crop element is used. If any values are missing or do not contain numeric data then the file is processed without any crop operation and logged that no crop has been used.

CropBeforeAnalyse determines whether the cropping takes place before or after the analysis of the image for enhancement. It can take true / false values. Note that if it is set to true and the crop area is small then there may not be enough image area to perform an effective analysis. If not present then this attribute defaults to false.

Use of this element is now deprecated and the preferred method is to pass the attributes described here via the ProcessStep crop element.

## ■ AnalysisCrop

The AnalysisCrop element is an alternative version of to the Crop Element and is positioned in the same way in the XML. If present, it contains attributes that control the analysis region for processing in the application. No cropping actually is performed and the image is processed using results based on just analyzing the definition region.

It is intended for use in XML jobs where the external system has defined a logical crop region and wants the image processing based on this, but the external system wants back an un-cropped image and will do the physical cropping itself.

Normally there should not be a Crop and an AnalysisCrop element for the same job. If both are present then the Crop element will be ignored in favour of the AnalysisCrop element.

XBeg, YBeg define the offsets to the first pixel of a rectangular analysis region. XEnd, YEnd define the last pixel of the rectangular region. If XEnd, YEnd extend beyond the image then the image boundaries will be used instead. All values must be present and contain numeric values if the AnalysisCrop element is used. If any values are missing or do not contain numeric data then the file is processed without any AnalysisCrop operation and logged that no AnalysisCrop has been used.

Use of this element is now deprecated and the preferred method is to pass the attributes described here via the ProcessStep analysis element.

### ■ Rotation (Element)

This element, if present, contains a single attribute Angle. This can contain a floating point rotation angle from -180 to + 180. "." Must be used for the decimal point not ",". Note that this is retained for backwards compatibility.

Use of this element is now deprecated and the preferred method is to pass the attributes described here via the ProcessStep rotate element.

### ■ ImgSizeOut (Element)

This element, if present, controls the sizing of the output image. It is now deprecated and the preferred method is to pass the attributes described here via the ProcessStep size element.

The ImgSizeOut element, if present, contains attributes that determine the sizing of the output file. Width and Height, Resolution attributes set the size and resolution of the final output image. Resolution is expressed in dpi. If the Value is not present in the XML then the value associated with the underlying workflow should be used (ITScript if present or Default Folder workflow if not).

Optionally a Unit attribute can determine the units Width and Height are expressed in. If Unit is not present or does not have a value of "mm" or "in" then Width and Height are in Pixels. If Unit is present then it can have a value of "mm" or "cm" or "in", or "pt" then Width and Height are in those units and should be converted to pixels using the Resolution value. If Unit is defined as one of the supported values, and no Resolution is available either from the XML or underlying workflow, then this is an error. If Unit is not recognized or is not present then pixels is assumed.

The attributes may be present in the following combinations, where Width and Height must both be present if one is, and Unit is effectively not present if it has a value other than one of the defined values.

Width/Height	Resolution	Unit	Comment
-	-	-	Meaningless, Ignore ImgSizeOut
✓	-	-	Width and Height in Pixels, Use Resolution from workflow to set output Resolution
-	✓	-	Do not set size, use XML Resolution to set output Resolution
✓	✓	-	Width and Height in Pixels, Use XML Resolution to set output
-	-	✓	Meaningless, Ignore ImgSizeOut
✓	-	✓	Translate Width/Height to Pixels using Unit and Resolution from workflow and use that to set output resolution
-	✓	✓	Do not set size, use XML Resolution to set output. (Unit is ignored)
✓	✓	✓	Translate Width/Height to Pixels using Unit and XML Resolution and use that to set output resolution

## ■ Process Step Presets

In addition to the Crop, Rotate and ImgSizeOut Elements there may optionally be ProcessStep elements for the available process steps available in a workflow.

If an element is present then it is may be used to select a named 'preset' set of parameters for this process step and enable/disable the processing step within the workflow. It is legitimate to not define the 'preset' and just enable/disable the existing process step. It is legitimate to just define the preset which will then be enabled or disabled as defined by the preset itself.

If the processing step is already defined within the nominated workflow then the element changes the preset parameters used when performing it. If the processing step is not already defined within the workflow then it is added with the preset parameters.

Crop, Rotate and ImgSize elements in the xml job definitions are applied after any process steps are selected by the xml job definition.

Each Element can contain three main attributes and a number of attribute parameter overrides. PostProcess can also add elements defining additional PostProcess steps

- Name - The name of a supported Process step
- Enable - An optional attribute with a value 0 (disabled) or 1 enabled. Note that some ProcessSteps have several underlying functions without a

global enable. In this case Enable means use the functions as defined and disable means disable or remove all of them.

- Preset - An optional attribute containing the name of a preset which exists within the configuration of the server.
- Overrides - These are named attributes which can override the value of a specific value in the process step

Process step elements which have a Name that is not one of the supported steps or a Preset that does not match an existing configured item in the server for that Process step are ignored but logged as a warning.

Supported Process Step Names together with supported attribute overrides are defined in the following table. In particular, note select is not an allowable process step name. The Mac and PC columns show the current status of what is supported in Mac Intellitune 5 and PC IntelliTuneX.

Process Step	Attributes / Elements	MAC	PC
preProcess	Name, Preset, Enabled		✓
tonalGradation	Name, Preset, Enabled	✓	✓
castRemoval	Name, Preset, Enabled	✓	✓
usm	Name, Preset, Enabled	✓	✓
cmykUsm	Name, Preset, Enabled	✓	✓
vfd	Name, Preset, Enabled		✓
artifactRemoval	Name, Preset, Enabled	✓	✓
size	Name, Preset, Enabled		✓
	Height, Width (Pixels if Unit not defined as mm or in)		
	Unit (mm or in)		
	Resolution (dpi)		
selectiveColor	Name, Preset, Enabled	✓	✓
colorManagement	Name, Preset, Enabled		✓
output	Name, Preset, Enabled	✓	✓
	Type (same_as_original, tiff, jpg, eps)	✓	
	CompressionType (none, jpg, lzw)	✓	
	CompressionQuality (0 – 100)	✓	
	EmbedProfile (0, 1)	✓	
	SaveIPTC (false, true)	✓	
	SaveExifAndXMP (false, true)	✓	
gcr	Preview (0, 1 [tiff preview])	✓	
	Name, Preset, Enabled	✓	✓
pdf	Name, Preset, Enabled		✓
approve	Name, Preset, Enabled		✓
postProcess	Name, Preset, Enabled, Operation (Element)		✓
ace	Name, Preset, Enabled	✓	
rotate	Name, Preset, Enabled		
	Angle (0 – 360)		
	MirrorHorizontal, MirrorVertical (true, false)		
crop	XBeg, Ybeg, Xend, YEnd (pixel definitions of Crop area)		
	CropBeforeAnalyse		
analysis	XBeg, Ybeg, Xend, YEnd (pixel definitions of analysis area)		

#### ■ PostProcess Operation Elements

The PostProcess ProcessStep element can contain one or more "Operation" elements which define additional Operation PostProcess steps which will be added on to the end of those that exist in the named PostProcess operation. Note that the named PostProcess step must exist. If it is desired to control all operations from the XML then a named PostProcess step with just a Do Nothing operation should be used.

Each Operation element can have the following attributes:

- Index (mandatory) - controls the order in which the operations will be performed after any existing ones. Starts at 1 and increments for successive operations.
- Name (mandatory) - controls the type of Operation (Case Sensitive); "CreateJobFromSource"; "CreateJobFromResult"; "CopySourceToFolder"; "CopyResultToFolder"; "MoveResultToFolder"; "ErrorRetry"; "Script"; "DeleteSource"; "DeleteResult"; "Purge"; "PhotoshopOpenSave";
- OutPath - Needed for CopySourceToFolder, CopyResultToFolder, MoveResultToFolder. Can be defined in File URL or PC UNC format.
- OutFileName (Optional) - If present then controls the name of the output file for operations creating files. If absent then the internally controlled filename is used.
- ITScript - Needed for CreateJobFromSource, CreateJobFromResult, ErrorRetry, must be Name of existing defined Workflow (Case Sensitive)
- ScriptName - Needed for Script, must be Name of a vbs script present in the \_scripts folder

Attributes that are present but irrelevant to the Operation defined should just be ignored.

## Job Definition Features

Job definition is contained within the Job element. If this element is missing then it is assumed that the xml is for use within a data plus xml style of working.

### ■ SourceFileName (Attribute)

This attribute must be present for the Job to be valid. Three styles of reference may be used

File URL - SourceFileName=" file://Server/Folder/Image1.jpg"

PC UNC - SourceFileName="\\Server\Folder\Image.jpg"

HTTP URL - SourceFileName="http://Server/Folder/Image1.jpg"

File URL will give better portability across platform types.

The PC UNC style is only supported on PC platforms but may include PC mapped drive references.

File and HTTP URLs may be Case sensitive in the non-server part of the reference depending on the platforms in use.

This attribute must be present for the Job to be valid. It may contain either a fully qualified UNC reference to the source file to be used, or an http reference. PC mapped drive references may also be used. IntelliTuneX must have the requisite permissions to access the file. An example of a UNC reference would be `SourceFileName="\\Server\Folder\Image.jpg"`. An example of an http reference would be `SourceFileName = "http://Server/Folder/Image1.jpg"`.

---

**NOTE:** The UNC fetch of the SourceFileName should work even when the case of the actual filename is different; e.g., for the example, above the actual filename may be `\\SERVER\\FOLDER\\IMAGE.jpg`. For http fetch, the case sensitivity will be determined by the characteristics of the Web server.

---

- **DeleteSource (Attribute)**

This optional attribute determines what happens to FILE URL or PC UNC or Drive mapped Source files after being processed. It defaults to 0 (false) if not present. If 1 (true) then the Source file is deleted when the file has been accepted by the system irrespective of whether the job succeeds or fails. If 0 then the Source file is left in its original position. If the file is referenced by an http connection then this attribute is ignored and the file is left alone.

- **Priority (Attribute)**

This optional attribute determines the priority of the Job when processed. It defaults to the standard Priority associated with the folder when not present.

- **PublicationInfo (Element)**

This optional element within a Job element contains identification of the use of the file within a production environment. It does not change the processing of the file in any way but the application may use this information for reporting back to external workflow systems. For example, OptiInk would include this information in XML Ink Save reports.

**FromSite** - An Attribute containing the site where this publication info originates from

**PubDate** - An Attribute containing the publication date in yyyy mm dd format

**PubName** - An Attribute containing the publication name

**Press** - An Attribute containing the press name

**Edition** - An Attribute containing the edition name

**Zone** - An Attribute containing the zone name

**Section** - An Attribute containing the section name

**Page** - An attribute containing the page name

**Component** - Attribute containing a reference to a sub-page element. Blank or missing if the object is a page.

**Version** - An attribute containing the version of the component

**Comment** - An attribute containing a comment on this object

## Example XML Files

### *Data and XML example*

```
<?xml version="1.0" encoding="UTF-8"?>
<Intellitune>
  <Processing ITScript="Default BW">
    <Crop XBegin="300" YBegin="200" XEnd="480" YEnd="546" CropBeforeAnalyse="false"/>
    <Rotation Angle="-2.1300"/>
    <ImgSizeOut Width="1024" Height="768" Resolution="300"/>
  </Processing>
</Intellitune>
```

### *XML with referred data example*

```
<?xml version="1.0" encoding="UTF-8"?>
<Intellitune>
  <Job SourceFileName="\Server\Files\Image1.jpg" DeleteSource="0"/>
  <Processing ITScript="Default BW">
    <Crop XBegin="300" YBegin="200" XEnd="480" YEnd="546" CropBeforeAnalyse="false"/>
    <Rotation Angle="-2.1300"/>
    <ImgSizeOut Width="1024" Height="768" Resolution="300"/>
  </Processing>
</Intellitune>
```

### *Multifile XML data example*

```
<?xml version="1.0" encoding="UTF-8"?>
<IntellituneJobs>
  <Intellitune>
    <Job SourceFileName="\Server\Files\Image1.jpg" DeleteSource="0"/>
    <Processing ITScript="Default BW">
      <Crop XBegin="300" YBegin="200" XEnd="480" YEnd="546" CropBeforeAnalyse="false"/>
      <Rotation Angle="-2.1300"/>
      <ImgSizeOut Width="1024" Height="768" Resolution="300"/>
    </Processing>
  </Intellitune>
  <Intellitune>
    <Job SourceFileName="\Server\Files\Image2.jpg" DeleteSource="1"/>
    <Processing ITScript="DefaultColor">
      <Crop XBegin="300" YBegin="200" XEnd="480" YEnd="546" CropBeforeAnalyse="false"/>
      <Rotation Angle="-2.1300"/>
      <ImgSizeOut Width="1024" Height="768" Resolution="300"/>
    </Processing>
  </Intellitune>
</IntellituneJobs>
```

### *XML with PublicationInfo and Process step presets*

```
<?xml version="1.0" encoding="UTF-8"?>
<Intellitune>
  <Job SourceFileName="\Server\Files\PP22082008_1ST_North_Main_13.pdf" DeleteSource="0">
    <PublicationInfo FromSite="London" PubDate="2008 08 22" PubName="Daily News" Press="08"
      Edition="1ST" Zone="North" Section="Main" Page="13" Version="1" Component="">
      Comment="Test Page">
    <Job>
      <Processing ITScript="Default BW">
        <Crop XBegin="300" YBegin="200" XEnd="480" YEnd="546" CropBeforeAnalyse="false"/>
        <Rotation Angle="-2.1300"/>
        <ImgSizeOut Width="1024" Height="768" Resolution="300"/>
        <ProcessStep Name="vfd" Preset="Medium" Enable="1"/>
        <ProcessStep Name="usm" Preset="High" Enable="1"/>
      </Processing>
    </Job>
  </Job>
</Intellitune>
```

---

**NOTE:** Xml names and image filenames must be compared in a case insensitive fashion so that, for example, iMaGe1.jpg is associated with ImAgE1.xml.

---

If no corresponding xml file is found, then processing will continue as normal using the steps and parameters normally configured (e.g., workflow B).

If a corresponding xml file is found, then it will be imported and the settings contained within it will then control how the data file is processed. Firstly, it may contain a reference to a different workflow name (e.g., A); and if this is present, then that workflow and settings will be used instead of the default associated

with the folder. Secondly, the XML may contain some override settings to control some parameters used within the workflow.

If a Mac compatibility XML is detected and no corresponding data file is found within 1 minute, then the file should be ignored.

If a Mac compatibility XML is detected but has errors, then the corresponding data file should be picked up if present and placed in the error state.

# CSV Events

This appendix lists CSV events.

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# CSV Events

Event	Message
26001	Exception getting initial context: {0}
26002	Exception while trying to get DS connection
26003	Unsupported encoding error purging {0}
26004	Error purging {0}
26005	Edit
26006	OK (Changed)
26007	Cancel
26008	Abort
26009	Hold
26010	Release
26011	Job Expired
26012	Reject
26013	Purge
26014	Start Processing
26015	Processing Complete
26016	Processing Failed
26017	Processing Complete With Warning
26018	OK (No Change)
26019	Retry
26020	Failed to load {0}
26021	Failed to load {0}, {1}
26022	Failed to extract images from PDF file, message: {0}
26023	Failed to process PDF file, message: {0}
26024	Failed to restore images to PDF file, message: {0}
26025	Failed to extract PDF metadata, message: {0}
26026	Failed to wrap TIFF file, message: {0}
26027	Unsupported Job Filter field: {0}
26028	Unsupported Job Sort field: {0}
26029	Failed to create SHA digest
26030	User already exists
26031	User {0} already exists
26032	Unknown user (or invalid password)
26033	Unknown user {0} (or invalid password)
26034	Incoming
26035	Held for Select
26036	Waiting

26037	Held
26038	Active
26039	Held for Approval
26040	Completed
26041	Failed
26042	Purged
26043	Created job
26044	Moved job to Arrived state
26045	Job failed while incoming, job moved to Purged state
26046	Processing {0} to {1}
26047	Job aborted by user
26048	Failed to process job
26049	Failed to read item from database, ignoring it
26050	Failed to read {0} from database
26051	Unexpected transition {0} requested in state {1}
26052	Scheduler version {0} started on {1}
26053	Processor version {0} started on {1}
26054	License Expired
26055	No source file details found for job
26056	Image job {0}, child of this PDF job has failed, failing PDF job
26057	Unsatifield link - missing Medusa DLL's
26058	Unexpected Throwables caught - missing Medusa DLL's
26059	Thumb creation failed
26060	Failed to get parameters for {0}
26061	Output rejected, performing automatic reject actions
26062	Job {0} was deleted, but job files might not have been successfully removed
26063	Processor communication failed
26064	PDF is encrypted and does not have modification permissions set
26065	PDF is pre-separated
26066	Unsupported image type found in PDF job, the image will not be processed
26067	Unsupported image file format found in PDF job, the image will not be processed
26068	Logo or gradient detected
26069	Logo or gradient detected, will not be processed
26070	Failed to parse EXIF data, {0}
26071	Unrecognised tag type {0} in EXIF data
26072	Failed to parse IPTC data, {0}
26073	Preflight failed for image {0}
26074	Failed to create medusa parameter file

26075	Processed job in {0} s
26076	Failed to locate database backup area, possibly incorrect entry in server configuration: {0}
26077	Invalid input file {0}
26078	Invalid output file {0}
26079	Source and destination are the same {0}
26080	Output file type not found, defaulting to tiff
26081	Failed to get parameters for image {0}, failed to get jni instance
26082	Failed to get parameters for image {0}, error {1}
26083	Image type is not supported
26084	Image format {0} is not supported
26085	Failed to get capabilities for file format {0}, error {1}
26086	Save EXIF required but not supported by file format
26087	Save IPTC required but not supported by file format
26088	Embedded profile required but not supported by file format
26089	16 bit output required but not supported by file format, defaulting to 8 bit output
26090	No working space profile defined
26091	Working space profile {0} cannot be found
26092	Output profile {0} cannot be found
26093	Input RGB profile {0} cannot be found
26094	Image is CMYK but no CMYK input profile defined
26095	Input CMYK profile {0} cannot be found
26096	Received abort message
26097	Aborting job
26098	Failed to created backup ZIP file, no database backup performed
26099	Item {0} not found in database
26100	Copying {0} to {1}
26101	Failed to copy {0} to {1}
26102	Folder does not exist: {0}
26103	lattened image found in PDF
26104	Logo or gradient found in PDF
26105	Overlapping images found in PDF
26106	Bad embedded profiles found in PDF
26107	Spot colors not found in PDF
26108	Extracting images from PDF file
26109	Extracted {0} images for processing
26110	Processing failed due to error in PDF
26111	Exception reading pdf parameters
26112	PDF file is encrypted, copying to destination

26113	Failed to copy encrypted PDF file
26114	Timing message {0}
26115	Cannot delete workflow item while it is still in use
26116	Processor is shutting down
26117	Scheduler is shutting down
26118	Scanner is shutting down
26119	No file actions specified
26120	ImageProcess failed, returned error {0}
26121	PDF job had too many images, the job was passed through unprocessed
26122	Failed to copy file {0} to {1}
26123	Failed to read settings approval settings, approval disabled
26124	There are {0} jobs older than {1} and eligible for automatic deletion
26125	{0} jobs have been queued for automatic deletion
26126	{0} log messages older than {1} have been deleted
26127	Processor received message {0}
26128	Sent message {0} to processor {1}
26129	Performing file processing operation: {0}
26130	Check Point {0}
26131	Bad_url {0}
26132	failed to add invalid folder {0}
26133	failed to resolve folder path {0}
26134	failed to create folder {0}
26135	folder setup succeded {0}
26136	deleted folder {0}
26137	Failed to create cache folder {0}
26138	Failed to move {0} to job cache
26139	scanner notified completed file {0}
26140	Scanner failed to notify completed file {0}
26141	Exception trying to notify completed file {0}
26142	Scanner notified incoming file {0}
26143	Scanner failed to notify incoming file {0}
26144	Scanner notified aborted file {0}
26145	Scanner failed to notify aborted file {0}
26146	Scanner version {0} started
26147	scanner aborted transfer of {0}
26148	Scanner configuration error, invalid root data
26149	Scanner received Start command
26150	Scanner received Stop command
26151	Scanner received Setup command

26152	Scanner configuration error, bad hot folder structure
26153	Scanner cleaning up unconfigured folders
26154	Some unconfigured hot folders are still populated
26155	Some unconfigured job cache folders are still populated
26156	Scanner configuration successful for share {0}
26157	Scanner completed Setup command
26158	Scanner received Status command
26159	Scanner configuration error, invalid root path
26160	Scanner configuration error, root folder does not exist
26161	scanner failed to create job cache
26162	Failed to process pdf, failed to parse parameter
26163	Failed to process pdf, initialization error
26164	Failed to process pdf, open file error
26165	Failed to process pdf, process aborted
26166	Failed to process pdf, processing error
26167	Failed to process pdf, file save error
26168	Failed to process pdf, encrypted file
26169	Failed to process pdf, missing spot colors
26170	Failed to process pdf
26171	Spot color {0} not found
26172	Number of images in document has exceeded limit
26173	Failed to copy file to filestore
26174	Failed to read pdf parameters
26175	Failed to extract images from pdf
26176	Failed to create pdf thumbnail
26177	Could not load properties file
26178	Collect completed in {0} seconds
26179	Failed to send email to {0} via smtp host {1}, NoSuchProviderException
26180	Failed to send email to {0} via smtp host {1}, MessagingException
26181	Failed to send email to {0} via smtp host {1}, UnsupportedEncodingException
26182	To use Alert On Error, please set up the SMTP server and email address in System Preferences
26183	Sent error report email to {0} via smtp host {1}
26184	Invalid processor license
26185	Invalid product license
26186	Invalid server license
26187	Invalid Client license
26188	Invalid PDF license
26189	Invalid PDF text/vector processing license

26190	Invalid Spot color processing license
26191	Invalid SISR processing license
26192	Invalid GCR processing license
26193	Invalid image processing license
26194	Invalid license options
26195	failed to send license request
26196	failed to acquire license
26197	invalid license, retrying
26198	Failed to acquire valid processor license
26199	invalid reply to license request
26200	The file is not PDF format
26201	Processor status message {0} arrived for job {1}
26202	Error sending email: {0}
26203	Error writing color processing parameters {0}
26204	Error writing pdf processing parameters {0}
26205	Performing Ink Savings Calculation using CR={0}
26206	Ink Savings Calculation failed ({0})
26207	Failed to create PDF filestore
26208	Failed to collate image parameters
26209	Failed to read processed data results {0}
26210	Failed to find workflow {0} to process {1} images, using default
26211	Grace period expired
26212	Invalid dongle
26213	Invalid encryption
26214	Invalid hardware key
26215	Invalid license file
26216	Invalid license file generation date
26217	Invalid license file type
26218	Invalid version
26219	License checked out
26220	License checked out in grace period
26221	License checked out trial
26222	Sales License expired
26223	Trial License expired
26224	No entry in license file
26225	No license available
26226	No license server found
26227	License state is undefined
26228	Valid license

26229	No license file loaded
26230	Unknown state
26231	Source image not found in filestore, possibly due to failed Collect operation. The job must be resubmitted.
26232	TimeLogger: {0} took longer than expected, {1} seconds
26233	Deleting orphaned {0} item id {1}
26243	Scanner configuration error, share {0} cannot be found
26235	Deleting orphaned file {0}
26236	Scanner configuration failed for share {0}
26237	Output profile has not been specified
26238	CMYK input profile has not been specified
26239	RGB input profile has not been specified, working space profile will be used
26240	Input file {0} has zero length
26241	Scheduler is shutting down, could not load database
26242	Resize is greater than maximum scale factor {0}
26243	Can't delete temp dir [{0}]
26244	temp dir [{0}] existed
26245	temp dir [{0}] created
26246	temp dir [{0}] used
26247	validateAllLicenses failed
26248	validateAllLicenses succeeded
26249	ReleaseOldLicenses succeeded
26250	ReleaseOldLicenses failed
26251	Licenses in pseudo-grace
26252	Can't delete profile cache [{0}]
26253	Viewing(held)
26254	Editing(held)
26255	Viewing
26256	JobLogWrite jobID [{0}]
26257	JobLogWrite message sent {0}
26258	JobLogWrite message received {0}
26259	Checking for log write conditions {0}
26260	JobLogWrite file path formed {0}
26261	HandleMessage handling {0}
26262	JobLogWrite log msg [{0}]
26263	Job failed because no workflow available
26264	XML import not enabled in hotfolder [{0}], File {1} is deleted
26265	Missed Job element in multifile XML import file [{0}]
26266	No data file found for imported XML file [{0}] within {1} minutes

26267	One or more Licenses is invalid
26268	no licenses loaded
26269	license service is not responding
26270	Restart now
26271	license service failed
26272	license service needs restart
26273	license service is responding
26274	checking license service
26275	license service restarted
26276	failed to restart license service
26277	restart license service
26278	license info
26279	OK (Changed, PreApproved)
26280	Can't save workflow [{0}] to job
26281	Job state change failed in XML import
26282	Job is going to be processed by {0}.xml
26283	Job failed because ImportXMLException:{0}
26284	Job source data can not be deleted
26285	Job source data not deleted because file is not writable
26286	Tiff creation failed
26287	Ink Calculation failed
26288	No resolution for mm/inch unit
26289	Import XML error: ImportXMLException:{0}
26290	Failed to render PDF to Tiff
26291	Skipped making thumbnail
26292	Created PDF from PostScript input
26293	Distiller error while creating PDF
26294	Ink Saving XML export failed
26295	Ink Saving XML export failed because [{0}] is not a directory
26296	Ink Saving XML export failed because can't create the directory [{0}]
26297	Ink Saving XML export failed because source/result tiff not exist
26298	no network
26299	resolving share host[{0}], shareName[{1}]
26300	failed to resolve share
26301	URLtoNative, URL[{0}]->result[{1}]
26302	Can't save approved name [{0}] to job
26303	Failed to release Processor License
26304	Failed to get license parameters
26305	Failed to get Client license

26306	Failed to release Client License
26307	Failed to check out server license {0}
26308	Failed to connect to License Service
26309	Hot Folder Script failed for file {0}
26310	User login validated. Machine: {0}, Username: {1}, User level:{2}
26311	User login not valid. Machine: {0}, Username: {1}
26312	User logout. Machine: {0}, Username: {1}
26313	User disconnected due to timeout. Machine: {0}, Username: {1}
26314	Processor license checked out. Machine: {0}
26315	Processor license checked in. Machine: {0}
26316	Processor license timed out. Machine: {0}
26317	ImageProcess failed because itprocessor timed out after {0} seconds
26318	Item {0}, type {1} not found in database
26319	Exception close context
26320	Extracting images from EPS file {0} to {1}
26321	Moving {0} to {1}
26322	Invalid ACE processing license
26323	Reprocess job {0}
26324	Job state change failed in Reprocess
26325	TPDFProcess failed because itpdfprocessor timed out after {0} seconds
26326	Job Source File Opened in Photoshop by User: {0}
26327	Job Result File Opened in Photoshop by User: {0}
26328	New Job Source File Submitted via Photoshop by User: {0}
26329	New Job Result File Submitted and Approved via Photoshop by User: {0}
26330	New Job Result File Submitted for Postprocessing via Photoshop by User: {0}
26331	Job Aborted By User {0}
26332	Job Rejected By User {0}
26333	Job Approved By User {0}
26334	Assigned license to processor hostid: {0} processor id: {1}
26335	Valid license for processor hostid: {0} processor id: {1}
26336	Invalid license for processor hostid: {0} processor id: {1}
26337	Failed to get license for processor hostid: {0} processor id: {1}
26338	Invalid hostid for processor hostid: {0} processor id: {1}
26339	Purge process started ; found {0} jobs to be purged
26340	Purge process ended ; purged {0} jobs
26341	Purge job
26342	Auto Expire job
26343	Job delete requested by User: {0}
26344	Job input parameters {0}

26345	Job output parameters {0}
26346	Job ink parameters {0}
26347	Thumb creation completed in {0} seconds
26348	Ink calculation completed in {0} seconds
26349	FileSync started from {0} to {1}
26350	FileSync ended. Deleted={0}; Added={1}; Updated={2}
26351	Scheduler received shutdown
26352	Scheduler releasing License
26353	Licensing in Grace!!!
26354	Purging {0}
26355	Purge Thread started
26356	Changing state from {0} to {1}
26357	Licensing recovered from Grace
26358	Ink Saving TXT export failed because [{0}] is not a directory
26359	Ink Saving TXT export failed because can't create the directory [{0}]
26360	Failed to rename XML Status file
26361	Failed to rename XML Status file
26362	Recovered from pseudo-grace
26363	PostProcess completed in {0} seconds
26364	Total process time {0} seconds





# External PDF Rendering

This appendix describes external PDF Rendering.

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# External PDF Rendering

By default IntelliTuneX will use an in-built PDF render library to produce the soft-proof images needed for viewing jobs and obtaining thumbnails, and also when performing ink cost saving calculations.

IntelliTuneX also supports the use of external PDF rendering tools instead of the in-built libraries. These may be useful under some circumstances. Some external renderers will perform better / faster for some PDF constructs than the in-built version. Some customers may wish to use the same Render mechanism that they will use for RIPping the final PDFs to ensure that the result they view is identical to the end result.

## External Render Mechanisms

Three different External Render mechanisms are supported: Ghostscript, Grafix RIP, and Other third party RIPs supporting folder-based job submissions with page setups associated with the folders.

IntelliTuneX needs to render PDF files to CMYK or RGB composite images under some circumstances. The performance is optimized by only rendering when configured or necessary. So by default in IntelliTuneX with Output settings set to Max Speed and no thumbnails, then no rendering is done during normal job processing. Rendering will, however, be done when either a Job is opened for viewing, if thumbnails are desired, or if Ink Reporting is configured.

By default all PDF rendering is done by the internal PDF processing libraries. A system Preference setting "Use External Rendering" together with an associated parameter box allow all rendering to be done by an external process.

To maximize flexibility in how External Rendering is done, the process is actually controlled by a script called RipRenderTiff.vbs. A default version of this script is in the code folder; but the working copy is kept under the filestore in the \_scripts folder. When External Rendering is turned on, then every time a render operation is required, this script will be called with the following parameters:

- Source file path - This is the full path to the source PDF file to be rendered.
- Result file Path - This is the full path to the result TIFF file, which should be created by the rendering process.
- Parameters - This is the parameter string as configured by System Preferences. It may be used in different ways by the script.
- DPI - This is the suggested resolution at which the rendering operation should be done. This renderer may choose to do the operation at a number of presets nearest to the requested value.

- **ColorSpace** - This is the needed colorspace of the TIFF file, and may take the value RGB or CMYK.
- **TimeOut** - This is a timeout value in seconds for the rendering operation as configured in System Preferences. The script should monitor the rendering process and abort if this time is exceeded.

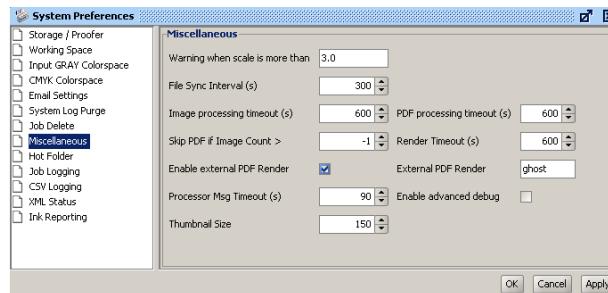
The default script as supplied supports rendering using the public Ghostscript engine, or by using folder-based RIPS, including Grafix RIP. An install script is available for setting up the folder-based RIPS and for the Grafix RIP. All necessary RIP configuration work is also performed.

## Logging

The RIPRender script has an optional logging operation. This is invoked by just creating an empty log file called **RIPRenderLog.txt**. Logging is stopped by removing the log file. If the log file becomes very large, it will roll-over into a backup log; and a new one will be started. Only one backup log is kept, but this will normally hold quite a significant history of operation.

Normally one would not need logs from the script, but it can be useful to turn this on if there is any unexpected behavior, or when testing a new or amended version of the script.

The IntelliTuneX system is set up to use Ghostscript by enabling **External Render** under **System Preferences/Miscellaneous**, and putting the word **ghost** in the parameter box.



The Render timeout value may also be changed, if required.

On the IntelliTuneX system, enable the External Render process; and then type in the path to the RIP share in the parameters box, e.g., `\\\RipHost\RenderIn\`.

## GrafixRIP Rendering

This default render script supports the use of GhostScript as a render engine by using hot folder inputs on the RIP with associated Page Setups.

By default the script partitions Render requests into three resolution categories (50,100,150 dpi), and two colorspace (RGB, CMYK). So six different input folders are used, and these are set up to perform the required render. All inputs are set up to deliver their results into a common output folder.

The Input folders are named as RIP\_RES\_CS (e.g., RIP\_50\_CMYK). The output folder is called RIP\_OUT. These should all be under a common Rendering root. Two other folders (RIP\_COMPLETE and RIP\_ERROR) are also created for internal GRAFIX RIP usage.

## Set Up

An ExternalRIP\_Install script is available, which will create the appropriate folder structure, configure the Grafix RIP appropriately, and publish a share to allow the RenderScript to connect to the RIP.

This install script will create the input and output folders in a folder called **RenderIn** under the normal Grafix RIP install point, and publish this as share called **RenderIn**.

To perform the install, unzip the ExternalRender\_Install package into any convenient folder on the RIP platform. Double-click the script to start it, and navigate using the folder browser that appears to the root of the Grafix RIP install.

Click Open, and the script will create the necessary folder structures and configure the RIP to use this.

The Render script will now direct the PDFs to the appropriate Grafix Input, and collect the resulting file for use in the system.

## Third Party

Third party RIPS may be used in a similar way to the Grafix RIP as described using hot folder inputs and outputs.

By default the script partitions Render requests into three resolution categories (50,100,150 dpi) and two colorspace (RGB, CMYK). So six different input folders are used, and these are set up to perform the required render. All inputs are set up to deliver their results into a common output folder.

The Input folders are named as RIP\_RES\_CS (e.g., RIP\_50\_CMYK). The output folder is called RIP\_OUT. These should all be under a common Rendering root. Two other folders (RIP\_COMPLETE and RIP\_ERROR) are also created, which may be needed for internal RIP usage.

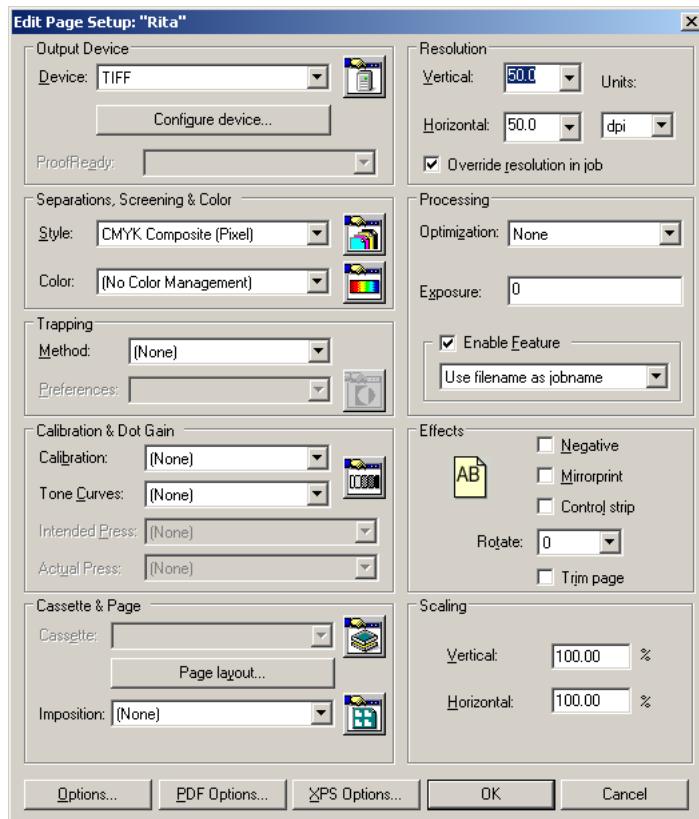
## Set Up

The same ExternalRIP\_Install package may be used to perform part of the setup for Third party RIPs. It will create and share the folder structure as before; but when it detects that this is not a Grafix RIP, then it terminates. The rest of the RIP set up to define appropriate configurations must be done separately.

As an example, this is shown here for a Grafix RIP, but it is emphasized this will vary from RIP to RIP. For the case of the Grafix RIP, this manual procedure is NOT required, as it will be done automatically by the install script.

## Example Page Setup

Each Input hot folder needs some sort of associated Page Setup configuring the resolution and colorspace and format of the render operation. It also needs to control the output name so that it at least contains the input filename. For the Grafix RIP this looks like the following:



Where the resolution has been set at 50.0 to match the input folder, the color-space has been set to CMYK composite. A TIFF output device has been chosen, as the output is named the same as the input.

### **Example device configuration**

If a device set up is used that controls the detailed formatting, then it may need to be configured. The example here is from Grafix RIP. This controls the output folder used, and details of the formatting of the output file.

### **Example device configuration**

The inputs of the RIP may need to be set up to associate Page Setups with the actual Input folders. The example here is from the Grafix RIP.

### **IntelliTuneX Setup**

On the IntelliTuneX system enable the External Render process, and then type in the path to the RIP share in the parameters box, e.g., \\RipHost\RenderIn\.

The Render script will now direct the PDFs to the appropriate Grafix Input, and collect the resulting file for use in the system.

# IntelliTuneX / OptiInk Scripting

This appendix describes scripting used in IntelliTuneX and OptiInk.

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# Overview

This appendix describes the various scripting mechanisms present in OptiInk and IntelliTuneX and how to use them.

- Hot folder conversion scripting (PS to PDF)
- Image editing scripting (PhotoShop)
- General PostProcess scripting
- PhotoShop Open Save scripting
- MoveByScript scripting
- Tips on writing, editing and testing scripts.

## General

There are several scripting hooks used in OptiInk and IntelliTuneX. These are provided to allow both flexible extension of some built in functionality and also adding new functionality such as conversion of data both coming into the main product and as files are sent to the output.

The script hooks are provided at various places in the workflow and are called as jobs are processed or edited. The main programs will call out to the script and include a number of command line parameters to allow the script to do its work. In general the application will suspend further processing of the particular job until the script has completed so script operations should be kept as short as possible.

Scripts are expected to be written in Visual Basic scripting (.vbs). These may in turn call upon other system and processing resources as required. When they terminate they return an exit code which will normally be used to indicate just simple success or failure. Scripts may be edited or written using any text editor like Notepad.

Some script hooks have provided and installed default script actions. These will normally be placed in the code folder and can be identified as being named like Scriptname\_default.vbs. When these scripts are first used then the default will be copied to the \_scripts folder in the filestore folder with the \_default part of the name removed. This copy will only occur if there is not already a script of that name in the \_scripts folder. This means that the script may be edited or replaced in the \_scripts folder and will be retained during re-installs or upgrades. If you wish to change a script then it is best to do this on the copy in the \_scripts folder. You can always revert to the default version by deleting or moving the copy out of the \_scripts folder.

Any new scripts should also be placed in the \_scripts folder of the Primary server. The \_scripts folder will also be periodically synchronized to the Secondary server if one is present.

One script hook is client based and this script will be executed out of the client's code folder rather than the \_scripts folder. This does allow different versions on different client machines but also means that it is the responsibility of the installation engineer to restore any modified scripts after a re-installation or upgrade if the whole code folder has been deleted. Normal uninstall or upgrades will leave edited scripts in place.

## Script Logging

Most of the existing scripts have an optional logging operation. Where present this is invoked by just creating an empty log file specified at the start of the script. For example the MoveByScript.vbs can optionally write to a MoveBy-ScriptLog.txt file. Logging is stopped by removing the log file. If the log file becomes very large it will roll-over into a backup log and a new one will be started. Only 1 backup log is kept but this will normally hold quite a significant history of operation.

Normally one would not need logs from the scripts but it can be useful to turn this on if there is any unexpected behavior or when testing new or amended scripts.

## Hotfolder Conversion Scripting

### Script Hook Description

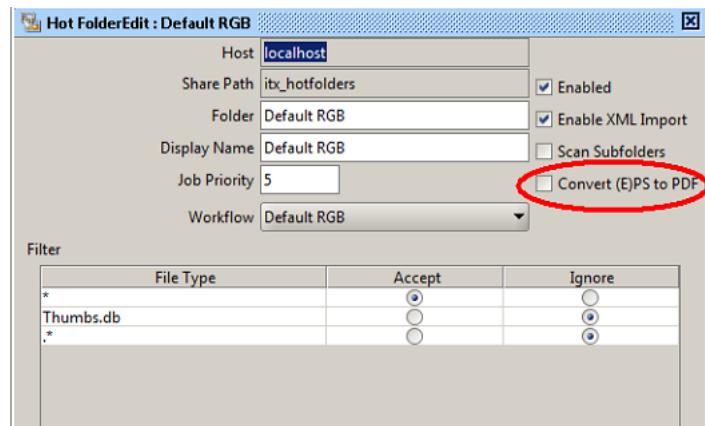
This script hook was primarily intended for converting PS format files to PDF during the input process and the default script provided support for converting using either a Ghostscript or Acrobat Distiller based conversion process.

The script could, however, be used for any other type of input conversion or processing and the exit codes returned by the script allow for different actions to be performed after the conversion has taken place.

The Script hook has been enhanced to allow the user to choose the script associated with each folder and to specify a parameter passed to the script.

### Set up for pre-v2.02 systems

Each hot folder set up has a check box called Convert (E)PS to PDF.



If this option is checked then after each input data file has stabilized then the scanning process will call a script named PSConvertToPDF.vbs. A default version is stored in the code folder but the script is executed from the \_scripts folder in filestore.

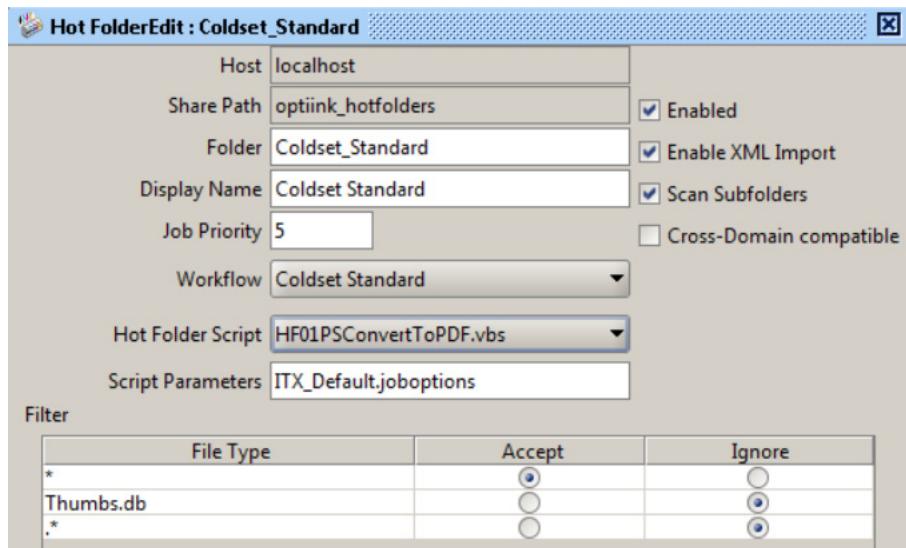
Note the PSConvertToPDF.vbs is global across all Hotfolders that is used in. If specific behavior per hot folder was required then it would be possible for the script to act differently based on the hot folder path passed into the script.

## Set up for post-v2.1 systems

Each hot folder set up has a combo-box called Hot Folder Script and a text entry box called Script Parameters. The previous PS Convert to PDF check box is removed.

The Combo box presents a choice of up to 15 different scripts which have names starting with HFnn where nn is from 01 to 15. The previous PSConvertToPDF.vbs is now called HF01PSConvertToPDF.vbs. Only scripts of this name form that are found in the \_Scripts folder will be offered as a choice. The first choice labeled "---" means that no script will be run.

The text entry box is used to feed configuration parameters to the script. This will be script dependent but for the HF01PSConvertToPDF.vbs script it contains a conversion profile (default value ITX\_Default.joboptions).



If this option is checked then after each input data file has stabilized then the scanning process will call a script named PSConvertToPDF.vbs. A default version is stored in the code folder but the script is executed from the \_scripts folder in filestore.

Note the PSConvertToPDF.vbs is global across all Hotfolders that is used in. If specific behavior per hot folder was required then it would be possible for the script to act differently based on the hot folder path passed into the script.

## Script Adjustment

The default script supports two conversion methods using either Ghostscript or Acrobat Distiller. The Ghostscript method is used by default. For the script to work properly then either Ghostscript or Acrobat Professional must be installed separately.

To adjust the script open in a text editor. The primary adjustment to the script is the line reading:

```
Const CONVERT_MODE      = 1      'Set 1 for Ghostscript, 2 for Distiller
```

Change the number as indicated to configure the selected conversion method.

If Distiller is used then no more configuration is required and the script may be saved.

If Ghostscript is used then the script must be configured with the Ghostscript install locations.

```
Const GSBIN_INSTALL      = "c:\Program Files\gs\gs8.63\bin"  
Const GSLIB_INSTALL      = "c:\Program Files\gs\gs8.63\lib"
```

These are the default install locations for Ghostscript version 8.63. If a later version is used or it is installed in a different path then these two lines will need to be edited accordingly.

## Script Operation and Replacement

When the conversion script is called then it is passed four command line arguments.

- Input filename before conversion
- Expected filename after conversion (normally just .pdf appended)
- A conversion profile name (ITX\_Default.joboptions) This is a file containing the distiller conversion profile. The supplied version is suitable for most purposes, but it is possible to edit this using Acrobat Distiller.
- The hotfolder path associated with the script being processed.

After conversion the script will return an exit code to the application.

```
Const EXITCODE_PSCONVERTED      = 1  'input file converted to PDF  
Const EXITCODE_NOCHANGE        = 0  'input file not changed  
Const EXITCODE_PSERROR         = -1 'error during conversion  
Const EXITCODE_SOURCENOTFOUND  = -2 'input file not found  
Const EXITCODE_SOURCEDELETED   = -3 'input file was deleted (purge from workflow)  
Const EXITCODE_NOOUTPUTFILE    = -4 'no output after conversion
```

Normally the script will check the format of the file and will return 1 if it successfully converts to PDF or 0 if no conversion is required. If -3 is returned the application will mark the file as purged and not proceed further. Other returns will be regarded as conversion failures.

New conversion scripts may be substituted which perform different operations. The current script may also be extended by adding in new CONVERT\_MODES and using these to select new functionality. This may be more convenient as it allows easier configuration and can then make use of the existing functions already defined in the script.

For scripts used with later software, the exit code may also have an additional flag added to its normal value.

Const EXITCODE\_XMLADDED = 65536 'Flag that XML Job Info added

This indicates that an XML Job description file has been created by the script for this Job and will be processed before the Job continues. This means that a script can create job instructions on the fly and can dynamically add Publication Info to be associated with the job.

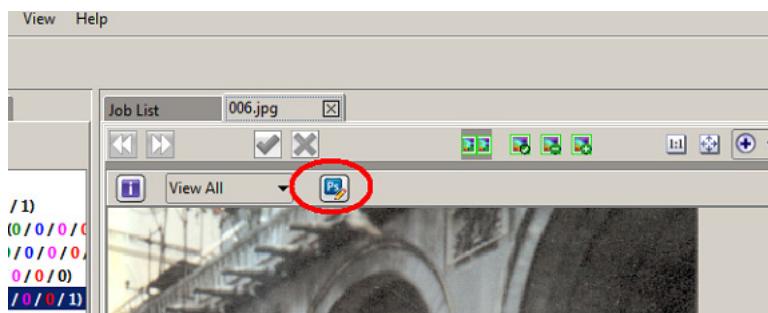
## Image Editing Scripting (IntelliTuneX)

### Script Hook Description

Two scripts are used to support external image editing from within the client job edit windows.

The first script PSCheck.vbs is run every time the script starts up and is used to return 0 or 1 dependent on whether external image editing application is available. If a 0 is returned then the image editing button in the client is enabled. The default script checks the list of installed programs to see if Photoshop is present.

The second script PSEditJob.vbs is run when the user presses one of the image edit button in the job edit screen of the client



There are separate buttons for the source image and the result image. The script is responsible for opening the appropriate image in Photoshop, waiting for the user to close the image in Photoshop and then returning to the application. The application will then take the appropriate action on the updated image file.

### Set Up

No specific set up is required for the scripts if they are used with standard Photoshop installations. The script actually contains the same code as the Photoshop Open close script described later. It has a mode control at the top which is set false to activate the edit functionality.

The script returns one of the following exit codes when it returns:

Const EXITCODE_OK	=	0
Const EXITCODE_NOFILENAME	=	-1
Const EXITCODE_NOEDITOROBJ	=	-2
Const EXITCODE_NOFILE	=	-3
Const EXITCODE_OPENTIMEOUT	=	-4

Normally it should return with 0, the other exit codes indicate an error has occurred.

## Script Adjustment

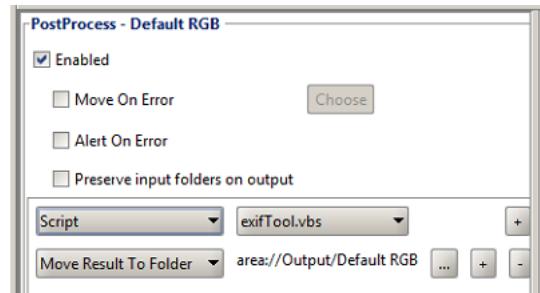
When the PSEditJob.vbs script is called it is passed a single command line argument which is the filename to be edited. The script itself can recursively call itself with a second command line argument used to set up a monitoring mode to watch when Photoshop closes the image.

Both PSCheck.vbs and PSEditJob.vbs can be replaced or edited to use different image editing programs other than Photoshop.

## General Postprocessing Scripting

### Script Hook Description

The PostProcess operations allow a number of operations to be performed on a result file. One of these is now the possibility to run a script to perform an operation on the result file.



To activate this hook then configure the particular Postprocess operation and add a new step into the postprocess sequence and select Script. This will present a choice of scripts which is basically all the .vbs files present in the \_scripts folder in filestore. Select the one required.

Note that it is possible to run more than one script by adding extra steps. Also the steps are performed in sequence so that if a script is required to modify the result

file before it is copied to an output then it should be placed before that in the sequence. This does allow. For example a pre-scripted result file to be copied out to one location and a post-scripted result file to be sent out to another location.

## Set Up

When a Postprocess script is run then it is passed 4 command line arguments

- The path and name of the result file
- The original name of the source file
- The name which will be used for output
- An output path which is empty for general postprocess scripts

Normally the script will just need the first parameter as its intended function is to modify the result file that is indicated.

An example usage is the exifTool.vbs script which uses the exifTool application (available on the internet) to add or edit tag based information in the result file. This can be used to automatically edit tags on files passing through this workflow.

The exifTool script example works by just running the exifTool over the result file itself and passing in a command line to the exifTool.exe which controls the tags that are added. If one looks at the top of the exifTool.vbs there is a constant that defines the tags added.

```
Const EXIF_COMMAND = "Exiftool.exe -Instructions=s=Ready -SpecialInstructions=s=Ready"
```

In this 2 tags are being added; an "Instructions" tag with a value of "s=Ready" and a "SpecialInstructions" tag also with a value of "s=Ready".

A more sophisticated version of this could dynamically create tag information.

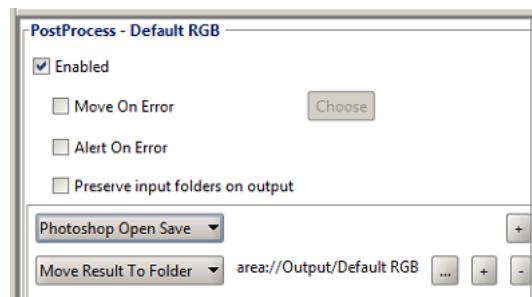
## Script Adjustment

New Scripts can be added or based on the exifTool.vbs example. If they are placed in the \_scripts folder then they will become available for selection in the PostProcess selector.

# Photoshop Open Save Scripting

## Script Hook Description

The Photoshop Open save script is a specific Postprocess script operation. It is set up and executes in a very similar way to the general purpose PostProcess scripts described in the previous chapter. It is designed to just open up a result file in Photoshop and save it which can be a useful operation to clean up the format into a totally Photoshop clean format.



It is set up by just adding a PhotoShop Open Save Postprocess step into the configuration. This will invoke the PSOpenCloseJob.vbs script (based on PSOpenCloseJob\_Default.vbs). This is identical to the manual PSEditJob.vbs script but with a mode parameter set to True so that it just opens the result file in Photoshop and immediately closes it again.

---

**NOTE:** The PSOpenCloseScript.vbs is global across all Postprocess items where it is used.

---

## Set Up

No set up is required for this script. It is actually passed the same parameters as the general purpose PostProcess script but just uses the first one to operate on the result file.

## Script Adjustment

Previously this script hook was also used a place where result files could be generally operate don by scripts. The general purpose scripts postprocess operation is better suited for this operation as different scripts may be used for different purposes on a per process operation basis.

Any existing PSOpenClose.vbs scripts used for more general processing can be easily converted and renamed to be used by the general postprocess script hook.

# MoveByScript Scripting

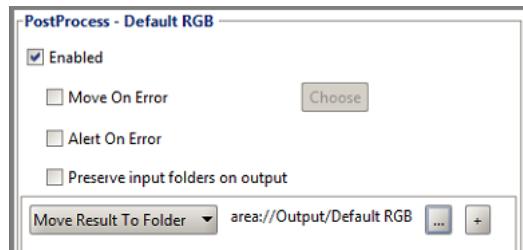
## Script Hook Description

The MoveByScript script is a specific Postprocess script operation. It is set up and executes in a very similar way to the general purpose PostProcess scripts described previously.

There are two separate operations in the Postprocess selection called "Copy Result to Folder" and "Move Result to Folder". These previously actually performed exactly the same function namely the result file was copied to the output path configured next to the operation. Moves are not allowed as it is necessary to keep the result file in the filestore until the job is purged or deleted.

From version 2.01 onwards if the Move Result to Folder operation is selected then a script function is used to perform the copy operation. With the default script provided the functionality is identical but now the script can be adjusted to perform other operations during the copy without necessarily affecting the result file. The supplied default script, for example allows for the file to be renamed further during the copy although as supplied no renaming actually takes place.

The Copy Result to Folder performs a copy without invoking the script and should be used if no scripting functionality is required.



The script is set up just by choosing Move Result to Folder as a postprocess operation.

---

**NOTE:** The MoveByScript.vbs is global across all Postprocess items where it is used.

---

## Set Up

When the MoveByScript.vbs script is run, then it is passed 4 command line arguments.

- The path and name of the result file
- The original name of the source file
- The name which will be used for output
- An output path which is the one configured next to the operation

The default operation of the supplied script (MoveByScript\_Default.vbs) is to copy the file specified by the first parameter to the Output path of the 4th parameter using the 3rd parameter as the filename.

### **Script Adjustment**

New versions of the script may be written or the current one may be edited to adjust the functionality.

For example, in the default script the output filename is generated by a script function called Rename which is passed the Original Filename and the configured Output Name. Currently this just returns the Output Name but it can generate any other name based on this material. E.g. it could strip off unrequired characters.

It could also perform processing on the file itself without affecting the result. This would best be done by creating a temporary copy of the file, performing the processing on this and then moving the temporary copy to the output.

## **Script Writing Tips**

### **General**

It is easier to start from an existing script, particularly one already used for the existing script hook. That way the basic start up and getting the command line arguments are already in place.

### **Writing Scripts**

Scripts can be written using any text editor like Notepad. For more extensive editing or creation it can be helpful to use a more sophisticated editor like Notepad+ (available on the internet) as this highlights syntax and makes it easier to control things like string quoting and bracket usage.

For more extensive writing and debugging specific script development environments can be used like Visual Studio but major scripts can be developed quite easily without such tools if care is taken.

It is worth taking care to properly indent the material to show the logic. Scripts should normally be broken up into a main script and a number of supporting functions. Each function should have a well defined purpose and take parameters that make it more generally useful. It is much harder to debug and maintain a script that just contains a huge monolithic block of code.

Although VB scripting allows use of variables without declaring them this is bad practice and allows errors to creep in just by simple spelling mistakes which are then difficult to find. If an "Option Explicit" statement is included at the start of the script then this enforces a check for all variable to be properly declared and is a good step to ensure that this type of error is avoided.

## Using Existing Functions

Copy and use existing functions from the scripts supplied.

For example, command line arguments are extracted in existing scripts normally by a GetArguments function. This allows for checking the number of arguments and also for invoking the script manually by double clicking it and manually entering the arguments. This makes it more convenient to debug without having to run through the main application.

Logging functions are also available in most of the supplied scripts. There is an InitLogging function and a WriteLog function. To use just include these functions and then have the following calls at the top of the script

```
Dim Logging
Dim ScriptPath
Dim ScriptTime
Dim fso

Set fso = CreateObject("Scripting.FileSystemObject")
InitLogging
ScriptTime = Timer()
```

The fso object which gives access to filing system functions will be required by most scripts.

## Debugging

When debugging scripts errors will fall into three categories; basic syntax problems, run time execution errors, program logic.

Basic Syntax problems will show up as soon as the script is executed. The script environment does a pre-check over the whole code and will normally refuse to start real execution if there is a basic syntax error. A dialog box will highlight the

line in error which should be corrected and the script run again. This may be an iterative procedure when first testing a script to get rid of basic errors.

Run time execution errors such as division by zero, mismatched data types or indexing into array beyond their bounds will also stop the script running unless there is explicit error trapping built into the script. These will also bring up a dialog box highlighting the type of error and the line on which it occurred. These will, however, only come up if that section of code is executed. So this type of error may lie in wait on rarely executed pieces of code and can make it through to the delivered script unless care is taken in the writing and in the testing to try to exercise all the code areas.

Program Logic errors are those where the script executes OK but doesn't deliver the desired functionality because the code as written is incorrect in some way. These do not prevent the script executing and completing but the outcome is not correct.

For both execution errors and Program Logic errors then two basic debug methods may be used outside of more sophisticated development environments which allow interactive execution with breakpoints and display of variable values.

One can insert MessageBox calls within the script at various points to show where in the script execution has reached and to show the value of particular script variables. This can get tedious if the script is tested over and over again. A better technique is to build in and use Logging type functionality like in most of the existing scripts. With the logging turned on then WriteLog statements may be inserted throughout the code to give a trace of execution and the variable values at particular stages. Even if the script terminates unsuccessfully then the log trace to that point will give good clues as to where the problem lies. The logging code can also be left in place for future support if problems subsequently need to be investigated.

## Examples

### ExifTool

ExifTool.exe is a publicly available command line utility for reading and writing tag data in image files.

The example script exiftool.vbs is designed as a post-process script that can use this utility to manipulate the tag data of image files that have been processed by IntellituneX. It can write new tag data and can also merge or manipulate the tag data in various ways.

## Install

To install exiftool.vbs:

- Copy Exiftool.vbs and the ExifRules.txt files to the \_scripts folder under the filestore
- Download the windows executable version of exiftool.exe from the Internet and copy into the \_scripts folder (<http://www.sno.phy.queensu.ca/~phil/exiftool/>)
- Configure a Post-Process step to call Exiftool.vbs before the copy to output folder
- Edit the ExifRules.txt to perform the operations required
- If logging is required then create a text file called ExifToolLog.txt in the \_scripts folder. The script also contains a constant called LOG\_DETAILS which will provide extra details of tag extraction for test purposes.

## Usage

The script will run and process an image during Post-Process. It is controlled by the ExifRules.txt file. If no ExifRules.txt file exists then a simple default command line from the script can be used instead.

Each line in the Rules file can contribute command line parameters to the exiftool.exe.

The simplest rule is just to write a Tag with a new value.

Instructions="Processed by IntellituneX"

The - is the start of the parameter, Instructions is the TagName and the text is the new value. If the text includes spaces then it must be included in quotes.

Rules may include references to existing Tag data by enclosing them in <>. In this case the script will extract the current values and include that in the command line. For example if you wish to copy the value in the SpecialInstructions Tag to Instructions and add on new data then the rule would be like.

Instructions="<SpecialInstructions> Processed by IntellituneX"

Rules may also be constructed as vbScript lines to allow more complex operations. These will be evaluated first. A line beginning with a " triggers the evaluation. So to add calculated data on a separate line in instructions the rule might be like

"-Instructions=""<SpecialInstructions>" & vbCR & " Processed at " & Now() & """"

---

**NOTE:** When quotes are needed inside a string, then "" is used.

---

**NOTE:** See the exifTool documentation for advanced command line parameter usage.

---

## Structure

The exifTool.vbs Script consists of a main routine which gets its parameters, parses the Rules file, runs exiftool.exe to extract tags into a dictionary if needed, processes the rules to construct an exiftool command line and then runs the exiftool program itself.

It has the following functions

- GetParameters to get its own parameters
- GetRules to read the ExifRules.txt file. This also establishes whether tag value substitution may be needed.
- ProcessRules builds an exiftool command line from each rule
- ReplaceTags substitutes tag values in rules as required
- GetTags uses exiftool to extract all tags and move them into a dictionary for substitution use. Tag Names are space stripped and converted to Upper case.
- InitLogging initializes the logging function
- WriteLog writes a log line

## ImageMagick Conversion

ImageMagick is a publicly available utility which may be used to support a wide range of image formats.

The example script HF02\_ImageMagick.vbs is designed to be used as a hot folder script or a MoveBy PostProcess script that can use this utility to convert formats of files and extend the range of formats supported by IntelliTuneX.

As an input script it can be used in place of the standard PSConvertToPDF.vbs script or as a new selected script if used with IntelliTuneX/OptiInk v2.1 or later.

PS to PDF conversion is also supported by this version but in addition new single image formats supported by ImageMagick can be converted through to formats supported by IntellituneX.

As a PostProcess script it is used as a MoveBy script to perform format conversion as a file is moved to its final output.

## Install

To install ImageMagick scripting

- Copy PSConvertToPDF+IMageMagick.vbs to the \_scripts folder under the filestore
- To use as an input script rename it to PSConvertToPDF.vbs iif using earlier software systems. For later versions you could for example name it HF02\_ImageMagick.vbs and select it with the new combo-box control.
- To use as a PostProcess script rename it to MoveByScript.vbs. You may need to remove an existing script of this name. The CONVERT\_MODE\_IM constant at the top of the script needs to be set equal to 2. Note that input and PostProcess scripting may be done in the same installation.
- Download the windows executable version of ImageMagick from the Internet and install using the default settings. (<http://www.imagemagick.org/script/index.php>)
- For input usage enable PS to PDF conversion on appropriate hot folders
- For PostProcess usage add a Move
- If script logging is required then create a text file called PSConvertLog.txt in the \_scripts folder

## Usage

The script will run and convert image formats during either scan input or post-process.

By default it will convert .png and .gif files on input to jpg format leaving the original naming. On output it will convert files called png and gif back to their native format.

## Script configuration

Extra formats and control of naming may be added by changing some script constants at the start of the file.

- **CONVERT\_MODE\_PS** - This controls the PS to PDF functionality. Set to 1 for Ghostscript, 2 for Distiller, or 0 to disable PS conversion.
- **CONVERT\_MODE\_IM** - This controls the Image conversion functionality. Set to 1 for Input conversion, 2 for PostProcess conversion, or 0 to disable conversion.
- **EXT\_CONVERT1** is a string which controls the input format conversion. It is a CSV list with each entry having 4 or 5 fields. These are input extension, input format, output extension, output format, and optional parameters. The default is "png:png:png:jpg,gif:gif:gif:jpg;" This means that png and gif are converted to jpg format but the extension name is left as the original. The Extension name may be set to something different e.g., png:png:jpg:jpg would convert a png to a jpg. The original png job is then purged and a new job created using the renamed file.
- Const **EXT\_CONVERT2** is a string which controls the PostProcess format conversion. It is a CSV list with each entry having 4 or 5 fields. These are input extension, input format, output extension, output format, and optional parameters. The default is "png:jpg:png:png;,gif:tif:gif:gif;" This means that internal jpeg job files labelled as png or gif are converted to jpg format and the extension name are left as the original.

## Structure

The PSConvertToPDF+ImageMagick.vbs Script consists of a main routine which gets its parameters, compares format types and runs appropriate conversion routines.

It has the following functions:

- **GetArguments** to get it's the input parameters from the application. This also supports a local test mode if the script is run by double clicking and it will then ask for the arguments in turn.
- **CheckInputFileType** checks the extension of the input file type and determines what type of conversion to do. It also generates the names required for the rest of the script operation.
- **Rename** is a hook function which may be used to insert extra naming of the output file when used as a MoveBy Script. It is passed the original filename and also the name as configured on the Output process. It may manipulate both of these to produce a final output name. If it returns an empty string then the operation is skipped.
- **ProcessOutputFile** performs the file renaming and clean up after conversion completes

- ConvertImage performs the Imagemagick conversion
- ConvertGhostscript performs a PS to PDF conversion using Ghostscript
- ConvertDistiller performs a PS to PDF conversion using Distiller
- ProcessDistillerLog collects logging if Distiller is used.
- CleanServerName cleans up supplied UNC Names
- FindCmd is used to find the location of the highest version of Ghostscript or Imagemagick installations. By default these are searched in the default Program Files folders. Additional search paths may be added by editing the CMD\_SEARCHPATH at the top of the script.
- FindCmdInFolder supports the FindCmd function to locate a version of the cmd in a folder
- GetProgramFilesPath gets the default Program Files path
- InitLogging initialises logging
- WriteLog writes a single log message

## ImageMagick Watermarking

ImageMagick is a publicly available utility which may be used to support a wide range of image processing operations including watermarking.

The example script IMWatermark.vbs is designed to be used as a MoveBy PostProcess script that can use this to add watermarks to processed images.

It can also be used as a selected Postprocess script but in this case the watermark will be added to the image file in the filestore. Care must then be taken in the order of operations in the postprocess if both watermarked and non watermark versions are required.

### Install

To install ImageMagick scripting:

- Copy IMWatermark.vbs to the \_scripts folder under the filestore
- To use as an moveby script rename it to MoveByScript.vbs.

- To use as a PostProcess then select a script operation in post processing and select the IMWatermark script.
- Download the windows executable version of ImageMagick from the Internet and install using the default settings. (<http://www.imagemagick.org/script/index.php>)
- If script logging is required then create a text file called WatermarkLog.txt in the \_scripts folder

## Usage

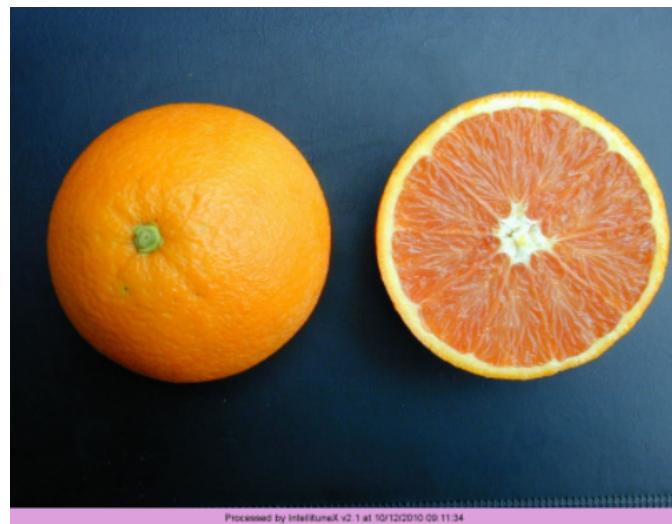
The script will run and add watermarks during the post-process.

## Watermark Configuration

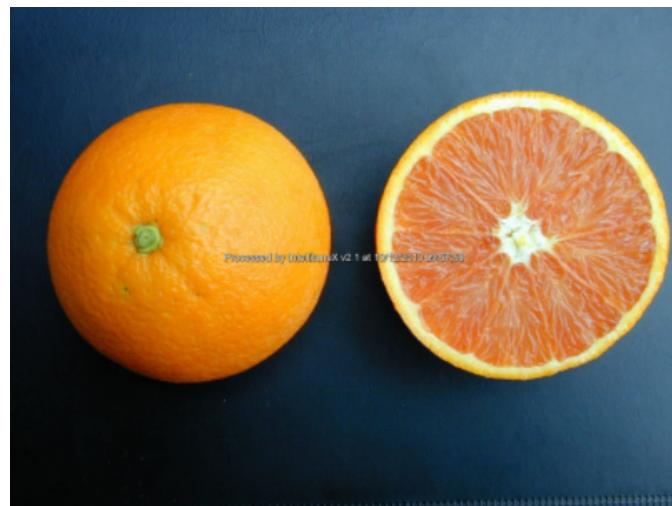
The method and content of the watermarking process may be configured by changing some script constants at the start of the file.

- WATERMARK\_TEXT - This provides the content of any text based watermark. It can contain some variables described below which will be substituted dynamically as each watermark is produced.
- WATERMARK\_IMAGE - This selects the file to be used for image based watermarking. The filename is expected to be in the same folder as the script.
- WATERMARK\_FONT is a string which controls the text formatting in text based watermarking commands. It actually substitutes the %*%f* variable in the watermarking control strings. It can select font name, point size and other controls like bold/italic. By default it is selects a 24 point version of the standard font.
- WATERMARK\_POSITION is a string which controls the positioning of the watermark on the image. It actually substitutes the %*%g* variable in the watermarking control strings. It can select the general area using the -gravity control (North, South, East, West, NorthWest, NorthEast, SouthWest, SouthEast, Center). Offsets and absolute positions can also be used.
- IM\_WATERMARK is the string used to control the ImageMagick watermarking operation. A huge range of different watermark types can be generated by setting this string. The default script contains a number of different examples and one of these can be activated by un-commenting it (removing the ') and ensuring that all other equivalent lines are commented. The examples are described below.

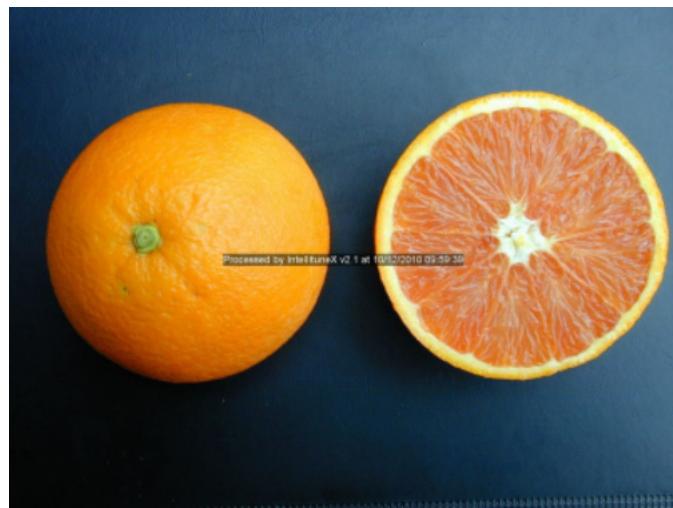
## Example Watermark Methods



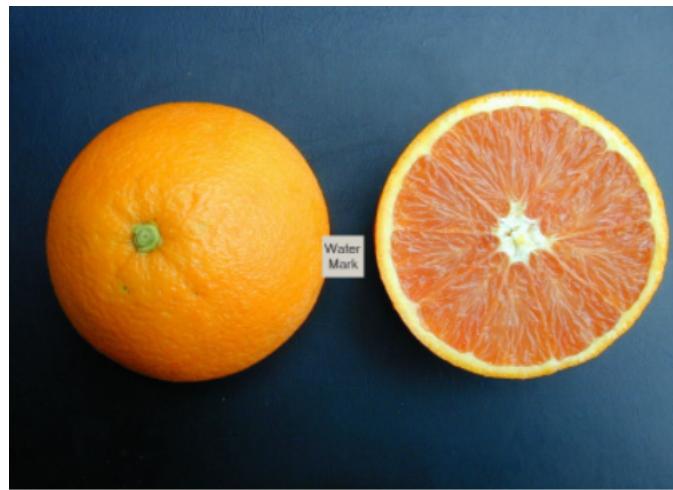
- Splice Plum - this method adds a plum colored horizontal strip at the bottom of the image and adds the watermark text in this strip. It annotates the image but can be easily removed.



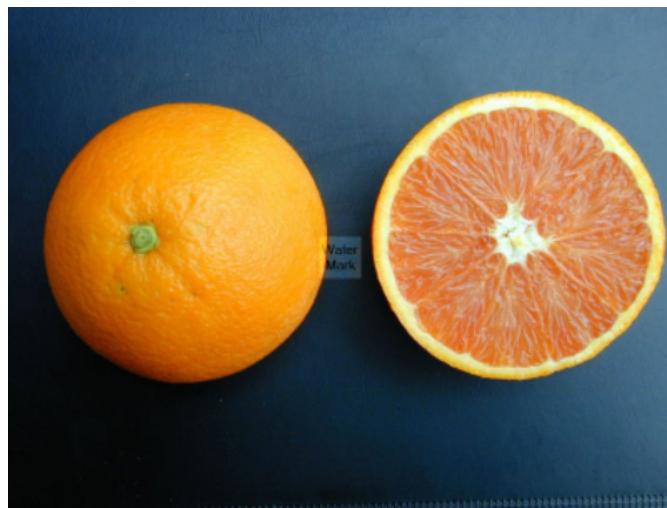
- Simple Outline - this method adds outlined watermark text over the image. It may be more difficult to read in busy images.



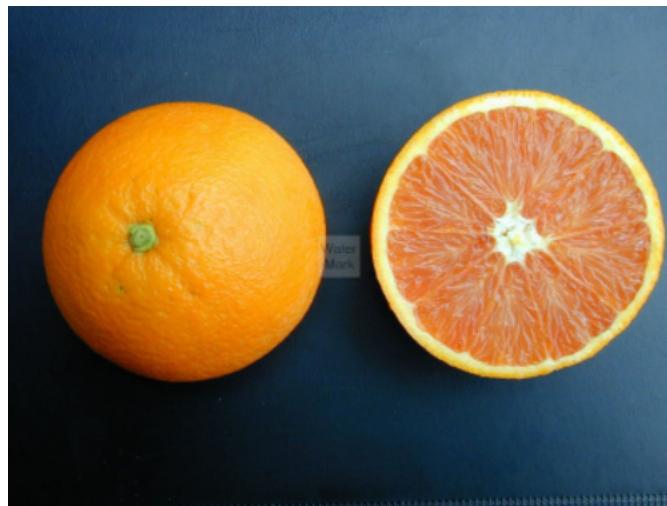
- Undercolour box - this method adds text inside an undercolor box over the image and this makes the text easily readable.



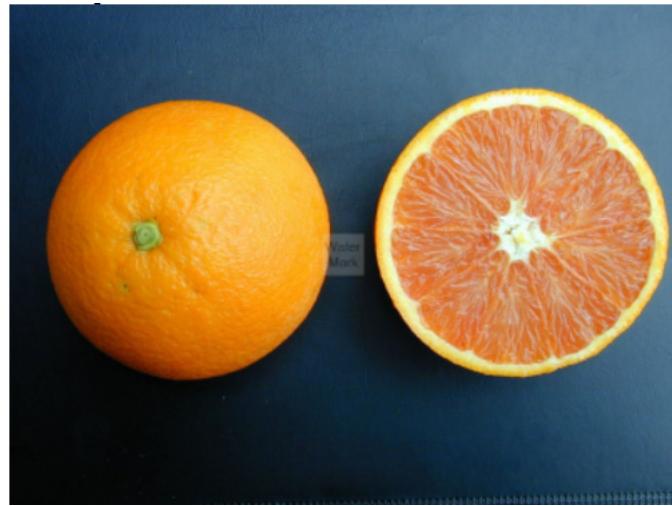
- Simple image overlay - this method does a simple overlay of a watermark image onto the main image.



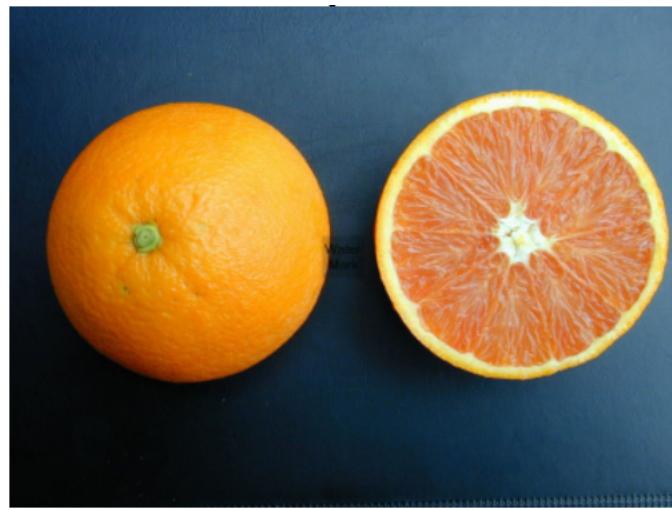
- Watermark image overlay - this method uses a watermark overlay of a watermark image onto the main image to make it less intrusive.



- Dissolve image overlay - this method uses a dissolve overlay of a watermark image onto the main image to make it less intrusive.



- Bump map image overlay- this method uses a watermark image as a bump map onto the main image to mask using the gray scale values in the watermark image. By using mid tones grays in the watermark a subtle watermarking can be achieved.



- New watermark command strings can be added if one checks out the available ImageMagick commands and parameters. It would also be possible to combine methods to achieve both image and text effects.

## Structure

The IMWatermark.vbs Script consists of a main routine which gets its parameters, formats an appropriate ImageMagick command line and then executes it.

It has the following functions:

- GetArguments to get it's the input parameters from the application. This also supports a local test mode if the script is run by double clicking and it will then ask for the arguments in turn.
- WatermarkImage builds the command string by substituting parameters and then calls Imagemagick to perform the watermarking process
- MoveToOutput performs the file renaming and clean up after the watermarking completes.
- Rename is a hook function which may be used to insert extra naming of the output file when used as a MoveBy Script. It is passed the original filename and also the name as configured on the Output process. It may manipulate both of these to produce a final output name. If it returns an empty string then the operation is skipped.
- GetDateString is used to format a date to be used in etxt watermarking.
- CleanServerName cleans up supplied UNC Names.
- FindCmd is used to find the location of the highest version of Ghostscript or Imagemagick installations. By default these are searched in the default Program Files folders. Additional search paths may be added by editing the CMD\_SEARCHPATH at the top of the script.
- FindCmdInFolder supports the FindCmd function to locate a version of the cmd in a folder.
- GetProgramFilesPath gets the default Program Files path.
- InitLogging initializes logging.
- WriteLog writes a single log message.

## XMLArchive

This script allows XML files that create jobs to be archived. It relies on a feature present in OptiInk/IntelliTuneX that places the XML file in the filestore rather than deleting it after it has been read. This script will NOT work with earlier versions.

The XMLArchive.vbs script **exiftool.vbs** is designed as a post-process script that can copy the xml file in the filestore out to a new location.

## Install

To install XMLArchive.vbs:

- Copy **XMLArchive.vbs** to the \_scripts folder under the filestore.
- Configure a Post-Process step to call **XMLArchive.vbs**. This may be done at any point in the sequence. Two types of configuration are possible (see usage below).
- Edit the **ExifRules.txt** to perform the operations required.

## Usage

The script can be run as a named PostProcess script, or by using the MoveBy-Script method (see below).

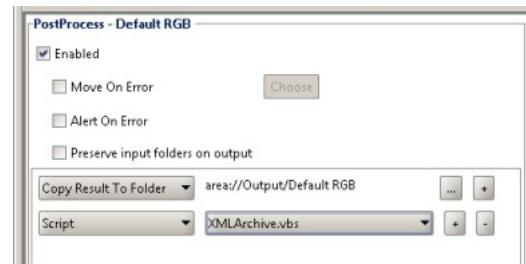
---

**NOTE:** XML files which are matched against filenames can consist of either **file.ext.xml** or **file.xml**. The script does not know which method was used. By default, it will archive the xml as **file.xml**. You can change this behavior by setting the **APPEND\_XML** constant at the top of the script equal to **True**. In this case, all xmls will be archived as **file.ext.xml**.

---

## Script Method

Add a PostProcess script function, and select the **XMLArchive.vbs** script.



The script will be called and will archive any job xmls to an archive folder, which is defined in the script. This defaults to **C:\temp\**. To change to a different location, edit the constant **XML\_ARCHIVEFOLDER** at the top of the script.

The script does support copying to multiple archive locations by configuring a list of folders as a CSV list.

## MoveByScript Method

Rename the script to **MoveByScript.vbs**, and select the Move Result to Folder as a separate PostProcess step.



**NOTE:** The script will NOT move the result; it will still copy any **Job.xml** file. You still need to have the normal Copy Result to Folder.

The advantage of using this message is that it will archive the XMLs to the storage area set up next to the Move Result function; and the script does not need to be configured. It can be used multiple times in different places to archive to different folders configured in each postprocess step.

The disadvantage is that there is only one MoveByScript function; and so if used for XML archiving, it cannot be used for anything else.

### Structure

The **XMLArchive.vbs** script consists of a main routine that gets its parameters; constructs the XML file it expects to find in the filestore and its archive name; and copies this file, if present. It has the following functions:

- GetArguments to get its own parameters.
- CleanServerName sanitizes server names and paths from the parameters.
- GetJobXMLName constructs the expected xml filename in the filestore.
- GetArchiveXMLName constructs the name to be used in the XML archive.
- InitLogging initializes the logging function, which will log if **XMLArchiveLog.txt** is present in the script folder.
- WriteLog writes a log line.

## ► Testing Folder List as a CSV List

---

**NOTE:** The CSV list of folders only applies to the Script method.

---

- 1 Edit the **XMLArchive.vbs** script with a text editor, and change the line  
Const XML\_ARCHIVEFOLDER = "C:\temp\"

For example:

```
Const XML_ARCHIVEFOLDER = "C:\temp\temp1,C:\temp\temp2\"
```

- 2 This will copy each xml file to the two folders in the list. The folders must exist. Any folder not present will be skipped.

---

**NOTE:** These add on scripts are not part of the main product installer.

---

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