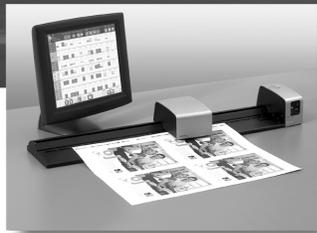


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# IntelliTrax<sup>®</sup>



Software Help Document  
ver. 1.5





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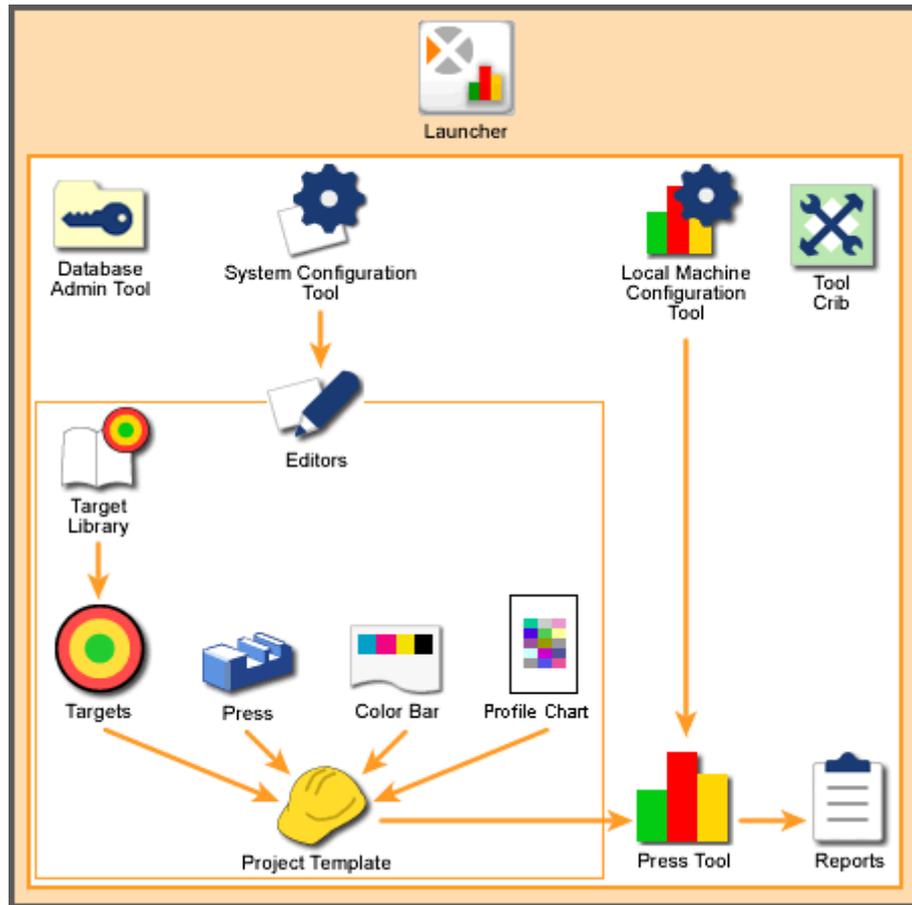
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## Introduction

This document was created using the contents of the IntelliTrax on-line help system. A brief description of each tool is listed below followed by a detailed description of each tool.



***Scanning System Overview***

### Database Administration Tool

The Database Administration tool allows system administrators to connect to the system database, backup and restore the database, and manage user access to project template and jobs in the database.

### System Configuration Tool

The System Configuration Tool is where you define default tolerances and settings for the system's Editors. These tolerances and settings are used by the Editors to define project templates.

## **Target Library Editor**

The Target Library Editor is where you create new target types, rename target types, and delete target types from your scanning system.

## **Target Editor**

The Target Editor is where you edit existing targets, create new targets, duplicate existing targets, import and export targets, and delete targets from your scanning system.

## **Press Editor**

The Press Editor is where you edit existing press types, create new press types, duplicate existing press types, import and export press types, and delete press types from your scanning system.

## **Color Bar Editor**

The Color Bar Editor is where you edit existing color bars, create new color bars, duplicate existing color bars, import and export color bars, and delete color bars from your scanning system. The Color Bar Editor allows you to organize and set up your color bars to reflect the actual color bars used on a press.

## **Profile Chart Editor**

The Profile Chart Editor is where you edit existing profile charts, create new profile charts, duplicate existing profile charts, import and export profile charts, and delete profile charts from your scanning system.

## **Project Template Editor**

The Project Template Editor is where you edit existing project templates, create new project templates, duplicate existing project templates, import and export project templates, and delete project templates from your scanning system. A project template defines a press, color bar, paper, ink, and profile to be used for a job. In the Press Tool, you select a single project template to quickly define the basic requirements for jobs.

## **Local Machine Configuration Tool**

The Local Machine Configuration Tool is where you define default functionality and settings for the Press Tool.

## **Press Tool**

The Press Tool allows you to use a spectrophotometer instrument to scan color bars from a press sheet and view the scanned data. Targets and tolerances for various types of measurements (such as density and dot gain) are pre-defined for each job. The Press Tool shows how close the press sheet is to meeting these targets.

## **Reporting Tool**

The Reporting Tool allows you to create reports for jobs run by the Press Tool. Reports can be for entire jobs or for individual sheets of jobs.

Reports are documents that list the color bar data scanned from press sheets by a spectrophotometer instrument. The documents are in HTML format and can be viewed with Internet Explorer or any web browser.



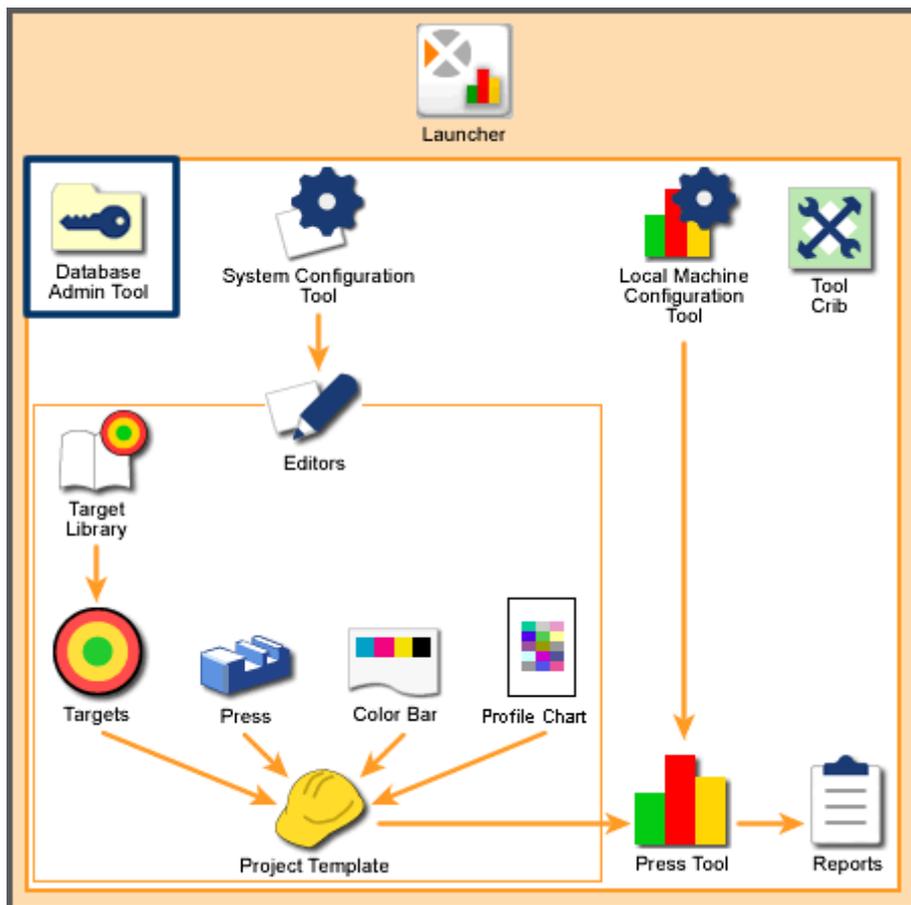
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# Database Administration Tool

## Home

The Database Administration tool allows system administrators to connect to the system database, backup and restore the database, archive, and manage user access to project template and jobs in the database.

To start the Database Administration tool, you must start the Launcher and touch the Database Admin Tool button.



***Scanning System Overview: Database Administration Tool***

**To connect to the system database:**

1. If the name of your system server is not already in the Server Name field, touch the drop-down arrow and select it.

Note: By default, the name is "local". Use this to connect to the database on the computer you are using without selecting the computer's name.

2. Touch Scan. Current instances of the SQL database appear in the MS SQL Instance field.
3. If the name of the needed instance is not already in the MS SQL Instance field, touch the drop-down arrow and select it. Note: You must select the "ATSII" database name.
4. Touch Connect. A dialog box appears requesting the password for the database instance.
5. Type the password and touch Submit. The Database Admin Tool connects with the database instance.

**To backup the database to a remote file:**

1. Connect to the database.
2. If you want to overwrite an existing backup file, touch the drop-down arrow for the Remote File field and select the file name. Otherwise, select the current file name and type a new name.

Note: Make sure to name the file with a ".bak" extension.

3. Touch Backup. A message box appears telling you that the database backup was successful.
4. Touch OK.

**To restore the database from a remote file:**

1. Connect to the database.
2. If the needed file is not already in the Remote File on Server field, type the name or touch the drop-down arrow and select the file name.

Note: Valid restore names do not automatically appear in the Remote File on Server field.

3. Touch Restore. A message box appears telling you that the database restore was successful.
4. Touch OK.

**To manage user login access:**

1. Connect to the database.

2. In the Manage Users area, touch Refresh. A list of Windows login names appears in the NT Users field.
3. To add users, select user names and touch Add. The selected name appears in the Database Logins field. That user now will be able to login to the database.
4. To remove users, select the name in the Database Logins field and touch Remove. The name is cleared from the Database Logins field.

### **To delete project or jobs:**

1. Connect to the database.
2. In the Manage Jobs area, touch Refresh. A list of project templates appears in the Project box. A list of the jobs that use the selected project template appear in the Current Jobs box.
3. Delete project or individual jobs:
  - a. To delete a project or multiple projects with all current jobs, select the project or projects and touch the Delete button in the Project box. A dialog box appears asking to confirm your choice. Touch Yes.
  - b. To delete only jobs, select a project template and then select current jobs you want to delete. Touch the Delete button in the Current Jobs box. A dialog box appears asking to confirm your choice. Touch Yes.

### **To export jobs:**

1. Connect to the database.
2. In the Manage Jobs area, touch Refresh. A list of project templates appears in the Project Templates box. A list of the jobs that use the selected project template appear in the Current Jobs box.
3. Select a project template and then select the jobs you want to export.
4. Touch Export. A dialog box appears asking to confirm your choice. Touch Yes. A Microsoft Windows dialog box appears where you browse for a location to save the file.
5. Type a name for the file and touch Save to export it. A message box appears confirming the export. Touch OK.

### **To import jobs:**

1. Connect to the database.
2. In the Manage Jobs area, touch Refresh. A list of project templates appears in the Project Templates box. A list of the jobs that use the selected project template appears in the Current Jobs box.
3. Touch Import. A Microsoft Windows dialog box appears where you browse for and select job (.job) files.

4. Touch Open to import the file. If the job already exists in your system, a message box appears. Touch OK.

## **Archive**

The Archive screen allows system administrators to manage the database by archiving old non-OK sheets and optimizing the database, and scheduling automatic archiving functions.

To open the Archive screen, touch the Archive button in the Database Admin Tool.

### **To archive and optimize the file:**

1. Touch the Archive Sheets and Optimize button.
2. In the window that opens, set the age in months for jobs beyond which you wish to archive all non-OK sheets.
3. Touch Yes to create an Archive backup of the database and optimize all sheets from old jobs.
4. An Archiving progress bar will appear. Depending on the size of your database, archiving may take several minutes.
5. When archiving is complete, touch OK to exit the screen.

### **To schedule automatic archiving:**

1. Select either Auto archive and optimize database only or Auto archive old non-OK sheets and optimize database.
2. If you selected Auto archive old non-OK sheets and optimize database set the age in months in the Archive non-OK sheets older than field.
3. Set the Archive every, in months, of how often you wish to auto archive.
4. Select a date in Archive start date field using the down arrow. Use the arrows to move backwards or forwards in the calendar.
5. Set the time in the Archive start time field.
6. Touch Save to exit the screen.

The Archive screen also displays the date the most recent archive was performed, the date of the next scheduled archive, and the folder where archives are stored. The date and time the archive was performed are used for the archive file name.

## Database Details

The Scanning System includes a free version of SQL Server, but it has certain limitations. Please refer below for MSDE 1.0 limitations.

- MSDE 1.0 databases are limited to 2 gigabytes (GB) of data. This limit is per database, and not per server, so a single MSDE server can support multiple MSDE databases, each containing up to the 2 GB limit. If you anticipate that your database is currently or will grow beyond 2 GB, consider upgrading to Microsoft SQL Server(tm) 2000 Standard Edition for a more scalable database platform on which to build.
- MSDE 1.0 is tuned for desktop and shared solutions where there are fewer than five concurrent workloads hitting the database at any one time. If your solution needs to support more than this number of concurrent batches, you may need to migrate to SQL Server or SQL Server Enterprise editions for optimal performance at this higher level of scalability.

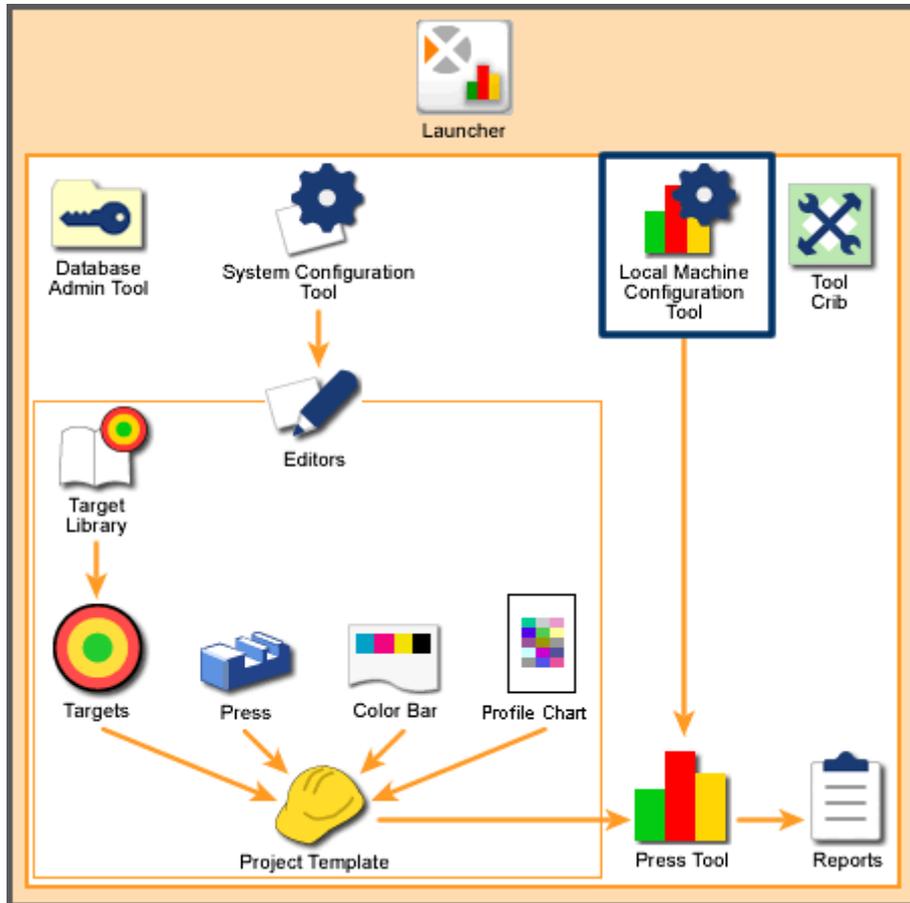


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# Local Machine Configuration Tool

## Home

The Local Machine Configuration Tool is where you define default functionality and settings for the Press Tool. To start the Local Machine Configuration Tool, you must start the Launcher and touch the Local Machine Configuration Tool button. Touch or type your password and touch Submit Password.



### ***Scanning System Overview: Local Machine Configuration Tool***

Note: Changes made in the Local Machine Configuration Tool do not take effect until the Press Tool is started. If the Press Tool is running, you must restart the Press Tool.

## General

The General tab is where you define variables for instrument operation and the data the instrument sends to the Press Tool when it scans. The tab contains the following areas:

### $\Delta E$

Touch a field to select the color difference equation you want to use for determining total color differences.  $\Delta E$  is the magnitude and character of the difference between two colors under specified conditions. Each equations result in differences in the perceptual magnitudes and characteristics of the stated Delta-E tolerance.

- CIE 94. Formula for color difference which is corrected for brightness, chroma, and hue based on the CIE 1976L\*a\*b\* color chart to represent human perception of the Munsell color chart.
- CIE 2000. Updated version of CIE 94.
- CMC. Color difference formula which tries to correct brightness, chroma and hue in CIE 1976L\*a\*b\* color chart. The formula displays differences at equal intervals even when the selection is no color or a vivid color.
- CIE L\*a\*b\*. The most standard formula which calculates color difference with L\*a\*b\* value distances obtained from the CIE 1976L\*a\*b\* color chart. L\* indicates brightness while a\* and b\* are color coordinates (a\* is the axis for red/green and b\* is the axis for yellow/blue).

### Use Minus Paper Per Calculation

Touch the buttons to select targets to use the "Minus Paper" calculation. Minus Paper means that the Press Tool takes into account the measurements of the paper itself when scanning a sheet.

For example, assume you select Density, the density of the paper is 0.1, and the density of the color patch scanned is 1.0. When the Press Tool makes the density calculation, it will be 0.9 (the density read minus the density of the paper).

All targets are selected by default.

- Density. The target's ability to absorb light.
- Hue Error. How close the target is to the intended color. Each ink has a number that represent its color (hue).
- Grayness. The relative amount of difference between two similar colors.
- Print Contrast. The level of variation between light and dark areas in an image.
- Gray Balance. How well a combination of yellow, magenta, and cyan combine to produce a neutral (non-chromatic) impression.

## Vacuum Shutdown

Determines how and when the vacuum for the instrument turns off after a period of the instrument not being used.

- **Automatic Vacuum Shutdown.** Select to have the vacuum turn off after the Interval period of the instrument not being used.
- **Interval (mins).** The time, in minutes, of the instrument not being used after which the vacuum turns off. Touch this button to open a dialog box where you can touch or type the number of minutes. You can also enter zero (0) which will turn the vacuum off immediately after a measurement.

## Number of Graphs

Determines the maximum number of ink rows that can be displayed at one time in the Data Display area of the Press Tool. For example, if a job has 6 inks and your set this button to 4, only 4 of the 6 inks display at one time in the Press Tool.

The maximum number of graphs is 8.

## Scanner Calibration

Determines when and how the instrument performs its calibration procedure.

- **Calibration Interval (hours).** The time, in hours, of instrument operation between calibration procedures. After the selected time period, a message box appears in the Press Tool asking whether you would like to have the instrument perform a calibration. Touch this button to open a dialog box where you can touch or type the number of hours.
- **Calibration Sleep (mins).** When a message box appears in the Press Tool asking whether you would like to have the instrument perform a calibration, you can touch No. If you do, the Press Tool waits this Calibration Sleep interval before asking again. Touch this button to open a dialog box where you can touch or type the number of minutes.
- **Calibration on New Job.** Select if you want the Press Tool to perform a calibration every time you start a new job.

## Set Color Bar Alignment

Use this function to manually control the location of the color bar on the sheet.

- **Automatic Alignment (Recommended).** Select to allow the scanning system to locate the color bar on the press sheet.
- **Force Left Alignment.** Select to force the scanning system to locate the color bar on the left edge of the press sheet.
- **Force Right Alignment.** Select to force the scanning system to locate the color bar on the right edge of the press sheet.

- **Force Center Alignment.** Select to force the scanning system to locate the color bar on the in the center of the press sheet.

## Measurement Logging

Use this function to active and remove logging files.

- **Enable Measurement Logging.** Select to enable the measurement logging function.
- **Remove Old Log Files.** Touch this button to remove log files older than 30 days.

## Show/Hide

The Show/Hide tab is where you define which attributes and what types of attribute information is displayed in the Data Display area of the Press Tool. All attributes and attribute types are selected by default.

Note: All attributes get saved to the database no matter the selections here.

## Density

Indicates the target's ability to absorb light. The more light the target can absorb, the higher the density value.

- Tints. Show density data for tinted ink patches.
- OverPrints. Show density data for overprint ink patches.
- Gray Balance. Show density data for gray balance ink patches.
- Paper. Show density data for paper patches.
- Gray Balance. Show color difference data for gray balance patches.

## Hue Error

Indicates how close the target is to the intended color. Each ink has a number that represent its color (hue).

- Solids. Show hue error data for solid ink patches.
- Overprints. Show hue error data for overprint ink patches.

## Dot Gain

Indicates paper's ability to absorb ink. The more absorbent the paper, the more dot gain.

- Tints. Show dot gain data for tint ink patches.

## **Trap**

Indicates the relative difference between an ink on paper to the same ink on already down ink. Trap indicates how well a printed ink can accept the next printed ink relative to how well the paper accepts it.

Overprints. Show trap data for overprint ink patches.

## **Grayness**

Indicates the relative amount of difference between two similar colors. For example, if you have a perfect Yellow and then add a small amount of Black, the Hue (color) does not change, but the Grayness increases.

- Solids. Show grayness data for solid ink patches.
- Overprints. Show grayness data for overprint ink patches.

## **Gray Balance Range**

Indicates how well a combination of yellow, magenta, and cyan combine to produce a neutral (non-chromatic) impression.

Gray Balance. Show gray balance data for gray balance ink patches.

## **Print Contrast**

Indicates the level of variation between light and dark areas in an image. Print Contrast indicates the degree to which shadow detail is maintained.

- Tints. Show print contrast data for tint ink patches.

## **$\Delta E$ (Color Difference)**

Indicates the magnitude and character of the difference between two colors under specified conditions.

- Solids. Show color difference data for solid ink patches.
- 3 Color Overprint. Show color difference data for ink patches with three-color overprints.
- Overprints. Show color difference data for ink patches with two-color overprints.
- Paper. Show color difference data for paper patches

## **Brightness**

Indicates the paper target's ability to absorb light. The more light the paper can absorb, the higher the density value. For example, black paper would have a high density value.

- Paper. Show brightness data for paper patches.

## Other

Contains miscellaneous option selections.

- Average. Shows the actual average value for a ink zone on the current sheet.

## Post Scan

The Post Scan tab is where you define how and where scan data gets saved by the Press Tool as log files.

Note: You can save log files in multiple formats. For example, you can save the same log file information as an SDF and an SVF.

### Create Scan Density File (SDF)

Select to have the Press Tool create log files in SDF (Scan Density File) format. SDF files can also be used as a way to close loop scanners to the press consoles.

If the Create Scan Density File is selected, the following controls are active:

- Fixed by File Name. Select if you want SDFs to all have a certain name. For example, you may choose "Press7" so all file names include that name, such as Press7\_2005\_07-20.sdf. Touch the button to the right to open a dialog box where you can select a folder and type the file name.
- Use Project Template Project Name. Select to have the name of the project template used with the current job be the name of your SDF. For example, DefaultJT\_2005\_07-20.sdf. Touch the button to the right to open a dialog box where you can select the Project Name file.
- Print Start Mode. If selected, log files are created in an older version of the SDF format. This is done for capability with printing systems running legacy versions of certain software.
- Append. If selected, a single log file is created and whenever new data is generated, the data is added to the file. If not selected, a new log file is created whenever new data is generated.

### Create Scan Value File (SVF)

Select to have the Press Tool create log files in SVF (Scan Value File) format.

These files contain Project information and the following Patch information. Target Density and Color, Measured Density and Color, Density and Color Difference, and Measured 31 point Spectral data.

Touch the button to the right to open a dialog box where you can select a folder and type the file name.

### Create Target Value File (TVF)

Select to have the Press Tool create log files in TVF (Target Value File) format.

These files contain Project information and the Target Ink information upon Finish of the Project Setup dialog. This file contains Project information, Ink information, Patch Density, Color and 31 point Spectral data upon selection of the OK sheet. These files also contain target information.

Touch the button to the right to open a dialog box where you can select a folder and type the file name.

## **Database Keyboard**

The Database Keyboard tab is where you select the Press Tool database, the computer name where the database is located, and the type of keyboard used in the Press Tool and system editors.

### **Database**

The computer name where the Press Tool database located and the database name.

Location (Computer Name). Touch this button to open a dialog box where you can touch or type the name of the computer where the database is located.

Database Name. Touch this button to open a dialog box where you can touch or type the name of the Press Tool database.

### **Keyboard**

The type of keyboard used in dialog boxes in the Press Tool and system editors.

Simple. Select so dialog boxes in the Press Tool and system editors that require entering names have letter buttons in alphabetical order. For example, ABCDEF...

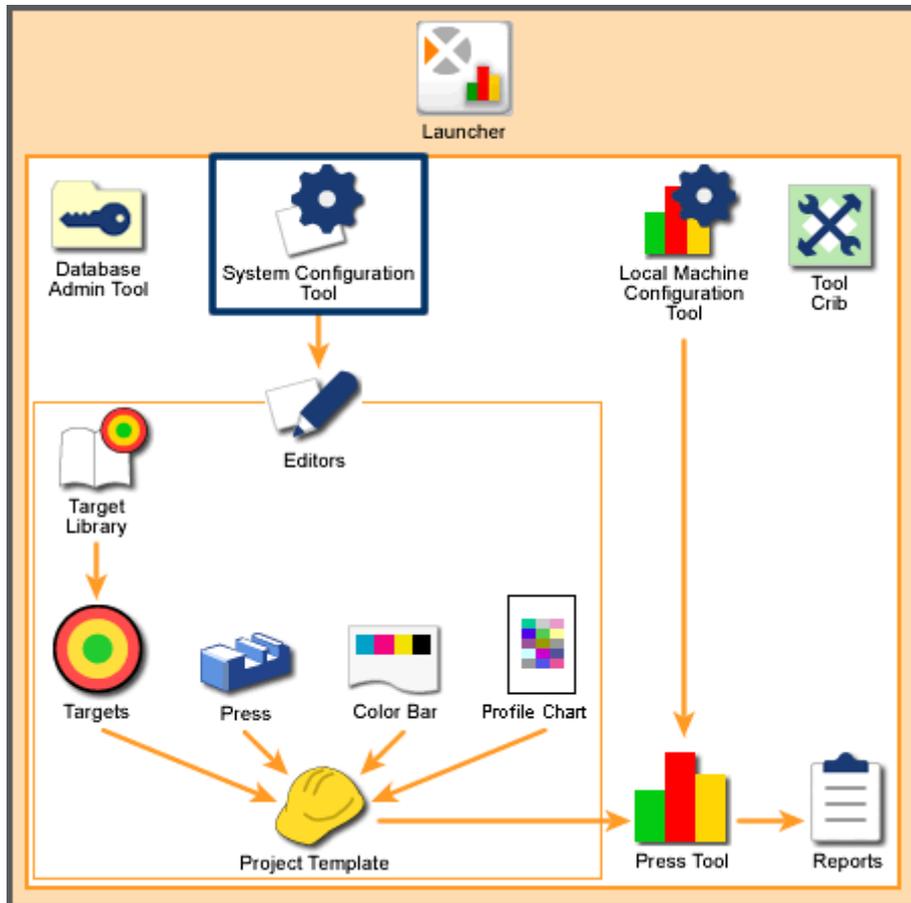
International. Select so dialog boxes in the Press Tool and system editors that require entering names have letter buttons in the same order as computer keyboards. For example, QWERTY...



# System Configuration Tool

The System Configuration Tool is where you define default tolerances and settings for the system's Editors. These tolerances and settings are used by the Editors to define project templates.

To start the System Configuration Tool, you must start the Launcher and touch the System Configuration Tool button. Touch or type your password and touch Submit Password.



**Scanning System Overview: System Configuration Tool**

## System Settings

The System Settings tab is where you select the default illuminant observer and status response for the Press Tool.

To select the system settings:

1. Touch to select the needed setting from the Density Status list. Use the arrows to the right to scroll through the list of Density Status options.
2. Touch to select the needed setting from the Illuminant Observer list. Use the arrows to the right to scroll through the list of Illuminant Observer options.
3. Touch another tab or touch CLOSE.

### System Settings — Density Status

Density Status is a term used for special response of reflection densitometers. Standard Status responses include:

- Status A. Represents ANSI Status A, which is used in photo finishing applications.
- Status E. Represents a European response that uses a 47B filter for yellow. This status is selected for dynamic polarization.
- Status I. Represents a narrow band response.
- Status T. Represents ANSI Status T.
- Status HiFi. Represents Cyan, Magenta, Yellow, Visual, Red, Green, and Blue filter responses.
- Status Hexachrome. Represents Cyan, Magenta, Yellow, Visual, Green, and Orange filter responses.
- Status Ex. Response closely matches the X-Rite 400 series instrument response.
- Status Txp. Response closely matches the X-Rite 400 series instrument response.

### System Settings — Illuminant Observer

The system supports four different illuminant types, each available at several different color temperatures and with either a 2° or 10° standard observer:

- Illuminant A produces a yellowish-red light, and is generally used to simulate incandescent viewing conditions (such as household light bulbs).
- Illuminant C simulates indirect sunlight. This illuminant is used in many viewing booths, because indirect sunlight is a common viewing condition. However, this illuminant does not truly represent sunlight, because it does not contain much ultraviolet light.

- D50 is 5000K daylight and simulates indirect sunlight (printing standard light source). D55 is 5500K daylight and simulates indirect sunlight. D65 is 6500K daylight, and is nearly identical to Standard Illuminant C except that it includes more ultraviolet light. This makes it a better simulation of sunlight (and makes it better for evaluating fluorescent colors). D75 is 7500K daylight and indirect sunlight.
- Because fluorescent lights have sharp peaks in their spectral curves, they defy definition by color temperature. For this reason, F Illuminants are not officially called "Standard" Illuminants. However, since fluorescent lighting conditions are common, the CIE recommends using this type of illuminant to evaluate colors which are going to be used in fluorescent environments. F2 simulates fluorescent light. F7 simulates a wide band fluorescent light. F11 simulates TL84 fluorescent light. F12 simulates ultralume fluorescent light.

## System Defaults

The System Defaults tab is where you define the default tolerance values for targets. You can edit these tolerances later in the Target Editor. The Press Tool uses tolerance values when scanning to determine if targets are within required limits.

To set tolerance values:

1. Touch an attribute. The tolerance values for that attribute appears in the yellow field ("Action Limit" tolerance) and red field ("Control Limit" tolerance).
  - If a target reading is within the Action Limit tolerance, the Press Tool shows it as green indicating that it is within an acceptable range.
  - If a target reading is outside of the Action Limit but within the Control Limit, the Press tool shows it as yellow indicating that it is within an acceptable range but close to unacceptable.
  - If a target reading is outside of the Control Limit, the Press Tool shows it as red indicating that it is outside of an acceptable range.

**Note:** The Gray Balance attribute also includes a field for setting the Range value.

2. To change the Action Limit or Control Limit, touch the needed field. The on-screen keypad appears.
3. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.
4. If needed, touch another attribute and repeat Steps 2 and 3.
5. Touch another tab or touch CLOSE.

## Tints

The Tints tab is where you define the system tints and gray balance tints available in the instrument.

### System Tints

The default number of system tints is 5 with default values of 25%, 40%, 50%, 75%, and 80%.

To change the number of system tints:

1. Touch the Number of system tints field. The on-screen keypad appears.
2. Type in the new amount using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad and save the new number.
  - If you add system tints, the first will be set to a default value of 1%, the second to 2%, the third to 3%, and so on. You can then adjust these values.
  - If you reduce the number of tints, the values at the bottom of the list will be removed.

To edit system tint values:

1. Touch the value you wish to edit. The on-screen keypad appears.
2. Type the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

### Gray Balance Tints

The default values for Gray Balance 1 are: 50% or Ink 1, 40% for Ink 2, and 40% for Ink 3.

To edit gray balance values:

1. Touch the value you wish to edit. The on-screen keypad appears.
2. Type the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

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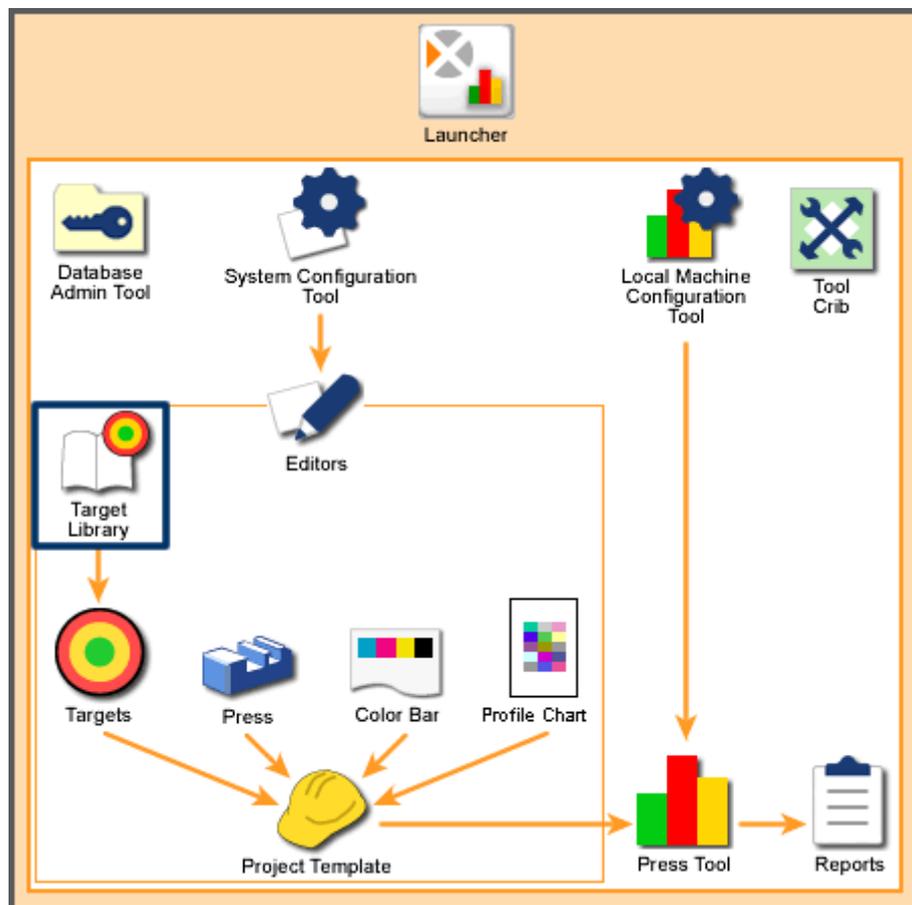
## Target Library Editor

The Target Library Editor is where you create new target libraries, rename target libraries, and delete target libraries from your system.

Targets that you create with this tool can be used in the Target Editor to assign tolerances to them.

To start the Target Library Editor,

1. Start the Launcher and touch the Editors button.
2. Touch or type your password and touch Submit Password.
3. When the Editors screen appears, touch the Target Library button.



**Scanning System Overview: Target Library Editor**

## Home

### Target Library List Box

A list of the target libraries currently available to your system appear at the left of the screen. Use the following controls when using the Target Library list box:

- If your system has more than seven target libraries, you can touch Find to open a dialog box where you can type the name of a target library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed target library, touch it to select it. Then you can use the buttons on the right of the screen to manage the target library.

### Create

Touch Create to create a new target library. When you touch Create, a dialog box appears requesting the name of the new target library. After you touch or type the name, touch Next and the name appears in the Target Library list box.

### Delete

Touch Delete to remove the selected target library from your system. When you touch Delete, a message box appears asking to confirm deleting the target library. Touch Yes to delete it.

Note: You cannot delete a target library that is currently specified by a project template.

### Rename

Touch Rename to edit the name of the selected target library. When you touch Rename, a dialog box appears with a field for the target library name. Edit the name and touch Next.

### Import

Touch **Import** to add existing target library file to your system. When you touch **Import**, a Microsoft Windows dialog box appears where you browse for and select Target Tolerance Library (.ttl) files, Mif (.mif) files, or CxF and CxF2 (.cxf) files. Touch **Open** to import the file. If the target library already exists in your system, a dialog box appears asking whether you want to overwrite it. If you touch **No**, another dialog box appears where you can touch or type a new name and touch **Next** to import it.

### Export

Touch **Export** to save the existing target library to a file. When you touch **Export**, a Microsoft Windows dialog box appears where you browse for a location to save the file. Type a name for the file and touch **Save** to export it.

# Target Editor

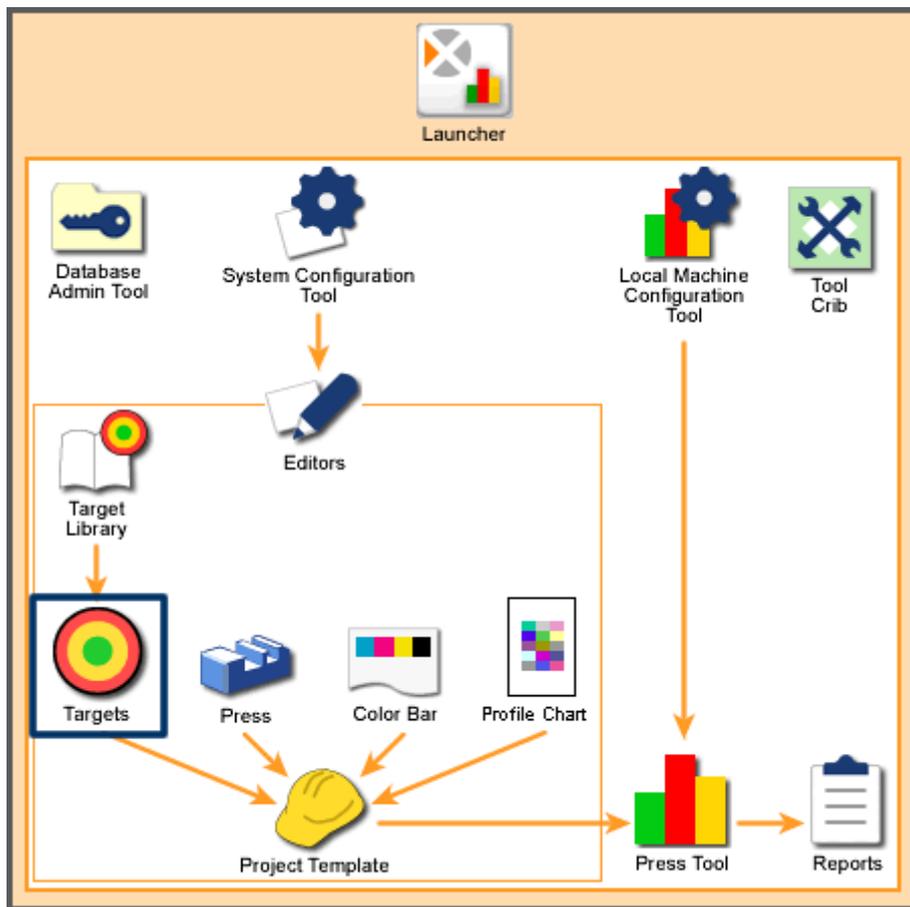
The Target Editor is where you create new targets; edit, duplicate, import and export existing targets; and delete targets from your scanning system.

The Target Editor allows you to store frequently used ink, paper, gray balance, and overprint data (values and tolerances) for specific patches on a color bar. When you set up a new project template, you can use this data for the project template's patch targets and tolerances.

Targets that you create with this tool can be saved as part of a project template using the Project Template Editor.

To start the Target Editor,

1. Start the Launcher and touch the Editors button.
2. Touch or type your password and touch Submit Password.
3. When the Editors screen appears, touch the Targets button.



**Scanning System Overview: Targets Editor**

## Home

### Target Library List Box

A list of the target libraries (sets of target) currently available to your system. Target Libraries are created with the Target Library Editor.

Use the following controls when using the Target Library list box:

- If your system has more than four target libraries, you can touch Find to open a dialog box where you can type the name of a target library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed target library, touch it to select it. Then you can use the buttons on the right of the screen to manage the target library.

### Target Name List Box

A list of the targets associated with the currently selected target library in the Target Library list box. Use the following controls when using the Target Name list box:

- If target library has more than four targets, you can touch Find to open a dialog box where you can type the name of a target and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed target, touch it to select it. Then you can use the buttons on the right of the screen to manage the target.

Note: A message at the bottom, right of the screen show which item is selected.

### Create

Touch Create to start the procedure for creating a new target for a target library. First select a target library from the Target Library list box and then touch Create. The Pick a Target dialog box appears. Then depending on the type of target selected, either the Enter Target Name screen or the Ink Selections screen appears.

### Delete

Touch Delete to remove the selected target from the selected target library. When you touch Delete, a message box appears asking to confirm deleting the target. Touch Yes to delete it.

Note: You cannot delete a target library that is currently specified by a project template.

### Rename

Touch Rename to edit the name of the selected target. When you touch Rename, a dialog box appears with a field for the target name. Edit the name and touch Next.

Note: You cannot rename an overprint or gray balance type of target.

## Duplicate

Touch Duplicate to create a copy of the selected target. When you touch Duplicate, a dialog box appears where you can give the duplicate target a new name. To save the new target, touch Next.

Note: You cannot duplicate an overprint or gray balance type of target.

## Edit

Touch Edit to open a screen where you can change the tolerances for the selected target. When you touch Edit, a target editor screen appears. The screen that appears depends on the type of target you select.

- Ink Targets
- Paper Targets
- Overprint Targets
- Gray Balance Targets

## Import

Touch Import to add existing targets to your system. When you touch Import, a Microsoft Windows dialog box appears where you browse for and select Target Tolerance (.tt) files. Touch Open to import the file. If the target already exists in your system, a dialog box appears asking whether you want to overwrite it. If you touch No, another dialog box appears where you can touch or type a new name and touch Next to import it.

## Export

Touch Export to save the existing target to a file. When you touch Export, a Microsoft Windows dialog box appears where you browse for a location to save the file. Type a name for the file and touch Save to export it.

Note: You cannot export an overprint or gray balance type of target.

## Handheld Connection

At the bottom, left of all Editor screens is a Handheld Instrument Connection button. This button indicates whether a handheld instrument for measuring color is connected to the computer.



Solid circle indicates that a handheld measuring instrument is connected.



Split circle indicates that a handheld measuring instrument is not connected.

When you touch the Handheld Connection button, the Handheld Connection screen appears and has the following controls:

### **Connect Through Instrument**

Touch this button if the handheld is connected to the port on the scanning instrument. Use the Instrument Name field to enter a scanner name.

### **Connect Through Serial Port**

Touch this button if the handheld measuring instrument is connected to a serial port on this computer. Use the Available Serial Ports list box to select the serial port:

If your system has more than three serial ports, you can touch Page Up and Page Down to scroll through the list. When you locate the needed serial port, touch it to select it.

### **Connect and Disconnect**

Touch the Connect button to connect through the selected method and close the Handheld Connection screen. Touch the Disconnect button to disconnect the handheld from the selected connection method.

### **Calibration**

Touch this button to open the handheld calibration screen. From this screen, you perform manual calibration and return to the measurement screen. A dialog on the computer screen appears instructing you to refer to the handheld screen for instructions. After calibration, close the dialog on the computer.

### **Pick a Target**

The Pick a Target dialog box is the first step in creating a new target. When in the Targets Editor screen, from the Target Library list box, touch the target library for the new target. Then touch Create. The Pick a Target dialog box appears and has the following buttons:

### **Ink**

Touch this button if you want to create a solid ink and/or any corresponding screen tint targets. After you touch Next, the Enter Target Name dialog box appears where you can use a measuring instrument to read an ink patch to get target values.

## Paper

Touch this button if you want to create a paper target. After you touch Next, the Enter Target Name dialog box appears where you can use a measuring instrument to read a paper patch to get target values.

## 2 Color Overprint

Touch this button if you want to create a target out of two solid inks. After you touch Next, the Ink Selection dialog box appears where you can select two colors to combine to make the overprint.

## 3 Color Overprint

Touch this button if you want to create a target out of three solid inks. After you touch Next, the Ink Selection dialog box appears where you can select three colors to combine to make the overprint.

## Gray Balance (1, 2, and 3)

Touch one of these buttons to create a gray balance target. Each button represents a certain gray balance percentage, which is set up using the System Configuration Tool. After you touch Next, the Ink Selection dialog box appears where you can select three colors to combine for the gray balance.

## Next

Touch this button to open either the Enter Target Name dialog box or the Ink Selection dialog box.

## Enter Target Name

The Enter Target Name dialog box is the second step in creating a new ink or paper target. This dialog box appears when you touch Next after selecting Ink or Paper on the Pick a Target dialog box.

Note: The controls for this dialog box depend on whether a handheld measuring device is currently connected to your system. See the Handheld Device button at the bottom, left of the Targets Editor screen:



If a device is not connected (split circle), see below for descriptions of the controls.

## Name

Touch this field to open a dialog box where you can touch or type the name of the new target.

## Enter L\*a\*b\* Values

Touch these fields to open dialog boxes where you can touch or type values. After entering the values, the approximate color of the patch is displayed in the circle.

## Next

Touch this button to complete the target creation process and open an edit target screen where you can adjust target and tolerance values.



If a device is connected (solid circle), see below for descriptions of the controls.

## Name

Touch this field to open a dialog box where you can touch or type the name of the new target.

## Take a Measurement

Touch this button if you would like to take a reading with your measurement instrument. After taking a reading of an ink or paper patch with a measurement instrument, the approximate color of the patch is displayed here.

## Color

Luminance and chromatic values. After taking a reading of an ink or paper patch with a measurement instrument, the color values of the reading are displayed here.

## Density

Density values for cyan, magenta, yellow, and black. After taking a reading of an ink or paper patch with a measurement instrument, the density values of the reading are displayed here.

## Next

Touch this button to complete the target creation process and open an edit target screen where you can adjust target and tolerance values.

## Ink Selection

The Ink Selection dialog box is the second step in creating a new overprint or gray balance target. This dialog box appears when you touch Next after selecting an Overprint or Gray Balance button on the Pick a Target dialog box. The Ink Selection dialog box has the following controls:

## **Ink Units**

When you touch an Ink Unit in the Target Name list box, the color appears in the selected ink unit, then the next ink unit becomes selected. After two or three ink units are selected, the approximate combined color appears at the right and the Next ink unit becomes active.

## **Target Name List Box**

A list of the targets available in the current target library. Use the following controls when using the Target Name list box:

If your system has more than four target types, you can touch Find to open a dialog box where you can type the name of a target and search for it. You can also touch Page Up and Page Down to scroll through the list.

When you locate the needed target, touch it to make the currently selected ink well that color.

## **Next**

Touch this button to complete the target creation process and open an edit targets screen where you can adjust target and tolerance values.

## **Edit Ink Target**

The Edit Ink Target screen allows you to adjust targets and tolerances for solid inks. This screen appears when you do one of the following:

- Touch Edit on the Targets Editor screen when an ink type of target is selected.
- Touch Next on the Enter Target Name dialog box after measuring an ink patch.

The controls on the Edit Ink Target screen depend on how the patch was measured. The following is a list of controls that can appear on the Edit Ink Target screen:

### **Circle/Name**

At the top left, there is a circle with the approximate color of the ink patch and the name of the target.

### **Solid Targets/Tolerance Table**

This table lists the values for various ink targets (such as Density, Grayness, and Hue Error). An ink patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch the needed square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

### **Tints Targets/Tolerance Table**

This table lists the values for various tints of the ink targets (such as Density and Dot Gain). An ink tint patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

If your system has tints, touch the left or right arrow to change the tint and change the target and tolerance values. Tint percentages are set using the System Configuration Tool.

To edit a target or tolerance value, touch the needed square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

### **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the ink target. For example, a blue ink patch would likely have Cyan as a dominant filter.

To change the filter to use a non-dominant filter, touch the button for another filter. Note that the target values in the Solid and Tints Target/Tolerance tables change.

### **Save**

Touch this button to save the edits you have made to the current ink target and close the Edit Ink Target screen.

### **Save and Create Another**

This button appears when you are creating target inks in the Target Ink Editor. Touch this button if you intend on creating more than one target ink.

### **Edit Paper Target**

The Edit Paper Target screen allows you to adjust targets and tolerances for a paper patch. This screen appears when you do one of the following:

- Touch Edit on the Targets Editor screen when a paper type of target is selected.
- Touch Next on the Enter Target Name dialog box after measuring a paper patch.

The controls on the Edit Paper Target screen depend on how the target was measured. The following is a list of controls that can appear on the Edit Paper Target screen:

### **Circle/Name**

At the top left, there is a circle with the approximate color of the paper patch and the name of the target.

### **Paper Targets/Tolerances**

This table lists the values for various paper targets (such as Density and Brightness). A paper patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch the needed square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

### **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the paper target. For example, a white paper would likely have Visual as a dominant filter.

To change the filter to use a non-dominant filter, touch the button for another filter. Note that the target values in the table change.

### **Save**

Touch this button to save the edits you have made to the current paper target and close the Edit Paper Target screen.

## **Edit Overprint Target**

The Edit Overprint Target screen allows you to adjust targets and tolerances for solid ink overprints. This screen appears when you do one of the following:

- Touch Edit on the Targets Editor screen when an overprint type of target is selected.
- Touch Next on the Ink Selection dialog box after selecting targets.

The controls on the Edit Overprint Target screen depend on how the patch was measured. The following is a list of controls that can appear on the Edit Overprint Target screen:

## **Circles/Names**

At the top left, there are two or three circles with the approximate colors and the names of the inks selected for the overprint. The circle on the right is filled with the approximate color of the combined inks along with the names of the inks.

## **Overprint Targets/Tolerances**

This table lists the values for various ink targets (such as Density, Hue Error, and Trap). An overprint ink patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch the needed square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

## **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the overprint ink targets.

To change the dominant filter, touch the button for another filter. Note that the target values in the table change.

## **Save**

Touch this button to save the edits you have made to the current overprint target and close the Edit Overprint Target screen.

## **Edit Gray Balance Target**

The Edit Gray Balance Target screen allows you to adjust targets and tolerances for gray balance. Gray balance is set up using the System Configuration Tool.

This screen appears when you do one of the following:

- Touch Edit on the Targets Editor screen when a gray balance type of target is selected.
- Touch Next on the Ink Selection dialog box after selecting targets.

The following is a list of controls that can appear on the Edit Gray Balance Target screen:

## **Circles/Names**

At the top left, there are three circles with the approximate colors and the names of the inks selected for gray balance. The fourth circle is filled with gray and the names of the inks along with the percentage for this particular gray balance. (The gray balance percentages are set for the system using the System Configuration Tool.)

## **Gray Balance Targets/Tolerances**

This table lists the values for various gray balance targets (such as the Inks and L\*a\*b\* colors). Three ink patches on a printed sheet are read by a measuring instrument and the resulting values are displayed in the buttons with a green outlines.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch the needed square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

Note: You can only edit targets and tolerances with buttons that have color outlines.

## **Save**

Touch this button to save the edits you have made to the current gray balance target and close the Edit Gray Balance Target screen.



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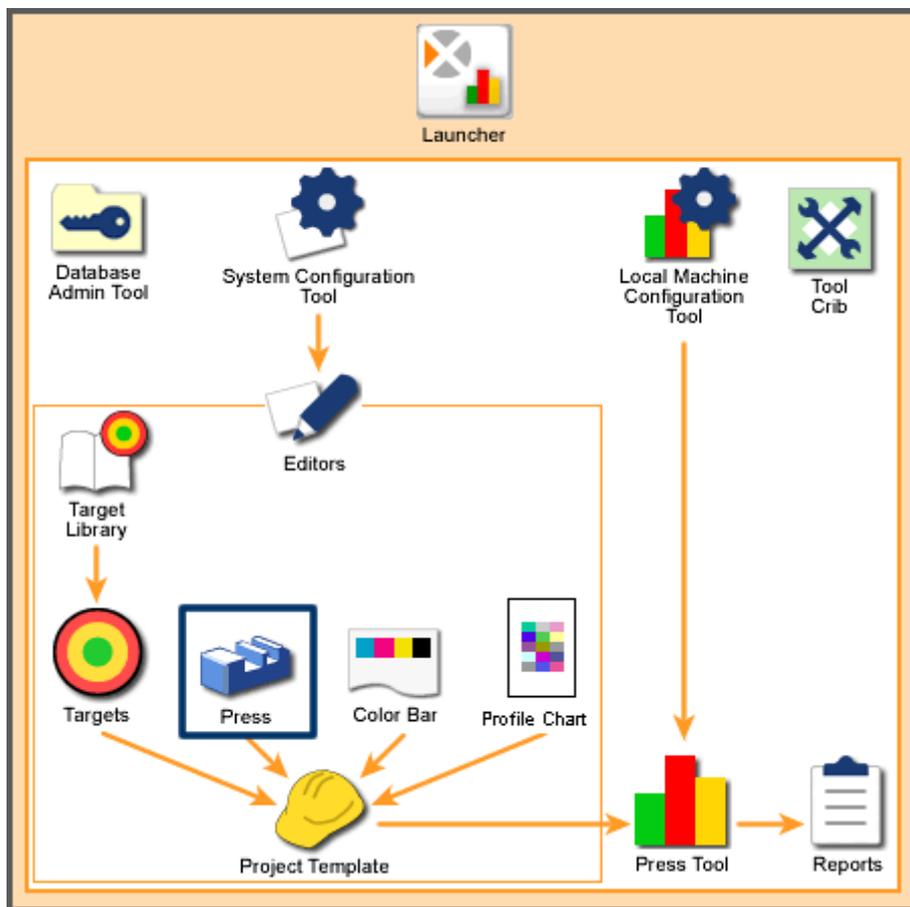
## Press Editor

The Press Editor is where you create new press types; edit, duplicate, import and export existing press types; and delete press types from your scanning system.

Press definitions that you create with this tool can be saved as part of a project template using the Project Template Editor.

To start the Press Editor,

1. Start the Launcher and touch the Editors button.
2. Touch or type your password and touch Submit Password.
3. When the Editors screen appears, touch the Press button.



***Scanning System Overview: Press Editor***

## Home

### Press List Box

A list of the press types currently available to your system appear at the left of the screen. Use the following controls when using the Press list box:

- If your system has more than seven press types, you can touch Find to open a dialog box where you can type the name of a press type and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed press, touch it to select it. Then you can use the buttons on the right of the screen to manage the press type.

### Create

Touch Create to start the procedure for creating a new press type. When you touch Create, a dialog box appears requesting the name and basic parameters of the new press type. From this dialog box you go to the Edit Press screen to define and save the new press type.

### Delete

Touch Delete to remove the selected press type from your system. When you touch Delete, a message box appears asking to confirm deleting the press type. Touch Yes to delete it.

Note: You cannot delete a press type that is currently specified by a project template.

### Rename

Touch Rename to edit the name of the selected press type. When you touch Rename, a dialog box appears with a field for the press type name. Edit the name and touch Next.

### Duplicate

Touch Duplicate to create a copy of the selected press type. When you touch Duplicate, a dialog box appears where you can give the duplicate press type a new name. To save the new press type, touch Next.

### Edit

Touch Edit to open the screen where you can change the parameters of the selected press type. When you touch Edit, a new screen appears with controls for editing the press type. After editing the press type, touch Save to save it.

## **Import**

Touch Import to add existing press types to your system. When you touch Import, a Microsoft Windows dialog box appears where you browse for and select Press Editor (.pss) files. Touch Open to import the file.

If the press type already exists in your system, a dialog box appears asking whether you want to overwrite it. If you touch No, another dialog box appears where you can touch or type a new name and touch Next to import it.

## **Export**

Touch Export to save the existing press type to a file. When you touch Export, a Microsoft Windows dialog box appears where you browse for a location to save the file. Type a name for the file and touch Save to export the file.

## **Create: Press**

The Create: Press dialog box is the first step in creating a new press type for your system. This dialog box appears when you touch Create on the Press Editor screen and has the following controls:

### **Name**

Touch this field to open a dialog box where you can touch or type the name of the new press type.

### **Non Perfected**

Select this button if the press is set up for non-perfected (one-sided) printing.

### **Perfecting**

Select this button if the press is set up for perfected (two-sided) printing.

### **Reverse Perfecting**

Select this button if the press is set up for perfected (two-sided) printing in reverse order (printing on the back side before printing on the front side).

### **Blanket-to-Blanket**

Select this button if the press is set up for blanket-to-blanket (two-sided) printing on both sides of the paper in a single pass.

### **Number of Ink Units**

Touch this button to edit the number inks the press types use. The default number is eight.

## **Next**

Touch this button to open the Edit Press screen so you can edit and save the parameters for the new press type.

## **Edit Press**

The Edit Press screen allows you to create and change parameters to the press types in your system. This screen appears when you do one of the following:

- Touch Edit on the Press Editor screen.
- Touch Next on the Create: Press dialog box.
- Touch Next on the Duplicate: Press dialog box.

Which controls appear on the Edit Press screen depend on how the press type was defined when it was created. The following is a list of controls that can appear on the Edit Press screen:

### **Name**

This field displays the name of the press type you are currently editing.

### **Total Number of Ink Units**

This field displays the number of inks the press can use. This was defined when the press type was created.

### **Number of Keys**

Touch this button to touch or type the number of print keys that the press has.

### **Key Width**

Touch this button to touch or type the width in millimeters of each print key.

### **First and Last Key Width**

Touch this button to touch or type the width in millimeters of the first and last print keys.

### **Total Press Width**

This field displays the total width of all keys.

### **Ink Unit Graphic**

This area contains a graphic that represents how the ink units on the actual press are setup. The numbers on the graphics correspond to ink units on the press.

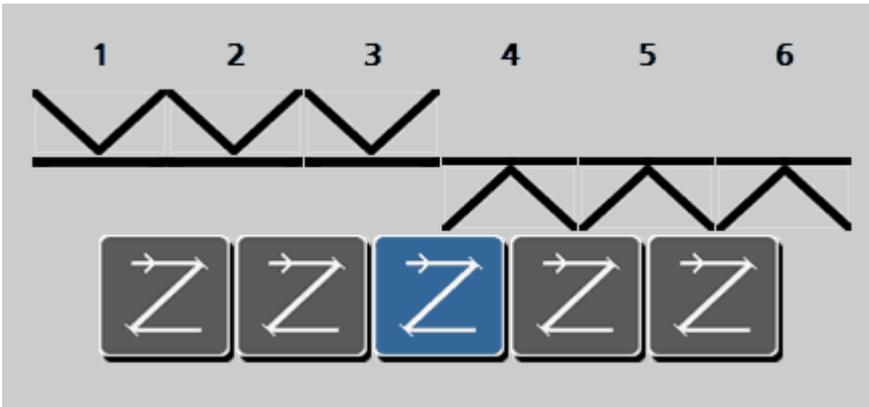
The graphic that appears depends on the type of press:

### Non-Perfected Press



Non-perfected presses have only one side so the graphic shows ink units only on one side.

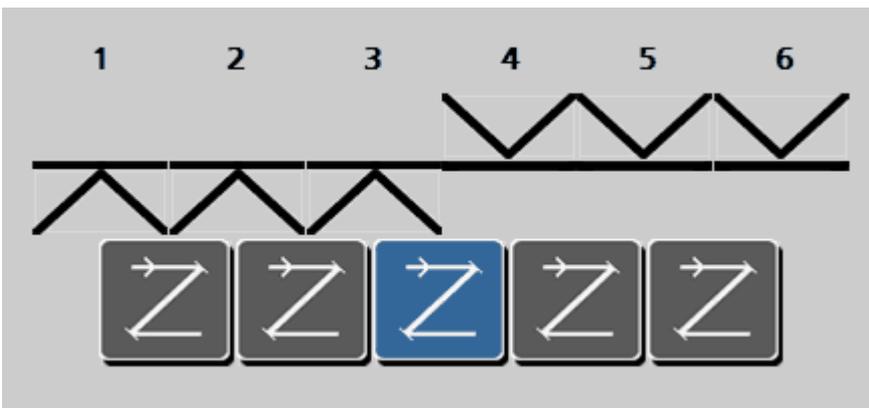
### Perfected Press



Perfected presses have two sides so the graphic shows ink units on two sides. The buttons below the graphic represent tumblers that flip the paper in a press. Touch the button between the ink units where the tumbler is on the actual press.

Note: If the press has more than one tumbler, you must create a separate press definition for each configuration.

### Reverse Perfected Press

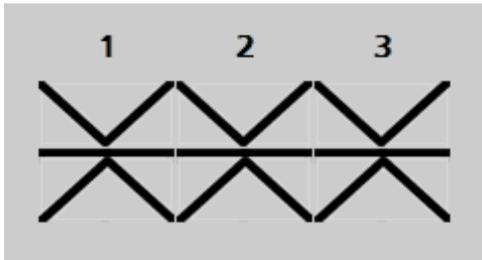


Perfected presses have two sides so the graphic shows ink units on two sides of the paper. The buttons below the graphic represent tumblers that flip the paper in a press. Touch the button between the ink units where the tumbler is on the actual press.

Reverse perfected presses print on the back side of the paper before flipping it to print on the front side.

Note: If the press has more than one tumbler, you must create a separate press definition for each configuration.

### **Blanket-to-Blanket Press**



Blanket-to-Blanket presses have two sides, but print on both side in a single pass through the press. So the graphic shows ink units on two sides, but no tumblers.

### **Save**

Touch this button to save the edits you have made to the current press and close the Edit Press screen.

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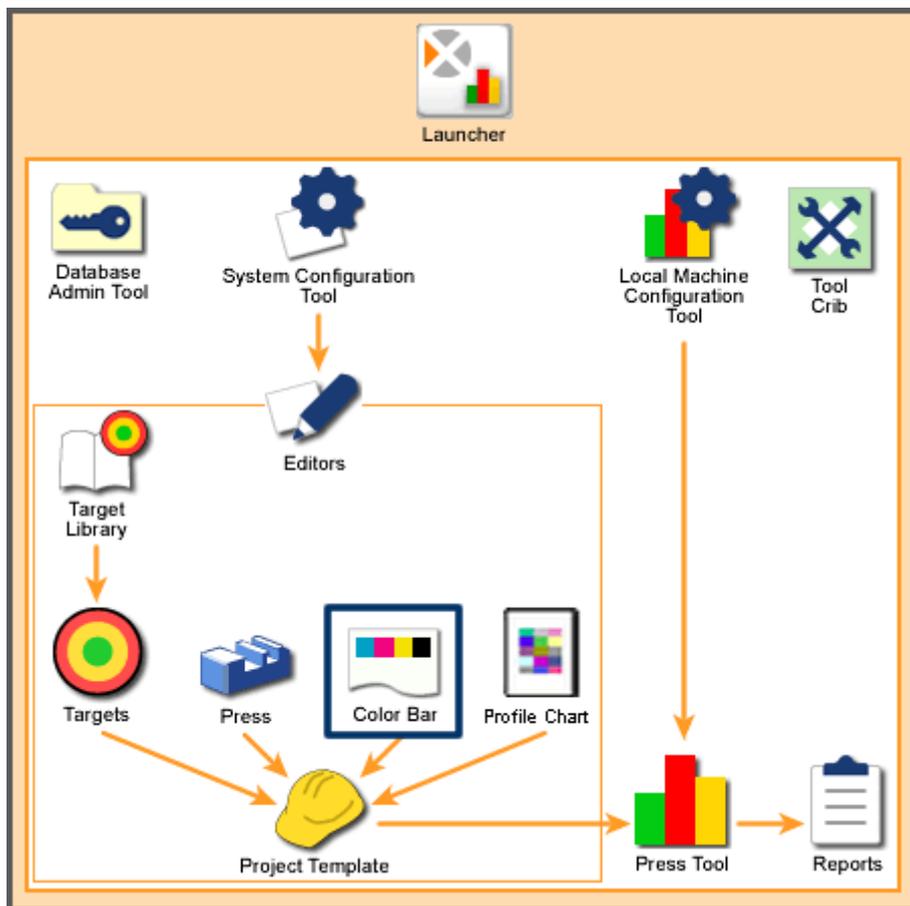
## Color Bar Editor

The Color Bar Editor is where you create new color bars; edit, duplicate, import and export existing color bars; and delete color bars from your scanning system. The Color Bar Editor allows you to organize and set up your color bars to reflect the actual color bars used on a press.

Color bars that you create with this tool can be saved as part of a project template using the Project Template Editor.

To start the Color Bar Editor,

1. Start the Launcher and touch the Editors button.
2. Touch or type your password and touch Submit Password.
3. When the Editors screen appears, touch the Color Bar button.



***Scanning System Overview: Color Bar Editor***

## Home

### Color Bar List Box

A list of the color bars currently available to your system. Use the following controls when using the Color Bar list box:

- If your system has more than seven color bars, you can touch Find to open a dialog box where you can type the name of a color bar and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed color bar, touch it to select it. Then you can use the buttons on the right of the screen to manage the color bar.

### Create

Touch Create to start the procedure for creating a new color bar. When you touch Create, a dialog box appears requesting the name and basic parameters of the new color bar. From this screen you go to the Edit Color Bar screen to define and save the new color bar.

### Delete

Touch Delete to remove the selected color bar from your system. When you touch Delete, a message box appears asking to confirm deleting the color bar. Touch Yes to delete it.

Note: You cannot delete a color bar that is currently specified by a project template.

### Rename

Touch Rename to edit the name of the selected color bar. When you touch Rename, a dialog box appears with a field for the color bar name. Edit the name and touch Next.

### Duplicate

Touch Duplicate to create a copy of the selected color bar. When you touch Duplicate, a dialog box appears where you can give the duplicate color bar a new name. To save the new color bar, touch Duplicate.

### Edit

Touch Edit to open the screen where you can change the parameters of the selected color bar. When you touch Edit, the Edit Color Bar screen appears, which has controls for editing the color bar. After editing the color bar, touch Save to save it.

### Import

Touch Import to add existing color bars to your system. When you touch **Import**, a Microsoft Windows dialog box appears where you browse for and select the color bar

file. Available formats are cbl (Color Bar Library) and pdf. Touch **Open** to import the file. Once imported, you may want to view the color bar to ensure it is correct.

**NOTE:** To learn how to save an EPS color bar file as a PDF, refer to the Appendices.

If the color bar already exists in your system, a message box appears asking whether you want to overwrite it. If you touch No, a dialog box appears where you can touch or type a new name and touch Next to import it.

## Export

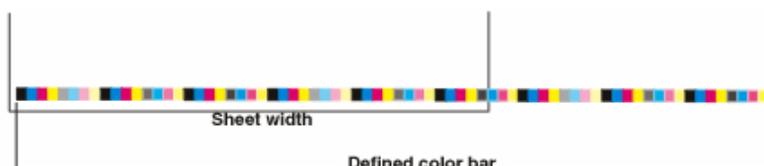
Touch Export to save the existing color bar to a file. When you touch Export, a Microsoft Windows dialog box appears where you browse for a location to save the file. Type a name for the file and touch Save to export the file.

## Requirements

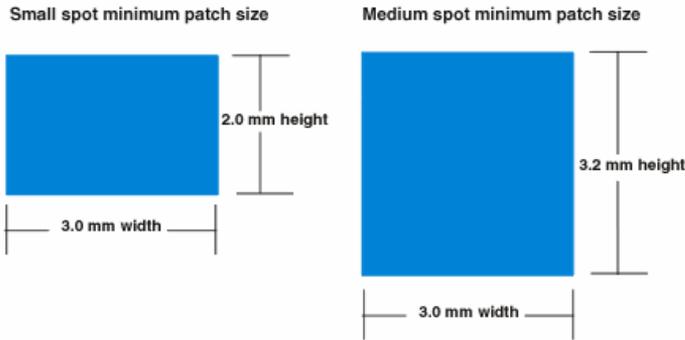
These pages contain the Color Bar, Stripping, and Paper guidelines to help you create a color bar. The guidelines help ensure that the instrument can read the strip.

### Color Bar Requirements

- You can use up to 16 inks per side in a color bar.
- Color bars can be defined as longer than the sheet width.



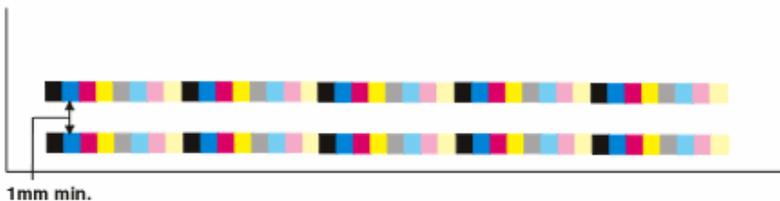
- A color bar can be set as a "repeat," where a section of the bar is repeated one after another. In this case, the repeating pattern cannot be a mirror image of itself.
- Patches of the same color can be adjacent (for example, a cyan solid and cyan 75%). Patches of the same type cannot be adjacent (for example, two solid cyan patches).
- The smallest measurable patch width is 3.0 mm. The smallest measurable patch height is 2.0 mm for small spot systems and 3.2 for medium spot systems.



- The smallest "Not Used" patch width is 0.5 mm.
- A patch cannot be wider than a key width.

### Stripping Requirements

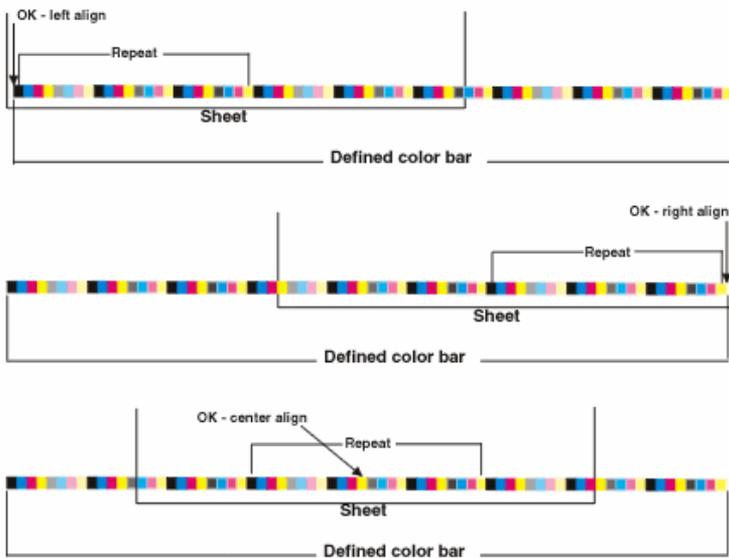
- Repeats must be consistent in length.
- Fractional repeats can only exist at the beginning or end of a sheet.
- Extra, non-paper information should be designated as a not used patch (this covers duds, slurs, sunburst patterns, etc.) The scanning system only recognizes solids, screened tints, overprints (2 & 3 color), gray balance and paper patches. Anything else should be saved as a "Not Used" patch.
- If there is not a paper patch defined in the color bar or present on the printed page, there must be blank paper somewhere in the patch of the scanning system (for example, at the edge).
- The color bar can be stripped at a slight angle (with respect to the sheet edge), as long as it is within 1.5 inches of the sheet edge for the entire length. It is recommended that any angle be kept to less than 1° to assure successful recognition and measurement.
- The color bar cannot be "bowed." While it can be at a slight angle (as indicated in the previous statement), it must be in a straight line (the middle of the color bar cannot be higher or lower than both of the ends).
- A minimum 1 mm surround (top and bottom) must exist between two adjacent color bars, a color bar and an ICC profile chart, or a color bar and the image.



- Spacing between rows in an ICC profile chart is not permitted. However, a minimum 1 mm space is required between an ICC profile chart and a color bar as mentioned above.



- For the instrument pattern recognition of a color bar to work properly, the repeat of a color bar must start and end at a specified left alignment, right alignment or center alignment on the sheet. The color bar defined in the application can be wider than the sheet (for example, 32in/813mm sheet with 40in/1016mm color bar definition) as long as the alignment rules mentioned for the sheet are followed.



## Paper Requirement

Nominal paper size must remain constant throughout the run. Paper which is cut and re-measured may have patch-to-key assignment differences.

## Create: Color Bar

The Create: Color Bar dialog box is the first step in creating a new color bar for your system. This dialog box appears when you touch Create on the Color Bar Editor screen and has the following controls:

Name

Touch this field to open a dialog box where you can touch or type the name of the new color bar.

## **Color Bar Height**

This button is where you touch or type the needed height of the color bar in millimeters.

Note: The minimum color bar height for small spots is 2.0mm, for medium spots is 3.2mm, and for large spots is 4.0mm.

## **Standard Patch Width**

This button is where you touch or type the needed width of the patches (sections) of the color bar in millimeters.

Note: The minimum color bar patch width is 3.0mm. (The minimum for a not-used patch is 0.5mm.)

## **Next**

Touch this button to open the Edit Color Bar screen so you can edit and save the parameters for the new color bar.

## **Duplicate: Color Bar**

The Duplicate: Color Bar dialog box is how you create a new color bar by using an existing color bar as a starting point. This dialog box appears when you touch Duplicate on the Color Bar Editor screen and has the following controls:

### **Name**

This field is where you touch or type the name of the new color bar.

### **Flop Color Bar**

This checkbox reverses the order of the color bar patches. For example, assume the original color bar has four patches in this order: black, cyan, magenta, yellow. If you select Flop Color Bar, the new color bar will have the patches in this order: yellow, magenta, cyan, black.

### **Duplicate**

Touch this button to open the Edit Color Bar screen so you can edit and save the parameters for the new color bar.

## **Edit Color Bar**

The Edit Color Bar screen allows you to create and change parameters to the color bars in your system. This screen appears when you do one of the following:

- Touch Edit on the Color Bar Editor screen.

- Touch Next on the Create: Color Bar dialog box.
- Touch Duplicate on the Duplicate: Color Bar dialog box.

## Controls Descriptions

### Color Bar Editing Area

The top of the Edit Color Bar screen shows the complete color bar with all its patches. On this color bar is a black rectangle that is nine patches wide. Below the color bar is the detail view of those patches within the black rectangle.

You can move the black rectangle by touching the top color bar. You can also move it by touching the arrows on the left and right side of the detail color bar.

Select a patch by touching it on the detail color bar.

### Patch Type

These buttons allow you to define the patch type. Touch the button. Select a patch on the close-up view then touch a Patch Type button to define the patch. The buttons are defined as follows:

	Single Ink Solid
	Single Ink Tint
	Overprint
	Gray Solid
	Gray Balance
	



Paper

Not Used (or Slur)

### **Tint Value**

These buttons allow you to add a tint value to a patch defined as a single-ink tint. When you touch the second Patch Type button, the Tint Value buttons become active. Touch the needed button to tint the patch.

Note: The tint values are setup using the system's System Configuration Tool.

### **Inks**

These 16 buttons allow you to apply an ink color to a patch. Each button has a unique number. The color of the button is defined by touching Change Inks and using the Ink Picker screen.

Note: The ink numbers are also displayed on the patches in the detail color bar.

Note: A gray button with a white slash through it indicates a button that does not have an ink defined for it.

### **Change Inks**

Touch this button to open the Ink Picker screen. The Ink Picker screen is where you can add, edit, and remove colors from the ink wells.

### **Color Bar Name**

This field displays the name of the color bar you are currently editing.

### **Current Patch**

This area contains fields and controls for the patch currently selected in the detail color bar:

- # of #. The patch number from the left of the color bar out of the total number of patches on the color bar.
- Type. The patch type. For example, solid or tint.

- Ink. The ink color that corresponds to the Inks button number.
- Location. The distance in millimeters from the left of the color bar to the beginning of the selected patch.
- Width. The distance in millimeters of the patch from side to side. Touch the button to edit the width.

### **Color Bar Parameters**

This area contains the following field and button for defining the width of the current color bar.

- Total Width. The width of the color bar in millimeters.
- Height. The height of the color bar in millimeters. Touch this button to edit the height of the current color bar.
- Std. Width. The width of a patch in millimeters. Touch this button to edit the width of color bar patches.

### **Insert**

Touch this button to insert a new patch to the left of the currently selected patch in the color bar close-up view.

### **Delete**

Touch this button to delete the currently selected patch in the color bar close-up view.

### **Create Repeat**

Touch this button to start the process of creating a repeat pattern to insert into the color bar.

### **Add Repeat**

Touch this button to insert the repeat patch pattern you created to the left of the currently selected patch in the color bar close-up view.

### **Save**

Touch this button to save the edits you have made to the current color bar and close the Edit Color Bar screen.

## **Procedures**

### **How to Insert a Patch**

1. Touch the insert patch on the detail color bar. The insert patch is the white patch with the red plus sign.

2. Select the needed patch from the Patch Type area.

Note: If you touched the tint patch type, select a value in the Tint Value area.

3. Select colors by touching the needed buttons in the Inks area.

Note: Select as many colors as is needed for the patch type you selected in Step 2.

The new patch is inserted to the left of the insert patch.

### **How to Edit a Color on the Color Bar**

1. Touch the needed patch on the detail color bar.

Note: The Current Patch area becomes active.

2. If you need to change the patch type, select the new type from the Patch Type area.

Note: If you touched the tint patch type, select a value in the Tint Value area.

3. Select colors by touching the needed buttons in the Inks area.

Note: Select as many colors as is needed for the patch type you selected in Step 2.

### **How to Create a Repeat**

1. Touch Create Repeat.
2. Touch the patch on the detail color bar where you want the repeat to start.
3. Touch the patch on the detail color bar where you want the repeat to end.  
The repeat pattern appears under the Create Repeat button.
4. Touch the patch on the detail color bar where you want to insert the repeat.
5. Touch Add Repeat.

## **Ink Picker**

The Ink Picker screen is where you can add, edit, and remove colors from the ink wells. This screen appears when you touch Change Inks on the Edit Color Bar screen and has the following controls:

### **Inks**

These wells allow you to select ink colors to be used on the color bar. Each well has a unique number. The color of the well is defined by touching the well and then selecting a color from the Ink Color list box.

### **Library List Box**

A list of the collections of ink colors currently available to your system. Use the following controls when selecting an ink library for the current project template:

- If your system has more than four ink libraries, you can touch Find to open a dialog where you can type the name of an ink library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed ink library, touch it to select it.

### **Inks List Box**

A list of the colors available from the currently selected ink library. Use the following controls when selecting an ink color for the current project template:

- If the library has more than four colors, you can touch Find to open a dialog where you can type the name of a color and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed ink color, touch the Ink well circle under Inks on the left of the screen, and then touch the needed color in the list to apply it.

Note: Ink wells for black, cyan, magenta, and yellow are always available at the bottom of the screen.

Note: Touch the gray button with a white slash through it to define a well as having no ink.

### **Save**

Touch this button to save the edits you have made to the inks, close the Ink Picker screen, and return to the Edit Color Bar screen.



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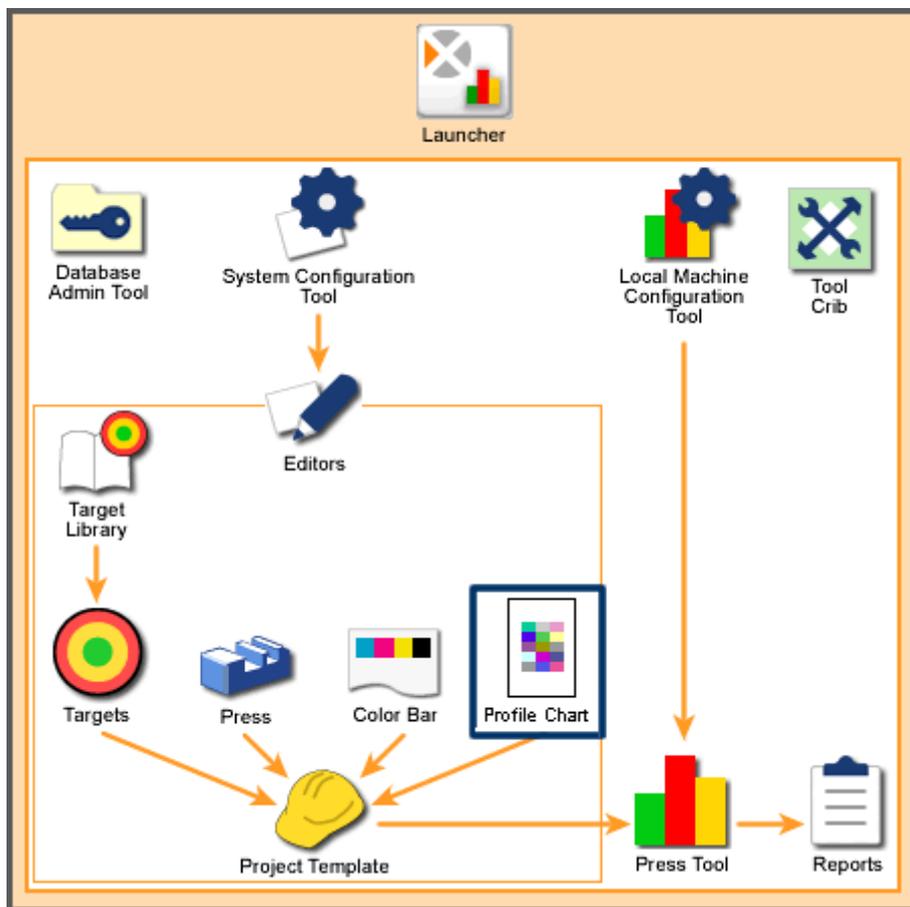
## Profile Chart Editor

The Profile Chart Editor is where you create new profile charts; edit, duplicate, import and export existing profile charts; and delete profile charts from your scanning system.

Profile charts that you create with this tool can be saved as part of a project template using the Project Template Editor.

To start the Profile Chart Editor,

1. Start the Launcher and touch the Editors button.
2. Touch or type your password and touch Submit Password.
3. When the Editors screen appears, touch the Profile Chart button.



***Scanning System Overview: Profile Chart Editor***

## Home

### Profile Chart List Box

A list of the profile charts currently available to your system appear at the left of the screen. Use the following controls when using the Profile Chart list box:

- If your system has more than eight profile charts, you can touch Find to open a dialog box where you can type the name of a profile charts and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed profile chart, touch it to select it. Then you can use the buttons on the right of the screen to manage the profile chart.

### Create

Touch Create to start the procedure for creating a new profile chart. When you touch Create, the first Create: Profile Chart screen appears requesting the name and basic parameters of the new profile chart. From this screen you go to the second Create: Profile Chart screen to define and save the new profile chart.

### Delete

Touch Delete to remove the selected profile chart from your system. When you touch Delete, a message box appears asking to confirm deleting the profile chart. Touch Yes to delete it.

Note: You cannot delete a profile chart that is currently specified by a project template.

### Rename

Touch Rename to edit the name of the selected profile chart. When you touch Rename, a dialog box appears with a field for the profile chart name. Edit the name and touch Next.

### Duplicate

Touch Duplicate to create a copy of the selected profile chart. When you touch Duplicate, a dialog box appears where you can give the duplicate profile chart a new name. To save the new profile chart, touch Next.

### Edit

Touch Edit to open the screens where you can change the parameters of the selected press type. When you touch Edit, the first Create: Profile Chart screen appears where you can edit the basic profile chart parameters. From this screen you go to the second Create: Profile Chart screen to make further edits and save the profile chart.

## **Import**

Touch Import to add existing profile charts to your system. When you touch Import, a Microsoft Windows dialog box appears where you browse for and select Profile Type Library (.pft) files. Touch Open to import the file.

If the profile chart already exists in your system, a dialog box appears asking whether you want to overwrite it. If you touch No, another dialog box appears where you can touch or type a new name and touch Next to import it.

## **Export**

Touch Export to save the existing profile chart to a file. When you touch Export, a Microsoft Windows dialog box appears where you browse for a location to save the file. Type a name for the file and touch Save to export the file.

## **Create: Profile Chart – First Screen**

The first Create: Profile Chart screen is the first step in creating or editing a profile chart. This screen appears when you do one of the following:

- Touch Create on the Profile Editor screen.
- Touch Edit on the Profile Editor screen.

The following is a list of controls that can appear on the first Create: Profile Chart screen:

### **Profile Chart Name**

- If you opened the screen by touching Create on the Profile Editor screen, you can touch this field to open a dialog box where you can touch or type the name of the new profile chart.
- If you opened the screen by touching Edit on the Profile Editor screen, name of the current profile chart appears.

### **Printer Type List Box**

A list of the printer types currently available to your system. The Printer Type defines the number of inks the press can use. Use the following controls:

If your system has more than four printer types, you can touch Find to open a dialog box where you can type the name of a printer type and search for it. You can also touch Page Up and Page Down to scroll through the list.

When you locate the needed printer type, touch it to select it.

### **Inks**

Touch this button to open the Ink Picker screen where you can define the extra ink colors for Printer Types with more than four colors.

Note: The Inks button is active only when a Printer Type other than "CMYK" is selected in the Printer Type list box.

### **Scramble Patches**

Select to reorder the sequence of patches in the target. This is useful when printing from a device that outputs ink non-uniformly, such as a press.

### **Next**

Touch this button to open the second Create: Profile Chart screen so you can edit and save the parameters for the profile chart.

## **Create: Profile Chart – Second Screen**

The second Create: Profile Chart screen is the second step in creating or editing a profile chart. This screen appears when you touch Next on the first Create: Profile Chart screen. The following is a list of controls that appear on the second Create: Profile chart screen:

### **Pre-Ink Limiting**

Represents the maximum amount of all inks available for printing. This setting recalculates the number of patches in the Quality List box.

Touch this button to open a dialog box where you can touch or type the value for pre-ink limiting.

The number that you enter for this button changes the choices available in the Quality list box.

Note: This button is dimmed if ECI, IT8.7/4, or IT8.7/3 is selected in the Quality list box. These targets are industry standards.

### **Quality List Box**

Represents printer charts. The patch sets that appear depend on the printer type that was selected on the previous screen and any Pre-Ink limiting that is applied.

There are several patch sets available for CMYK printers, three sets for RGB printers, and multi-ink printers have up to eight colors. The following industry-standard patch sets are also supported:

- IT8.7/3 Extended. Industry standard printer chart.
- IT8.7/4. Primarily used in the packaging industry. This chart contains additional four color (black) patches as well as more patches in the highlight and shadow areas.
- ECI. General characterization. It contains many of the patches used in the IT8.7/4 chart added to the IT8.7/3 chart.

You can touch Find to open a dialog box where you can type the name of a chart quality and search for it. You can also touch Page Up and Page Down to show the first four or second four.

When you locate the needed chart quality, touch it to select it.

### **Output Target Length**

The width entered when the profile chart is generated

Touch this button to open a dialog box where you can touch or type the output target length in millimeters.

### **Aperture Size**

An instrument can have one of three standards (small, medium, or dynamic polarization) for its aperture or slot through which the instrument reads color patches on paper. Select the standard for the instrument your system is using.

### **Save**

Touch this button to save the edits you have made to the current profile chart and close the second Create: Profile Chart screen.

Note: A message dialog will appear after touching Save if the system calculates that more than one page is required for the profile chart. Touch **Yes** to continue.

### **Ink Picker**

The Ink Picker screen is where you can add, edit, and remove colors from the ink wells. This screen appears when you touch Change Inks on the Edit Color Bar screen and has the following controls:

#### **Inks**

These wells allow you to select ink colors to be used on the color bar. Each well has a unique number. The color of the well is defined by touching the well and then selecting a color from the Ink Color list box.

#### **Library List Box**

A list of the collections of ink colors currently available to your system. Use the following controls when selecting an ink library for the current project template:

- If your system has more than four ink libraries, you can touch Find to open a dialog where you can type the name of an ink library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed ink library, touch it to select it.

## **Inks List Box**

A list of the colors available from the currently selected ink library. Use the following controls when selecting an ink color for the current project template:

- If the library has more than four colors, you can touch Find to open a dialog where you can type the name of a color and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed ink color, touch the needed well under Inks on the left of the screen, and then touch the needed color in the list to apply it.

## **Remove Ink Button**

Touch this button at the bottom, right of the screen to remove the ink from the selected Ink wells.

## **Save**

Touch this button to save the edits you have made to the inks, close the Ink Picker screen, and return to the Create: Profile chart screen.

---

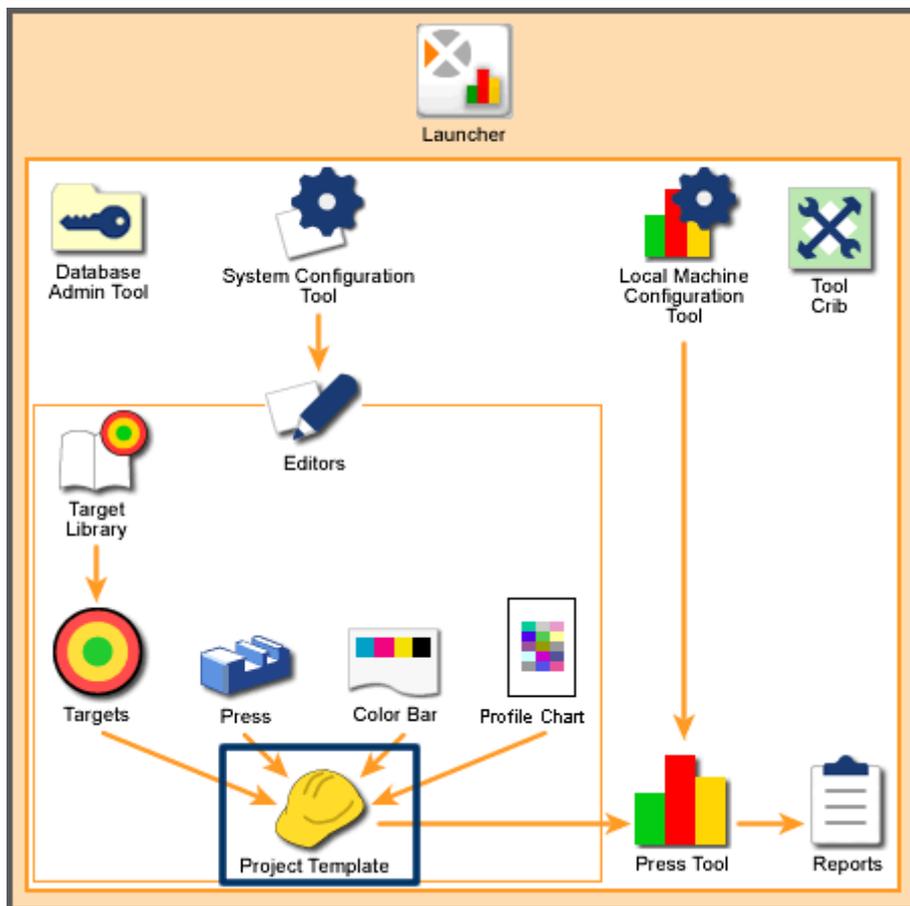
## Project Template Editor

The Project Template Editor is where you create new project templates; edit, duplicate, import and export existing project templates; and delete project templates from your scanning system.

A project template defines a press, color bar, paper, ink, and profile to be used for jobs. In the Press Tool, you select a single project template to quickly define the basic requirements for a job.

To start the Project Template Editor,

1. Start the Launcher and touch the Editors button.
2. Touch or type your password and touch Submit Password.
3. When the Editors screen appears, touch the Project Template button.



**Scanning System Overview: Project Template Editor**

## Home

### Project Template List Box

A list of the project templates currently available to your system appear at the left of the screen. Use the following controls when using the Project Template list box:

If your system has more than seven project templates, you can touch Find to open a dialog where you can type the name of a project template and search for it. You can also touch Page Up and Page Down to scroll through the list.

When you locate the needed project template, touch it to select it. Then you can use the buttons on the right of the screen to manage the project template.

### Create

Touch Create to start the procedure for creating a new project template. When you touch Create, a dialog box appears requesting that name of the new project template. From this dialog box you touch Next go to the Edit Project Template screen to define and save the new project template.

### Delete

Touch Delete to remove the selected project template from your system. When you touch Delete, a message box appears asking to confirm deleting the project template. Touch Yes to delete it.

### Rename

Touch Rename to edit the name of the selected project template. When you touch Rename, a dialog box appears with a field for the project template name. Edit the name and touch Next to save it.

### Duplicate

Touch Duplicate to create a copy of the selected project template. When you touch Duplicate, a dialog box appears where you can give the duplicate project template a new name. Touch Next and go to the Edit Project Template screen.

### Edit

Touch Edit to open the screen where you can change the parameters of the selected project template. When you touch Edit, a new screen appears with controls for editing the project template. After editing the project template, touch Save to save it.

## **Import**

Touch Import to add existing project templates to your system. When you touch Import, a Microsoft Windows dialog box appears where you browse for and select Project Template Editor (.jtl) files. Touch Open to import the file.

If the project template already exists in your system, a dialog box appears asking whether you want to overwrite it. If you touch No, another dialog box appears where you can touch or type a new name and touch Next to import it.

## **Export**

Touch Export to save the existing project template to a file. When you touch Export, a Microsoft Windows dialog box appears where you browse for a location to save the file. Type a name for the file and touch Save to export the file.

## **Edit Project Template**

The Edit Project Template screen allows you to define the press, color bar, paper orientation, paper type, profile, and inks you want to use for a particular job. This screen appears when you do one of the following:

- Touch Edit on the Project Template Editor screen.
- Touch Next on the Enter Project Template Name dialog box.
- Touch Next on the Duplicate: Project Template dialog box.

The Edit Project Template screen has the following controls:

### **Name**

Shows the name of the current project template.

### **Density Status**

Shows the current density status that is being used by your system. This is set using the System Configuration Tool.

### **Illuminant Observer**

Shows the current illuminant observer that is being used by your system. This is set using the System Configuration Tool.

### **Press List Box**

A list of the presses currently available to your system. Press types are created using the Press Editor.

Use the following controls when selecting a press for the current project template:

- If your system has more than three presses, you can touch Find to open a dialog where you can type the name of a press and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed press, touch it to select it.

### **Top Side/Bottom Side Tabs**

If the press you selected in the Press list box is a perfected press, a reverse perfected press or a blanket-to-blanket press, the area at the bottom part of the screen has a Front Side and a Back Side tab.

If the press you selected in the Press list box is a non-perfected press, the area at the bottom part of the screen does not have tabs.

### **Gripper/Tail**

Touch Gripper if the sheets for this project template have the color bar on the gripper edge.

Touch Tail if the sheets for this project template have the color bar on the tail edge.

### **Color Bar List Box**

A list of the color bars currently available to your system. Color bars are created using the Color Bar Editor.

Use the following controls when selecting a color bar for the current project template:

If your system has more than three color bars, you can touch Find to open a dialog where you can type the name of a color bar and search for it. You can also touch Page Up and Page Down to scroll through the list.

When you locate the needed color bar, touch it to select it.

### **Paper**

Touch this button to open the Paper Picker screen. The Paper Picker screen is where you define the paper color that is going to be used with this project template.

### **Inks**

Touch this button to open the Ink Picker screen. The Ink Picker screen is where you define the inks that are going to be used on the press for this project template.

### **Wide Tolerance Factor**

A feature that allows you to set target tolerances in the Press Tool for Make Ready sheets to be wider than those for Production or OK sheets. You might do this if meeting the target tolerances is not critical as you set up a press.

The number is a factor, so target tolerances are multiplied by the number. For example, assume the following:

- Density tolerances = 0.5 and 1.0
- Wide Tolerance Factor = 1.5

Therefore, the density tolerances for the Make Ready sheet will be 0.75 and 1.5.

The default value is 1.00, which means the target tolerances are the same for Make Ready sheets as they are for Production and OK sheets.

Touch this button to edit the wide tolerance factor. (The number must be between 1.00 and 3.00.)

## **Profiling**

Touch this button to open the Target screen where you can either disable the profiling feature or select a profile chart to edit.

When you measure a profile creation target with an instrument, the profile feature creates an "ICC profile" for color matching. For example, from DDCP (Direct Digital Color Proofer) and color printers, you will be able to accurately recreate a color which is created by a press.

Touching this button begins the process for defining a profile that is can be used with this project template.

## **Save**

Touch this button to save the edits you have made to the current color bar and close the Edit Project Template screen.

## **Paper Picker**

The Paper Picker screen is where you define the paper color to be used for the project template. This screen appears when you touch Paper on the Edit Project Template screen and has the following controls:

### **Paper Color Library**

This field shows the name of the Target Library.

### **Paper Color**

This field shows the name of the paper target.

### **Paper Color Swatch**

This field shows the approximate color of the current paper target.

## **Library List Box**

A list of the Target Libraries currently available to your system. Target Libraries are created using the Target Library Editor.

Use the following controls when selecting a Target Library for the current project template:

- If your system has more than four Target Libraries, you can touch Find to open a dialog where you can type the name of a Target Library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed Target Library, touch it to select it.

## **Papers List Box**

A list of the papers available in the currently selected Target Library. Papers are measured and saved to a Target Library using the Target Tolerance Editor.

Use the following controls when selecting a paper for the current project template:

- If the library has more than four papers, you can touch Find to open a dialog where you can type the name of a paper and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed paper, touch it to select it. The target library name appears in the Paper Color Library field, the paper name appears in the Paper Color field, and the approximate color of the paper appears in the Paper Color Swatch field.

## **Save**

Touch this button to save the edits you have made, close the Paper Picker screen, and return to the Edit Project Template screen.

## **Ink Picker**

The Ink Picker screen is where you define the inks to be used on the press for the project template as well as where you define the ink rotation. This screen appears when you touch Inks on the Edit Project Template screen and has the following controls:

### **Inks**

These wells allow you to associate an ink with an ink well on press. (Each well has an ink-well number.) The ink is defined by touching the well and then selecting an ink from the Inks list box.

## Library List Box

A list of the Target Libraries currently available to your system. Target Libraries are created using the Target Library Editor.

Use the following controls when selecting a Target Library for the current project template:

- If your system has more than four Target Libraries, you can touch Find to open a dialog where you can type the name of a Target Library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed Target Library, touch it to select it.

## Inks List Box

A list of the inks available in the currently selected Target Library. Inks are measured and saved to a Target Library using the Target Tolerance Editor.

Use the following controls when selecting an ink color for the current project template:

- If the library has more than four inks, you can touch Find to open a dialog where you can type the name of an ink and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed ink, touch the needed well under Inks on the left of the screen, and then touch the needed ink in the list to apply it.

Note: Touch the gray button with a white slash through it to define an ink unit as having no ink.

## Save

Touch this button to save the edits you have made, close the Ink Picker screen, and return to the Edit Project Template screen.

## Profile Chart

The Profile Chart screen is where you decide whether the profiling feature is to be used with the press for the project template. This screen appears when you touch Profiling on the Edit Project Template screen and has the following controls:

### Profile Chart List Box

A list of the Profile Charts currently available to your system. Profile Charts can be created using the Profile Chart Editor.

Use the following controls when selecting a Profile Chart for the current project template:

- If your system has more than six Profile Charts, you can touch Find to open a dialog where you can type the name of a Profile Chart and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed Profile Chart, touch it to select it.

## **Disable Profiling**

Touch to disable the profile feature for the project template. The Profile Chart screen closes and the monitor returns to the Edit Project Template screen.

## **Next**

Touch to open the Profile Settings screen where you can edit the settings for the current selection in the Profile Chart list box. This enables the profile feature for the project template.

## **Profile Settings**

The Profile Settings screen is where you edit the settings for the profile to be used with the project template. This screen appears when you touch Next on the Profile Chart screen. The Profile Settings screen has three tabs, Profile Options, Measured File, and System Options.

The Profile Settings screen also has two buttons at the bottom:

### **Advanced Options**

Touch this button to open the Advanced Options screen where you can edit advanced option settings for the current profile.

### **Save**

Touch this button to save the edits you have made to the current profile, close the Profile Settings screen, and return to the Edit Project Template screen.

### **Profile Options Tab**

The Profile Options tab has the following controls:

#### **Save Profile**

Select if you want to save the profile settings to a file. If this button is not selected, the File Name and Folder Name controls are dimmed.

#### **File Name**

Touch to open a dialog box where you can touch or type a name for a profile. Touch OK to close the dialog box and save the name.

## Folder Name

The default folder for profiles. Touch the button to the right to browse to and select a different folder or to create a new folder.

## Measured File Tab

The Measured File tab has the following controls:

### Text File Format

Select the data formats for the measured data. You can select multiple formats.

- $L^*a^*b^*$ . Color space in which values  $L^*$ ,  $a^*$ , and  $b^*$  are plotted at right angles to one another to form a three-dimensional coordinate system. Value  $L^*$  represents Lightness; value  $a^*$  represents the Red/Green axis; and value  $b^*$  represents the Yellow/Blue axis.
- XYZ. Amounts of the three components necessary in a three-color additive mixture required for matching a color: in the CIE System, they are designated as X, Y, and Z.
- Reflectance Data. The ratio of the intensity of reflected radiant energy to that reflected from a defined reference standard.
- LCH. A color space that is similar to CIELAB, except uses cylindrical coordinates of lightness, chroma, and hue angle instead of rectangular coordinates.
- Density. Refers to a computed number representing the ability of a transmissive material to block light, or the ability of a reflective surface to absorb light. The more light blocked or absorbed, the higher the density.

### Save Output Data File

Select if you want to save the profile's measured data to a file. If this button is not selected, the File Name and Folder Name controls are dimmed.

### File Name

Touch to open a dialog box where you can touch or type a name for a file for the profile's measured data. Touch OK to close the dialog box and save the name.

### Folder Name

The default folder for the profile measured data files. Touch the button to the right to browse to and select a different folder or to create a new folder.

## System Options Tab

The System Options tab has the following controls:

### **Density Range Tolerance**

Defines the amount of acceptable difference between a density standard and measured patches for a profile. Touch this button to open a dialog box where you can touch or type the density tolerance.

### **Disable Profile Button Unless Tolerance**

Select so the Profile button in the Press Tool is dimmed (disabled) if a measured sheet has patches with values beyond the density tolerance.

### **Warn User When Profile Is out of Range**

If you select this option, a message box appears in the Press Tool after a sheet is measured that has patches with values beyond the density tolerance. Units, key numbers and density values that are out of tolerance will be displayed in the message box.

## **Advanced Options**

The Advanced Options screen is where you edit the advanced option settings for the profiling feature to be used with the project template. This screen appears when you touch Advanced Options on the Profile Settings screen. The Advanced Options screen has two tabs, Ink Controls and Table Options.

The Advanced Options screen also has one button at the bottom:

### **OK**

Touch this button to save the edits you have made to the advanced options, close the Advanced Options screen, and return to the Profile Settings screen.

### **Ink Controls Tab**

The Ink Controls tab has the following controls:

#### **GCR/UCR**

Controls how black ink is substituted for CMY.

- **GCR (Gray Component Replacement).** Select to substitute black ink for some amount of CMY throughout an entire image based on the Black Generation Type box. In GCR, based on the combination of GCR amount and the black generation type, this will replace a part of the whole CMY image with black ink. As you select higher values, more gray components are replaced by black ink, and the high chroma colors that contain little gray component will increase. Touch this button to open a dialog box where you can touch or type the percentage.
- **Black Generation Type.** Select the relative amount of black ink to be used: None, Light, Medium, or Heavy.

- UCR (Under Color Removal). Select to substitute black ink for some amount of CMY only in the neutral and shadow areas of an image. When selected, the Black Generation Type box is dimmed.

### **Maximum Black Ink**

The maximum amount of black ink available for printing. The default setting is 100%.

Caution: Do not change the default when profiling a digital printer.

Touch this button to open a dialog box where you can touch or type the percentage.

### **Total Coverage Area (TAC)**

The maximum amount of all inks available for printing. The default setting is the value of the Pre-Ink Limit setting of the Profile Chart. You can decrease this setting, but you cannot increase it.

Touch this button to open a dialog box where you can touch or type the percentage.

### **Table Options Tab**

The Table Options tab has the following controls:

#### **Rendering Intent**

Select to setup profiling for specific types of printed material.

- Perceptual. A method to convert colors while maintaining the total tone balance. Select to render the closest possible perceptual match, while preserving subtle color relationships, by compressing the entire color gamut and shifting all colors into the printable color gamut. This intent is suitable for converting larger gamut to smaller gamut (i.e. RGB to CMYK).
- Saturation. Select to maintain the original image color saturation when compressing all colors into the target color space. This intent is primarily used to reproduce charts, graphs, or business graphics.
- Relative Colorimetric. Select to remap out-of-gamut colors to the closest reproducible color of the target printer without affecting other in-gamut colors. This intent can cause two colors in the source color space to become the same in the target color space.
- Absolute Colorimetric. Similar to Relative Colorimetric, it remaps colors inside the gamut area to printer-reproducible colors as much as possible without affecting other colors inside the gamut, but white point will not be adjusted. It is effective for simulation including paper colors, since white points appear in colors after adjustment.

#### **Table Resolution**

Select the size of the LUT (lookup table) used in the ICC profile. The software uses the LUT to interpolate colors from the range available. Table Resolution can be thought of

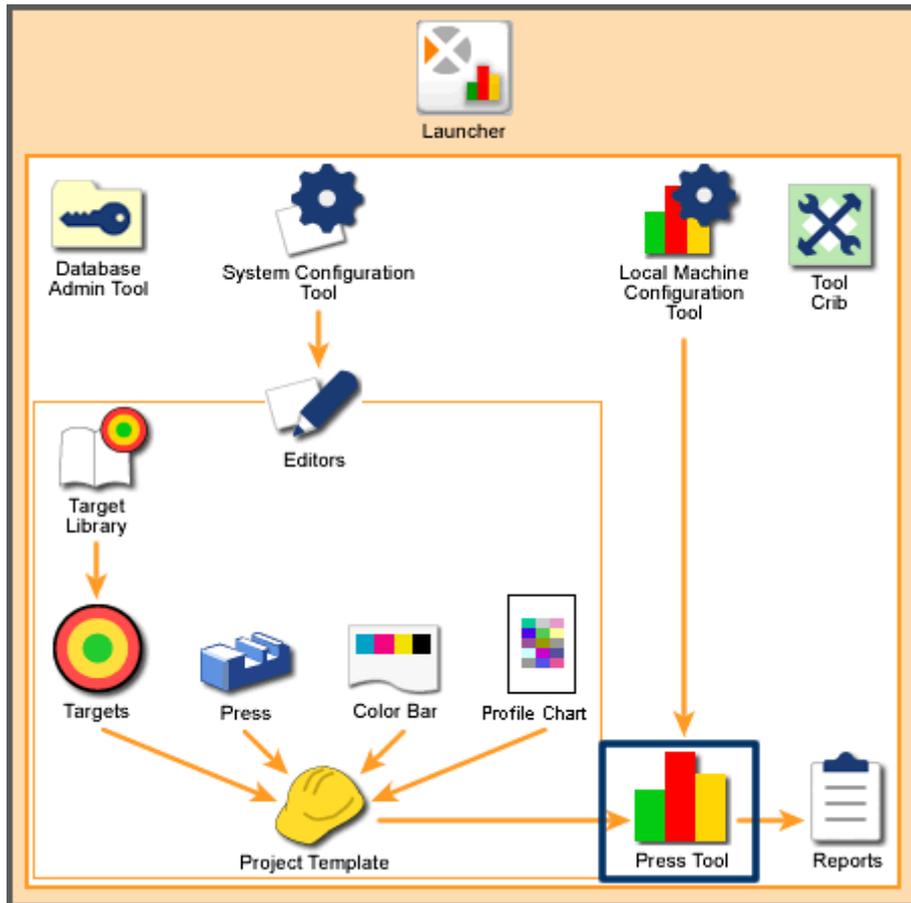
as a cube or node separated into smaller nodes of color. The number of smaller nodes is defined by the Table Resolution setting chosen:

- 17x17x17. 4913 nodes
- 21x21x21. 9261 nodes
- 33x33x33. 35937 nodes

A larger table may render color more accurately. Larger profiles take up more disk space and use more printer memory.

# Press Tool

The Press Tool allows you to use a spectrophotometer instrument to scan color bars from a press sheet and view the scanned data. Targets and tolerances for various types of measurements (such as density and dot gain) are pre-defined for each job. The Press Tool shows how close the press sheet is to meeting these targets.



**Scanning System Overview: Press Tool**

## How to Start the Press Tool

To start the Press Tool,

1. Start the Launcher and touch the Press Tool button.
2. If your installation has more than one instrument the Enter Instrument Name dialog box appears. Type the name of the instrument and touch Next.
3. The Job Info screen appears. Start a job or continue an existing one.

## Three Types of Press Tool Help:

- Overview. These pages provide an overview of the Press Tool and descriptions of each button and control on the Press Tool's bars and Data Display area.
- Procedures. These pages provide step-by-step procedures for typical Press Tool use.
- Screen. These pages provide descriptions for additional screens that can be opened in the Page Tool.

## Press Tool Help Navigation



Home Button. This is the Home page for the Press Tool Help. You can touch the Home button at the upper right of any page, and you will return to this page.



Glossary Button. You can touch the Glossary button at the upper right of any page to go to the Glossary pages. The Glossary pages contain definitions for terms and abbreviations used in the Press Tool.



Some topics have multiple pages. You can navigate between the pages by touching the number buttons at the upper left. The gray button with black number indicates the current page.



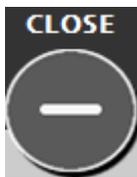
Previous Button. Touch this button to go back to the pages viewed before the current page.



Next Button. Touch this button to go forward to the pages viewed after the current page.



Print Button. Touch this button to print the current page.



Close Button. Touch this button to close the Press Tool Help.

## Overview

The Press Tool Overview helps provide an overview of the Press Tool and descriptions of each button and control on the Press Tool's bars and Data Display area.

The Press Tool has two button bars and a Data Display area. Touch the three buttons on this page to go to the help for the needed bar or area.

### Top Bar

The bar at the top of the Press Tool screen contains two sets of buttons. The first set allows you to go to additional screens to select jobs or to adjust press types, color bars, target types, and paper types. The second set allows you to adjust the type of data in the Data Display area.

### Bottom Bar

The bar at the bottom of the Press Tool screen contains buttons that allow you to control general Press Tool functionality.

## **Data Display Area**

The middle area of the Press Tool screen is where data from scanned color bars appears. The area is blank with only the system name until a new job is started or a previous job is continued.

## Top Bar Overview

The bar at the top of the Press Tool screen contains two sets of buttons. The first set (left) appears first by default. The second set (right) appears after you touch the arrow button at the top right of the screen:



To return to the left set of buttons, you must touch the arrow at the top left of the screen:



### Top Bar — Left

The first set allows you to go to additional screens to select jobs or to adjust press types, color bars, target types, and paper types.

### Top Bar — Right

The second set allows you to adjust the type of data in the Data Display area.

## Top Bar Overview — Left

These buttons allow you to go to additional screens to select jobs or to adjust press types, color bars, target types, and paper types. Refer to these pages for descriptions of each button:

### Job Info

The Job Info button allows you to select a project template to start a new job, select an existing job to start a new job, open and continue an existing job, or select a JDF job to start a new job.

A project template defines the press, inks, color bar, targets, tolerances, profiles, and paper being used for a job. You select a project template to define the basic requirements for a job.

When you touch the Job Info button, the Job Info screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Press and Inks**

The Press and Inks button allows you to adjust the press type and ink information for the currently selected job.

It allows you to change the currently selected job order and ink information by press.

**Note:** You cannot change press and ink information while a press run is in progress.

When you touch the Press and Inks button, the Press and Inks screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Color Bars**

The Color Bars button allows you to adjust the color bar information for the currently selected job.

Color bar information defines the color bar type, the patches that make up the color bar, and the location of the color bar on the press sheets.

When you touch the Color Bar button, the Color Bars screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Targets and Tolerances**

The Targets button allows you to view and adjust the targets and tolerances information for the currently selected job.

Target and tolerance information defines the target colors, the color bar patches where the colors are used, and the targets and tolerances for these colors.

When you touch the Targets button, the Targets and Tolerances screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Sheet Info**

The Sheet Info button allows you to adjust the paper type information for the currently selected job.

Paper type information defines the paper color and sheet alignment offset.

When you touch the Sheet Info button, the Sheet Info screen appears. Touch the arrow below to see descriptions of the controls for this screen.



Touch this button to display the Right Bar buttons.

## Top Bar Overview — Right

These buttons allow you to adjust the data in the Data Display area of the Press Tool screen. Refer to these pages for descriptions of each button:

### Go to Left Bar



Touch this button to display the Left Bar buttons. Next to this button is information about the current project and job:

- Job Name. The name of the job that is currently open and defines the press, inks, color bar, targets, profile, and paper.
- Project Name. The name of the project that the current job is associated with.
- Status. The status of the current sheet: Make Ready, Production, or OK Sheet.
- Date and Time. The date (dd/mm/yyyy) and time (hh:mm:ss) when the current sheet was scanned.

### Make Ready/Production

Use these buttons to change the Press Tool mode between Make Ready and Production. By default, all sheets are scanned as "Make Ready." Touch Production to change the status of sheets scanned from that point to be "Production."

- Make Ready. A scanned sheet used to adjust the press to meet tolerances for a print run. Make Ready sheets are scanned and the press is adjusted accordingly until the press is ready for production.
- Production. A scanned sheet used to check how a press in production is meeting tolerances. Production Sheets are scanned as a quality control measure during a print run.

Note: To change the status of the current sheet, use the Scan Info button.

### Values

Touch to show numeric value of each scanned patch in the Data Display Area. Touch again to hide the values.

### Difference/Actual

- Difference. Touch to show data in the Data Display area for all patches including the patches that are within tolerance (green).
- Actual. Touch to show data in the Data Display area as actual values, not tolerance values. Solid Ink Density

## Solid Ink Density

Touch to show ink density data in the Data Display area. Density indicates the target's ability to absorb light. The more light the target can absorb, the higher the density value. For example, a black target would have a high density value.

Note: Solid Ink Density is the most typical measurement used, so by default it is the data displayed in the Data Display area. Dot Gain and Trapping are also commonly used. See the next page for less frequently used measurements.

## Dot

Touch to show dot gain data in the Data Display area. Dot gain indicates the paper's ability to absorb ink.

After you touch the Dot button, you must touch a number button below it to select a percentage. For example, if you touch 40, the Data Display area shows data for patches printed at 40% of a solid color.

## Trapping

Trap indicates how well a printed ink can accept the next printed ink relative to how well the paper accepts it.

## More...

Touch to show buttons for attributes that are less frequently used. Touch these buttons to show corresponding data in the Data Display area.

Note: Only attributes that are defined and available in the current job's color bar will appear.



Print Contrast. Indicates the level of variation between light and dark areas in an image. Print Contrast indicates the degree to which shadow detail is maintained.



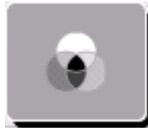
Hue Error. Hue Error indicates how close the target is to the intended color.



Grayness. Indicates the relative amount of difference between two similar colors. For example, if you have a perfect Yellow and then add a small amount of Black, the Hue (color) does not change, but the Grayness increases.



Color Difference. Indicates the magnitude and character of the difference between two colors under specified conditions.



Gray Balance. Indicates how well a combination of yellow, magenta, and cyan combine to produce a neutral (non-chromatic) impression. Each color of the graph is shown with a density signal for each ink at the bottom of the graph. Should the tint density of the color be out of tolerance, the signal will be displayed as red. At the top of the graph, another signal is shown for the gray balance range. When the tint values are within the defined range, the signal shows as green.



Paper. Indicates the measurement value of paper in the data display area. Paper density, color difference, and brightness (reflection percentage for a specific wavelength of paper) are displayed.



Best Match. Indicates if you can get a closer match to your color by adjusting the ink thickness for the color. When selected, the "best match" density value is displayed along with the Delta E for each color. The Delta E value is based on the calculated average for all zones.

### Options...

Touch to show buttons for Press Tool options. Touch these buttons for corresponding functionality.



Manage Key. Allows you to shut off any unused or unwanted zones within the press for a specific ink unit. The bar graphs are then removed from the graphs for these zones and the data is

not used in scoring the sheets.

When you touch the Manage Keys button, the Manage Keys screen appears. Touch the arrow below to see descriptions of the controls for this screen.



**Print.** Touch to make a print of the data currently in the Data Display area. The print is made on the printer set in the Windows Printers and Faxes control panel as the default.



**Info.** Touch to open the Press Tool's Information screen. This screen contains general application information, user information, and registration status.



**Sheet Report.** Touch to open the Sheet Reports Options dialog where you can run a report on the current sheet.



**Custom Chart Scan.** Touch to open the Custom Chart Scan dialog. From this screen you select the custom chart and then measure the chart to get patch information in a CGATS text file. You can also create a custom chart, or edit and delete charts.

## Help

Touch to open the home page for the Press Tool online help.

## Exit

Touch to quit the Press Tool. A message box appears to ask whether you want to quit the Press Tool application.

- Touch Yes to quit.
- Touch No to return to the Press Tool application.

## Manage Keys

The Manage Keys screen allows you to turn off certain ink keys on the press. For example, you have a special spot color that is only used in one area on a print, and you have turned off the press keys for this ink in all other areas, measurements will not be taken in those areas.

You can also use the Manage Keys screen if a print happens to have an area that does not measure properly. Your customer approved the sheet, but the Press Tool indicates a problem. You could turn off the necessary keys to avoid getting the error.

The Manage Keys screen has the following controls:

### Select Ink(s) Buttons

A list of the inks used in the current job. When the Manage Keys screen opens, all of the buttons are selected. Touch the ink units to select individual inks. Touch the same ink unit again to select all inks.

### Keys Editing Area

The middle of the Manage Keys screen shows a bar with all of the press keys. On this keys bar is a red rectangle that is 10 keys wide. Below the keys bar is the detail view of those keys within the red rectangle.

You can move the rectangle by touching the keys bar. You can also move it by touching the arrows on the left and right side of the detail bar.

Select a key by touching it on the detail keys bar. Select more than one key by touching one key and then touching another. All keys between the two selected will also be selected.

If the key is on, it shows a color. If the key is off, it shows white.

### Apply Changes to All Future Scans

Select this box so the changes you make when you touch Save will take effect for each new scan.

Note: This button is only visible if you have taken the first scan in the current job. If you make changes to Manage Keys before taking the first scan, changes take effect for all future scans.

### Turn On

Touch this button to turn on the selected key for the selected ink(s). The key is shown in color.

## **Turn Off**

Touch this button to turn off the selected key for the selected ink(s). The key is shown in white. The Press Tool will not display data and will not collect report data for the ink(s) for the selected key.

## **Turn On All Inks**

Touch this button to turn on all keys for the selected ink(s).

## **OK**

Touch this button to save the edits you have made to the keys and close the Manage Keys screen.

## **Bottom Bar Overview**

The bar at the bottom of the Press Tool screen contains buttons that allow you to control general Press Tool functionality. Refer to these pages for descriptions of each button:

### **Make OK**

Touch to make the current sheet the OK sheet for the job. A pop-up screen allows you to select the inkwells you want to include in setting the OK sheet. Make your selections and touch OK. The Press Tool then considers the current sheet as the target (tolerances in the Data Display area for the selected inkwells go to zero). All other sheets now show target tolerances relative to the OK sheet .

### **Scan Info**

Touch to display the Scanned Sheet Information dialog box. This message box contains the following information and controls:

- **Sheet Number:** A number indicating the order in which the current sheet was scanned.
- **Creation Date:** The date and time the sheet was scanned. It is displayed in the following format: dd/mm/yyyy hh:mm:ss
- **Sheet Status:** Three buttons that determine the status of the current sheet. Touch the buttons to change the status.
- **Make Ready.** Sheet was scanned when the press was being setup.
- **OK Sheet.** Data on this sheet is the target data for all other sheets.
- **Production.** Sheet was scanned when the press was in production run.
- **Memo.** Type a note for the selected sheet that can be up to 256 characters.
- **Delete Sheet:** Touch to delete the data for the sheet currently in the Data Display area. For example, if you have scanned color bars for several sheets,

touching Delete deletes the data only for the sheet currently displayed in the Data Display area. After you touch Delete, a message box appears. Touch Yes to permanently delete the data from the job.

- Save: Touch to save your sheet status selection.
- View: Touch this button to open the Scanned Sheet dialog box. This dialog box allows you to view the scanned (measured) color bar for the sheet next to the expected color bar. You can select patches of each color bar to compare lightness, chroma, and hue angle data.
- Sheet Number: A number indicating the order the current sheet was scanned.
- Expected Color Bar. The ideal color bar defined in the current job. The values shown are not necessarily the same values as those specified in the Targets and Tolerances screen.
- Measured Color Bar. The actual color bar scanned from the current sheet.
- Color Bar Detail Views. Black rectangles appear on the Expected and Measured color bars. Detail views for the patches within the rectangles appear below the color bars. Move the rectangles by touching the color bars or the arrows at the sides of the detail views. Select a patch by touching it.
- Next Dud Button. Touch to move the black rectangle to the next dud patch.
- Expected/Measured Data. Two columns that show Lab, chroma, and hue angle data for selected patches.
- Shift To Expected. In the Expected Color Bar Details view, select the patch that represents the position you would like for the first patch of the measured bar and touch Shift To Expected. This will give you a look at how the bar may appear but will not change the state of duded patches.  
WARNING: Moving the color bar so that measured patches will no longer be visible when compared to the expected bar will cause that data to be missing from future scans.
- Save. Touch to save the Shift To Expected change.

## Sheets # of #

Touch these buttons to select the sheet data you want to display in the Data Display area.



Touch to display the previous sheet.



Touch to display the next sheet.



Touch to display sheet options.



Touch to display the first sheet.



Touch to display the last sheet.



Touch to display the data for a specific sheet. When you touch the Jump to Sheet button a dialog box appears where you can touch or type the number of another sheet. Touch ENTER to close the box and display the sheet.



Touch to display the data for the OK sheet. The OK sheet is the target and all other sheets show target tolerances relative to the OK sheet data.

## Measure

Touch to have the instrument scan the color bar on a sheet. After the instrument scans the color bar, the Data Display area shows the scanned data and this data is saved as the next sheet. (The Measure button is dimmed when the system is not ready to scan.)

## Top/Bottom

If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, touch these buttons to toggle the Data Display area between showing the data for both sides of the sheet. For non-perfecting jobs, these buttons are not on the bottom tool bar.

## Perfecting

If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, touch this button to activate continuous measurement mode. This option allows you to measure the top side and bottom side as one continuous operation. If this option is not activated, existing measurement procedures for Top/Bottom would be used. For non-perfecting jobs, this button does not appear on the bottom tool bar.

## Profile

Touch to have the Press Tool use the profile Chart that is part of the current job to generate a profile, and to create a profile on sheets after measuring a target. For example, using the correct profile allows the press to accurately recreate colors from DDCPs (Direct Digital Color Proofers) or color printers.

Note: At least one sheet must be scanned for the Profile button to be active. If the button is still not active, the current job does not have the profile feature enabled.

## Handheld Connection

This button indicates whether a handheld instrument for measuring color is connected to the computer.



Solid circle indicates that a handheld measuring instrument is connected.



Split circle indicates that a handheld measuring instrument is not connected.

When you touch the Handheld Connection button, the Handheld Connection screen appears and has the following controls:

### Connect Through Instrument

Touch this button if the handheld is connected to the port on the scanning instrument. Use the Instrument Name field to enter a scanner name.

### Connect Through Serial Port

Touch this button if the handheld measuring instrument is connected to a serial port on this computer. Use the Available Serial Ports list box to select the serial port:

If your system has more than three serial ports, you can touch Page Up and Page Down to scroll through the list. When you locate the needed serial port, touch it to select it.

## Calibration

Touch this button to open the handheld calibration screen. From this screen, you perform manual calibration and return to the measurement screen. A dialog on the computer screen appears instructing you to refer to the handheld screen for instructions. After calibration, close the dialog on the computer.

## Connect and Disconnect

Touch the Connect button to connect through the selected method and close the Handheld Connection screen. Touch the Disconnect button to disconnect the handheld from the selected connection method.

Note: After taking a measurement with a handheld instrument, an information screen appears:

## Instrument Connection

This button indicates whether an instrument for scanning color bars is connected to the computer.



Solid circle indicates that a color bar scanner instrument is connected.



Split circle indicates that a color bar scanner instrument is not connected.

When you touch the Instrument Connection button, the Instrument Connection screen appears and has the following controls:

### Instrument Name

This field contains the name of the color bar scanner instrument. To change the name, touch this field to open a dialog box where you can touch or type the new name and touch OK.

### Port Number

The communications port through the operating system. This is always set to 4900 and cannot be modified.

### Connect

Touch to connect to the color bar scanner currently in the Instrument Name field.

## Turn Off Vacuum

Touch to stop the vacuum on the color bar scanner currently in the Instrument Name field.

## Calibrate

Touch to begin the process to calibrate the color bar scanner instrument. A message box appears asking to confirm. Before calibrating an instrument, you should first clean its white calibration tiles. (See the instrument documentation for locating and cleaning calibration tiles.)

If the instrument is prepared for calibration, touch Yes. The instrument performs its calibration procedure and a message box appears when it is complete. Touch OK.

## Measure Color Reference

The purpose of this button is to verify that the instrument is not only calibrated for white but is reading CMYK values correctly as well. Touch to have the instrument measure a target reference file. The Measure Color Reference File dialog box appears.

Put a target reference card in the instrument and touch the corresponding target reference file on the dialog box.

## Page

Touch these buttons to scroll the Data Display area up and down.



Touch to move up in the Data Display area. This button is dimmed when it reaches the top.



Touch to move down in the Data Display area. This button is dimmed when it reaches the bottom.

## Profile

The Profile screen is where you compare a measured profile color patch against a target profile color patch to determine whether your press is meeting target values.

The profile feature allows scanned color patches supported by software to synchronize the colors on a computer monitor with colors printed on sheets. For example, you may want to use the profile feature in a digital proofing environment. By synchronizing the press and digital proofer, you can get customer approval by printing a single sheet.

The Profile screen appears when you touch Profile on the bottom button bar of the Press Tool screen.

These help pages have two parts. The first part provides a general procedure for creating a profile. The second part provides a description of the Profile screen controls.

## Generate Profile Procedure

1. Place a sheet on the instrument and touch Measure on the Press Tool screen. The instrument scans the color bar, and the data appears in the Data Display area of the Press Tool screen.
2. Touch Profile on the Press Tool screen.

**Note:** If the Profile button is not active, the current job does not have the profile feature enabled.

3. If any of the ink units from the first color bar scan are beyond the target tolerances, a message box appears warning you. Make sure you have the correct sheet in the scanner. Touch Yes to continue.

The instrument scans the profile color patches on the sheet, and the Profile screen appears.

**Note:** If you are scanning a multi-page profile chart, a message dialog will appear letting you know when to scan the next page. Position the next page as indicated and touch **OK** to continue.

**Note:** If any duds exist after the scan is complete, a message box appears warning you. You must use the Handheld instrument to measure the missing patches before generating a profile. Touch **OK** to access the Profile screen.

4. Check measured patches against expected patches.
5. If the measured patches are within acceptable range of the expected patches, you can generate a profile. Touch Generate.

The Profile screen closes. A small progress indicator appears above the Profile button on the Press Tool screen.

**Note:** The button changes to **Cancel Profile** during the process to allow you to abort the profile generation.

When the process is complete, a message box appears indicating that the profile was created successfully.

6. Touch OK.

## Profile Screen Controls Descriptions

### Profile Row

If the profile has more than one row of color patches, you can use the arrow buttons to move through the rows. (The square display in the middle shows the row number.)

- Click the Up arrow to move up through the rows.
- Click the Down arrow to move down through the rows.

### **Expected Color Patch Row**

The ideal profile color patch defined by the current job.

### **Measured Color Patch Row**

The actual profile color patch scanned from the current sheet.

### **Color Patch Detail Views**

On the Expected and Measured color patch rows are rectangles. Below the color patch rows are the detail view of those patches within the rectangles.

You can move the rectangle by touching either color bar. You can also move it by touching the arrows on the left and right side of the detail color bar. Select a patch by touching it on the detail color bar.

### **Next Dud Button**

Touch to move the rectangle to the next dud patch.

### **Handheld Connection Button**

Touch to open the Handheld Connection screen if the instrument requires connection.

### **Measured Data**

A column that shows patch #, L, a, b, C, and H data for a selected patch.

### **Generate Profile**

Touch to make the current scan the profile that all production sheets should match.

### **Change Filename**

Touch to open the Change Profile Output Filenames screen. In this screen you can touch the Apply to Measured Data button to quickly apply the printer profile name to the measured profile name. Touch Save to close the screen.

## **Measurement Information**

The Measurement Information screen appears after you take a measurement using a handheld instrument. The screen displays a spectral graph and L\*a\*b\* graph for the measured color. Trial data for the last color measurement appears along with difference data from the set standard and trial.

The Measurement Information screen has the following controls:

## **Auto Scale**

When Auto Scale is checked by touching, the reflectance graph is scaled to show only the relevant percentage range based on the data. When unchecked by touching, it displays a percentage range from 0 to 100.

## **Set Auto Standard**

Touch Set Auto Standard to allow the system to auto select the closest ink color match in the current job to the trial measurement.

## **Set Standard**

Touch Set Standard to make the current trial measurement the new standard.

## **Copy Standard**

Touch Copy Standard to copy the color data of the standard to the Windows clipboard. This can then be used to paste into a text editor program.

## **Clear Standard**

Touch Clear Standard to delete the standard from the screen.

## **Copy Trial**

Touch Copy Trial to copy the color data of the trial to the Windows clipboard. This can then be used to paste into a text editor program.

## **Data Display Area Overview**

The middle area of the Press Tool screen is where data from scanned color bars appears. The area displays only the system name until a new job is started or a previous job is run again or continued.

After a sheet is scanned or loaded from a previous job, color bar information appears for every zone of the press.

These help pages first describe the controls for the Data Display area and then the functionality.

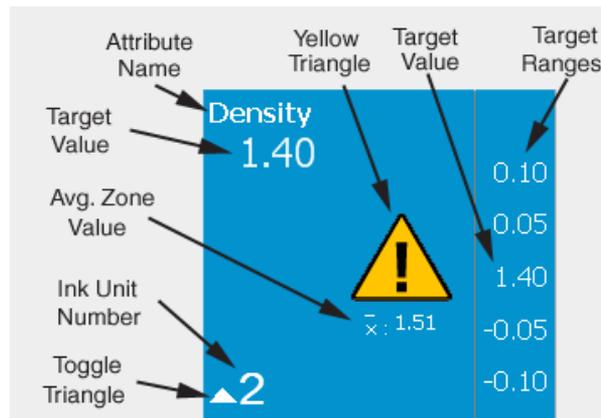
## **Controls**

The Data Display area has two parts: Inks and Key Zone.



## Inks

The left side of the Data Display area has a row for each of the inks used in the current job. The area is the approximate color of the ink. The following information appears for each ink:



- Attribute Name. The name of the attribute selected from the buttons on the top bar. For example, Density or Hue Error.
- Yellow Triangle. Appears if any bar exceeds the Action Tolerance limits (is yellow or red). Note: The bar may not be on the currently visible graph.
- Target Value. The actual target for the selected ink. For example, a density of 1.40. When you touch the target value on the right, the editor dialog opens. From here you can quickly change the target value if desired.  
 Note: If the current sheet is an OK sheet, "OK" appears in this field instead of a target value, and target values are not shown for the rest of the scanned sheets.
- Average Zone Value. The actual average for the ink zone on the current sheet. Note: This value will not appear if averaging is turned off in the Local Machine Configuration Tool.

- Toggle Triangle. Indicates the type of information displayed in the Data Display area:
- Up Triangle ▲ . Only the data for the currently selected attribute is displayed for the ink units. For example, if Density is selected on the top row of the Press Tool, only Density data for each ink is displayed.
- Down Triangle ▼ . All attributes for the selected ink are displayed. For example, if the cyan ink unit has a down triangle, there are cyan ink units for multiple attributes such as Density, Dot Gain, Hue Error.

Note: See Functionally (next page) for the conditions of which attribute data types are displayed.

- Ink Unit Number. The number to the right of the Toggle Triangle that identifies the ink unit where the color is located on the press. For example, black = 1; cyan = 2; magenta = 3; yellow = 4.
- Target Ranges. If the Difference button on the top bar buttons is selected, the tolerance range is displayed along the right side. For example, for density,  $\pm 0.05$  and  $\pm 0.10$ .

## Key Zones

The right side of the Data Display area is where the data corresponding to the inks are displayed. Each column is numbered to correspond to the key zones on your press. Data displays as colored blocks above or below a center line, which is the target value. Each key zone has either a green, yellow, or red bar, is blank, or has a red "x":

- Green. The value scanned for the key zone is within the Action Limit tolerance. (The value is acceptable for the key zone.)
- Yellow. The value scanned for the key zone is outside of the Action Limit tolerance but within the Control Limit. (The value is acceptable for the zone but close to unacceptable.)
- Red. The value scanned for the zone is outside of the Control Limit. (The value is not acceptable for the key zone.)
- "Blank". There was no target for the key zone and no value was scanned.
- "X". The scanned value for the key zone is very different than the target value. This is called a "dud." It is likely that the instrument misread the patch or the scanned patch is dirty or smeared.

## Functionality

Use the following suggestion to organize and view the information in the Data Display area:

- Touch an Ink Area anywhere except its Yellow Warning Triangle. All attribute data are displayed for the ink. Touch the ink panel again and the ink collapses.

- Touch in the Ink Area on the Yellow Warning Triangle. The ink unit expands to show only the out-of-tolerance data for the visible graphs. Touch the ink panel again and the ink collapses.
- Touch the Scanned Info button on the bottom tool bar. Opens a dialog box where you can change the status of the current sheet (Make Ready, OK, or Production), delete the sheet, or view details about the sheet.
- Touch the Page buttons on the bottom tool bar. You can scrolls through the Data Display area up and down.
- If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, touch the Top/Bottom buttons on the bottom tool bar to toggle between data for the two sides of the sheet.
- Touch the Values button on the top tool bar. This shows numeric values for each scanned patch in the Data Display Area. Touch again to hide the values.
- Touch the Difference button on the top tool bar. This shows data in the Data Display area for all patches including the patches that are within tolerance (green).
- Touch the Actual button on the top tool bar. This shows data in the Data Display area as actual values, not tolerance values.
- Touch the Solid Ink Density/Dot/Trapping/More buttons on the top tool bar. This shows different types of scanned data in the Data Display area.
- View the  $\Delta E$  screen. Touch the More button on the top tool bar, then touch the  $\Delta E$  button to have the Data Display area show color difference data. Touch any measurement bar in the Data Display area to open the Color Difference Detail screen.

## $\Delta E$ (Color Difference Detail)

The Color Difference Detail screen appears after you touch any measurement bar when the Data Display area is showing color difference data. To show color difference data, you must touch the More button on the top right Tool Bar, then touch the  $\Delta E$  button.

The Color Difference Detail screen has the following controls:

### **L\*a\*b\* Graph**

The L\*a\*b\* graph at the top left shows the light and the color data for the actual measurement relative to the target.

- For light, the actual measurement is shown as a red square along a line. The target is the center of the line. If the red square is within the yellow lines, it is within the Action Limit tolerance. If the red square is within the red lines, it is within the Control Limit tolerance.
- For color, the actual measurement is shown as a red square on a graph. The target is where the a\* and b\* lines meet. If the red square is within the yellow

circle, it is within the Action Limit tolerance. If the red square is within the red circle, it is within the Control Limit tolerance.

Use the Zoom buttons ("+" and "-") below the L\*a\*b\* Graph to zoom in and out.

### **L\*a\*b\* Sliders**

Shows the same data as the L\*a\*b\* graph, but makes it easier to see how close the light and color measurements are to the targets.

The black vertical lines are the targets. The red arrows are the actual measurements.

### **Key Detail Info**

Shows the identification information for the current key, including:

- Project
- Sheet Number
- Job Name
- Ink Name
- Library Name
- Sheet Side
- Target/Actual/Difference Table

Shows numeric data for the differences between the target and the actual measured data, including:

- L\*
- a\*
- b\*
- C\*
- h°
- $\Delta E$  LAB (CIE94/CIE2000/CMC/Lab)

### **Key Buttons**

Touch to display color difference detail information for the next key.

### **Print**

Touch to print a screen shot of the screen to a local printer.

## Procedures

In general, the purpose of the Press Tool is to use a connected spectrophotometer instrument to scan color bars on sheets to make sure your press is printing properly. These pages provide step-by-step procedures for typical Press Tool use.

Note: Each procedure starts at the Job Info screen. When the Press Tool is started, the Job Info screen opens automatically. Touch the button below to view information on the Job Info screen.

### New Job Procedure

To create and run a new job, do the following:

1. If the Job Info screen is not already in front of the Press Tool screen, touch Job Info on the top, left toolbar.
2. Touch either New Job or New JDF Job.
3. Touch the needed project template from the Project Templates list.
  - If you selected New Job in Step 2, a dialog box opens:
    - a. Type or touch a new or existing Project name that you want the new job to be associated with. Touch OK.
    - b. Type or touch the new Job name. Touch OK.
  - If you selected New JDF Job in Step 2, a list of standard jobs appears in the Jobs list box. Touch a job to select it.
    - a. The Press Tool loads information defined in the project template you selected. The names for the project and job appear under Job Info at the top left. The Data Display area appears with "No Scan Data" in each row.
4. Put the sheet in the color bar scanner instrument and touch the Measure Color Bar button at the lower right.

The instrument scans the color bar and the data appears in the Data Display area. Also, the top tool bar changes to a different set of buttons.

5. Use the buttons on the top tool bar to view different arrangements of the target and tolerance scan data. For more information, touch the buttons below:
6. Make adjustments on press as needed.
7. If needed, repeat Step 4 to scan more sheets.

Note: When the first sheet is scanned, the Press Tool sets its status to Make Ready. For all sheets you scan after, you can choose whether it is a Make Ready sheet or Production sheet by touching the needed button on the top tool bar before scanning.

Use the Sheet # of # buttons on the bottom tool bar to view data from sheet to sheet. For more information, touch the button below:

8. When the press is adjusted properly, go to the sheet and do one of the following:

- To run the job relative to a customer OK sheet, touch Make OK.
  - To run the job relative to the target numbers, touch Production.
9. If needed, use the profile chart feature. For more information, touch the button below:

### **Re-Order Job Procedure**

To use an existing job as a template for a new job, following this procedure:

1. If the Job Info screen is not already in front of the Press Tool screen, touch Job Info on the top, left toolbar.
2. Touch Re-Order Job.
3. From the Projects list, touch the project that contains the job you want to re-run.
4. From the Jobs list, touch the job you want to re-run.
5. Create a new name for the job by touching or typing the name and touching OK.

The Press Tool loads information defined in the previous job you selected. The names for the project and job appear under Job Info at the top left. The Data Display area appears with "No Scan Data" in each row.

6. Put the sheet in the color bar scanner instrument and touch the Measure Color Bar button at the lower right.  
The instrument scans the color bar and the data appears in the Data Display Area. Also, the top tool bar changes to a different set of buttons.

Note: If the existing job was run against an OK sheet, the information from that sheet carries over to this job. There is no reason to create another OK sheet.

7. Use the buttons on the top tool bar to view different arrangements of the target and tolerance scan data. For more information, touch the buttons below:
8. Make adjustments on press as needed.
9. If needed, use the profile chart feature. For more information, touch the button below:

### **Continue Existing Job Procedure**

To continue an existing job, follow this procedure:

1. If the Job Info screen is not already in front of the Press Tool screen, touch Job Info on the top, left toolbar.
2. Touch Open Job.
3. From the Projects list, touch the project that contains the job you want to run.
4. From the Jobs list, touch the job you want to run.
5. Put the sheet in the color bar scanner instrument and touch the Measure Color Bar button at the lower right.

6. The instrument scans the color bar and the data appears in the Data Display area. Also, the top tool bar changes to a different set of buttons.
7. Use the buttons on the top tool bar to view different arrangements of the target and tolerance scan data. For more information, touch the buttons below:
8. Make adjustment on press as needed.
9. If needed, use the profile chart feature. For more information, touch the button below:

## **Screen Help**

In addition to the top and bottom button bars and the Data Display area, the Press Tool has screens with fields and controls for operating the Press Tool.

These screens appear when you touch the following buttons on the top tool bar:

### **Job Info**

When you touch the Job Info button, the Job Info screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Press and Inks**

When you touch the Press and Inks button, the Press and Inks screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Color Bars**

When you touch the Color Bar button, the Color Bars screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Targets and Tolerances**

When you touch the Targets button, the Targets and Tolerances screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Sheet Info**

When you touch the Sheet Info button, the Sheet Info screen appears. Touch the arrow below to see descriptions of the controls for this screen.

### **Manage Keys**

When you touch the Manage Keys button, the Manage Keys screen appears. Touch the arrow below to see descriptions of the controls for this screen.

## Job Info

The Job Info screen allows you to select a project template to start a new job, select an existing job to start a new job, open and continue an existing job, or select a JDF to start a new job.

A project template defines the press, inks, color bar, targets, tolerances, profiles, and paper being used for a job. You select a project template to define the basic requirements for a job.

The Job Info screen has the following controls:

### New Job

Touch this button to select a project template to define the requirements for a new job.

### Re-Order Job

Touch this button to select a job that has been completed previously so that you can run it again.

### Open Job

Touch this button to select a job that has not yet been completed.

### New JDF Job

Touch this button to select a project template to define the requirements for a new Job Definition File (JDF) job. A JDF job is a job created using industry standards throughout the entire printing process.

### Rename Project or Job

Touch this button first and then touch a project or job in the list. A dialog box appears where you can edit the name. Touch **OK** when finished.

### Delete Project or Job

Touch this button first and then touch a project or job in the list to delete. A message box appears asking you to confirm the deletion of the project or job. Touch **Yes** continue.

Note: A project or job cannot be in use when renaming or deleting. If a Project is selected for deletion, all associated jobs will also be deleted.

### List Boxes...

This first list box depends on the button selected:

- If the button selected is New Job or New JDF Job, the title of this list box is Project Templates. The list contains project templates currently available to the

Press Tool.

When you locate the needed project template, touch it to select it.

- For a New Job, a dialog box appears where you can touch an existing project or touch New and type in a new project name. You would then type in the new job name. The Job Info screen closes and the new job is loaded into the Press Tool.
- For a New JDF Job, a list of standard jobs appears in the Jobs list box. Touch the needed job. The Job Info screen closes and the job is loaded into the Press Tool.
- If the button selected is Re-Order Job or Open Job, the title of this list box is Projects. The list contains jobs currently active or completed in the Press Tool.

When you locate the needed project, touch it to select it. The jobs associated with the project appear in the Jobs list box. Touch the needed job. The Job Info screen closes and the job is loaded into the Press Tool.

The second list box is the Jobs list box. It contains a list of existing jobs associated with the project selected in the first list box.

Note: If there are more than seven names in a list box, you can touch Find to open a dialog where you can type the name and search for it. You can also touch Page Up and Page Down to scroll through the list.

## Press and Inks

The Press and Inks screen allows you to adjust the press type and ink information for the current job.

Press and ink information defines the press type, the ink colors on the press, and the order in which the ink wells appear on the press.

The Press and Inks screen has the following controls:

### Press

This field contains the name of the press defined as part of the current job. The press cannot be changed on this screen. To change the press, you need to select a different job or create a new job on the Job Info screen.

### Inks

Ink units in numerical order that represent the ink wells on the actual press.

When you touch an ink unit to select it, the name of the ink and the Target Library it is from appears above the unit. For example, "Default Colors — Black" or "Default Colors — Cyan"

Note: If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, this area has two rows of inks.

## Ink Control Buttons

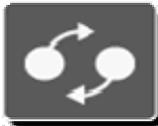
The following buttons at the top right of the screen control the ink wells in the Inks area:



Move Left. Moves the selected ink one unit to the left.



Move Right. Moves the selected ink one unit to the right.



Swap. Swaps the positions of the two inks. To accomplish this task, highlight an individual ink, touch the Swap button and then touch a second ink unit. The two inks are then swapped. The color bar definition is changed to match the ink colors to the new plate locations.



Delete. Removes the ink from the selected ink unit.



Reset. Discards any changes that you have made and resets the ink units to their original values and positions.



Save Target. Touch this button to save a newly defined target to the Target Library.

## Library

A list of the target libraries (sets of target) currently available to your system. A target library has a set of ink colors that are defined and saved with it using the system's Editors.

Use the following controls when using the Library list box:

- If your system has more than four target libraries, you can touch Find to open a dialog box where you can type the name of a target library and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed target library, touch it to select it. The set of inks defined for the target library appear in the Ink list table at the right.

## **Ink**

A list of the inks defined as part of the currently selected target library in the Library list table. Use the following controls when using the Ink list box:

- If the target library has more than four inks, you can touch Find to open a dialog box where you can type the name of an ink and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed ink, touch it to select it. The chosen ink replaces the existing ink in the currently selected unit.

## **Save**

Touch this button to save the edits you have made to the inks and close the Press and Inks screen.

## **Save and Open Targets**

Touch this button to save the edits you have made to the inks and open the Targets and Tolerance dialog box. This button appears after Save is selected.

## **Color Bars**

**Warning: Do not change color bar information unless you are authorized to do so.**

The Color Bars screen allows you to view and change the color bar information for the current job.

Color bar information defines the color bar type, the patches that make up the color bar, and the location of the color bar on the press sheets.

Note: If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, this screen has two tabs (Top and Bottom) for the color bars on each side.

Note: Use this screen if you have swapped the order of the ink wells on the Press and Inks screen so the color bar reflects the change. For example, if ink well "5" was green but is now orange and "6" was orange but is now green, use this screen to make that change on the color bar.

The Color Bars screen has the following controls:

## Color Bars

A list of the color bars currently available to your system. Color bars are created using the Color Bar Editor. Use the following controls when selecting a color bar for the current job:

- If your system has more than three color bars, you can touch Find to open a dialog where you can type the name of a color bar and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed color bar, touch it to select it.

## Location

- Touch Gripper if the sheets for this job have the color bar on the gripper end of the sheets.
- Touch Tail if the sheets for this job have the color bar on the tail end of the sheets.

## Reset

Touch this button to discard any changes that you have made and reset the controls to their original values.

## Flop

Touch this button if the color bar is reversed on the sheet.

## Turn Off Auto Tracking During Measurement

Touch this button to prevent the color bar scanner instrument from auto tracking when it is scanning a color bar.

When you touch this button, the Color Bar XY Position dialog box appears. In this dialog box, you manually set the coordinates for the tracking area in millimeters.

- X1. The distance from the side of the sheet to the start of the color bar.
- X2. The distance from the side of the sheet to the end of the color bar (measured from the same side of sheet as X1).
- Y1. The distance from the sheet edge to the middle of the color bar's patch.
- Y2. The distance from the sheet edge to the middle of the color bar's patch.
- Save. Touch to save the coordinates and return to the Color Bars screen. (The Turn Off Auto Tracking During Measurement button now has a check.)

## Manage Patches

The top has ink units in numerical order. These are the ink units that the Press Tool is currently using. They are part of the Target Library for the current job. You cannot change these on this screen.

Next, the screen shows the complete color bar with all its patches. On this color bar is a black rectangle that is nine patches wide. Below the color bar is the detail view of those patches within the black rectangle.

You can move the black rectangle by touching the top color bar. You can also move it by touching the arrows on the left and right side of the detail color bar.

Select a patch by touching it on the detail color bar.

**Note:** When you change an ink for a patch, it automatically changes the ink for all patches with that number. For example, if you touch a patch with the number "5" and then touch ink well number "4", all patches that were "5" change to "4".

## Save

Touch this button to save the edits you have made to the color bar and close the Color Bar screen.

## Targets and Tolerances

**Warning: Do not modify target or tolerance information unless you are authorized to do so.**

The Targets and Tolerances screen allows you to view and adjust the target and tolerance information for the current job.

Target and tolerance information defines the target colors, the color bar patches where the colors are used, and the targets and tolerances for these colors.

The Targets and Tolerances screen has the following controls:

### Target Library Inks

The top left of the screen has ink units that represent the inks in the current job and their rotation. These inks are part of the Target Library for the current job.

**Note:** If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, this area has two rows of inks.

When you touch a button, the following happens:

- The name of the ink and the Target Library it is from appears above the button. For example, "Black — Default Colors" or "Cyan — Default Colors"
- The color bar patch types that are created by using the selected ink appear in the Patch Type area.

### Patch Type

The middle of the screen has a row of color bar patches that use the selected target color. A red box indicates the selected patch. The target and tolerance data for the selected patch appears in the Target-Tolerance Table at the bottom of the screen.

You can touch a different patch to display the target and tolerance data for it. If there are more than nine patches in the bar, you can touch the arrows on the left and right side to scroll through the patches.

### **Target-Tolerance Table**

Displays the target and tolerance data for the patch selected in the Target Bar. This data was created using the system's Editors and is provided here for a reference.

- If you need to modify a target or tolerance, touch the Modify button to open an editor screen.

Note: You can quickly modify a target value by touching the value in the table to open the editor dialog.

- If the selected patch is an ink color, the Ink Target Editor screen opens.
- If the selected patch is a paper color, the Paper Target Editor screen opens.
- If the selected patch is an overprint, the Overprint Target Editor screen opens.
- If the selected patch is a gray balance, the Gray Balance Target Editor screen opens.

### **Wide Tolerance Factor**

A feature that allows you to set target tolerances in the Press Tool for Make Ready sheets to be wider than those for Production or OK sheets. You might do this if meeting the target tolerances is not critical as you set up a press.

The number is a factor, so target tolerances are multiplied by the number. For example, assume the following:

- Density tolerances = 0.5 and 1.0
- Wide Tolerance Factor = 1.5

Therefore, the density tolerances for the Make Ready sheet will be 0.75 and 1.5.

The default value is 1.00, which means the target tolerances are the same for Make Ready sheets as they are for Production and OK sheets.

Touch this button to edit the wide tolerance factor. (The number must be between 1.00 and 3.00.)

Note: If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, there are two Wide Tolerance Factor buttons: one for the top and one for the bottom.

Note: This button only affects Make Ready sheets. It does not multiply tolerances for Production or OK sheets.

## Sheet Info

**Warning: Do not modify target library or sheet alignment unless you are authorized to do so.**

The Sheet Info screen allows you to adjust the paper type information for the current job.

Paper type information defines the paper color and sheet alignment offset.

Note: If the current job is defined for a perfecting, reverse perfecting, or back-to-back press, this screen has two tabs (Top and Bottom) for the paper on each side.

The Sheet Info screen has the following controls:

### Paper Name

This field contains a button showing the approximate color of the paper, the name of the Target Library the paper is from, and the name of the paper. For example, "Default Colors — Paper"

### Library

A list of the target libraries (sets of target) currently available to your system. A target library has a set of papers that are defined and saved with it using the system's editors.

- Use the following controls when using the Library list box:
- If your system has more than three target libraries, you can touch Find to open a dialog box where you can type the name of a target library and search for it. You can also touch Page Up and Page Down to scroll through the list.

When you locate the needed target library, touch it to select it. The set of papers defined for the target library appear in the Paper list table at the right.

### Paper

A list of the papers defined as part of the currently selected target library in the Library list table. Use the following controls when using the Paper list box:

- If the target library has more than three inks, you can touch Find to open a dialog box where you can type the name of a paper and search for it. You can also touch Page Up and Page Down to scroll through the list.
- When you locate the needed paper, touch it to select it. The paper is now the currently selected paper for the Press Tool to use.

### Sheet Alignment

These buttons allow you to adjust the Press Tool to reflect how the sheets are aligned in the actual press.

Centered. Touch this button if the sheets are centered in the press.

Not Centered. Touch this button if the sheets are not centered in the press. Use the Key and Offset buttons to define the alignment.

Key Buttons. There is a button for each key on the press. Touch the arrow buttons at the left and right to scroll through the keys.

Offset Buttons. After you select a key, you select an offset . So if the paper is offset by halfway through the 22 key, you would select 22 key button, then the 1/2 offset button.

### **Reset**

Touch this button to discard any changes that you have made and reset the controls to their original values.

### **Save Paper**

Touch this button to save a newly defined paper to the Target Library.

### **Save**

Touch this button to save the edits you have made to the paper and close the Sheet Info screen.

## **Ink Target Editor**

When you touch the Modify button on the Targets and Tolerances screen, the Ink Target Editor screen appears.

The Ink Target Editor screen allows you to adjust targets and tolerances for inks.

The controls on the Ink Target Editor screen depend on how the patch was measured.

### **Circle/Name**

At the top left, there is a circle with the approximate color of the ink patch and the name of the target.

### **Solid Targets/Tolerance Table**

This table lists the values for various ink targets (such as Density, Grayness, and Hue Error). An ink patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch its square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

## **Tints Targets/Tolerance Table**

This table lists the values for various tints of the ink targets (such as Density and Dot Gain). An ink tint patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

If your system has tints, touch the left or right arrow to change the tint and change the target and tolerance values. Tint percentages are set using the System Configuration Tool.

To edit a target or tolerance value, touch its square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

## **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the ink target. For example, a blue ink patch would likely have Cyan as a dominant filter.

To change the dominant filter, touch the button for another filter. Note that the target values in the Solid and Tints Target/Tolerance tables change.

## **Save**

Touch this button to save the edits you have made to the current ink target and close the Ink Target Editor screen.

## **Paper Target Editor**

When you touch the Modify button on the Targets and Tolerances screen, the Paper Target Editor screen appears.

The Paper Target Editor screen allows you to adjust targets and tolerances for inks.

The controls on the Paper Target Editor screen depend on how the patch was measured. The following is a list of controls that can appear on the Paper Target Editor screen:

### **Circle/Name**

At the top left, there is a circle with the approximate color of the paper patch and the name of the target.

## **Paper Targets/Tolerances**

This table lists the values for various paper targets (such as Density and Brightness). A paper patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch its square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

## **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the paper target. For example, a white paper would likely have Visual as a dominant filter.

To change the dominant filter, touch the button for another filter. Note that the target values in the table change.

## **Save**

Touch this button to save the edits you have made to the current paper target and close the Paper Target Editor screen.

## **Overprint Target Editor**

When you touch the Modify button on the Targets and Tolerances screen, the Overprint Target Editor screen appears.

The Overprint Target Editor screen allows you to adjust targets and tolerances for ink overprints.

The controls on the Overprint Target Editor screen depend on how the patch was measured. The following is a list of controls that can appear on the Overprint Target Editor screen:

### **Circles/Names**

At the top left, there are two or three circles with the approximate colors and the names of the inks selected for the overprint. The circle on the right is filled with the approximate color of the combined inks along with the names of the inks.

## **Solid Targets/Tolerance Table**

This table lists the values for various ink targets (such as Density, Grayness, and Hue Error). An ink patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch its square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

## **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the overprint ink targets.

To change the dominant filter, touch the button for another filter. Note that the target values in the table change.

## **Save**

Touch this button to save the edits you have made to the current paper target and close the Overprint Target Editor screen.

## **Gray Balance Target Editor**

When you touch the Modify button on the Targets and Tolerances screen, the Gray Balance Target Editor screen appears.

The Gray Balance Target Editor screen allows you to adjust targets and tolerances for gray balance. (Gray balance is set up using the System Configuration Tool).

The following is a list of controls that can appear on the Gray Balance Target Editor screen:

### **Circles/Names**

At the top left, there are three circles with the approximate colors and the names of the inks selected for gray balance. The fourth circle is filled with gray and the names of the inks along with the percentage for this particular gray balance. (The gray balance percentages are set for the system using the System Configuration Tool.)

## **Solid Targets/Tolerance Table**

This table lists the values for various ink targets (such as Density, Grayness, and Hue Error). An ink patch on a printed sheet is read by a measuring instrument and the resulting value is displayed in a button with a green outline.

Next to the target values are their action limit tolerance (yellow) and the control limit tolerance (red). The default values for these tolerances are set using the System Configuration Tool.

To edit a target or tolerance value, touch its square. Type in the new value using the keypad or adjust the value using the arrow keys. Touch ENTER to close the keypad window and save the new value.

### **Filter**

A list of buttons that show the various filters that were used by the measuring instrument when reading the patches. The highlighted button is the dominant filter for the ink targets.

To change the dominant filter, touch the button for another filter. Note that the target values in the table change.

### **Save**

Touch this button to save the edits you have made to the current paper target and close the Gray Balance Target Editor screen.

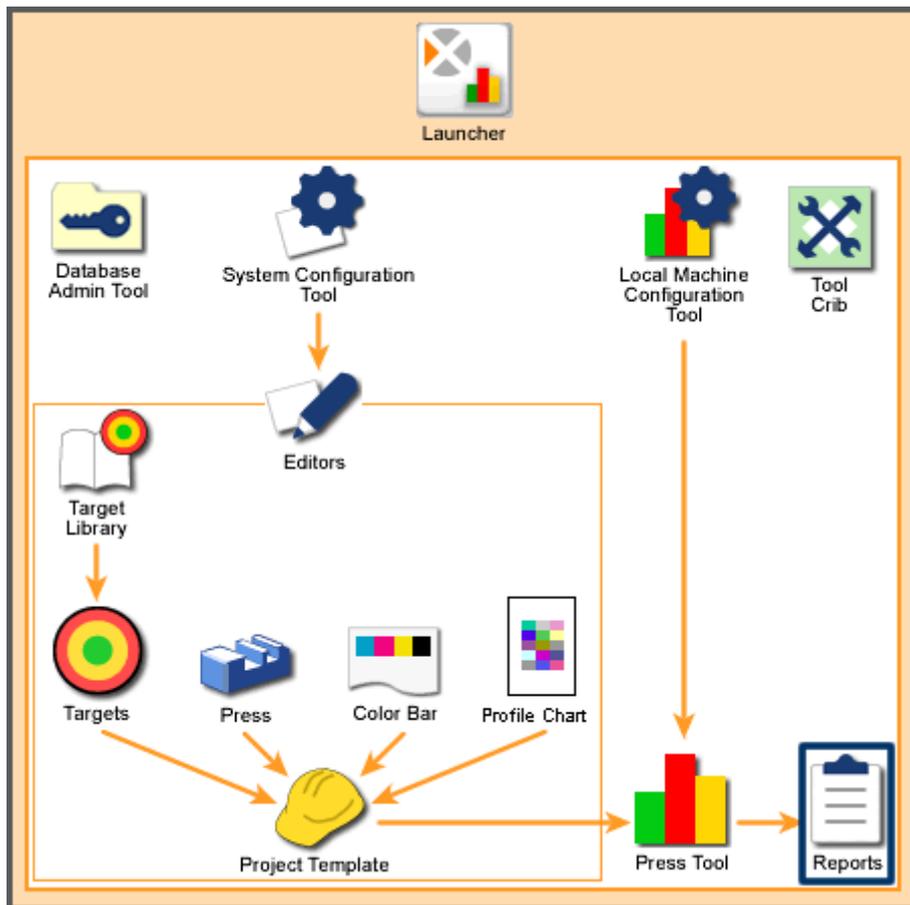
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## Reporting Tool

The Reporting Tool allows you to create reports for jobs run by the Press Tool. Reports can be for entire jobs or for individual sheets of a job. You can generate reports from the active database or database backups.

Reports are documents that list the color bar data scanned from press sheets by a spectrophotometer instrument. The documents are in HTML format and can be viewed with Internet Explorer or any web browser.

You can use reports to keep records of your system performance.



***Scanning System Overview: Reporting Tool***

## Home

### How to Start the Reporting Tool

To start the Reporting Tool,

1. Start the Launcher and touch the Reports button.
2. The Reporting Tool screen appears. Touch a Reports button to begin the reports process.

### How to Use the Reporting Tool

To create a report from an active database,

1. On the Reporting Tool screen, touch a button in the Reports list box.
  - To get a report on an entire Press Tool job, touch Job Report. (Note: If there are no production sheets in a job, a Job Report will not be generated if.)
  - To get a report on an individual sheet of a Press Tool job, touch Sheet Report.
  - To get a Gracol 7 report, touch G7 Report.
  - To get ISO report, touch ISO Report.
  - To get a trend graph report for each selected calculation over the job life cycle, touch Sheet Trend Report.

The Job Chooser screen appears.

To create a report from a database backup,

1. On the Reporting Tool screen, touch the Change Source button.
  - On the Database Selection screen, touch the desired database button in the Databases list box, and then touch the OK button.
  - To get a report on an entire Press Tool job, touch Job Report. (Note: If there are no production sheets in a job, a Job Report will not be generated.)
  - To get a report on an individual sheet of a Press Tool job, touch Sheet Report.

The Job Chooser screen appears.

2. Touch a button in the Project list box. The jobs for the selected projects appear in the Jobs list box.
3. Touch a button in the Jobs list box to select a job. A Report Options screen appears.

Note: If you selected Job Report in Step 1, the Job Report Options screen appears. If you selected Sheet Report in Step 1, the Sheet Report Options screen appears.

4. Select the types of data you would like to have in your report. (By default, all types are selected.) For descriptions of each data type, see the Report Tool Options.
5. If you would like to have the report automatically open in a web browser after it is created, select the Open File in Browser check box.

6. Touch Generate Report. A Microsoft Windows dialog box appears where you browse for a location to save the file.
7. If needed, edit the default name for report and touch Save. (If you selected the Open File in Browser check box in Step 5, a browser window opens and displays the report.) The Report Generated message box appears.
8. Touch OK. The Job Chooser screen again appears.

## Report Tool Options

The Report Tool Options screen allows you to choose the type of data you want to include in a report.

This screen appears automatically after you select a job from the Job Chooser screen.

The following is a list of controls that appear on the Report Tool Options screen:

### Data Types

- Density. Indicates the target's ability to absorb light. The more light the target can absorb, the higher the density value. For example, a black target would have a high density value.
- DeltaE. Indicates the magnitude and character of the difference between two colors under specified conditions.
- Print Contrast. Indicates the level of variation between light and dark areas in an image. Print Contrast indicates the degree to which shadow detail is maintained.
- Grayness. Indicates the relative amount of difference between two similar colors. For example, if you have a perfect Yellow and then add a small amount of Black, the Hue (color) does not change, but the Grayness increases.
- Gray Balance. Indicates how well a combination of yellow, magenta, and cyan combine to produce a neutral (non-chromatic) impression.
- Dot Gain. Indicates the paper's ability to absorb ink. The more absorbent the paper, the more dot gain.
- Hue Error. Indicates how close the target is to the intended color. Each ink has a number that represent its color (hue).
- Brightness. Indicates the paper target's ability to absorb light. The more light the paper can absorb, the lower the brightness value. For example, black paper would have a low brightness value.
- Trap. Indicates the relative difference between an ink on paper to the same ink on already down ink. Trap indicates how well a printed ink can accept the next printed ink relative to how well the paper accepts it.

**Sheet Number**

If you are creating a Sheet Report, this button indicates the sheet number of the job. Touch to open a dialog box to edit the number. Touch OK to save changes.

**Open File in Browser**

Select to display a report in a browser window immediately after it is generated.

**Difference and Actual**

Indicates the type of data that appears in the report. Touch Difference to report difference data or touch Actual to report actual data.

**Generate Report**

Touch to create the report and open a Microsoft Windows dialog box where you browse for a location to save the report file.

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# Glossary

## **Absolute White**

A solid white with known spectral data that is used as the "reference white" for all measurements of absolute reflectance. When calibrating a spectrophotometer, a white ceramic plaque is measured and used as the absolute white reference.

## **Achromatic Color**

A neutral color — white, gray, or black — that has no hue.

## **Action Limit**

A tolerance level for data. If a target reading is within the Action Limit tolerance, the Press Tool shows it as green indicating that it is within an acceptable range. If a target reading is outside of the Action Limit but within the Control Limit, the Press Tool shows it as yellow indicating that it is within an acceptable range but close to unacceptable.

## **Appearance**

Manifestation of the nature of objects and materials through visual attributes such as size, shape, color, texture, glossiness, transparency, opacity, etc.

## **Attribute**

Distinguishing characteristic of a sensation, perception or mode of appearance. Colors are often described by their attributes of hue, saturation or chroma, and lightness.

## **Analogous Colors**

Colors that are close to each other on the color wheel and are also harmonious — for example, blues and purples are analogous.

## **Apparent Dot Area**

The percentage of dot coverage in a specific area, as measured using a densitometer and calculated using the Murray-Davies equation.

## **Apparent Dot Gain**

The difference between the Apparent Dot Area of the film, as measured by a transmission densitometer, and the Apparent Dot Area of the proof or printed sheet, as measured with a reflection densitometer. Indicates how much the dots of ink have spread in the paper in relation to the original film dot area.

**Black**

The absence of all reflected light; the color that is produced when an object absorbs all wavelengths from the light source.

**Brightness**

Indicates the paper target's ability to absorb light. The more light the paper can absorb, the lower the brightness value. For example, black paper would have a low brightness value.

**Chromatic**

Perceived as having a hue; not white, gray or black.

**CIE (Commission Internationale de l'Eclairage)**

A French name that translates to International Commission on Illumination, the main international organization concerned with color and color measurement.

**Color Bar (or Production Control Bar)**

A series of ink patches printed on a press sheet that includes solids of cyan, magenta, yellow, black, and spot color ink; 25%, 50%, and 75% tints of those colors; and two-color overprints using those colors. Press operators measure these patches to determine the density values of the solids; dot gain values in the tints; and trap percentages of the overprints. Some color bars also include special patches to check for other effects, such as slur and doubling.

**Color Difference**

The magnitude and character of the difference between two object colors under specified conditions.

**Color Temperature**

A measurement of the color of light radiated by an object while it is being heated. This measurement is expressed in terms of absolute scale, or degrees Kelvin. Lower Kelvin temperatures such as 2400°K are red; higher temperatures such as 9300°K are blue. Neutral temperature is gray, at 6504°K.

**Control Limit**

A tolerance level for data. If a target reading is outside of the Action Limit but within the Control Limit, the Press tool shows it as yellow indicating that it is within an acceptable range but close to unacceptable. If a target reading is outside of the Control Limit, the Press Tool shows it as red indicating that it is outside of an acceptable range.

**Cyan**

One of the process ink colors for printing. Pure cyan is the "redless" color; it absorbs all red wavelengths of light and reflects all blue and green wavelengths.

**Delta ( $\Delta$ )**

A symbol used to indicate deviation or difference.

**Delta Error (or  $\Delta E$ )**

Indicates the magnitude and character of the difference between two colors under specified conditions. In color tolerancing, the symbol  $\Delta E$  is often used to express Delta Error, the total color difference computed using a color difference equation.

**Densitometer**

A sensitive, photoelectric instrument that measures the density of images or colors.

**Density**

The ability of a material to absorb light. Indicates the target's ability to absorb light. The more light the target can absorb, the higher the density value. For example, a black target would have a high density value.

**Dud**

A color bar patch where the measured data is very different from the target data. It is likely that the instrument misread the patch or the patch is dirty or smeared.

**Dot Gain**

Indicates the paper's ability to absorb ink. The more absorbent the paper, the more dot gain.

**Dye**

A soluble colorant; as opposed to pigment, which is insoluble.

**Dynamic Range**

An instrument's range of measurable values, from the lowest amount it can detect to the highest amount it can handle.

**Four-Color Process**

Depositing combinations of the subtractive primaries cyan, magenta, yellow, and black on paper. These colorants are deposited as dots of different sizes, shapes, and angles to create the illusion of different colors.

**Gamut**

The range of different colors that can be interpreted by a color model or generated by a specific device.

**Gray Balance**

The specific combination of cyan, magenta, and yellow that creates a neutral gray. Indicates how well a combination of yellow, magenta, and cyan combine to produce a neutral (non-chromatic) impression.

**Grayness**

Indicates the relative amount of difference between two similar colors. For example, if you have a perfect Yellow and then add a small amount of Black, the Hue (color) does not change, but the Grayness increases.

**Gripper**

The edge of a sheet that enters the press first.

**Hue**

The basic color of an object, such as "red," "green," "purple," etc. Defined by its angular position in a cylindrical color space, or on a Color Wheel.

**Hue Error**

Indicates how close the target is to the intended color. Each ink has a number that represent its color (hue).

**Key**

The width of an inkwell on a printing press.

**Lightness**

The attribute of visual perception in accordance with which an area appears to emit or reflect more or less light. Also refers to the perception by which white objects are distinguished from gray objects and light-from dark-colored objects.

**Light Source**

The element in an instrument or in the visual observing situation that furnishes the illuminating light.

**Luminance**

Term used by the CIE to describe color brightness. Represented by the Y coordinate in the CIE XYZ color space.

**Magenta**

One of the process ink colors for printing. Pure magenta is the "greenless" color; it absorbs all wavelengths of green from light and reflects all red and blue wavelengths.

**Make Ready Sheet**

A scanned sheet used to adjust the press to meet tolerances for a print run. Make Ready sheets are scanned and the press is adjusted accordingly until the press is ready for production. In the Press Tool, "Make Ready" is the default status of a scanned sheet.

**Neutral**

A color that has no hue. Examples are white, gray, or black.

**OK Sheet**

A master sheet that is created by setting up the press, running sheets, and scanning the sheets. In the Press Tool, the data on this sheet becomes the target data for all other sheets.

**Overprint**

On a press sheet color bar, overprints are color patches where two process inks have been printed, one atop the other. Checking the density of these patches allows press operators determine trap value. The term Overprint also applies to any object printed on top of other colors.

**Print Contrast**

Indicates the level of variation between light and dark areas in an image. Print Contrast indicates the degree to which shadow detail is maintained.

**Production Sheet**

A scanned sheet used to check how a press in production is meeting tolerances. Production Sheets are scanned as a quality control measure during a print run. In the Press Tool, after you set a sheet status to "Production," every sheet scanned after is a Production Sheet by default.

**Profile Feature**

Allows scanned color patches supported by software to synchronize the colors on a computer monitor with colors printed on sheets. For example, you may want to use the profile feature in a digital proofing environment. By synchronizing the press and digital proofer, you can get customer approval by printing a single sheet.

**Project Template**

Defines the press, inks, color bar, targets, tolerances, profiles, and paper being used for a job. You select a project template to define the basic requirements for jobs.

**Reflection Densitometer**

An instrument that measures the amount of incident light that is reflected from the surface of a substrate, such as ink on paper.

**Saturation**

The attribute of color perception that expresses the amount of departure from the neutral gray of the same lightness. Also referred to as chroma.

**Sequence**

The order in which inks are deposited on paper by a printing press.

**Spectral Curve**

A color's "fingerprint" — a visual representation of a color's spectral data. A spectral curve is plotted on a grid comprised of a vertical axis — the level of reflectance intensity; and a horizontal axis — the visible spectrum of wavelengths. The percentage of reflected light is plotted at each interval, resulting in points that form a curve.

**Spectral Data**

The most precise description of the color of an object. An object's color appearance results from light being changed by an object and reflected to a viewer. Spectral data is a description of how the reflected light was changed. The percentage of reflected light is measured at several intervals across its spectrum of wavelengths. This information can be visually represented as a spectral curve.

**Spectrophotometer**

An instrument that measures the characteristics of light reflected from an object, which is interpreted as spectral data.

**Standard**

An established, approved reference against which instrument measurements of samples are evaluated.

**Tail**

The edge of a sheet that enters the press last.

**Target**

An ink, paper, gray balance, or overprint that is on a color bar.

**Tolerance**

The amount of acceptable difference between a known correct standard and a set of measured samples. Color measurements are evaluated using the DE tolerancing method.

**Tone**

On a press sheet color bar, a patch of halftone dots that represents a percentage of the solid ink, such as a 25%, 50%, or 75% tone. Tones on the film are measured to determine apparent dot area, and tones on paper are measured and compared to the film to determine apparent dot gain.

**Trap**

Indicates the relative difference between an ink on paper to the same ink on already down ink. Trap indicates how well a printed ink can accept the next printed ink relative to how well the paper accepts it.

**White Light**

Theoretically, light that emits all wavelengths of the visible spectrum at uniform intensity. In reality, most light sources cannot achieve such perfection.

**Yellow**

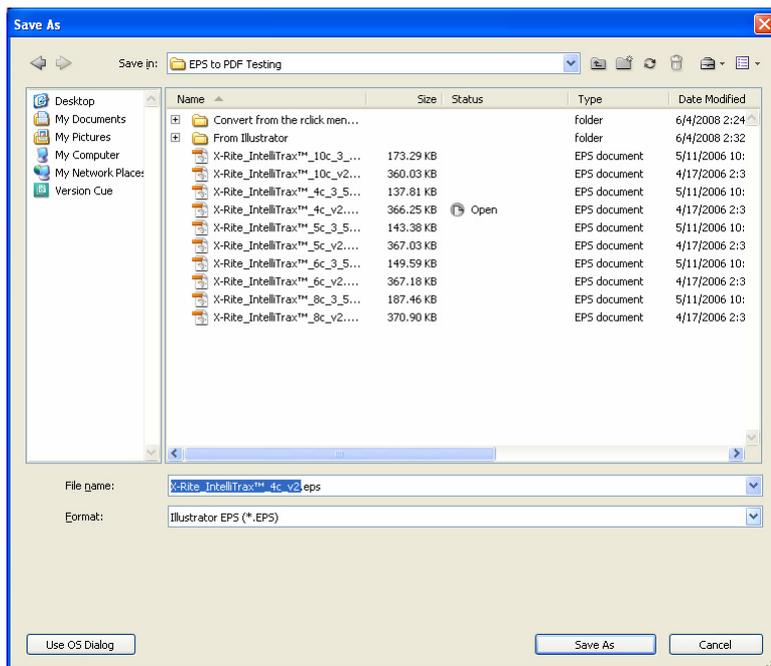
One of the process ink colors for printing. Pure yellow is the "blueless" color; it absorbs all wavelengths of blue from light and reflects all red and green wavelengths.

# Appendices

## A- Saving an EPS Colorbar File as a PDF

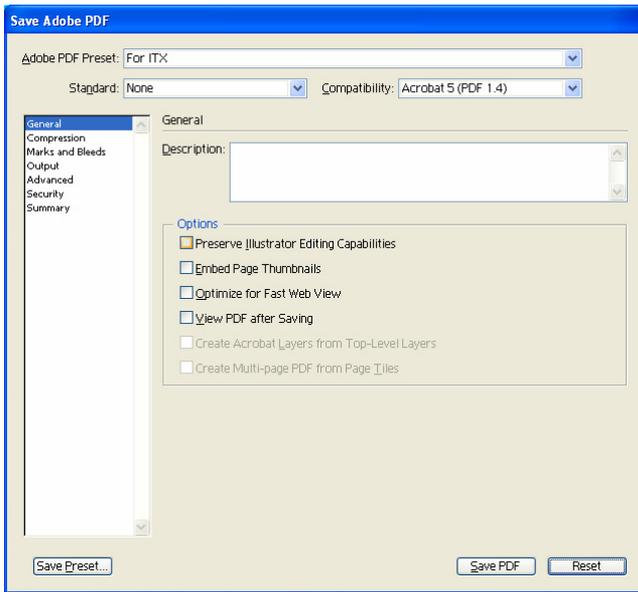
To save an EPS file as a PDF for importing into Intellitrax:

1. Open the EPS file in Adobe Illustrator CS3
2. Select File->Save As
3. Set the "Format" to be "Adobe PDF (\*.PDF)"

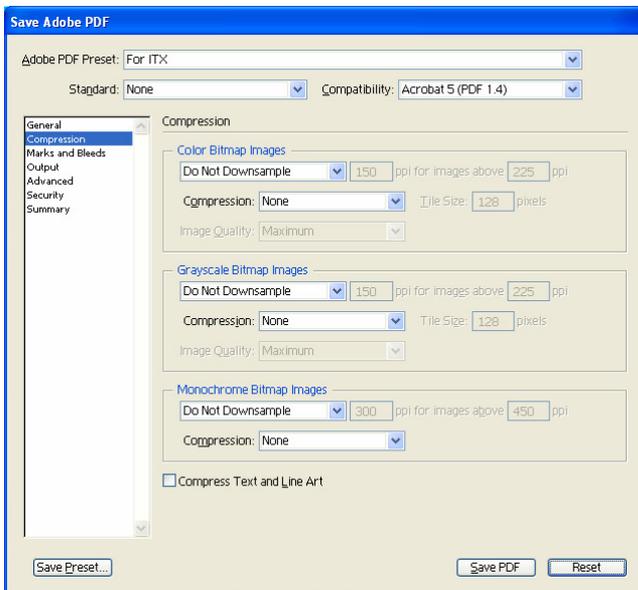


4. Click "Save As"

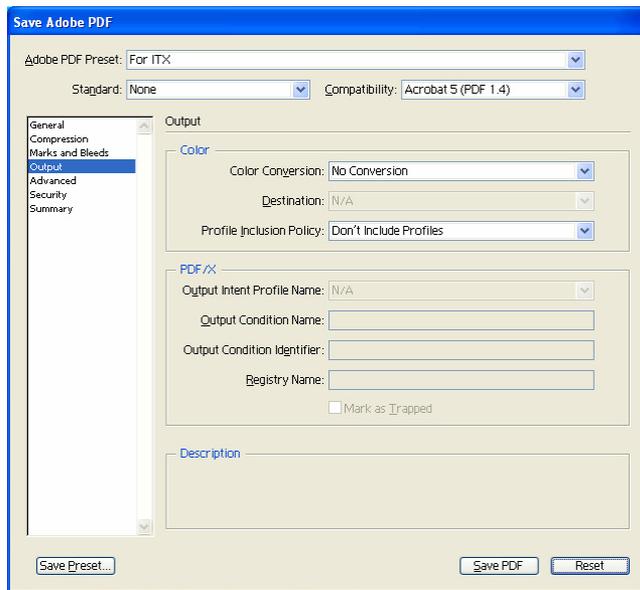
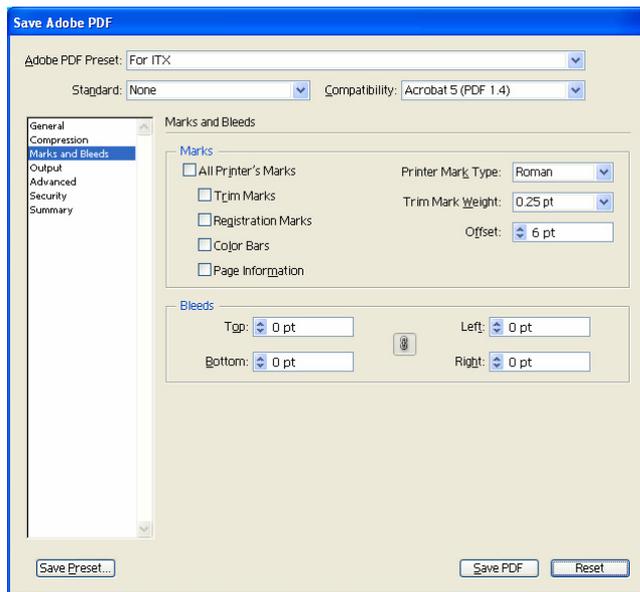
5. Turn Off all options on the "General" settings page:

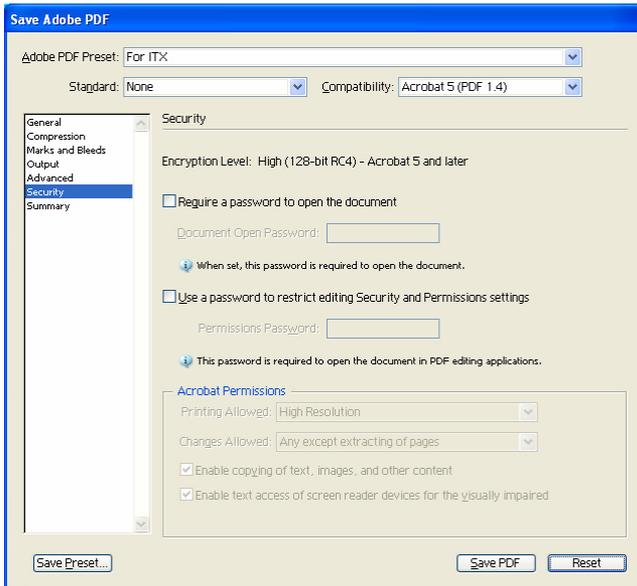
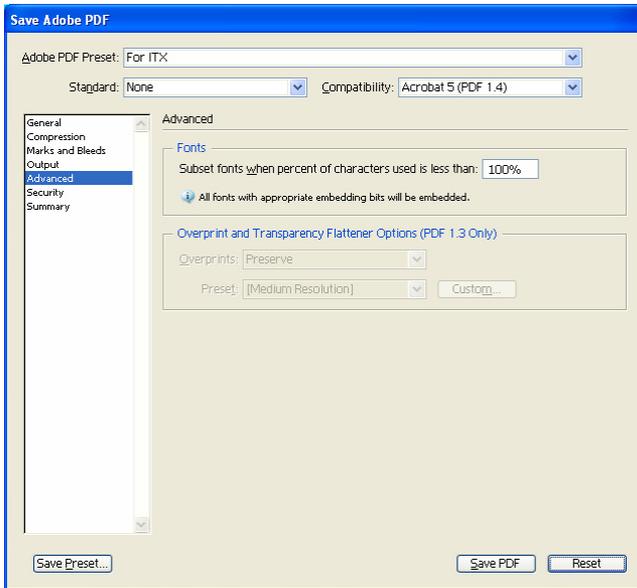


6. Set all "Compression" settings to "None" and turn off "Compress Text and Line Art."



7. Ensure that all other settings pages are set as follows:





8. The Summary will appear as follows:

Adobe PDF Preset: For ITX

Compatibility: Acrobat 5 (PDF 1.4)

Standard: None

Description

General

Preserve Illustrator Editing Capabilities: Off

Embed Page Thumbnails: Off  
Optimize for Fast Web View: Off  
Create Multi-page PDF from Page Tiles: Off

#### Compression

Color Bitmap Images:  
    No Sampling Change  
    Compression: None  
Grayscale Bitmap Images:  
    No Sampling Change  
    Compression: None  
Monochrome Bitmap Images:  
    No Sampling Change  
    Compression: None  
Compress Text and Line Art: Off

#### Marks and Bleeds

Trim Marks: Off  
Registration Marks: Off  
Color Bars: Off  
Page Information: Off  
Printer Mark Type: Roman  
Trim Mark Weight: 0.25 pt  
Offset from Artboard: 6 pt  
Bleed Left: 0 pt  
Bleed Bottom: 0 pt  
Bleed Right: 0 pt  
Bleed Top: 0 pt

#### Output

Color:  
    Color Conversion: No Conversion  
    Profile Inclusion Policy: Don't Include Profiles

PDF/X:

Output Intent Profile Name:

N/A

N/A

N/A

Mark as Trapped: Off

Advanced

Subset embedded fonts below: 100 %

Security

Document Open Password: Off

Permissions Password: Off

Encryption Level: High (128-bit RC4) - Acrobat 5 and later