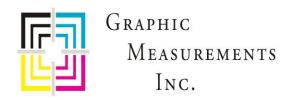
Mercury Advanced User's Manual Volume 2





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Contents

1	Intro	oduction	6
	1.1	Volume 1 – Table of Contents	7
	1.2	Volume 2 – Table of Contents	9
2	Usir	ng CIP3 Presets	11
	2.1	Overview of Creating a CIP3 Form with CIP3 Presets Wizard	11
	2.2	Assign and Apply CIP3 Presets	
	2.3	Clarify CIP3 Presets Features	18
	2.3.	.1 Explaining how CIP3 Presets are Assigned	18
	2.3.	2 Explaining how CIP3 Preset Data is Matched to Inkers	24
	2.3.	.3 Explaining how Additional CIP3 Preset Values are Set	26
	2.4	Preview Images	29
	2.4.	.1 Using Preview Image	29
	2.4.	2 Previewing Image for Wide Press	30
	2.5	Configure CIP3 Paper Scan Calibration	31
	2.6	Preset Virtual Inker Presses	33
3	Usir	ng Closed Loop Control	36
	3.1	Overview of Closed Loop Control (CLC) System	36
	3.2	Set Up CLC Interface between Mercury and Clarios	37
	3.3	Enable and Disable CLC	38
	3.3.	1 Enabling / Disabling CLC for Current Surface or Inker	38
	3.3.	2 Enabling / Disabling CLC for Alley	39
	3.4	Use Target / Scan Density Mode	
	3.5	Make Adjustments in Closed Loop Control	41
	3.5.	, 3	
	3.5.	3 - 1	
	3.5.	.3 Adjusting Ink Zones with % Inc/Dec during CLC	42
	3.6	Mercury Operations Not Available when CLC Activated	42
4	Usir	ng Job Management View	43
	4.1	Overview of Job Management View	43
	4.2	Create a Job from Job Management View	47
	4.3	Add Forms from Job Management View	48
	4.3.	1 Adding Forms Using Create Forms	48
	4.3.	.2 Adding Forms Using Recall CIP3	51

	4.3.3	Adding Forms Using Recall Form	52
	4.4 Pei	form Job Operations from Job Management View	54
	4.4.1	Removing a Job	54
	4.4.2	Starting a Job	55
	4.4.3	Starting and Setting a Job	56
	4.4.4	Saving & Archiving Job	57
	4.4.5	Copying As Job	58
	4.4.6	Stopping a Job	59
	4.5 Per	form Form Operations from Job Management View	60
	4.5.1	Editing a Form	60
	4.5.2	Removing a Form	62
	4.5.3	Saving Form as Form Template	63
	4.6 Fin	d a Job from Job Management View	64
	4.7 Use	e Job Archives from Job Management View	65
	4.7.1	Loading Job from Archive to Job Queue	65
	4.7.2	Copying Archived Job as a New Job	66
	4.8 Del	ete Jobs & Forms when Job Management View Enabled	67
	4.8.1	Deleting a Job from Inactive Job Queue	67
	4.8.2	Deleting a Form from an Inactive Job	68
5	Using A	uto Zero	69
6	Using Ir	nk Sweep and Water Ramping	71
	6.1 Co	nfigure Sweep and Water Ramps	71
	6.1.1	Accessing the Ramps View Screen	
	6.1.2	Adjusting Output on the Ramp Graph Curve	
	6.1.3	Adding, Deleting, and Setting Default Curve Presets	
	6.1.4	Copying Ramp View Data	78
	6.2 Adj	ust Ink Surge and Water Flood from Status View	81
	6.2.1	Adjusting Ink Surge from Status View	83
	6.2.2	Adjusting Water Flood from Status View	84
	6.3 Adj	ust Ink Surge/Water Flood on Sweep All / Water All Screens	
	6.3.1	Adjusting Ink Surge on Sweep All Screen	90
	6.3.2	Adjusting Water Flood on Water All Screen	92
	6.4 Ma	ke Other Adjustments on Sweep All / Water All Screens	94
7	Using H	MI Touchpad for Sweep and Water Ramping	98
	_	erview of HMI Touchpad	
		nfigure the HMI Touchpad Settings	

7.3	Make Adjustments from Main HMI Touchpad	103		
7.3	Increasing / Decreasing Trim Value on Main HMI Touchpad	103		
7.3	Locking the Controls and Accessing Locked View	106		
7.3	3.3 Toggling Inker Ductor Control	107		
7.3	3.4 Executing Changes Made on HMI Touchpad	107		
7.4	Make Adjustments from Sweep / Water Zoomed Views	108		
7.4	Adjusting Trim Values from Sweep / Water Zoomed Views	110		
7.4	Adjusting Ink Surge / Flood from Sweep / Water Zoomed Views	112		
7.4	Making Other Adjustments from Sweep / Water Zoomed Views	113		
8 Us	ing a CIC Press	116		
8.1	Overview of a CIC Press	116		
8.2	Make Automatic Ink Fountain Adjustments	117		
8.3	Use Press Layout Icons	118		
8.4	Invert Ink Profiles	119		
8.5	Use Thumbnail Views	120		
8.6	Use Direct Entry Input	122		
8.7	Save and Undo Console Key Setting Changes	124		
9 Us	ing Register Motor Moves	125		
9.1	Access Register View	125		
9.2	Use Register View Features	126		
9.3	Move the Register Motors	131		
Append	lix A: Using Virtual Fountains	135		
Revisio	Revision History			

1 Introduction

This manual provides press operators with information on using the more advanced features of Advanced Vision Technology's Mercury system for presses.

The manual is divided into two documents:

- Mercury Advanced User's Manual Volume 1
- Mercury Advanced User's Manual Volume 2

Reference: See the *Mercury Training & User's Guide* for detailed information on the basic features of the Mercury system.

Typographical Conventions

All Mercury system interactions are performed by touching either buttons or fields on the Mercury workstation monitor. You navigate between views to control all operations by touching buttons, fields, or touch-sensitive sections of views displayed on the monitor.

To make this manual easier to use, bold letters are used to show touch-control buttons or fields, such as **OK**, **Cancel**, **Run Inker**, or **Set Press**.

Note: Notes contain specific information. They may explain why a certain step should be performed. Sometimes they contain tips about a particular step in a process.

WARNING: Warnings appear when you must follow specific instructions to avoid creating a problem.

1.1 Volume 1 – Table of Contents

Starting, Stopping, & Servicing the Mercury System

- Power On the Mercury System Components
- Exit Mercury and Turn off Computer
- Service the Mercury System

Configuring the System: Utilities

- Delete Forms
- Convert MC2 Job to MC3 Job
- Change Current Color Order
- Change Standard Color Order
- Adjust Offset Calibration Values
- Configure CIP3 Paper Scan Calibration Values
- Retract Servos
- Restore Servos
- Use TeamViewer for Remote Control
- Set Up ELO
- Activate Turn Bars
- Delete Jobs
- Activate Press Split
- Configure Sweep and Water Ramping
- Calibrate Positioner Diagnostics for PLC Sweep/Water Controls
- Configure Ethernet Based SPU3 Device

Configuring the System: Diagnostics

- Perform a Servo Test (Test One / Test All / Auto Retry)
- Perform an SPU Test
- View Available Auto Test and Servo Test Results
- Perform an Auto Test
- Perform a Sweep Test
- View SPU Configuration

Configuring the System: Settings

Creating and Using Custom Colors for Forms

- Create a New Custom Color
- Modify an Existing Custom Color
- Delete a Custom Color

Using Summary View

- Invoke Summary View
- Use Summary View Features

Using Zone Locks

- Review Zone Lock Status
- Lock and Unlock Ink Zones
- Use Adjust Ink Console Buttons with Zone Locks
- Make Ink Zone Adjustments with Zone Locks

Using Single-Sided Web Press with Turn Bars

- Overview of Web Presses with Turn Bars
- Activate Turn Bars
- Assign Forms to Ink Fountains Before / After Active Turn Bar
- Work with Multiple Turn Bars
- Change Active Turn Bar for Multiple Turn Bars
- Copy Ink Zones Web Press with Turn Bars
- Swap Ink Zones Web Press with Turn Bars

Using Two-Sided Web Press

- Overview of Two-Sided Web Presses
- Assign Form to Upper Surface of Two-Sided Web
- Assign Form to Lower Surface of Two-Sided Web
- Change Color Order for Current Surface
- Make Ink Fountain Adjustments Two-Sided Web Press
- Copy Ink Zones Two-Sided Web Press
- Swap Ink Zones Two-Sided Web Press

Using Multiple Web Press

- Activate Press Split Configuration for Multiple Web Press
- Assign CIP3 Presets for Multiple Web Press
- Use Job Management View for Multiple Web Press
- Use Summary View for Multiple Web Press
- Make Inker Adjustments on Status View for Multiple Web Press

Using Tower Press

- Overview of Tower Press
- Assign Splits for Tower Press from Split Selection View
- Assign CIP3 IMAPs with CIP3 Presets for Tower Press
- Access Select Inker View & Zone Status View for Tower Press
- Make Inker Adjustments on Status View for Tower Press

Using Newspaper Press

- Overview of Newspaper Press
- Select Pages / Fountains from Newspaper Page View Section
- Assign CIP3 IMAPs with CIP3 Presets for Newspaper Press
- Navigate to Newspaper Page View Dialog

Appendixes

- System Function Buttons on Status View
- Navigation & Operation Buttons
- System Configuration Buttons
- Display & Touch-Sensitive Buttons and Fields
- Zone Status Icons

1.2 Volume 2 – Table of Contents

Using CIP3 Presets

- Overview of Creating CIP3 Form with CIP3 Presets Wizard
- Assign and Apply CIP3 Presets
- Clarify CIP3 Presets Features
- Preview Images
- Configure CIP3 Paper Scan Calibration

Using Closed Loop Control

- Overview of Closed Loop Control System
- Set Up CLC Interface between Mercury and Clarios
- Enable and Disable CLC
- Use Target / Scan Density Mode
- Make Adjustments in Closed Loop Control
- Mercury Operations Not Available with CLC Activated

Using Job Management View

- Overview of Job Management View
- Create a Job from Job Management View
- Add Forms from Job Management View
- Perform Job Operations from Job Management View
- Perform Form Operations from Job Management View
- Find a Job from Job Management View
- Use Job Archives from Job Management View
- Delete Jobs & Forms when Job Management View Enabled

Using Auto Zero

Using Ink Sweep and Water Ramping

- Configure Sweep and Water Ramps
- Adjust Ink Surge and Water Flood from Status View
- Adjust Ink Surge/Water Flood on Sweep All / Water All Screens
- Make Other Adjustments on Sweep All / Water All Screens

Using HMI Touchpad for Sweep and Water Ramping

- Overview of HMI Touchpad
- Configure HMI Touchpad Settings
- Make Adjustments from Main HMI Touchpad
- Make Adjustments from Sweep / Water Zoomed View

Using a CIC Press

- Overview of CIC Press
- Make Automatic Ink Fountain Adjustments
- Use Press Layout Icons
- Invert Ink Profiles
- Use Thumbnail Views
- Use Direct Entry Input
- Save and Undo Console Key Setting Changes

Using Register Motor Moves

- Access Register View
- Use Register View Features
- Move the Register Motors

Appendix: Using Virtual Fountains

2 Using CIP3 Presets

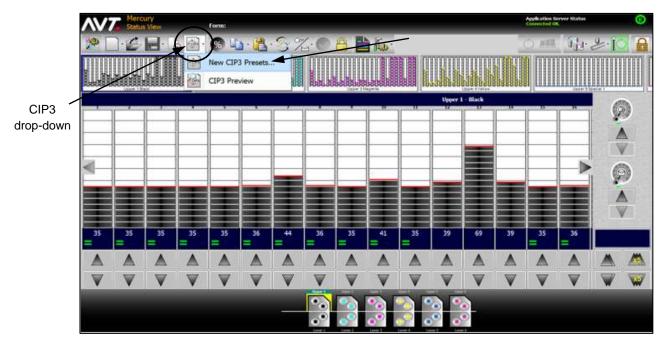
This section describes the optional CIP3 preset feature, which allows the operator to start a job with preset values, achieve required print quality quickly, and reduce makeready time. You can configure presetting for all of the inkers on the press.

2.1 Overview of Creating a CIP3 Form with CIP3 Presets Wizard

A CIP3 form is similar to the standard form, but with preset fountain profiles and sweep settings. You can create a new CIP3 form with the required initial presets.

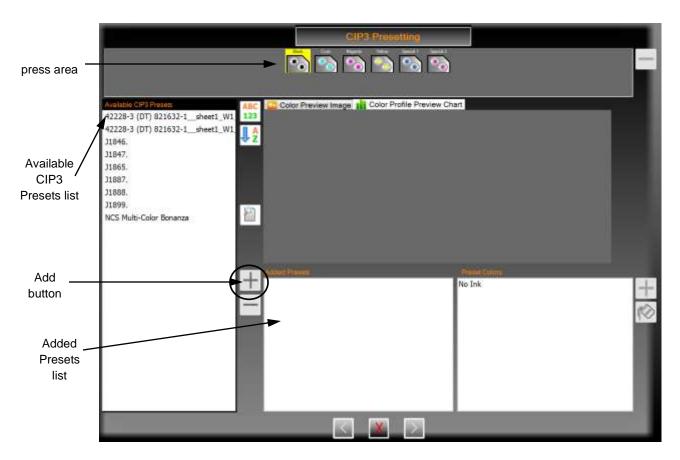
Note: You create a CIP3 form for one surface at a time. For a two-sided web press, you will need to select the upper or lower surface before creating a CIP3 form.

You set up CIP presets and create a new CIP3 form by selecting **New CIP3 Presets** from the **CIP3** drop-down on the Status View.



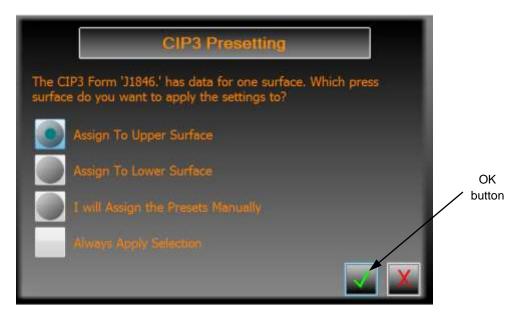
Note: Creating a CIP3 form in Job Management View uses the same process described here.

The CIP3 wizard guides you through the process of assigning and applying new CIP3 presets. When choosing **New CIP3 Presets**, the first page of the CIP3 Presetting wizard displays.



- The press area allows you to assign preset data to an inker and view the image for the preset data assigned to the inker.
- The Available CIP3 Presets list shows the preset data that can be selected to setup the CIP3 configuration.
- The Add button (blue + sign) becomes enabled when you click on a file in the Available CIP3 Presets list. Clicking on the Add button adds the file to the Added Presets list.

After clicking the Add button, the next page of the CIP3 Presetting wizard displays for you to choose the press surface for the preset settings.



See Explaining how CIP3 Preset Data is Matched to Inkers for more detailed information on choosing the press surface for the preset settings.



Note: You can scroll all lists on the dialog by dragging inside the list, rather than clicking on a scroll bar.

The final page of the CIP3 Presetting wizard displays after clicking the **Next** button.

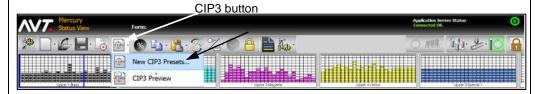
Make any needed changes and/or set additional preset values, then click to assign the selected preset values to the press. See *Explaining how Additional CIP3 Preset Values are Set* for more detailed information on setting the preset values on the final page of the wizard.



2.2 Assign and Apply CIP3 Presets

1 Touch the CIP3 button on the main toolbar and then touch New CIP3 Presets from the drop-down menu.

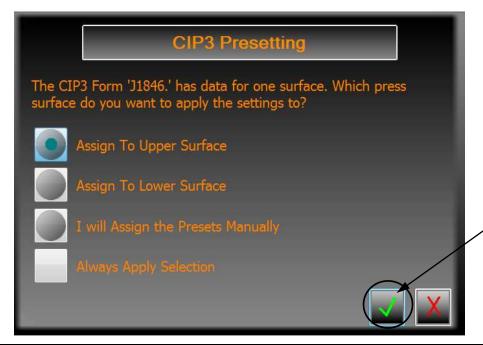
Note: Be sure the first inker that you want to preset is selected in the press area.



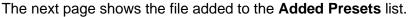
The first page of the CIP3 wizard displays.

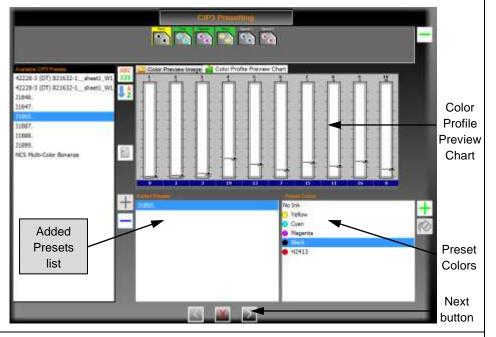


2 Select a **file** from the **Available CIP3 Presets** list and click on the **Add** button to add the file to the **Added Presets** list.

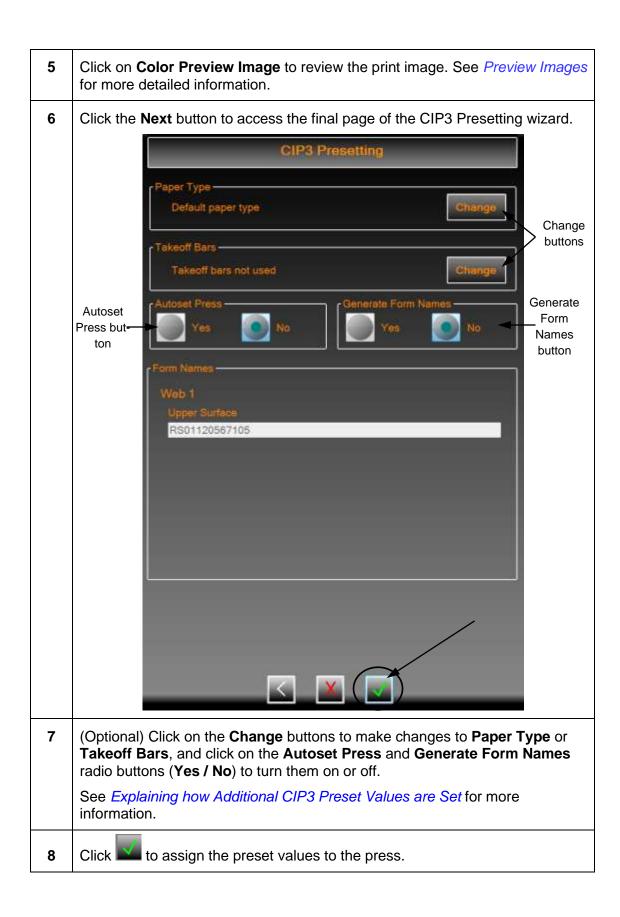


Click on the Assign To Upper Surface radio button and then click





Review the Preset Colors and Color Profile Preview Chart following guidelines described in *Explaining how CIP3 Presets are Assigned*.



2.3 Clarify CIP3 Presets Features

2.3.1 Explaining how CIP3 Presets are Assigned

After assigning the selected preset values to the upper surface, the CIP3 Presetting dialog displays as follows.



- At the top, inkers outlined in green have had preset data applied either by the wizard or by the user.
- When a file is selected in the Added Presets list, Preset Colors is filled with all
 the colors in the Preset Data File. If the file contains data for both surfaces, the
 data is grouped by surface (Upper or Lower).
- Selecting an ink causes the Assign Color button (green plus) to become
 enabled. Clicking this places the wizard page in assign color mode. If the next
 control clicked on is an inker in the press display area, the color and file
 preset data will be assigned to that inker. If any other list is clicked on, including
 the Preset Color list, the assign color mode will be cancelled.
- Clicking on an inker while in assign color mode will cause the color and preset data to be assigned to that inker. If another inker exists on the same surface with the color being assigned, first the color and any existing preset data is swapped between the two inkers.

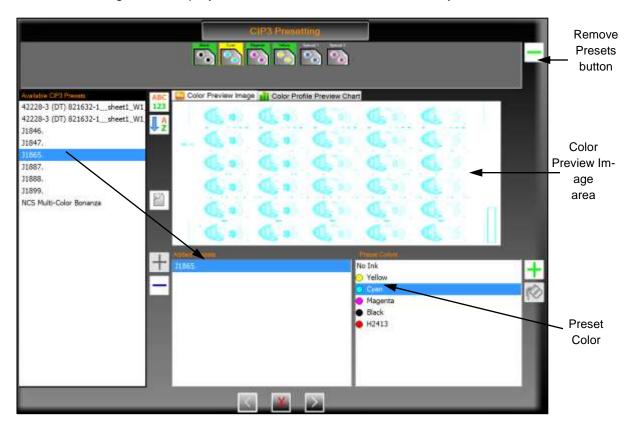
Buttons on the CIP3 Presetting Dialog

Following is a list of buttons you can use on the CIP3 Presetting dialog.

	,	
Cyan	Presets Assigned	 Inkers outlined in green show they have had preset data applied, either by the wizard or user. Inker outlined in yellow has been selected.
+	Add Preset File	Adds the preset file to the Added Presets list.
	Remove Preset File	Removes the preset file from the Added Presets list and removes any assignments associated with this file.
+	Assign Color	Places wizard page in "assign color" mode.
	Remove Presets	Clears any preset assignments to an inker (at top, right).
ABC 123	Sort by ABC 123 / Sort by Time	Toggles list to sort by alphanumeric or sort by time.
Z Z A	Sort	Toggles to sort list in ascending or descending order.
P	Filter	Allows user to type in a string to filter the Available CIP3 Presets list.
	Keyboard	Modifies the current filter. Keyboard displays to enter a search string that changes filtering by modifying the search string.
	Modify Custom Color	Allows user to edit a custom color. Brings up color modification dialog.

Example – CIP3 Preset Selecting Inker in Color Mode

If you were to try to assign cyan to the inker containing black, the data would be swapped between black and cyan and then the new data would be assigned to the inker. The dialog below displays with the selected inker outlined in yellow.



An inker can be selected when it has preset data assigned. When selected:

- The previously set Added Presets list selection changes to the file from which the preset data came.
- The **Preset Color** assigned to the inker is selected
- The preset image, if available, is displayed in the Color Preview Image area.
- The **Remove Presets** button (green minus, at the top) can be used to clear the selected preset assignments to an inker.

Example – CIP3 Preset Assigning No Ink in Preset Colors

A "no ink" value can be assigned to an inker by selecting the **No Ink** value in the Preset Colors, clicking the **Assign Color** button, and then clicking on the **inker** to clear the color. If any preset data has been assigned, it will be cleared as well.

The following dialog shows the results when using assigning No Ink to the inker outlined in yellow.



Explanation - Filter Presets List

Pressing the **Filter** button causes a keyboard button and keyboard to display for you to enter a search string.

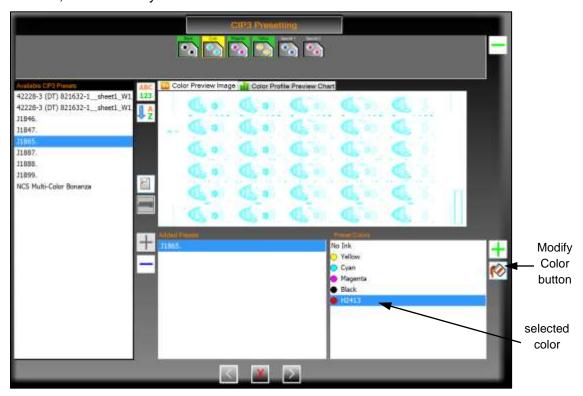


- Typing a search string into the keyboard, filters the Available CIP3 Presets list to show all files that contain the search string. The search is case sensitive.
- You can close the keyboard at any time by touching ...
- When the **keyboard button** is visible, filtering is enabled
- Filtering is enabled until you touch the Filter button again; when this occurs, the list goes back to the original contents.

Modify Color in Ink Library

When a color in a preset file is added that is not part of the ink library, it is assigned a default display color. You can use Modify Color to edit a color that is already part of the ink library.

Note: You must first add the ink preset of the new color in the preset file to a press inker, before Modify Color is allowed.



Click on the **selected color** in the Preset Colors list and press the **Modify Color** button. The **Select Color** dialog displays where you can change the display color to a more meaningful value.



2.3.2 Explaining how CIP3 Preset Data is Matched to Inkers

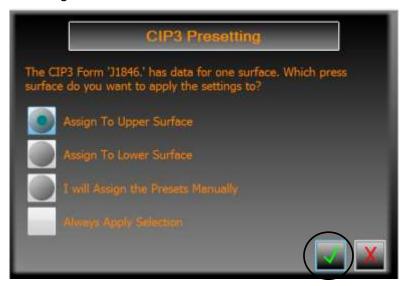
The preset data gets matched to inkers depending on the file selected and is added to the Added Preset list. The following table lists the match options.

Press Type	Single-Sided CIP3 Data	Two-Sided CIP3 Data
Single Web	Choose the press side to match	Upper to Upper, Lower to Lower
Unitized Press w/o Turnbar	Match data to inkers	Choose the preset side to match
Unitized Press with Turnbar	Choose the press side to match	Upper to Upper, Lower to Lower

After making a selection on how to assign presets, click to assign the values. These values can be reconfigured or reset on the System Settings - Runtime Options dialog.

Single-Sided CIP3 Data

The following dialog displays when the press type is a single web and you choose a file with data for a single surface.

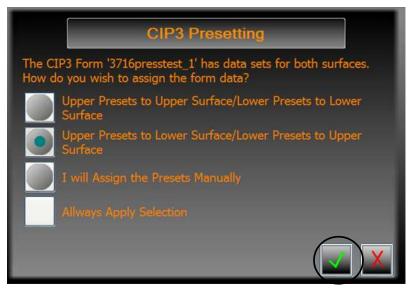


Assign to Upper Surface	Causes the CIP3 wizard to assign preset data from this file to any inkers on the upper surface, that have not been previously assigned preset data during this run of the wizard.
Assign to Lower Surface	Causes the CIP3 wizard to assign preset data from this file to any inkers on the lower surface, that have not been previously assigned preset data during this run of the wizard.

I will Assign the Presets Manually	Causes the CIP wizard to not do any assignments itself, allowing the user to assign values.
Always Apply Selection	Uses the value chosen by the user in all subsequent preset assignments.

Two-Sided CIP3 Data

The following dialog displays when the press type is a single web with two sides and the file contains two sets of preset data.



Upper Presets to Upper Surface / Lower Presets to Lower Surface	 Causes the CIP3 wizard to assign: Upper preset data from this file to any inkers on the upper surface Lower preset data from this file to any inkers on the lower surface
Upper Presets to Lower Surface / Lower Presets to Upper Surface	Causes the CIP3 wizard to assign: Upper preset data from this file to any inkers on the lower surface Lower preset data from this file to any inkers on the upper surface
I will Assign the Presets Manually Causes the CIP wizard to not do any assignments itse allowing the user to assign values.	
Always Apply Selection Uses the value chosen by the user in all subsequent assignments.	

2.3.3 Explaining how Additional CIP3 Preset Values are Set

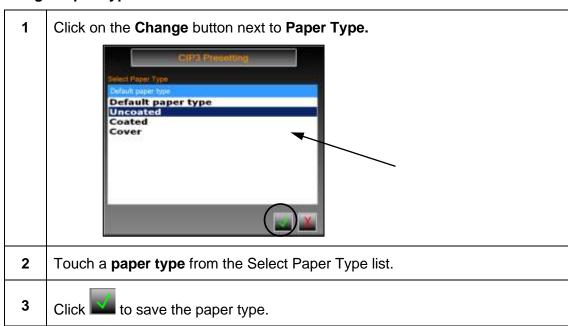
Once the final CIP3 data has been assigned, touching the **Next** button brings up the final wizard page where you can change the paper type and takeoff bars settings, and indicate whether to autoset the press and generate forms names.



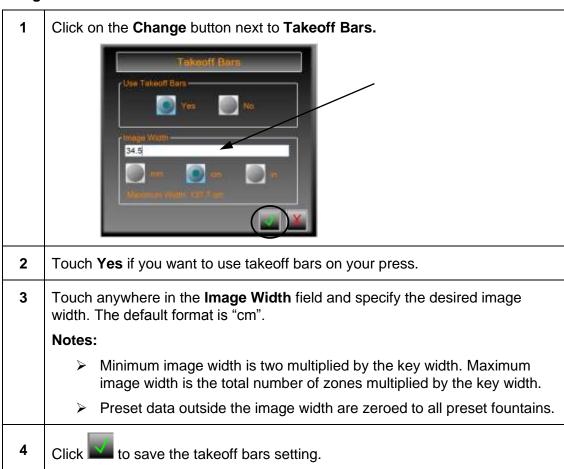
See the sections below for details on all the additional CIP3 preset values.

After changing and/or setting these values, click to create the CIP3 form.

Change Paper Type



Change Takeoff Bars



Autoset Press

Touch the **Yes** or **No** radio button under Autoset Press to indicate whether you want to send the preset data to the ink fountain.



The default is "No".

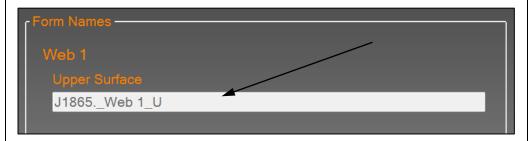
Generate Form Names

Touch the **Yes** radio button under Generate Form Names to indicate whether you want to create a form name based on the automatic form name settings and the CIP3 Preset file you selected.



The **form name** displays in the form name field for the surface being preset.

Note: The form name defaults to the selection you chose the last time.



To change the form name, touch anywhere in the **form name** field, change the name on the keypad, and then touch ...

2.4 Preview Images

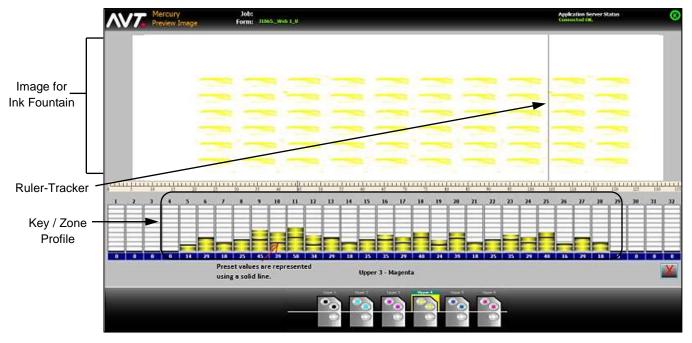
After creating and starting a CIP3 form, the Preview Image feature becomes available.

2.4.1 Using Preview Image

Touch and select an **ink fountain** from the surface where the CIP3 form was started, and then touch **CIP3 Preview** from the CIP3 drop-down on the Status View.



The Preview Image screen displays with the associated image for that particular ink fountain and the key/zone profile that prints the particular area of the image.



The zone data display has two purposes:

- Displays original preset settings on each zone (the solid line in each zone).
- Displays current fountain setting on the press (the colored bar in each zone).

The side-to-side comparison lets the operator see how much different the press production is running versus the original settings when the production started. If the settings are nearly the same level, then the presetting process is very good and needs little adjustment. If there are large differences, there could be a number of reasons for the presets not closely matching production. This is just a warning to the operator that they were different, however AVT cannot determine why they are different.

A ruler-tracker is also available on the Preview Image screen. You can touch and move the **ruler-tracker** horizontally, to line up image landmarks with zone numbers.

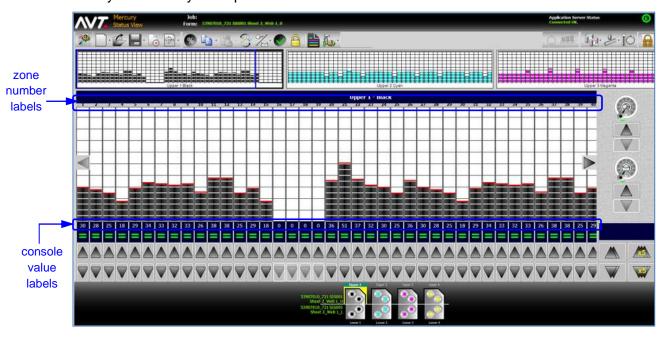
The preview of the image has three conditions:

- Image width is greater than press width zone panel will converge inward (rarely possible)
- Image width is less than press width image will converge inward.
- Image width is equal to press width image area will be covered by entire keys

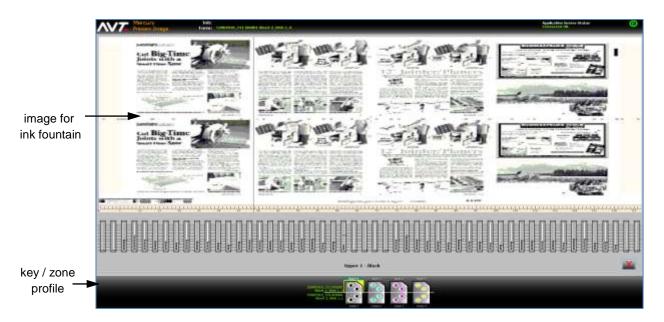
Touch to close the Preview Image screen.

2.4.2 Previewing Image for Wide Press

If your system is configured for a wide press, the Status View screen can display up to 40 keys for the key/zone profile.



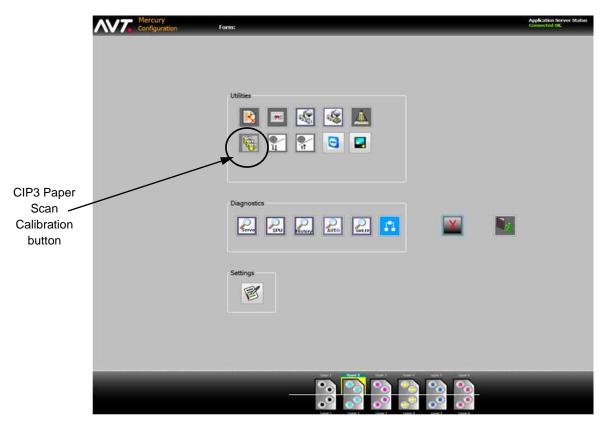
When previewing an image for a wide press, the CIP3 Preview Image screen will display <u>all zones</u> of the profile and the <u>entire image</u> to be preset.



2.5 Configure CIP3 Paper Scan Calibration

A utility is provided to configure the CIP3 paper scan calibration values.

You access this utility by touching the **CIP3 Paper Scan Calibration** button under Utilities on the Configuration screen.



You can then choose to create, modify, delete, or reset a paper type.

Reference: See "Configuring CIP3 Paper Scan Calibration Values" in the *Mercury Advanced User's Manual – Volume 1* document for more detailed information.

Auto Scan Calibration (ASC) Process

The preset zone data is often referred to as scan calibration of the preset job. However, in digital presetting, it refers to the preset data corrections associated with different paper types for every fountain.

For AVT presetting, the ASC process refers to corrections created to the preset data correction curves for each fountain at each press when you Color OK the printed job or when the job has ended. In Mercury, the actual paper correction curve data is referred to as CIP3 Paper Scan Calibration.

CIP3 Presets with ASC Operation and Color OK

Following are the requirements for ASC operation and Color OK for CIP3 presets:

- The CIP3 presets require a form to be loaded. It can be a new form with each preset or an existing form.
- Each new preset will reset the Color OK flag for the ASC operation and the Color OK profiles.
- The first Color OK will trigger the ASC operation immediately; all succeeding Color OKs will only save the new Color OK profiles.
- The ASC operation should only be performed during a Color OK operation.

The following table shows the Mercury ASC operation when a form is loaded.

CIP3 Presets Used?	Operations	ASC Runs?	When does ASC Run?
Y	Color OK	Y	When Color OK button pressed
Υ	No Color OK, Form ended, not saved	N	N/A
Y	No Color OK, Form ended and saved	N	N/A
Y	Color OK, Form ended, not saved	Y	When Color OK button pressed
Υ	Color OK, Form ended / saved	Y	When Color OK button pressed

CIP3 Presets Used?	Operations	ASC Runs?	When does ASC Run?
N	Color OK	N	N/A
N	No Color OK, Form ended, not saved	N	N/A
N	No Color OK, Form ended and saved	N	N/A
N	Color OK, Form ended, not saved	N	N/A
N	Color OK, Form ended / saved	N	N/A

2.6 Preset Virtual Inker Presses

This section provides an explanation of using CIP3 presetting with virtual inker presses.

Scenario #1 - Preset Form to All 12 Inkers (2 Real and 10 Virtual)

This scenario is the easiest method to preset virtual inker presses, but has a limitation as described in the following note.

Note: Paper calibration data is only applied ONCE to all colors, which means the first two colors printed are adjusted. Each pass will adjust paper calibration data for the real inkers only, so the other colors will be done in a future print pass.

1	A preset form is created from scratch, with 12 color preset profiles.
2	When pass ONE is printed, the form is Color OK'd and the paper calibration data in inkers 1 and 2 are adjusted.
3	When pass ONE is completed, the preset profiles in inkers 1 and 2 are swapped to inkers 3 and 4.
4	When pass TWO is printed, the form is Color OK'd and the paper calibration data in inkers 1 and 2 are adjusted.
5	When pass TWO is completed, the preset profiles in inkers 1 and 2 are swapped to inkers 5 and 6.
6	Preset process continues until all 12 colors are printed and the form is ended.

The final form contains all 12 profiles, preset and production. The paper calibration data in inkers 1 and 2 are adjusted six times.

Scenario #2 - Preset Form for Only 2 Colors at a Time

This scenario is the preferred method of using a virtual inker press and CIP3 presets.

1	The first two colors are preset and a preset form is created from scratch with these two color preset profiles.
2	When pass ONE printed, the form is Color OK'd.
3	When pass one is completed, inkers 1 and 2 are swapped to inkers 3 and 4.
4	CIP3 preset occurs again on the SAME FORM, with another two colors preset in inkers 1 and 2 from the same preset data as the first pass. The paper calibration data for inkers 1 and 2 are applied again to these colors.
	Note: Any paper calibration data can be used for these two colors.
5	When pass TWO is printed, the form is Color OK'd.
6	When pass TWO is completed, inkers 1 and 2 are swapped to inkers 5 and 6.
7	CIP3 preset occurs again on the SAME FORM, with another two colors preset in inkers 1 and 2 from the same preset data as the first pass. The paper calibration data for inkers 1 and 2 are applied again to these colors. Note: Any paper calibration data can be used for these two colors.
	Note. Any paper campitation data can be used for these two colors.
8	Preset process continues until all 12 colors are printed and the form is ended.

The final form contains all 12 profiles, preset and production. Paper calibration data in inkers 1 and 2 are adjusted six times. All form profiles are saved in the one form.

Up to six paper calibration data adjustments can be used for this one form. Not all passes need to be Color OK'd, but any adjustments from the preset profiles are lost as paper correction adjustment for those presets are not Color OK'd.

Scenario #3 – Clarios CLC System & Mercury CIP3 Presets

This scenario provides a brief description of CLC operation with CIP presets.

1	For a 4 unit press, the CIP3 presets are recalled to all 4 colors.
2	The actual units are set up as K, S1, S2, and S3.
3	The press starts up and is printing.
4	The job is Color OK'd by the Clarios console.
5	The Mercury ASC update is performed to all preset inkers in the 4 unit press.
6	The job continues until complete, with the Clarios and Mercury forms END completed, as usual.

Notes on Presetting Virtual Inker Presses

- ➤ Paper calibration data is created for EVERY inker, actual and virtual. However, only calibration data for actual inkers is updated during press production.
- ➤ Not all inkers must be preset with CIP3 presetting data. Other inker profiles are unchanged.
- ➤ Paper calibration data is only updated when Color OK operation is performed, after any inker is preset with CIP3 presetting data.
- ➤ Paper calibration data adjustment is only performed ONCE per set of preset profiles for any form by the Color OK operation. If any inker is preset again using CIP3 presetting data or inkers are swapped, the Color OK operation will be allowed again.
- > Clarios Color OK for Mercury CIP3 Preset/CLC systems should be treated the same as Mercury Color OK operation, for adjusting the paper calibration data.

3 Using Closed Loop Control

This section describes the optional closed loop control feature.

Note #1: This feature is only available if your system was configured for closed loop control during system installation.

Note #2: The Mercury system utilities and diagnostics are <u>not</u> available while you are in closed loop control.

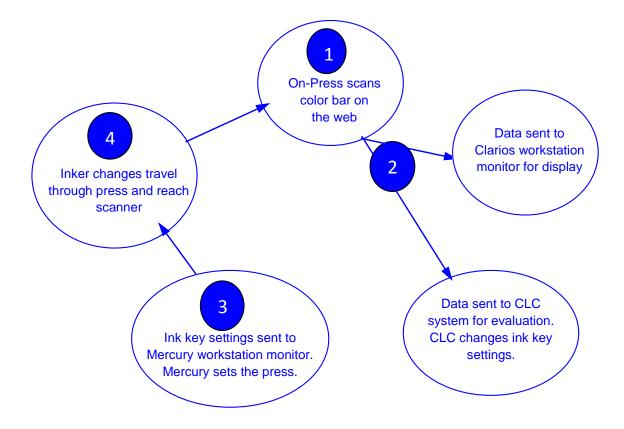
3.1 Overview of Closed Loop Control (CLC) System

The CLC system provides a closed loop link between the Clarios color measurement system and the Mercury remote ink control system for narrow web presses.

The AVT on-press scanner scans the moving web and sends density values to the CLC system and also to the Clarios workstation monitor for display. The CLC system evaluates the data, formulates the ink key settings, and then transmits the ink key settings to the Mercury workstation monitor. Mercury then uses the ink key settings to set the press.

When the inker changes have traveled through the press, onto the paper, and to the scanner, the results of the inker changes are re-scanned and compared to the target densities. More inker changes are made, as necessary, to bring the job to color.

The following diagram shows the closed loop process.



3.2 Set Up CLC Interface between Mercury and Clarios

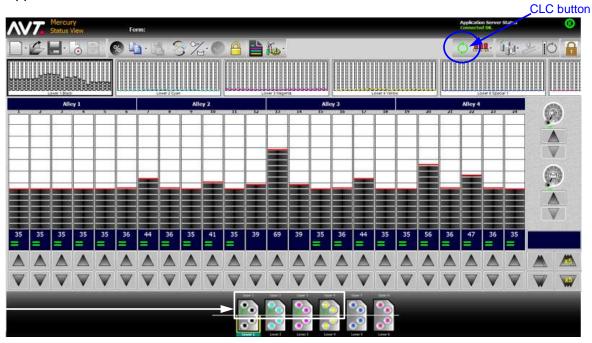
Following are the steps for setting up the interface between Mercury and Clarios.

- 1 From the Mercury Status View, set up the forms as normal.
- From Clarios, set up the forms to match those in Mercury. Start the forms, select the surface/side, and then select **CLC mode** on the Web Data view.

Reference: See the *Clarios Training & User's Guide* and *Clarios Advanced User's Manual* for more detailed information on setting up forms and enabling closed loop control in Clarios.

After starting Mercury, the Status View displays with the **CLC button** enabled. CLC can be enabled for a surface, an inker, and for a selected alley (reporting zone).

The example below shows CLC is running for the Upper 1, Upper 2, Upper 3, and Upper 4 surfaces.



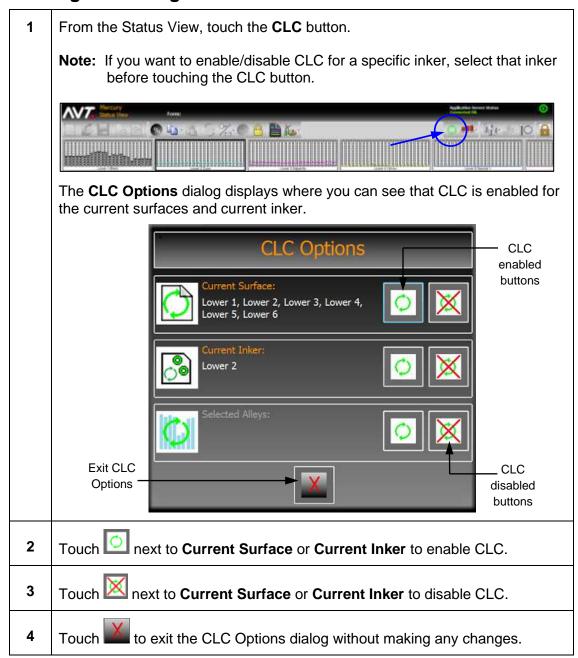
displayed icons show CLC running

Note: By default, CLC is always enabled for the current surfaces and inker.

3.3 Enable and Disable CLC

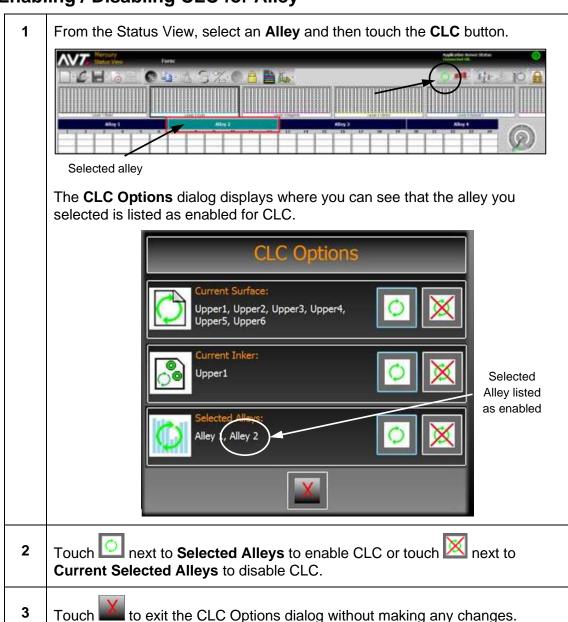
You can enable and disable CLC for one or more surfaces, for a selected inker, and for one or more alleys (also called a reporting zone).

3.3.1 Enabling / Disabling CLC for Current Surface or Inker



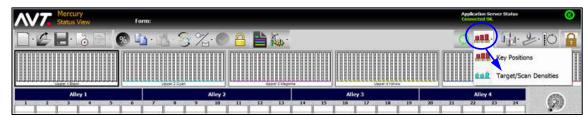
Note: All CLC functions can be done from Clarios, as well as from Mercury.

3.3.2 Enabling / Disabling CLC for Alley

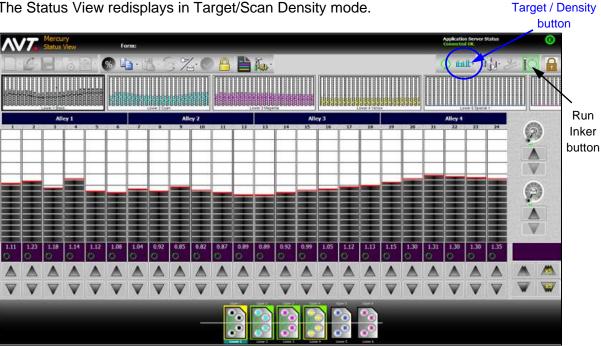


3.4 **Use Target / Scan Density Mode**

From the Status View, touch the **Key Positions** button on the toolbar and then touch Target/Scan Densities in the drop-down menu



The Status View redisplays in Target/Scan Density mode.



The Run Inker button is automatically enabled when you are in Target/Scan Density mode with CLC mode enabled.

3.5 Make Adjustments in Closed Loop Control

As the press runs, changes to the scan density settings on Clarios will cause the ink fountains on Mercury to change.

During closed loop control, you can make adjustments to the fountain console target density values on the Mercury Status View. You can also make changes from the Key Values Mode in Clarios.

Fountain Activity Indicators

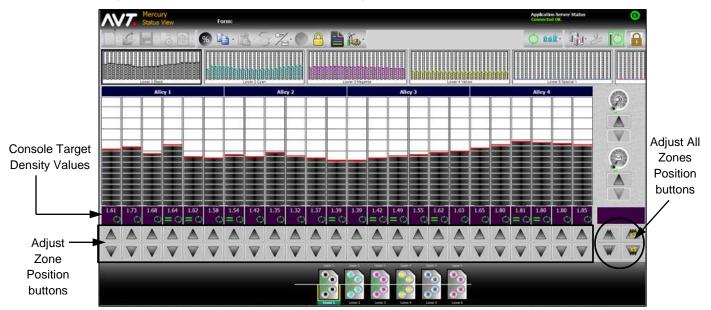
In the Press Graphical View, the **fountains** will display as flashing (from yellow to green) while Clarios is making changes to the fountains.

Console Target Density Values

In the ink zone data display area, the **console target density values** you set are sent from Mercury to Clarios. They will display as 3-digit numbers (2-digit decimal point).

3.5.1 Adjusting Console Target Density Values

While in closed loop, you can adjust the console target density values using the **Adjust Zone Position** buttons or the **Adjust All Zones Position** buttons.



Make the required adjustments to the console target density values.

Run Inker, which is always enabled in Target/Scan Density mode with CLC mode activated, synchronizes the targets between Mercury and Clarios.

Mercury takes the console target density values that you set and sends them to Clarios. Clarios sends them back and adjusts the console target density values.

3.5.2 Copying / Pasting Ink Zones during CLC

While running in closed loop, you can use the **Copy/Paste** function to copy and paste target density values to other ink zones.

See the *Mercury Training & User's Guide* for detailed instructions on copying and pasting ink zones.

3.5.3 Adjusting Ink Zones with % Inc/Dec during CLC

While running in closed loop, you can use the **% Inc/Dec** function to adjust target density values.

See the *Mercury Training & User's Guide* for detailed instructions on adjusting ink zones using % Inc/Dec.

3.6 Mercury Operations Not Available when CLC Activated

When closed loop control is activated for a form, the following operations are not available from the Mercury workstation monitor.

- New Form and New CIP3 Form
- Open Form
- Save As
- End Form
- Zero Inker, Zero All Inkers, Zero All Sweeps, and Zero All Water
- Swap Inkers
- All Utilities and Diagnostics (except for Servo Test Results)

Note: The buttons for these operations are grayed out in CLC and will become active when CLC is deactivated.

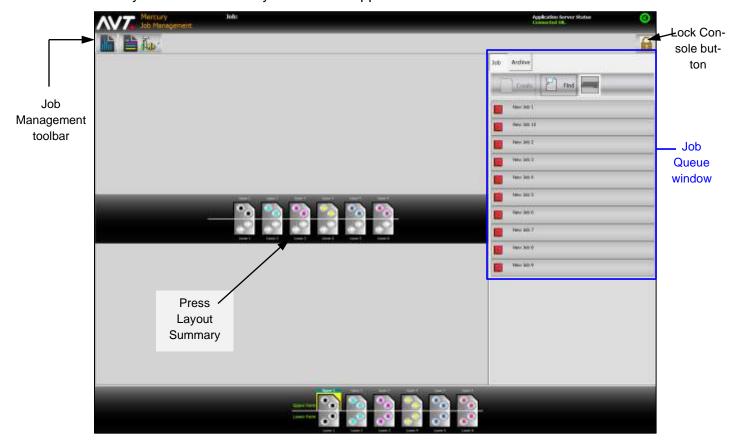
4 Using Job Management View

This section describes the Job Management View, where you can create, configure, and operate different jobs in the queue.

4.1 Overview of Job Management View

The Job Management view allows you to create a list of upcoming jobs. Using this list, you can prepare jobs in advance that can be started quickly as each new job comes to press.

When enabled, the Job Management View will be the default view and the initial view when you start the Mercury workstation application.



Using Job Management Toolbar & Buttons

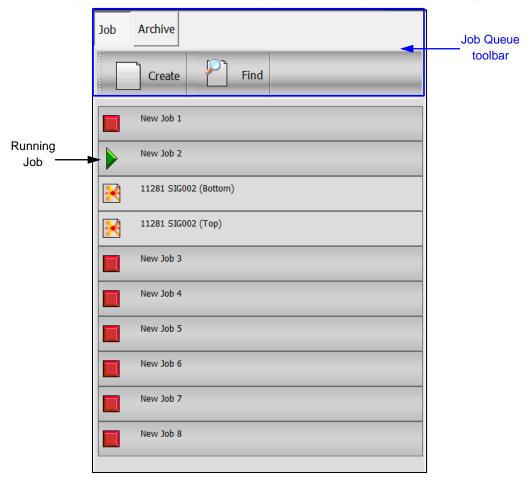
You can use the Job Management toolbar buttons to switch quickly to other Mercury views. See *Switching to Other Mercury Views* for details on using these buttons.

You can use the Lock Console button () to lock the screen.

Using the Job Queue Window

The job queue window lists all the jobs available in the queue. A job can consist of one or more forms.

The job currently running is marked with a green triangle (), indicating the job has started. Other jobs marked with red boxes (), indicate they are not currently running.



The job queue toolbar is at the top of the job queue.

- Job / Archive Lets you select either the current job or view the job archives.
- Create Allows you to create a job by keying a new name for the job.
- **Find** Allows you to search for a job within the job queue.

Note: When you make any updates to a job, that job will be moved to the bottom of the job queue list.

Switching to Other Mercury Views

You can switch to other Mercury views using the Status View, Summary View, and System buttons on the Job Management toolbar.





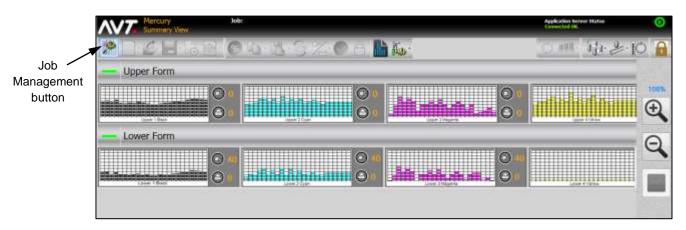
Touch the **Status View** button to switch to the Status View.



From the Status View, touch to return to the Job Management View.



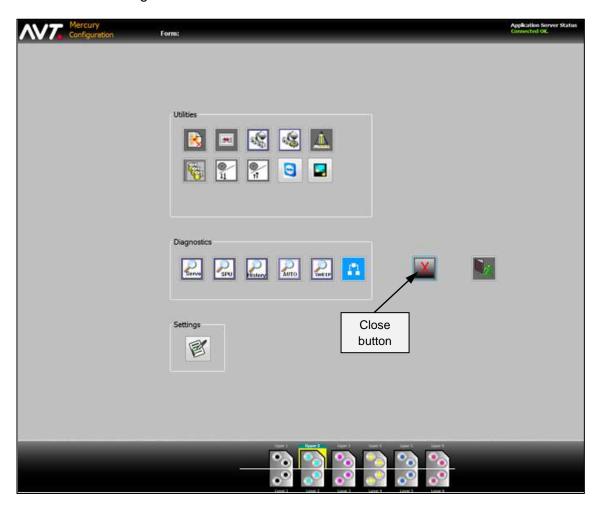
Touch the Summary View button to switch to the Summary View.



From the Summary View, touch to return to the Job Management View.

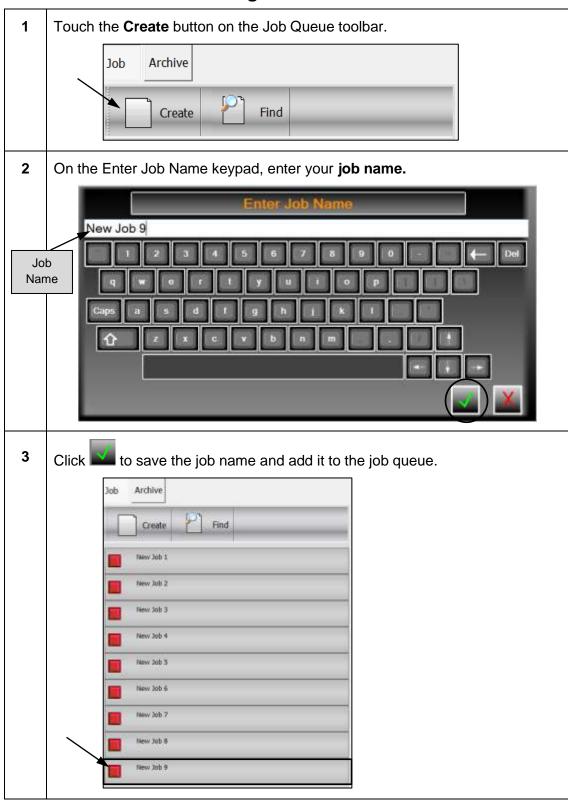


Touch the **System** button and then click on **System** to switch to the Configuration view.



From the Configuration view, touch to close the Configuration view and return to the Job Management View.

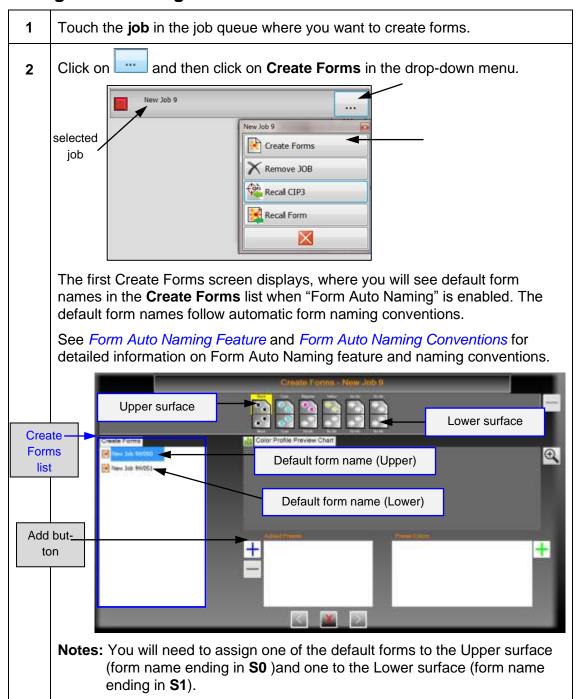
4.2 Create a Job from Job Management View



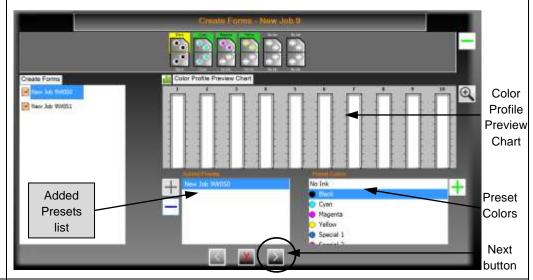
4.3 Add Forms from Job Management View

After creating a job, you can add forms to the job using Create Forms, Recall CIP3, and Recall Forms.

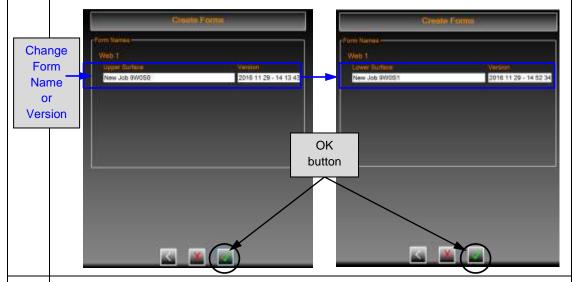
4.3.1 Adding Forms Using Create Forms



- 3 Click on the **Upper or Lower surface** and then click on the **default form name** for the Upper or Lower surface in the Create Forms list.
- 4 Click on the **Add** button (blue + sign) and the default form is added to the **Added Presets** list.



- 5 Review the **Preset Colors** and **Color Profile Preview Chart**.
- 6 Click the **Next** button to access the final Create Forms screen.



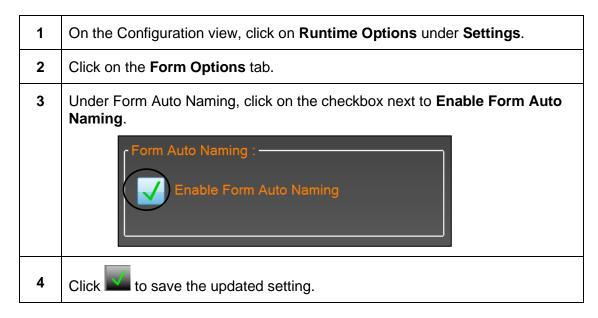
7 Click the **OK** button to accept the default form name and complete creating the form for the job.

OR

To change the form name and/or version, click anywhere in the **Upper Surface**, **Lower Surface**, or **Version** fields, enter new form name or version, and then click the **OK** button to complete creating the form for the job.

Form Auto Naming Feature

The Form Auto Naming feature uses a form naming convention to automatically name forms that you create. You enable this feature from the Runtime Options.



Form Auto Naming Conventions

Following are the naming conventions for the Form Auto Naming feature.

JNxx W# U/L# or JNxx W# S#

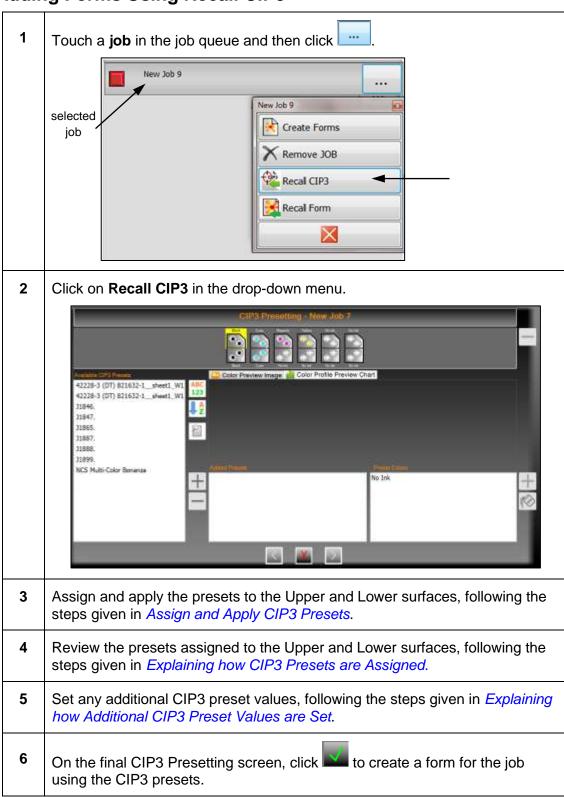
JNxx	First 10 characters of the form / data set name, as read from the file.	
W#	'W' followed by the web identification number (Web ID).	
U/L or S Character depicting the Upper / Lower surface (surface indicator)		
#	The form number for that surface	

In the example below, the form name is **ABCDEFGHIJKLMNOP** and it is for a Web Zero Upper Surface. The auto form name generated would be:

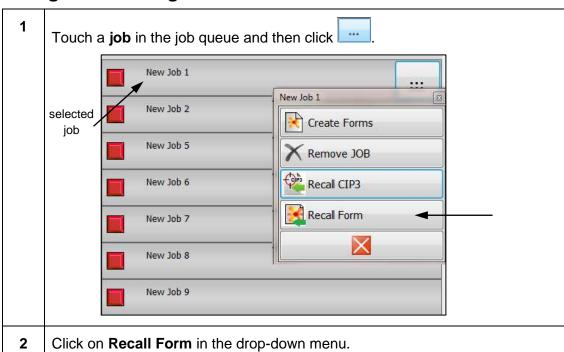
ABCDEFGHIJW0U1

Note: If the form name doesn't have 10 characters, zeros ('0') are added to fill the space.

4.3.2 Adding Forms Using Recall CIP3



4.3.3 **Adding Forms Using Recall Form**





On the Recall Form screen, you can choose to recall a form from Standard Form Storage or you can use a Form Template. The Standard Form Storage list displays by default.

3 To recall a form from the Standard Form Storage list, locate the **form name** you want to recall and then touch the version. Standard Form Storage Form Templates C:\GMI\MC3\JOB_DATA\ - 🧊 092816 Forms - 📁 RS01120567106 © RS01120567107 CONTROL | RS01120567110 CONTRACTOR | RS01120567112 11281 SIG002 (Bottom) 11281 SIG002 (Top) 2016 11 02 - 15 25 12 2016 11 28 - 10 50 47 2016 12 05 - 12 26 5 2016 12 07 - 14 27 49 To recall a form from the Form Templates list, locate the form template you want to recall and then touch the version. Standard Form Storage Form Templates \\127.0.0.1\MC3 TEMPLATE DATA\ Bottom Form Template Top Form Template 2016 12 07 - 14 27 49 4 Click the **Add** button to add the form to the **Added Presets** list and click on the Recall Presetting dialog. 5 Verify the Preset Colors and Color Profile Preview Chart and then click

Specify a new form name and/or version, as needed, and then click

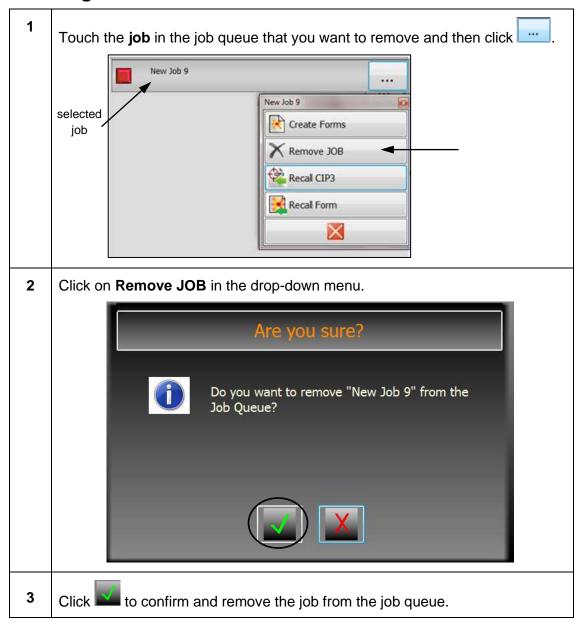
The form is added to the Job queue on the Job Management View.

6

4.4 Perform Job Operations from Job Management View

You can perform numerous operations on a job from the Job Management view.

4.4.1 Removing a Job



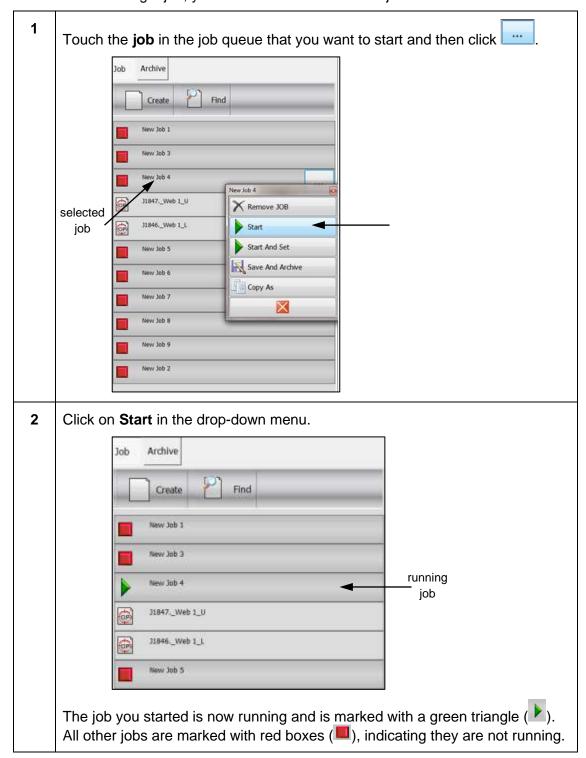
Note: If the job you want to remove is currently running, you must first stop the job before removing it.

You can delete the job after removing it from the job queue. See *Deleting a Job from Inactive Job Queue* for detailed information.

4.4.2 Starting a Job

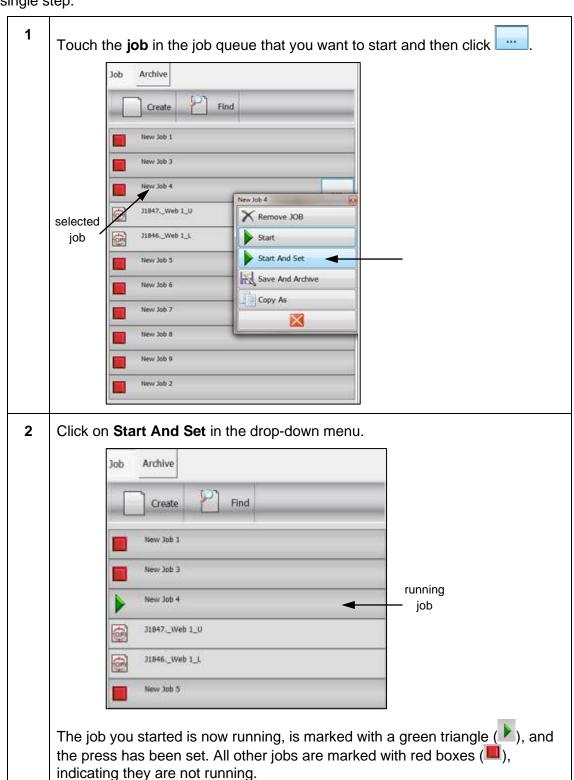
You can start a job and load the key profiles for both surfaces onto the active press. However, this will not run the inker profiles on the press.

Note: Before starting a job, you must create forms for the job.



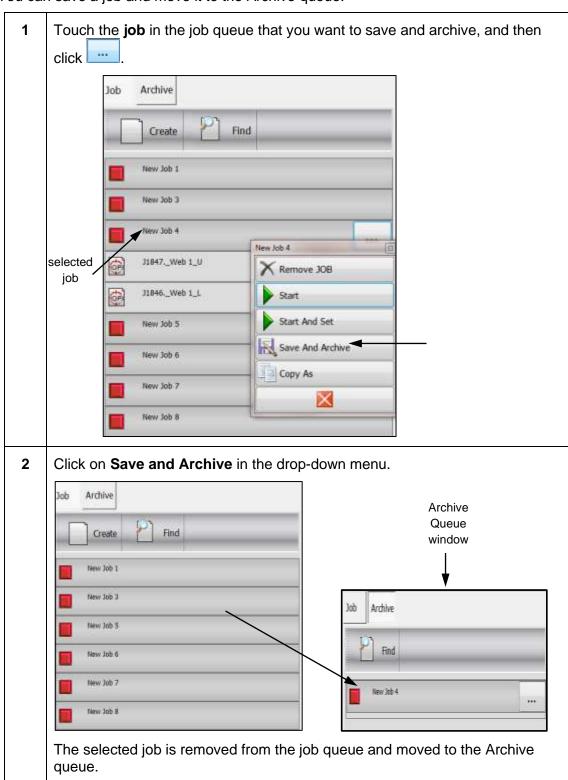
4.4.3 Starting and Setting a Job

You can start a job, load the key profiles for both surfaces, and set the press in a single step.



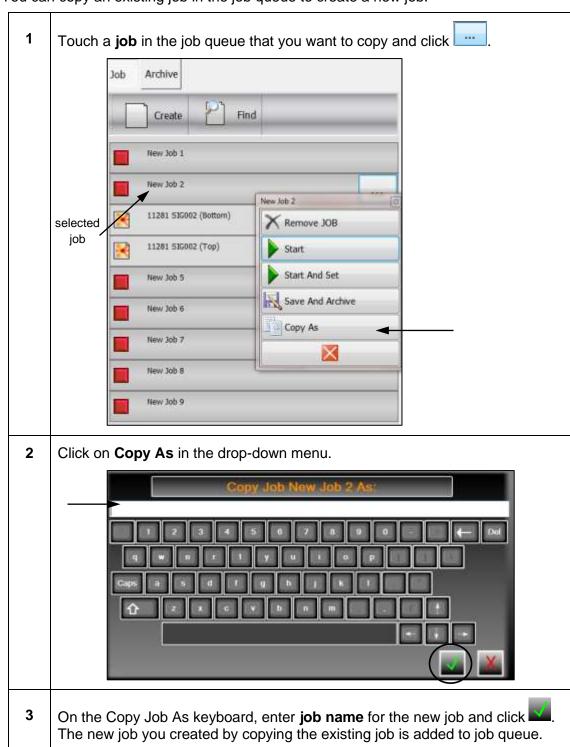
4.4.4 Saving & Archiving Job

You can save a job and move it to the Archive queue.



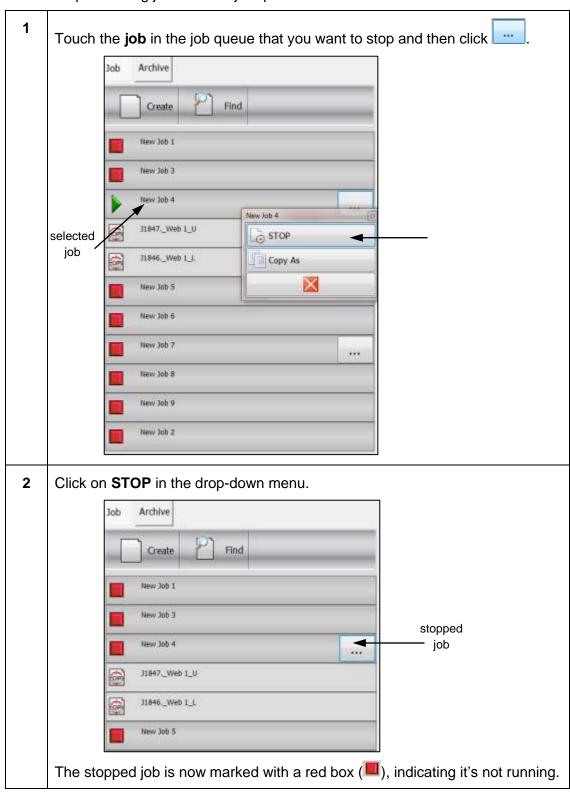
4.4.5 Copying As Job

You can copy an existing job in the job queue to create a new job.



4.4.6 Stopping a Job

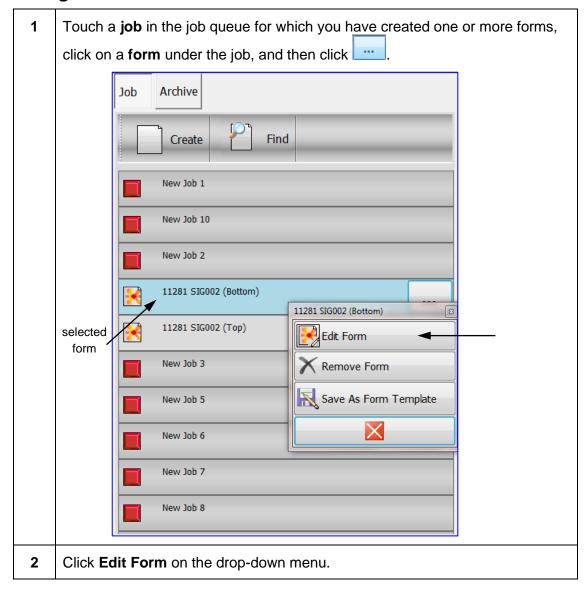
You can stop a running job from the job queue.



4.5 Perform Form Operations from Job Management View

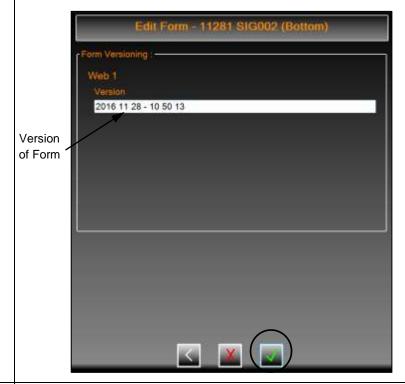
You can perform numerous operations on a form from the Job Management view.

4.5.1 Editing a Form



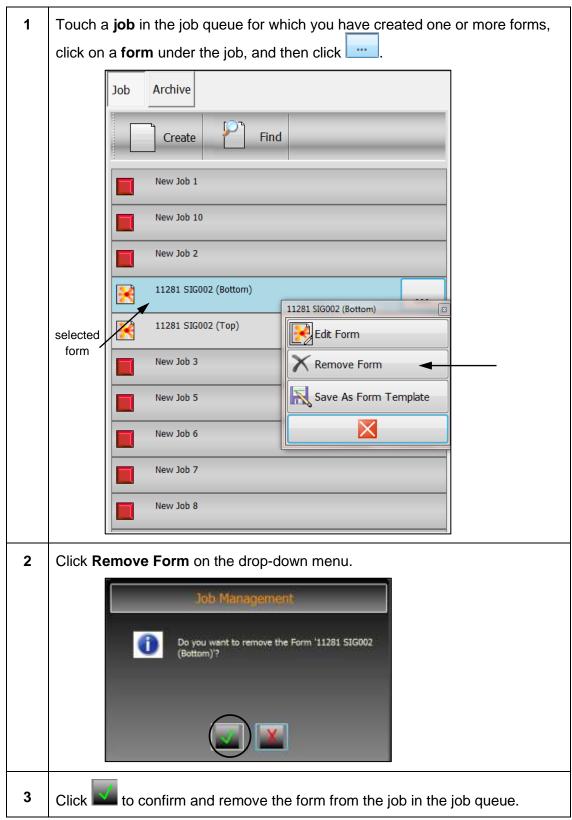


- 3 On the first Edit Form screen:
 - Use **Assign Color** button (†) to edit the assigned inker colors.
 - Use **Custom Color** button () to add/modify/delete a custom color.
- 4 Click on the **Next** button to access the second Edit Form screen.

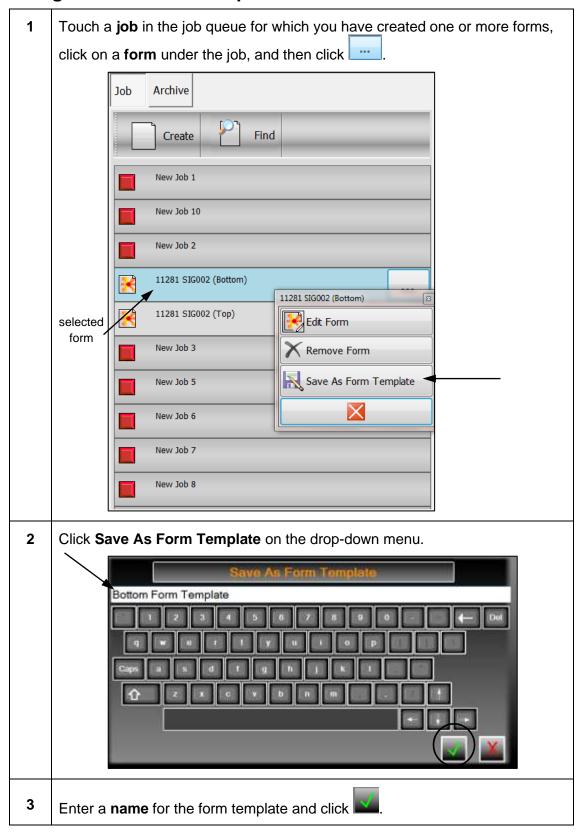


5 Edit the **version**, as needed, and then click to save the form.

4.5.2 Removing a Form

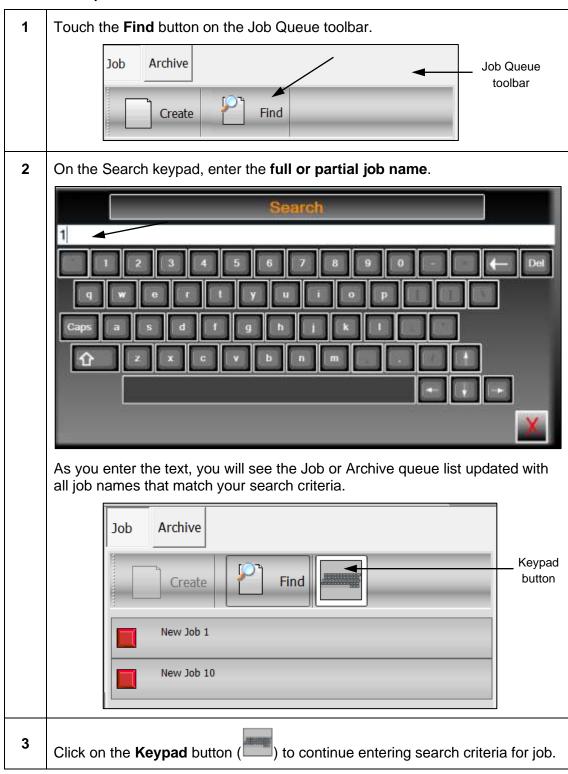


4.5.3 Saving Form as Form Template



4.6 Find a Job from Job Management View

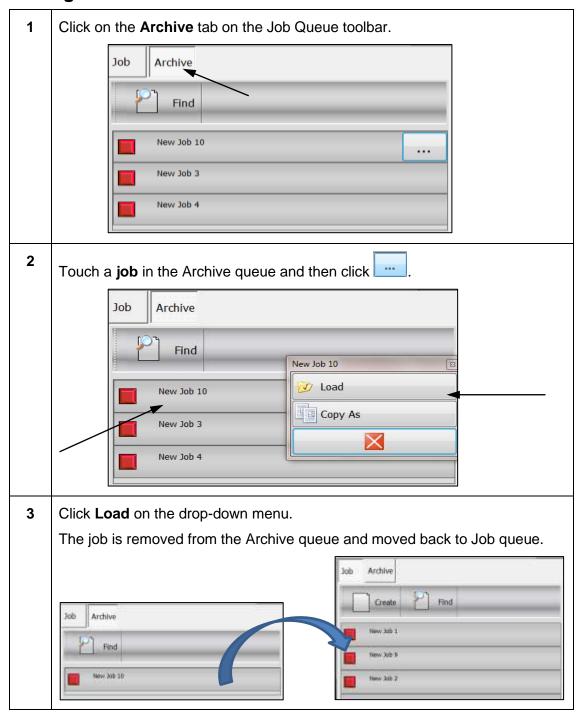
You can find a job from either the Job or Archive tab of the Job Queue toolbar.



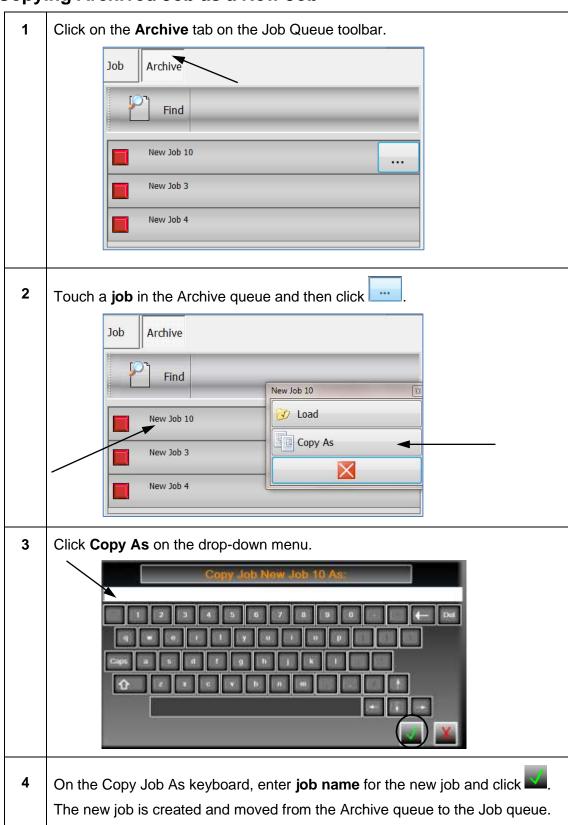
4.7 Use Job Archives from Job Management View

Jobs that have been saved and moved to the Archive queue can be loaded back into the Job queue. You can also copy an archived job to use for a new job.

4.7.1 Loading Job from Archive to Job Queue



4.7.2 Copying Archived Job as a New Job

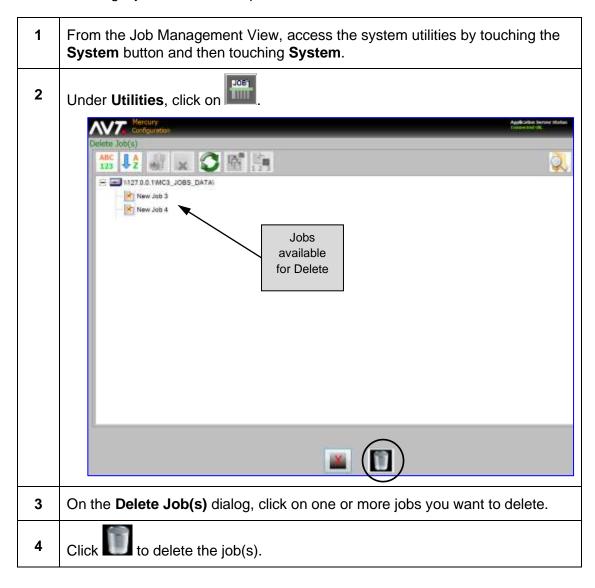


4.8 Delete Jobs & Forms when Job Management View Enabled

When the Job Management View is enabled, you can delete jobs that are not in the active job list and forms that are not associated with any jobs in the active job list.

4.8.1 Deleting a Job from Inactive Job Queue

Note: Before deleting a job, you must first remove the job from the **Job** queue on the Job Management View. See *Removing a Job* for detailed information on removing a job from the Job queue.



4.8.2 Deleting a Form from an Inactive Job

Note: Before deleting a form, you must first remove the form from a job on the Job Management View. See *Removing a Form* for detailed information on removing a form for a job in the Job queue.

1	From the Job Management View, access the system utilities by touching the System button and then touching System .	
2	Under Utilities, click on and then click to accept Standard Form Storage.	
3	On the Form Delete dialog, click on one or more forms that you want to delete.	
4	Click to delete the form(s) and touch to confirm the form to be deleted.	

Reference: See "Delete Forms" in the *Mercury Advanced User's Manual – Volume 1* document for more detailed information.

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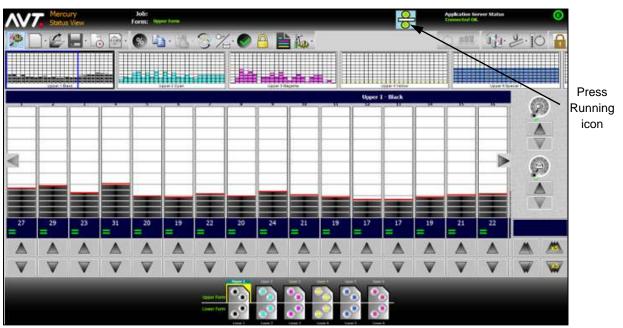
5 Using Auto Zero

This section describes the Auto Zero feature which detects when the press is in the idle state and temporarily moves all the fountain keys to zero percent.

When the press starts running, the fountain keys are restored to their last known positions to continue press production. Icons display on the Mercury Status View to show that the press is idle or running.

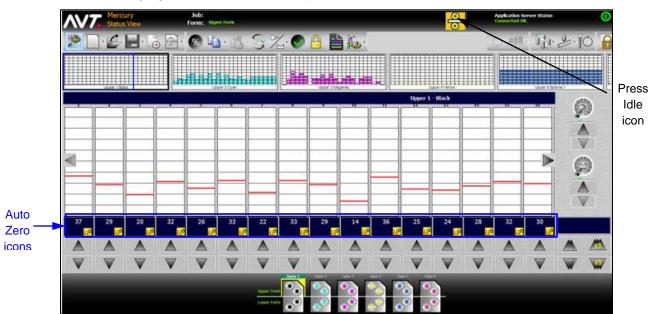
Note: A multiple web press can be configured independently to perform Auto Zero.

The following figure shows the Mercury Status View when the press is running.



After the press is switched to the idle state, the icon on the view will change to find the state as pecified delay, zeroing of inkers will start and the view will reflect that zeroing is in process. Once zeroing is complete, the press will be in the idle state.

The following figure shows the Mercury Status View when the press is in the idle state.



If the press switches from idle to running, the icon on the view will change to the zone settings will start to restore to the target values.

6 Using Ink Sweep and Water Ramping

This section describes the optional sweep and water ramping feature.

You can control sweep and water ramping on the Status View, and also from the Sweep All and Water All screens.

Note: This feature is only available if your system was configured for sweep and water ramping during system installation.

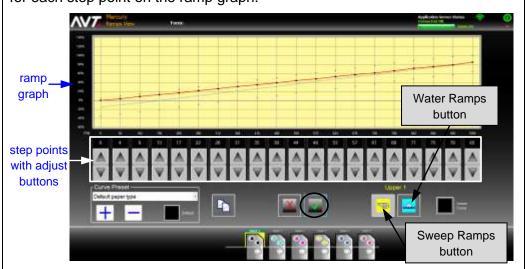
6.1 Configure Sweep and Water Ramps

6.1.1 Accessing the Ramps View Screen

When ramping is enabled, the Sweep/Water Ramp Configuration button will be present on the Mercury Configuration screen under Utilities.

- 1 From the Status View, access the system utilities by touching the **System** button and then touching **System** in the drop-down menu.
- Under Utilities, touch the Sweep/Water Ramp Configuration () button.

 The Ramps View screen displays with a ramp graph that depicts dampener output (%) based on speed (FPM, IPH, or MPM). You can make adjustments for each step point on the ramp graph.

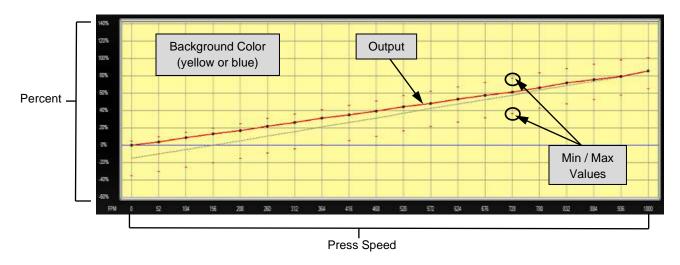


Touch the **Sweep Ramps** () button or **Water Ramps** () button to indicate if you are configuring sweep or water ramps.

The default view (yellow background) that initially displays is for sweep ramps.

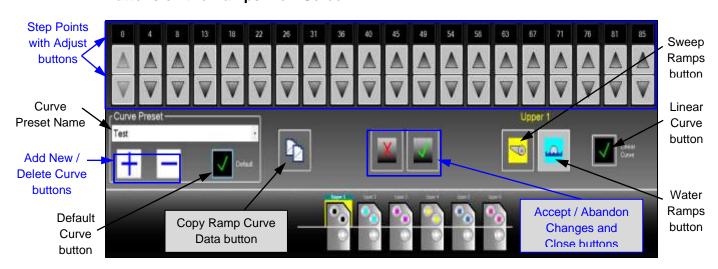
The sections below describe the ramp graph values and buttons on the Ramps View screen.

Ramp Graph Values Depicted on the Ramps View Screen



Percent	This axis defines the output.
Press Speed	This axis defines the press speed.
Output	This line represents the motor output value.
Min / Max Values	These hash marks define the minimum and maximum value allowed for the given step point.
Background Color	The background color of the ramp graph displays yellow for sweep ramps and blue for water ramps.

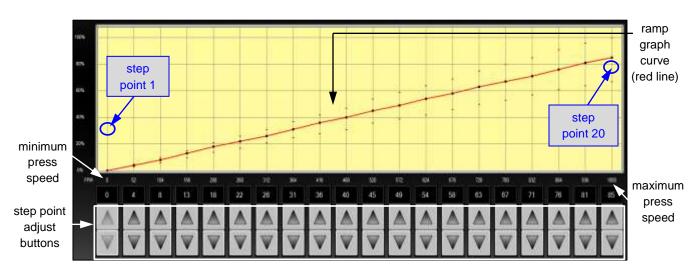
Buttons on the Ramps View Screen



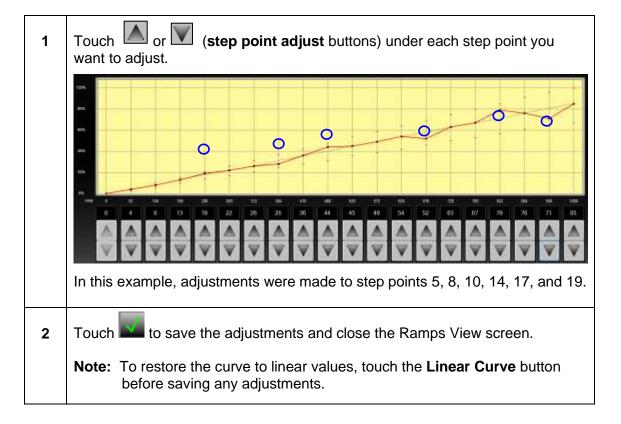
Sweep Ramps	Enable sweep ramping. When enabled, the background color on the ramp graph will be yellow.
Water Ramps	Enable water ramping. When enabled, the background color on the ramp graph will be blue.
Step Points with Adjust buttons digital value Adjust buttons	View digital value on the graph for step points and make up/down adjustments on the curve for the step points. There are Adjust buttons located under each of the 20 step points.
Linear Curve Linear Curve	Touch to restore curve to linear values. The curve is the straight line between the Min / Max Values on the ramp graph.
Copy Ramp Curve Data	Copy the ramp curve settings from the current ramping/preset profile name and current inker, to the same ramping/preset profile name or any other profiles defined in the press for selected inkers.
Curve Preset Name Curve Preset	Displays the curve preset name that will apply to all units. Touch the drop-down arrow to display and select another curve preset name.
Add New / Delete Curve	 Under Curve Preset section: Touch to add a new curve preset. Touch to delete a curve preset.
Default Curve Default	Under Curve Preset section, touch to specify the default curve preset.
Accept / Abandon Changes and Close	Touch to save all changes and close the Ramps View screen. Touch to discard all changes and close the Ramps View screen.

6.1.2 Adjusting Output on the Ramp Graph Curve

You can adjust output on the ramps graph curve for any of the 20 step points between the minimum and maximum press speed. The curve is the red line on the ramp graph, between the Min/Max Values.

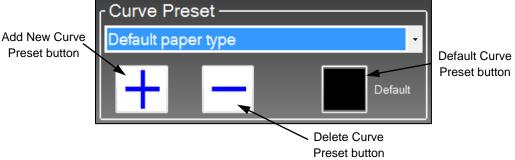


Note: Values assigned to each individual speed interval represent the curve data.

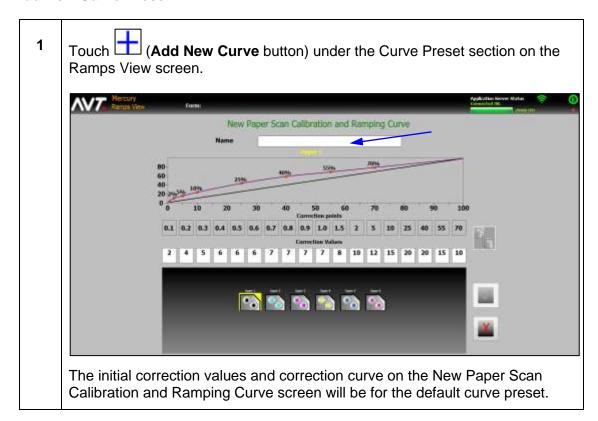


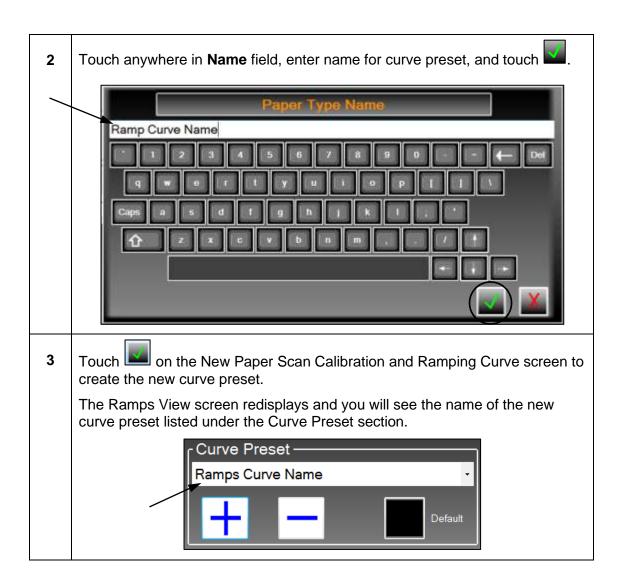
6.1.3 Adding, Deleting, and Setting Default Curve Presets

Under the Curve Preset section on the Ramps View, you can add a new curve preset, delete a curve preset, and set the default curve preset.

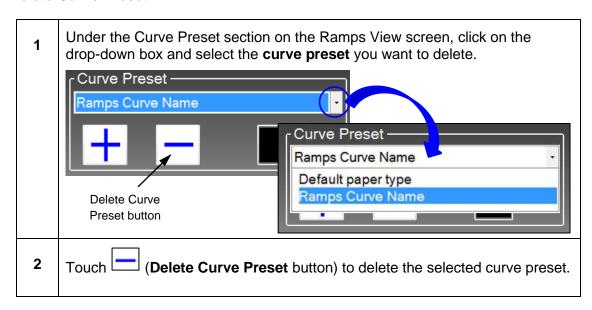


Add New Curve Preset

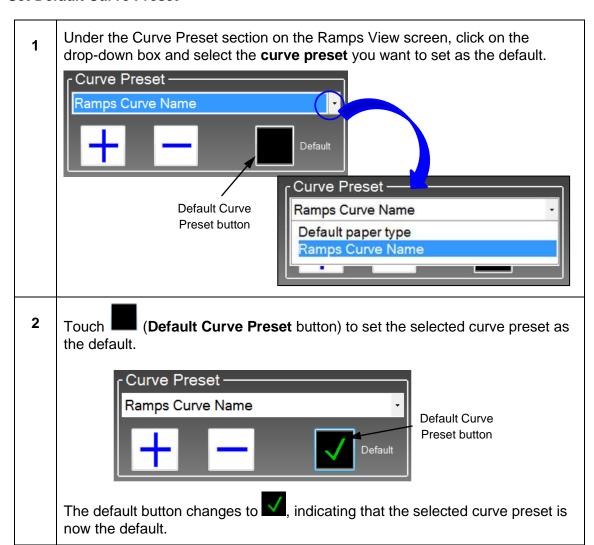




Delete Curve Preset

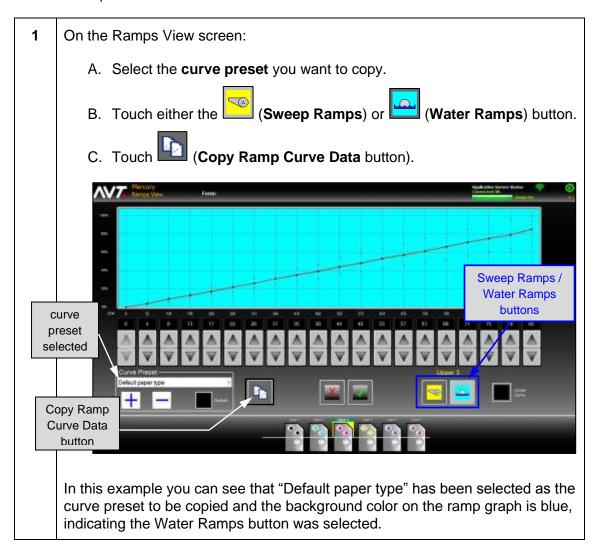


Set Default Curve Preset



6.1.4 Copying Ramp View Data

You can copy the ramp curve settings from the current ramping/preset profile name and current inker, to the same ramping/preset profile name or any other profiles defined in the press for the selected inkers.



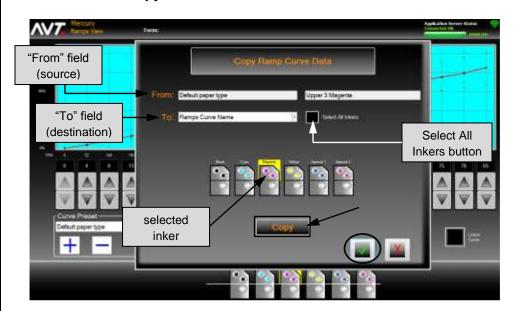
- 2 On the Copy Ramp Curve Data screen:
 - A. In the "To" field, select the **destination** where you want to copy the profile data.

Note: It could be the same ramping/preset profile name or any of the other profiles already defined in the press. Using the default profile (same profile name), will copy this profile data to other inkers in the same profile. Picking any other profile as the destination will copy the current profile to other profiles.

B. Click on an **inker** in the press schematic. The press schematic shows the inkers to get the current profile data highlighted in yellow.

Note: If you want all inkers in the destination profile to get a copy of the current profile data, touch the **Select All Inkers** button.

C. Touch the Copy button.



The section below provides detailed descriptions of the various buttons and fields you will see on the Copy Ramp Curve Data screen.

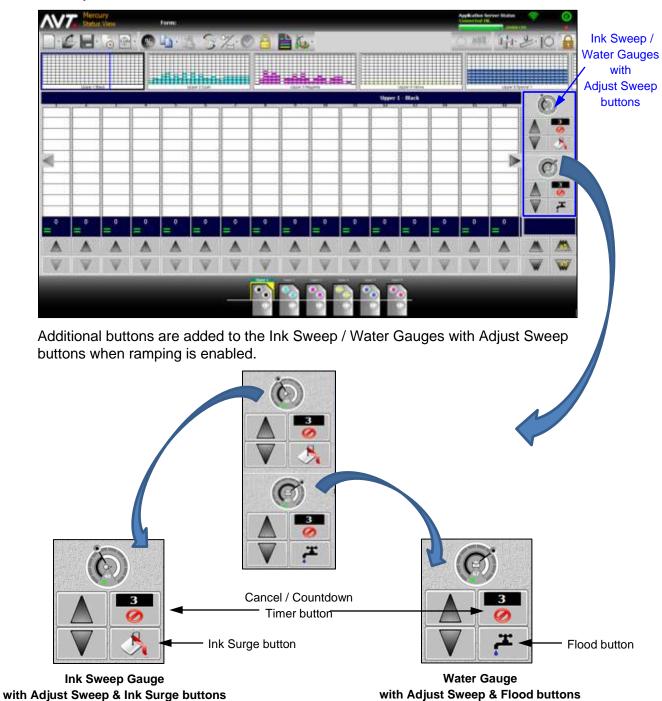
Touch to save the save ramp curve settings you copied and close the Copy Ramp Curve Data screen.

Buttons/Fields on the Copy Ramp Curve Data Screen

From Ramps Curve Name	Indicates the source of the profile data to be copied.
To: Ramps Curve Name	Touch the drop-down button and choose the destination of the profile data to be copied.
Current Inker Selected Upper 1 Black	Indicates the current inker selected. The current inker selected is also shown in the bottom press schematic on the Ramps View screen.
	The color of the profile on the Ramps View screen shows you which ramping data type is being copied (yellow for sweep ramps or blue for water ramps).
Select All Inkers button Select All Inkers	Touch to select ALL of the inkers in the destination profile to get a copy of the current profile data.
Copy button	Touch to copy the profile data noted in the "From" field to the destination in the "To" field.
Save / Cancel Copied Ramp Curve Settings	Touch to save ramp curve settings you copied and close the Copy Ramp Curve Data screen.
	Touch to discard ramp curve settings you copied and close the Copy Ramp Curve Data screen.

6.2 Adjust Ink Surge and Water Flood from Status View

When ramping is enabled, you can adjust ink surge and water flood times from the Mercury Status View.



Ink Surge / Flood Buttons on Status View

Ink Surge



Touch to run the surge output device at 100% for a pre-determined amount of time.

- Button can be pressed multiple times to add to surge time.
- Ink surge can be initiated in either Manual or Auto mode.
- Run button must be used to initiate surge.

Note: You can adjust trim settings for selected unit during surge.

Flood



Touch to run the water control at 100% for a pre-determined amount of time.

- Button can be pressed multiple times to add to flood time.
- Water flood can be initiated in either Manual or Auto mode.
- Run button must be used to initiate flood.

Note: You <u>cannot</u> adjust trim settings for selected unit during flood, since flood operation is temporarily maxing out trim settings during flood.

Cancel / Countdown Timer

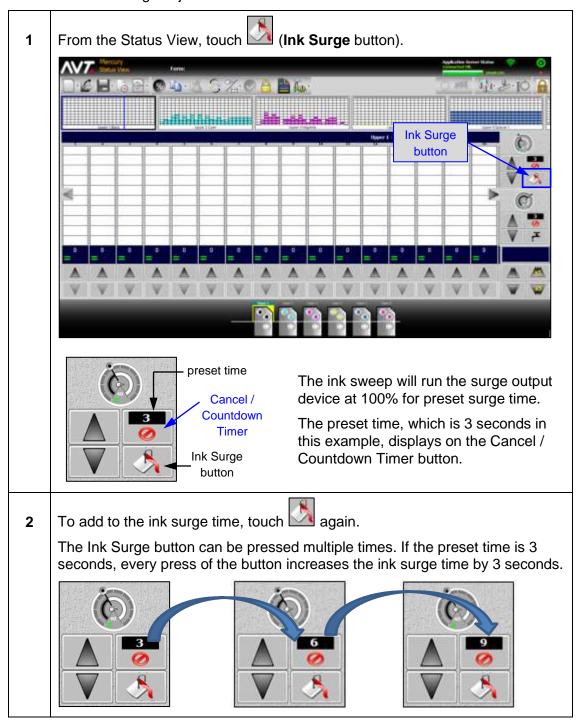


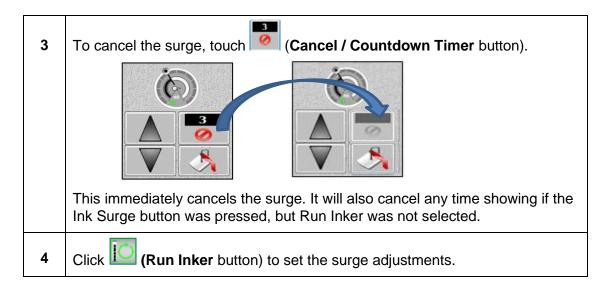
Touch to cancel the surge or flood immediately.

The *nn* part of the button shows preset time or time left for surge or flood.

6.2.1 Adjusting Ink Surge from Status View

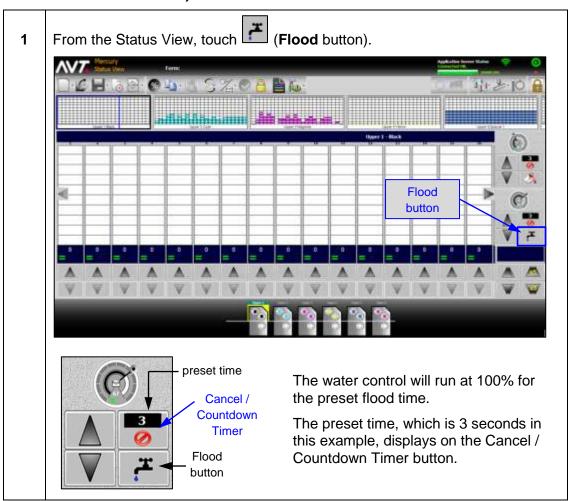
You can make ink surge adjustments for a selected ink fountain on the Status View.

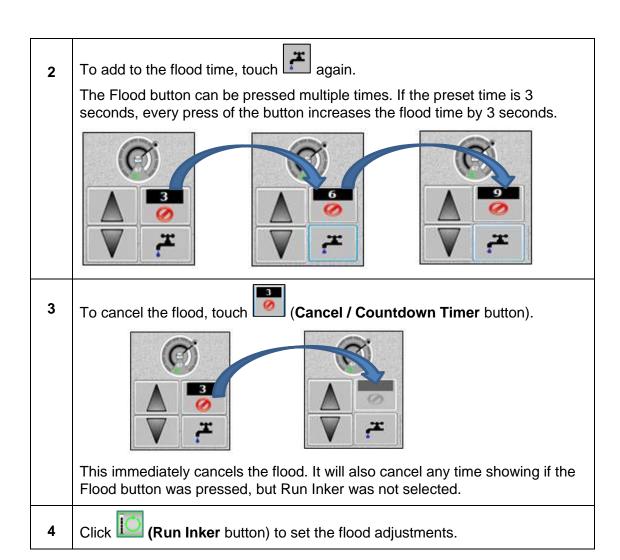




6.2.2 Adjusting Water Flood from Status View

You can make water flood adjustments for a selected ink fountain on the Status View.

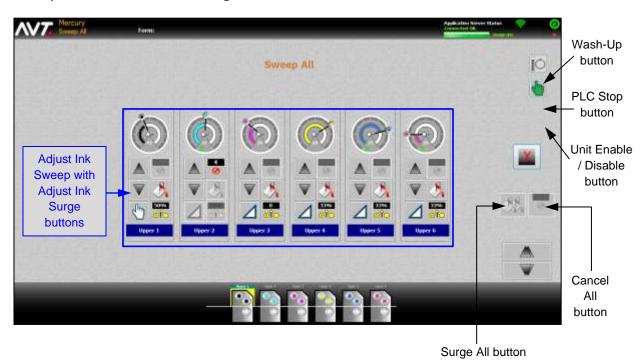




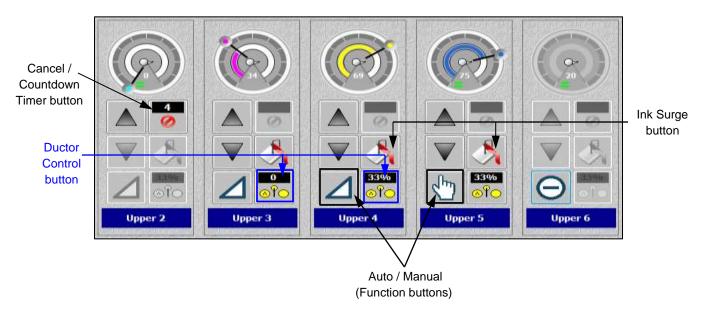
6.3 Adjust Ink Surge/Water Flood on Sweep All / Water All Screens

When ramping is enabled, you can adjust ink surge and water flood times for one or more inkers on the Mercury Sweep All and Water All screens.

Sweep All Screen with Ink Surge Buttons



Additional buttons are added to the Adjust Ink Sweep buttons on the Sweep All screen when ramping is enabled.

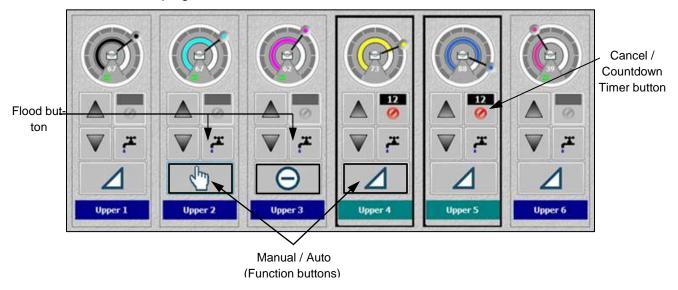


Water All Screen with Water Flood Buttons



Water All button

Additional buttons are added to the Adjust Water Sweep buttons on the Water All screen when ramping is enabled.



Ink Surge / Flood / Other Buttons on Sweep All and Water All Screens

Touch to run the surge output device at 100% for pre-determined Ink Surge amount of time. Button can be pressed multiple times to add to surge time. Ink surge can be initiated in Manual or Auto mode. Run button must be used to initiate surge. **Note:** You can adjust trim settings for selected unit during surge. Surge All Touch to set ink surge time for all fountains. The fountains <u>must</u> be part of the same split and enabled. Ink surge can be initiated in Manual or Auto mode. Run button must be used to initiate surge. **Note:** You can adjust trim settings for selected unit during surge. Flood Touch to run the water control at 100% for pre-determined amount of time. Button can be pressed multiple times to add to flood time. Water flood can be initiated in Manual or Auto mode. Run button must be used to initiate flood. **Note:** You cannot adjust trim settings for selected unit during flood, since flood operation is temporarily maxing out trim settings during flood. Flood All Touch to send flood signal to all fountains. The fountains must be part of the same split and enabled. Water flood can be initiated in Manual or Auto mode. Run button must be used to initiate flood. **Note:** You cannot adjust trim settings for selected unit during flood, since flood operation is temporarily maxing out trim settings during flood. Cancel / Touch to cancel surge or flood immediately. Countdown It will also cancel any time showing on the Countdown Timer, if **Timer** the Ink Surge or Flood button was pressed. 3 The *nn* part of button shows preset time or cumulative amount of time left for surge or flood.

Cancel All

Touch to cancel surge or flood immediately for all fountains.

Ductor Control



Touch to toggle to one of four states, configured in the SiteGen file. Each touch will toggle to next state.

- Run button must be used after toggling to state.
- Top of button displays current value for ductor setting.

Function Buttons (Sweep & Water)



Touch to toggle to one of two states.

- Auto Runs sweep or water at setting on the dial. If ramping is enabled, sweep or water will follow pre-defined ramping curves as the press increases or decreases in speed.
- Manual Sweep or water is activated and runs at selected trim value. Output to sweep or water device will not vary based on press speed.

Manual (hy)

Note: There is no need to select Run Inker when selecting either of these states.

Unit Enable / Disable



Touch to toggle sweep or water functions on or off for unit selected. Multiple units can be selected.

- Enable All buttons are active; unit and dial not grayed out.
- **Disable** All buttons and dial grayed out.



When unit is in Disable mode, sweep trim, ductor, or water trim settings go to zero and disabled icon displays on Function button.

PLC Stop



Touch to stop any output from the PLC to the sweep motors currently in motion.

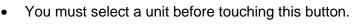
- You must select a unit before touching this button.
- There is no need to select Run Inker after touching this button.

Touch to turn on inker wash up for unit. The Function button for

that unit changes to wash bucket icon and the wash should begin.

Wash-Up





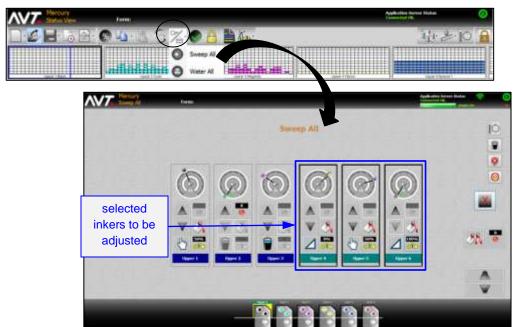


When unit is ON, press must be off impression for unit to utilize wash feature. When unit is OFF, unit can begin wash without regard to press speed or impression status.



6.3.1 Adjusting Ink Surge on Sweep All Screen

1 From the Status View, touch (Sweep/Water All button) on the main toolbar and then touch Sweep All from the drop-down menu.



The Sweep All screen displays all the sweeps with Adjust Ink Sweep and Adjust Ink Surge buttons.

- 2 To adjust ink surge for one or more inkers:
 - A. Touch (Ink Surge button) for the inkers you want to adjust.



The ink sweep will run the surge output device at 100% for the preset surge time. The preset time, which is 3 seconds in this example, displays on the Cancel / Countdown Timer button.

Note: The ink surge can be initiated in either Auto or Manual mode.

B. To add to the ink surge time, touch The Ink Surge button can be pressed multiple times. If preset time is 3 seconds, every press of button increases ink surge time by 3 seconds. C. To cancel the surge, touch (Cancel / Countdown Timer button). This immediately cancels surge. It will also cancel any time showing if the lnk Surge button was pressed, but Run Inker was not selected. To adjust ink surge for all inkers: (Surge All button). The ink sweep will run the surge A. Touch output device at 100% for the preset surge times. Surge All button

Notes:

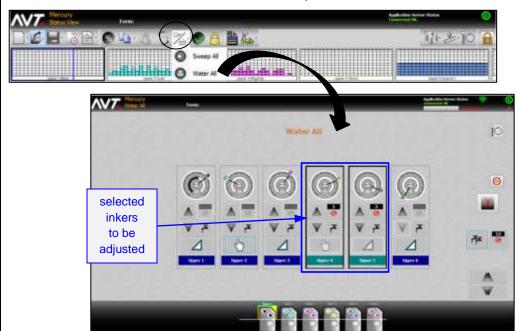
3

- The inkers must be part of the same split.
- The inkers must be active.
- The ink surge can be initiated in either Auto or Manual mode.
- B. To add to the ink surge times, touch again.
- C. To cancel surge, touch (Cancel All button).
- 4 Click (Run Inker button) to set the surge adjustments.

Cancel All button

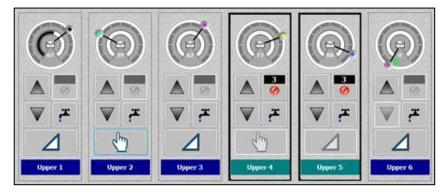
6.3.2 Adjusting Water Flood on Water All Screen

From the Status View, touch (Sweep/Water All button) on the main toolbar and then touch Water All from the drop-down menu.



The Water All screen displays all the inkers with Adjust Water Sweep and Adjust Water Flood buttons.

- 2 To make water flood adjustments for one or more inkers:
 - A. Touch (Flood button) for the inkers you want to adjust.



The ink sweep will run the water control at 100% for pre-determined amount of time. The preset time, which is 3 seconds in this example, displays on the Cancel / Countdown Timer button.

Note: The flood can be initiated in either Auto or Manual mode.

B. To add to the flood time, touch again. The Flood button can be pressed multiple times. If preset time is 3 seconds, every press of button increases ink surge time by 3 seconds. C. To cancel the flood, touch (Cancel / Countdown Timer button). This immediately cancels flood. It will also cancel any time showing if the Flood button was pressed, but Run Inker was not selected. To make water flood adjustments for all inkers: (Flood All button). The ink sweep will run the water A. Touch control at 100% for pre-determined amount of time. Flood All 10 button Cancel

Notes:

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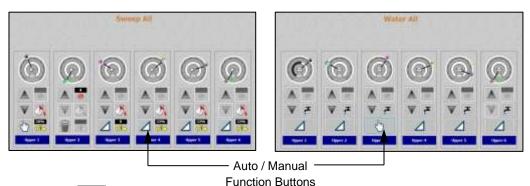
- The inkers must be part of the same split.
- The inkers must be active.
- The flood can be initiated in either Auto or Manual mode.
- B. To add to the flood time, touch again
- C. To cancel flood, touch (Cancel All button).
- 4 Click (Run Inker button) to set the water flood adjustments.

All button

6.4 Make Other Adjustments on Sweep All / Water All Screens

Using Auto and Manual Function Buttons

On both the Sweep All and Water All screens, you can toggle between the Auto and Manual run state.

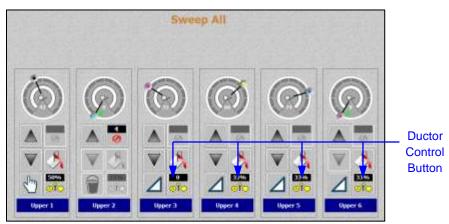


Touch the (Auto) or (Manual) function button to toggle to the Auto or Manual run state.

Note: There is no need to select Run Inker when selecting either of these states.

Using Ductor Control Button

On the Sweep All screen, you can toggle to one of four states that have been configured in the SiteGen file.



Touch the Inker Ductor Control button to toggle to one of four states.

In the following example, the four states are 0%, 33%, 50%, and 100%.

Click (Run Inker button) after toggling to the desired state.

Using Unit Enable / Disable Buttons

On the Sweep All or Water All screen, you can toggle the sweep or water functions on or off for the selected inker. Multiple inkers can be selected.



- 1 Select one or more inkers that are active.
- 2 Touch (Unit Enable / Disable button) to disable all functions for the inker.



The sweep or water trim and ductor settings go to zero and (disabled icon) displays for the Function button.

3 Repeat **steps 1-2** to enable all functions for the inker.

Using PLC Stop Button

On the Sweep All screen, you can stop output from the PLC to the sweep motors currently in motion.

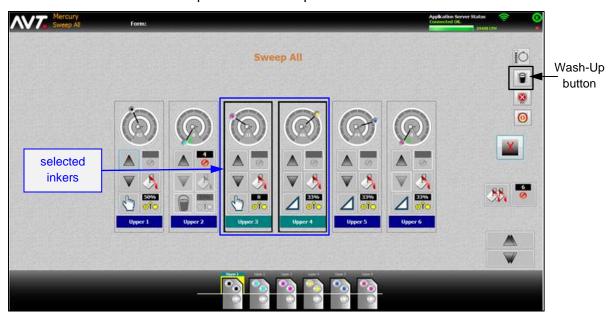


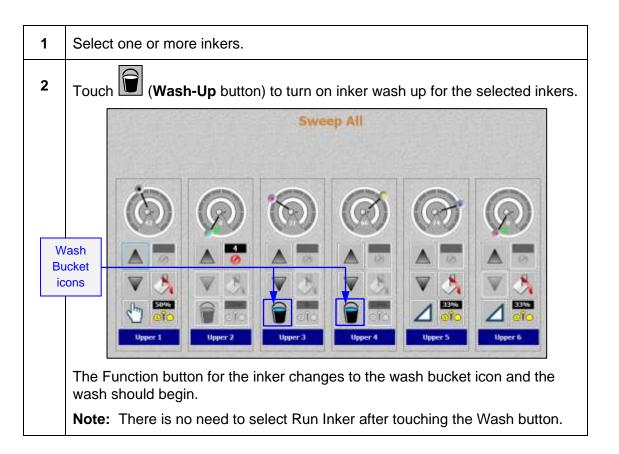
Select one or more inkers.
 Touch (PLC Stop button) to stop output from the PLC to sweep motors.
 Notes:

 There is no need to select Run Inker after touching the PLC Stop button.
 The dial should not show a green equal sign, if the feedback does not equal the set position.

Using Inker Wash Up Button

You can turn on inker wash up from the Sweep All screen.





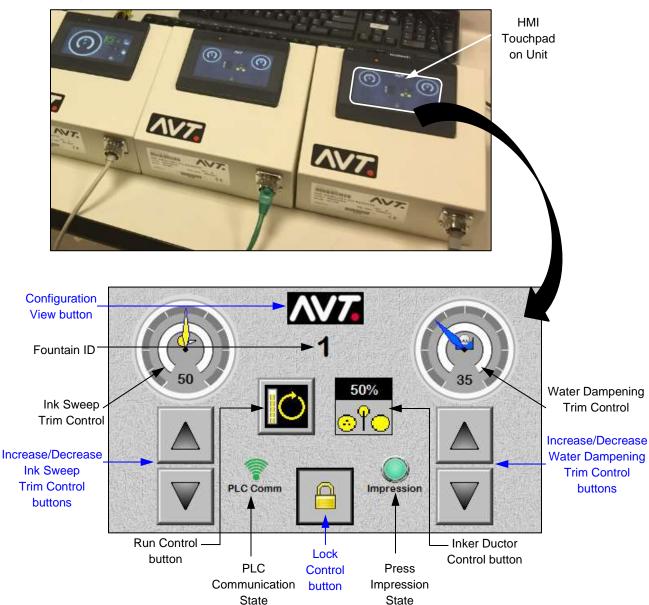
7 Using HMI Touchpad for Sweep and Water Ramping

The section describes the optional ramping with press side controls, using an HMI touchpad mounted on each unit.

Note: This feature is only available if your system was configured for sweep and water ramping during system installation, and an HMI touchpad has been mounted on each unit.

7.1 Overview of HMI Touchpad

You can perform basic sweep and water ramping operations using an HMI touchpad with press side controls mounted on each unit.



HMI Touchpad Buttons

Configuration View	Touch to access the HMI Configuration View.
Fountain ID	Displays the fountain ID.
Ink Sweep Trim Control	Touch upper half of the dial to switch to zoomed view of the ink sweep trim control. Touch on digit section of dial to open onscreen keypad to enter desired value of dial.
Water Dampening Trim Control	Touch upper half of dial to switch to zoomed view of the water dampening trim control. Touch on digit section of dial to open onscreen keypad to enter desired value of dial.
Increase / Decrease Trim Control	Touch to increase or decrease ink sweep or water dampening trim value by 1 percent. Every touch increases or decreases trim value by 1 percent.
Run Control	Touch to execute any changes you made on touchpad. The button becomes enabled when a change is made.
Inker Ductor Control 50% ○ 中○	Touch to toggle to one of four states, configured in SiteGen file. Each touch will toggle to next state.
Lock Control	Touch to lock controls and access Locked view.
PLC Communication State	Displays green waves for connected and red waves for disconnected.
Press Impression State	Displays bright green for ON impression and dark green for OFF impression.

Booting the HMI Touchpad

1 Power on the **HMI touchpad**.

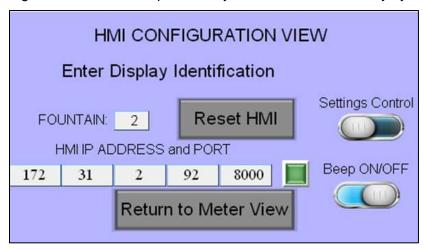


2 On the HMI Boot screen, touch to access the main HMI touchpad screen.



7.2 Configure the HMI Touchpad Settings

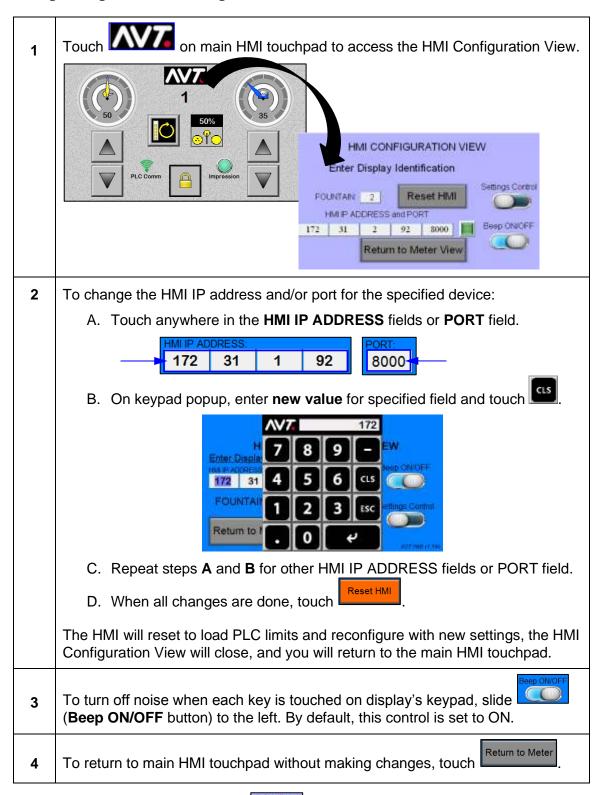
You can configure each HMI touchpad for any fountain on the Mercury system.



Buttons & Fields on HMI Configuration View

HMI IP ADDRESS: 172 31 1 92	Touch to change the IP address on this device. Displays the current IP address.
PORT: 8000	Touch to change the port on this device. Displays the current port.
FOUNTAIN: 1	Touch to change the fountain number. Displays the current fountain number.
Return to Meter	Touch to return to the main HMI touchpad without changing anything on the HMI Configuration View.
Reset HMI	Touch to reset the HMI to load the press side control limits and current settings into the HMI memory. After making any configuration changes, it is recommended that you reset the HMI.
Beep ON/OFF	Slide this control button ON or OFF, to control the noise from the display keypad when each key is touched on the keypad.
Settings Control	Slide this control button to enable or disable the HMI factory settings control on the HMI touchpad.

Making Changes on HMI Configuration View



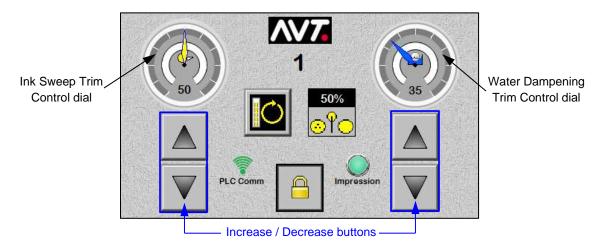
Note: The **Settings Control** button () is turned off by default, to keep the HMI control bar from being displayed to the press operators.

7.3 Make Adjustments from Main HMI Touchpad

7.3.1 Increasing / Decreasing Trim Value on Main HMI Touchpad

Use Increase / Decrease Buttons to Adjust Trim Value

You can use the **Increase / Decrease** buttons to increase or decrease the trim value on the Ink Sweep and Water Dampening Trim Control dials by 1 percent.



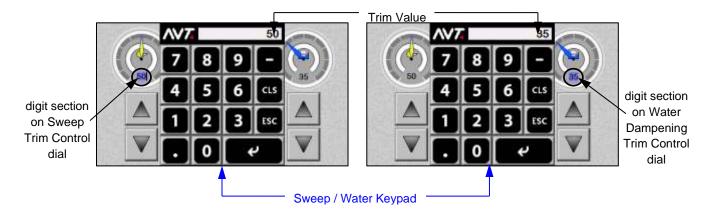
Touch or under either the Ink Sweep Trim Control or Water Dampening Trim Control dials to increase or decrease the trim value by 1 percent. Each touch increases or decreases the trim value by 1 percent.

Note: There is no auto repeat when the buttons are held down.

Touch (Run Control button) to execute any changes you made on the touchpad. The button becomes enabled when a change is made.

Use Sweep or Water Keypad to Adjust Trim Value

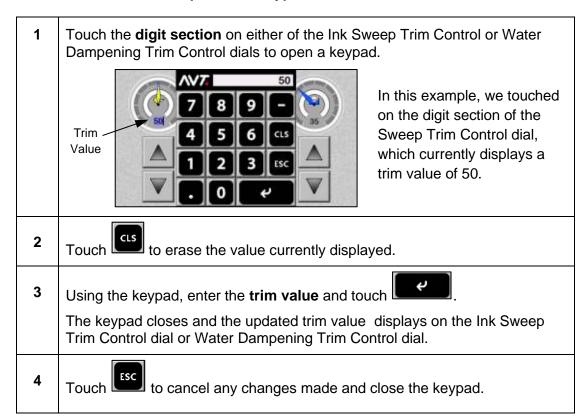
You can access a keypad to directly enter a trim value, by touching the digit section on the Ink Sweep Trim Control dial or Water Dampening Trim Control dial.



Buttons & Fields on Sweep / Water Keypad

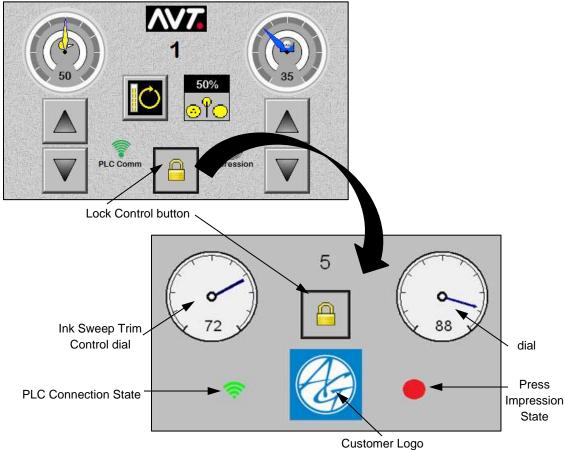
Trim Value	Displays currently specified sweep or water trim value.
Enter button	Touch to enter trim value and close Trim Value keypad.
ESC button	Touch to cancel any changes made and close Trim Value keypad.
CLS button	Touch to erase current value displayed in Trim Value field.

Enter Trim Value on Sweep / Water Keypad



7.3.2 Locking the Controls and Accessing Locked View

You can use the **Lock Control** button on the main HMI touchpad to lock controls and access the Locked view.



The Locked view shows the:

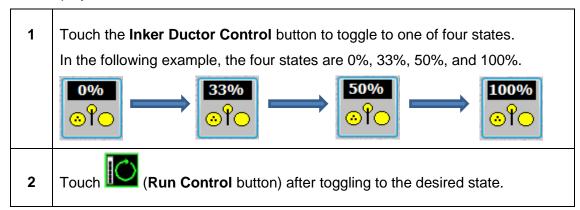
- Current status of the Ink Sweep Trim and Water Dampening Trim controls
- PLC connection state (green for connected and red for disconnected)
- Customer logo
- Current press impression state
- Touch (Lock Control button) on the main HMI touchpad.
 The Locked View displays with no changeable controls on the screen.

 Touch (Lock Control button on the Locked View) to exit and return to the main HMI touchpad.

7.3.3 Toggling Inker Ductor Control

Touch to toggle to one of four states, configured in the SiteGen file.

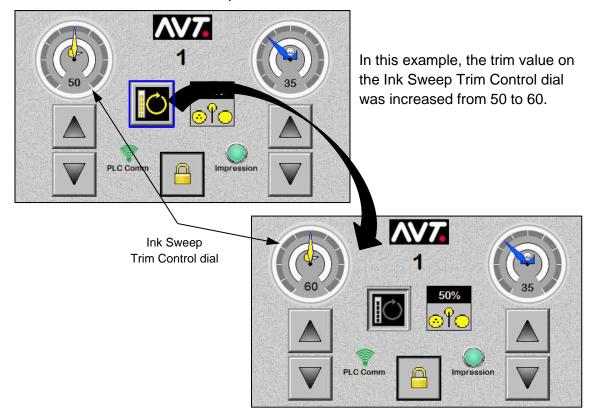
Each touch will toggle to next state. It will cycle through all states, with the current value displayed inside the control.



7.3.4 Executing Changes Made on HMI Touchpad

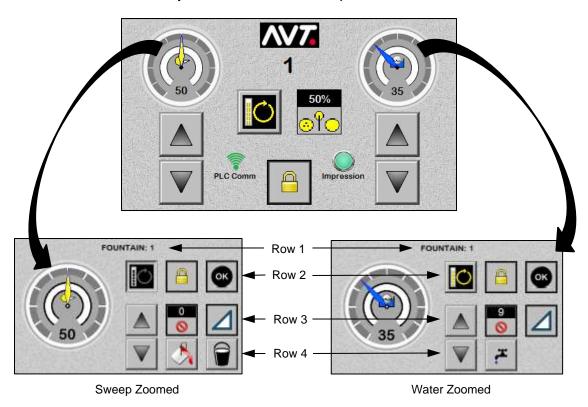
The Run Control button will change from to after making any change on the HMI touchpad.

Touch the **Run Control** button (to execute changes made on the HMI touchpad. The button will turn off when completed.

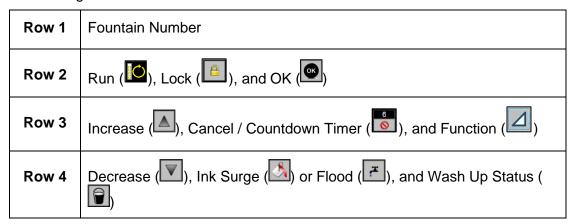


7.4 Make Adjustments from Sweep / Water Zoomed Views

You can make various adjustments from the Sweep and Water Zoomed views.



The Sweep and Water Zoomed screens will include four rows of data that will include the following buttons and fields.



The buttons that display will depend on whether it is a Sweep Zoomed or Water Zoomed screen.

Buttons & Fields on Sweep Zoomed and Water Zoomed Screens

Row 1	FOUNTAIN	Displays the fountain number.		
	Run Control	Touch to execute any changes you made on the Sweep Zoomed or Water Zoomed screen. The button becomes enabled when a change is made.		
Row 2	Lock Control	Touch to lock all control buttons on the Sweep Zoomed or Water Zoomed screens.		
	(K)	Touch to close the Sweep Zoomed or Water Zoomed screen and return to the main HMI touchpad.		
	Increase Trim	Touch to increase ink sweep or water trim value by 1 percent. Every touch increases value by 1 percent.		
Row 3	Cancel / Countdown Timer	Touch to cancel surge or flood immediately. It will also cancel any time showing on Countdown Timer if Ink Surge or Flood button was pressed. The <i>nn</i> part of button shows preset time or cumulative amount of time left for surge or flood.		
	Auto or Manual	 Touch to toggle to one of two states. Auto – Runs sweep or water at setting on dial. 		
	Function Status	Manual – Sweep or water is activated and runs at predetermined speed.		
	0	Displays Off state when sweep or water is set to zero.		
	Decrease Trim	Touch to decrease ink sweep or water trim value by 1 percent. Every touch decreases value by 1 percent.		
Row 4	Ink Surge	Touch to run the ink sweep or water control at 100% for the pre-determined amount of surge or flood time shown on the Countdown Timer.		
	Flood	Touch the button multiple times to add to the surge or flood time.		
	Wash Up Status	Touch to turn on inker wash up after toggling function button to Manual. The white bucket becomes blue, indicating inker wash up is turned on for that inker.		

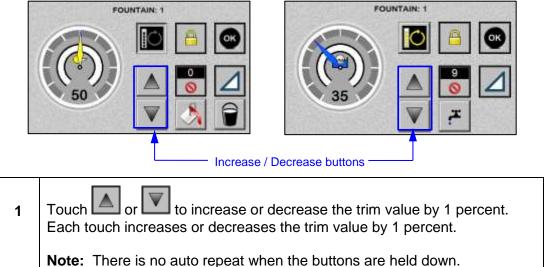
Accessing Sweep and Water Zoom Views

You can access the sweep and water zoom views by touching the upper half of the **Ink Sweep Trim Control** dial or the **Water Dampening Trim Control** dial.

7.4.1 Adjusting Trim Values from Sweep / Water Zoomed Views

Use Increase / Decrease Buttons to Adjust Trim Values on Zoomed Views

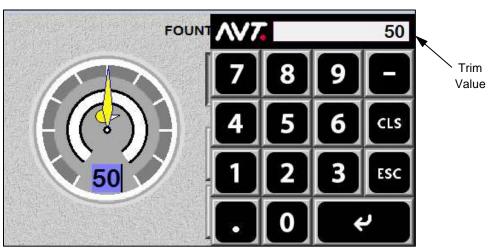
You can use the **Increase / Decrease** buttons to increase or decrease the trim value on the Ink Sweep and Water Dampening Trim Control dials by 1 percent.



2 Touch (Run Control button) to execute any changes you made. The button becomes enabled when a change is made.

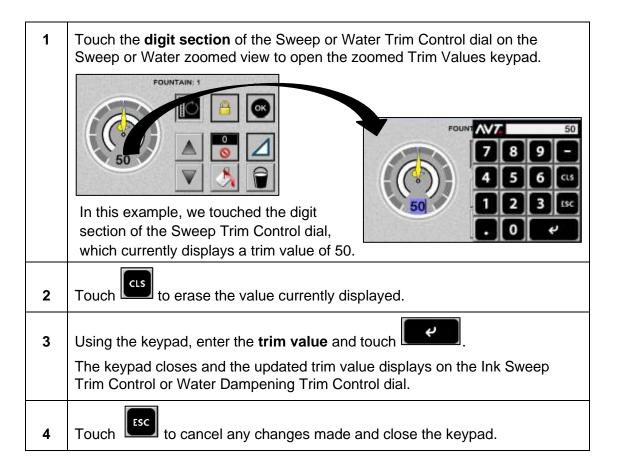
Use Trim Values Keypad to Adjust Trim Values on Zoomed Views

You can directly adjust the sweep or water trim values on the zoomed Trim Values keypad.



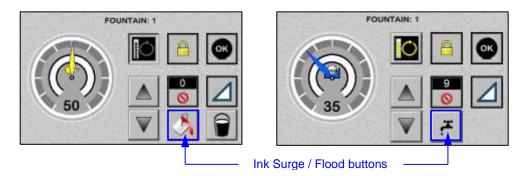
Buttons & Fields on Zoomed Trim Values Keypad

Trim Value	Displays the currently specified sweep or water trim value.
Enter button	Touch to enter trim value and close Trim Values keypad.
Esc button	Touch to cancel changes made and close Trim Values keypad.
Cir button	Touch to erase current value displayed in Trim Values field.



7.4.2 Adjusting Ink Surge / Flood from Sweep / Water Zoomed Views

You can make ink surge or water flood adjustments on the Sweep Zoomed or Water Zoomed screens.

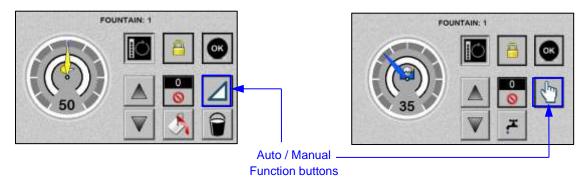


1 Touch the Ink Surge or Flood button on the Sweep Zoomed or Water Zoomed screen to increase surge or flood time. Cancel / Countdown Timer Ink Surge Flood button button The ink sweep or water control will run the surge output device at 100% for preset surge or flood time. The preset time displays on the Cancel / Countdown Timer button. To add to the ink surge or flood time, touch or 2 The Ink Surge or Flood button can be pressed multiple times. If the preset time is 3 seconds, every press of the button increases the ink surge or flood time by 3 seconds. (Run Inker button) to set the surge or flood adjustments. 3

7.4.3 Making Other Adjustments from Sweep / Water Zoomed Views

Toggle to Auto or Manual Run State from Zoomed View

You can toggle between the Auto and Manual run state on the Sweep Zoomed and Water Zoomed screens.

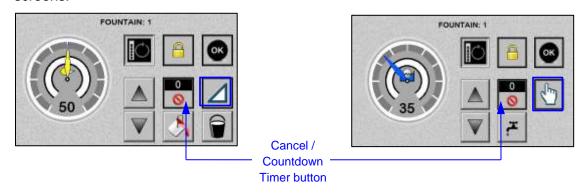


To toggle to the Auto or Manual run state, touch the (Auto) or (Manual function button.

Note: There is no need to select Run Inker when selecting either of these run states.

Cancel Surge or Flood from Zoomed View

You can cancel the ink surge or flood on the Sweep Zoomed and Water Zoomed screens.

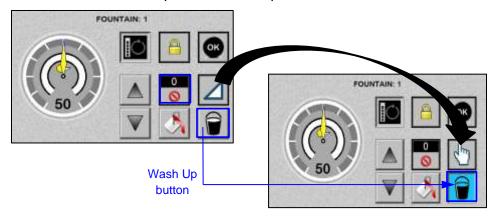


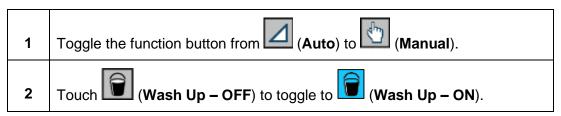
To cancel the surge or flood, touch (Cancel / Countdown Timer button).

This immediately cancels the surge or flood. It also cancels any time showing if the Ink Surge or Flood button was pressed, but Run Inker was not selected.

Turn On Inker Wash Up from Zoomed View

You can turn on inker wash up from the Sweep Zoomed screen.



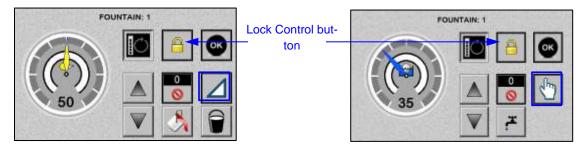


When a unit is ON, the press must be off impression for the unit to utilize the wash feature. When a unit is OFF, the unit can begin the wash without regard to press speed or impression status.

Note: There is no need to select Run Inker when using the Wash Up function.

Lock Controls from Zoomed View

You can use the **Lock Control** button on the Sweep Zoomed or Water Zoomed screens to lock controls and access the Locked view.



The Locked view shows the:

- Current status of the Ink Sweep Trim and Water Trim controls
- PLC connection state (green for connected and red for disconnected)
- Customer logo
- Current press impression state

Touch (Lock Control button) on the Sweep or Water Zoomed screen.

The Locked View displays with no changeable controls on the screen.

Touch (Lock Control button on the Locked View) to exit and return to the Sweep or Water Zoomed screen.

Execute Changes from Zoomed View

The Run Control button will change from to after making any change on the Sweep or Water Zoomed screen.

Touch the **Run Control** button () to execute changes made on the Sweep or Water Zoomed screen. The button will turn off when completed.

Close Zoomed View and Return to Main HMI Touchpad

Touch on the Sweep or Water Zoomed screen to close the Zoomed view and return to the main HMI touchpad.

8 Using a CIC Press

The section describes the optional CIC Press feature.

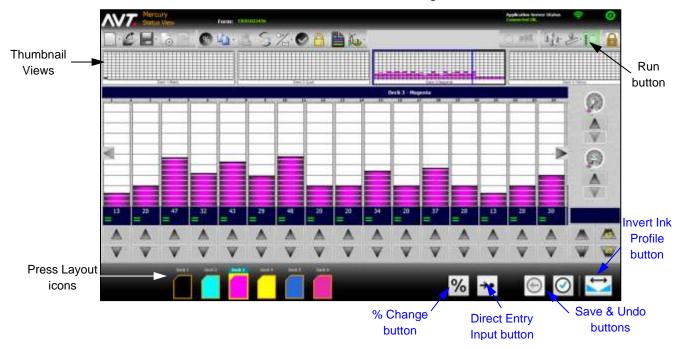
Note: This feature is only available if your system was configured during system installation to run in CIC press mode.

8.1 Overview of a CIC Press

A common Impress cylinder (CIC) press has all color stations around a single impression cylinder mounted in the main press frame. Pictured below are 4 inkers on each side of the CIC, with the inkers located in a single, large enclosure on either side of the CIC. Paper enters in the enclosure from the top, wraps around the CIC, and then the printed material leaves the top and moves to the finishing station(s).



Below is an example of the Mercury Status View when running a CIC press. The noted buttons, views, and icons are described in the following sections.

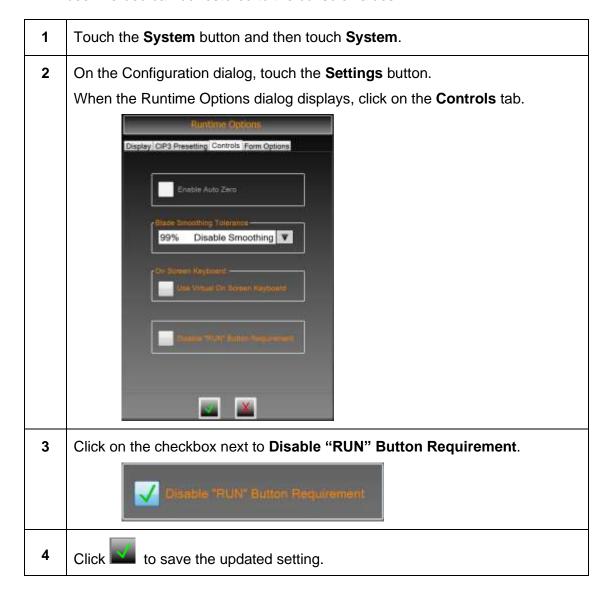


8.2 Make Automatic Ink Fountain Adjustments

When running a CIC press, you can disable the Run button requirement.

This feature is designed so you do not need to select the Run button after making every change. When Run is disabled, any changes made to a selected fountain are automatically run. This includes simple up/down moves, percent changes, direct entry changes, and sweep/water moves.

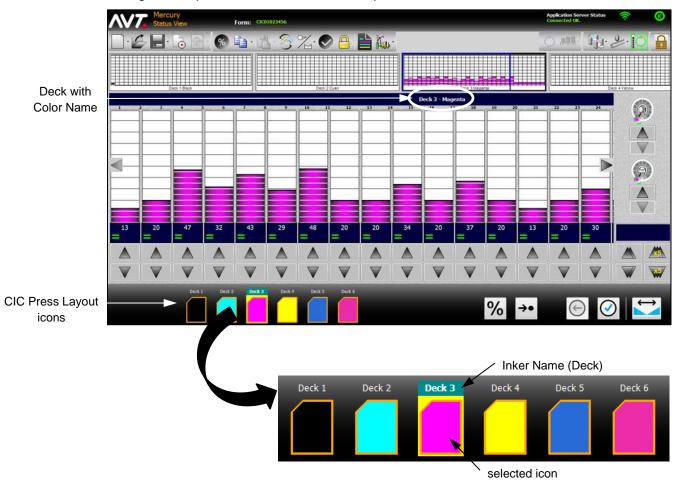
Note: The Run and Set Press buttons will still be active, so that fountains that have been zeroed can be restored to the console values.



Reference: See "Configuring the System: Settings" in the *Mercury Advanced User's Manual – Volume 1* document for more detailed information.

8.3 Use Press Layout Icons

When running a CIC press, the ink fountain icons at the bottom of the Status View are changed to represent the inkers in a CIC press.



Features of the CIC press layout icons include:

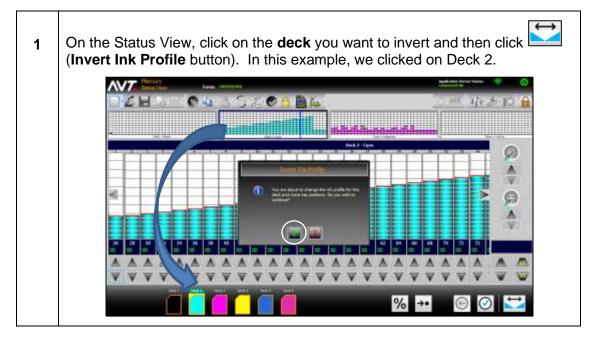
- Icons will have the inker name above the icon and will be filled with the color of the ink selected for that fountain. In a CIC press these are called "decks". (The color name will display with the Deck name in the bar above.)
- The shape of the icons is changed and the entire set of icons is shifted to the left to allow for newly defined buttons to be added to the right.
- When an icon is selected, the entire icon will be surrounded by yellow.

8.4 Invert Ink Profiles

When running a CIC press, an Invert Ink Profile button is available on the Status View that you can use to invert an ink profile for a fountain (called a "deck" in a CIC press).

- Each deck must be inverted individually. You cannot invert multiple fountains or decks at the same time.
- A deck can be inverted at any time, with or without a preset operation.
- A form is not required to invert an ink profile.
- Invert may also be referred to as "flip".
- Selecting the Invert Ink Profile button will flip the ink profile, but will <u>not</u> run the keys to the new profile. To run keys to new profile, select Run or Set Press after inverting the profile.





When the Invert Ink Profile popup displays, click to continue.

The ink profile will invert (flip) from left to right and the servos will be run immediately.

8.5 Use Thumbnail Views

When running a CIC press, you can view all thumbnails at the same time with a visibility of at least 100%.

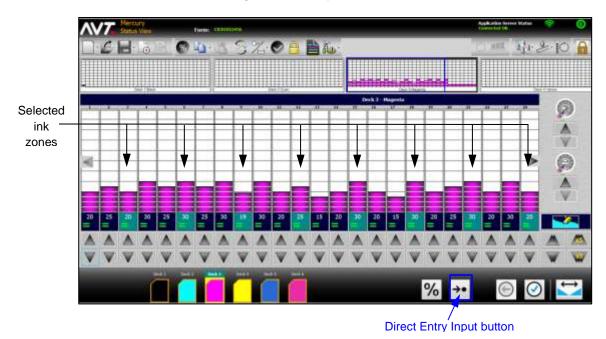
- There will be at most 7 inkers (decks) on a CIC press.
- The default inker size is optional and is defined during system configuration.
- Layout of thumbnails is in two columns, with decks 1-4 on the left (labelled from the top down) and decks 5-7 on the right (labelled from the bottom up).
- Each thumbnail is navigational; selecting a thumbnail will take you to that inkers status screen.

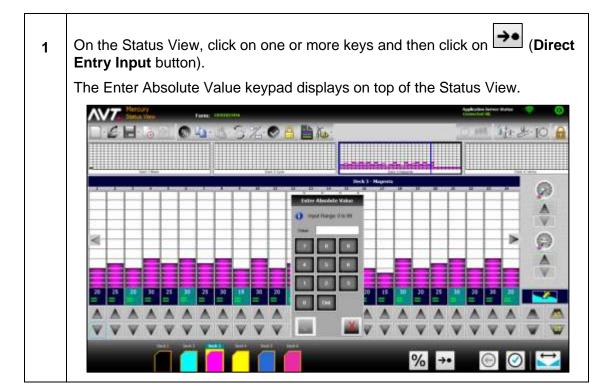
1 From the Status View, touch (Summary View button). The Summary View displays, where you can view thumbnails of the decks in two columns. Thumbnails 0 % →• The default size of the thumbnails is defined during system configuration. In this example, the default size is 125%. 2 to increase the size of the thumbnails by 25% to decrease the size of the thumbnails by 25%. to return to the default size of the thumbnails. 3 Click on any deck to access the Status View for that deck. 4 to return to the Status View.

8.6 Use Direct Entry Input

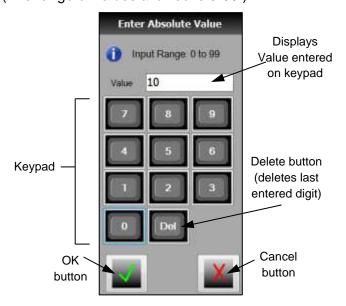
When running a CIC press, you can select one or more ink zones and then use a direct entry keypad to specify a new value for the ink zone settings to move to directly.

Note: When no ink zones are selected, the assumption is all ink zones are selected and all ink zone settings are directly moved to the new value.

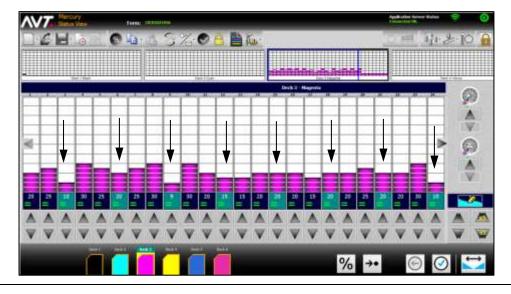




On the Enter Absolute Value keypad, enter a **Value** and click (The range of values allowed is 0-99.)



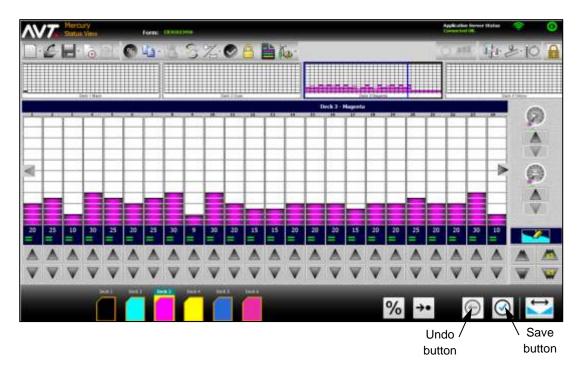
The ink zone settings for the selected ink zones are moved directly to the specified value. In the example below, all of the selected ink zone settings are moved to 10.



8.7 Save and Undo Console Key Setting Changes

When running a CIC press, you can save and undo changes you make to the current console key settings at any time.

- The save and undo applies to each individual fountain and not the entire press.
- When using the Save button, there will not be a popup requesting verification.
- After a save is done, there is no undo available until more changes are made.
- Changes made since the last save can be undone with the Undo button. This will restore the current fountain zone settings to the settings in the file.
- When using the Undo button, a popup displays requesting verification. When verified, the zone values should change and the servos should move to the new positions immediately with selecting Run or Set Press.
- Selecting the Undo button will restore the console key settings to the last "save" settings. This could be a moment ago or a month ago, depending on when the last save was done.



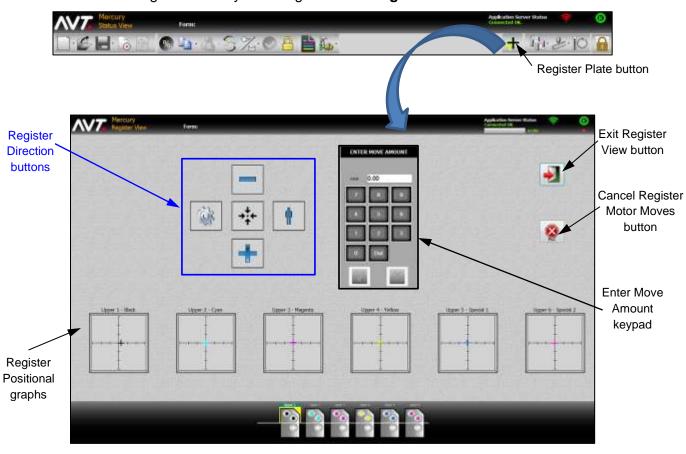
9 Using Register Motor Moves

The section describes the optional Register Motor Moves feature.

Note: This feature is only available if your system was configured during system installation to support the Register Motor Moves feature.

9.1 Access Register View

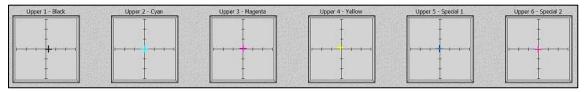
You access Register View by selecting the Plate Register button on the Status View.



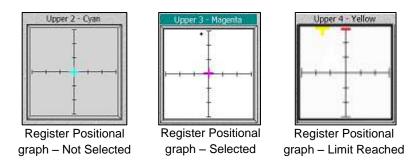
9.2 Use Register View Features

Using Register Positional Graphs

When selecting the unit(s) to move the register on, you can use the register positional graphs to select the unit(s).



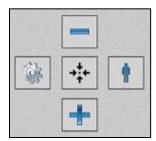
Register Positional graphs – Initial Display on Register View



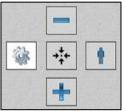
- These graphs give an approximate position of the register motors in the lateral and circumferential axis.
- Orientation of these graphs will correlate to orientation of the direction buttons.
- The graphs are selectable over their entire area.
- Additionally, when a limit is reached for any given motor direction, a red line shall indicate that the limit has been reached. The limit status shall display regardless if the unit is selected or not.

Selecting Motor Direction with Register Directions Buttons

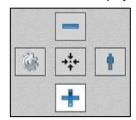
You can use the register direction buttons to select a motor direction for the selected unit or units. Only one motor direction can be selected at a time.



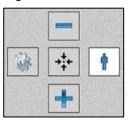
Register Direction Buttons – Initial Display on Register View

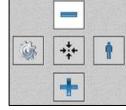






Advance Button Selected Operator Button Selected





Retard Button Selected

Gear	Move the lateral motor in the direction of the gear or drive side of the press.
Operator	Move the lateral motor in the direction of the operator or button side of the press.
Advance	Move the circumferential motor in the direction of the substrate travel.
Retard	Move the circumferential motor in the opposite direction of the substrate travel.

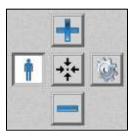
The orientation of the register direction buttons are configurable. The Gear / Operator buttons and Advance / Retard buttons can be swapped independent of the other. Below are the four possible iterations.



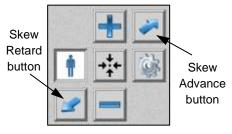
Using Register Direction Buttons with Skewing

Plate skewing is an optional feature, configured in the SiteGen file.

When the skew feature is not enabled, the skew buttons will not display with the other register direction buttons.



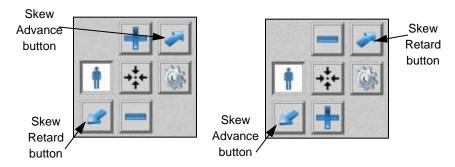
Register Direction Buttons (without Skew buttons)



Register Direction Buttons (with Skew buttons)

Skew Advance	Move the plate skew or cocking motor in the advance direction.		
Skew Retard	Move the plate skew or cocking motor in the retard direction.		

When configuring the orientation of the register direction buttons, there are no changes made to the location of the skew buttons. However, the skew button "assignment" will change based on the orientation of the Advance / Retard buttons.



Note: Skew button "assignment will <u>not</u> change based on Gear / Operator orientation.

Using Enter Move Amount Keypad

You can use the Enter Move Amount keypad to specify the distance of the movement.



Enter Move Amount Keypad (Initial View)



Enter Move Amount Keypad (Movement Value in mm)

- The keypad will always be visible on the Register View.
- The keypad value displays in either hundredths of a mm (0.00) or thousands of an inch (0.000), configured in the SiteGen file.
- Decimal will always be implied for numeric entry.

For example, if the unit of measure is set to mm and the operator keys in the digits 4 and 5, the resulting value shall be 0.45 mm. If the operator keys in the digits 4 and 5 and 0, then the resulting value will be 4.50 mm. If the operator keys in only the digit 4, then the resulting value shall be 0.04 mm.

- To correct any mistake while keying in the number:
 - Use (**Del** button) to delete one number at a time.
 - Use to delete all numbers entered.
- Use to activate appropriate outputs on PLC to move the register motors.

Using Motor Centering Button

Motor Centering



Move motors for a unit to center point for both lateral and circumferential motors.

- This button only displays where pot (potentiometer) feedback is available for register motors.
- Motor centering uses the limit switches on both ends of motor travel, and the center is half of the time that is required to travel between both switches.
- If centering is unsuccessful, the limit indicators on the register positional graph will flash on both ends of the affected motor. Click on the Cancel Register Motor Moves button to stop the motor movement and clear the error.

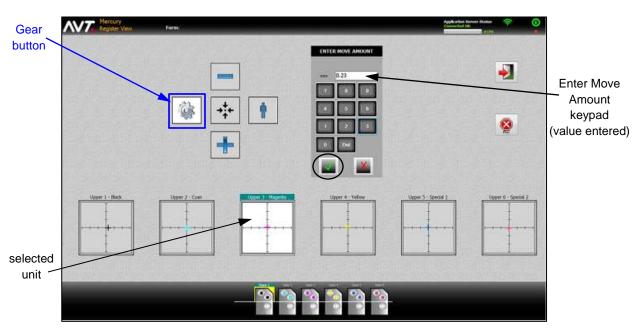
Using Exit and Cancel Buttons on Register View

Exit Register View	Exit Register screen and return to the main Status View screen.
Cancel Register Motor Moves	Stop any current motor movement or register PLC motor output.

9.3 Move the Register Motors

When using Register View to move the register motors, you can select one or more units to move the register on, choose the direction of movement, and specify the distance of movement.

Moving Lateral Motor in Direction of Gear



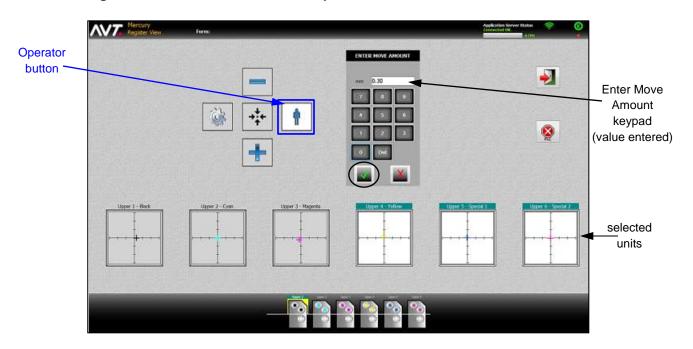
Select unit(s) to move the register on. In this example, only one unit is selected (Upper 3 – Magenta).

Click on to select the gear motor direction.

Using the Enter Move Amount keypad, specify the distance of movement value. In this example, 0.23 has been entered.

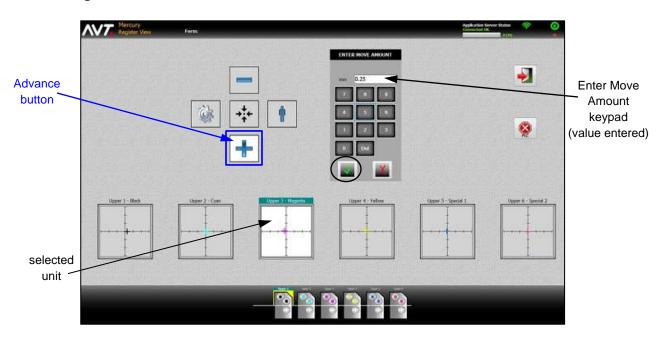
Click on the keypad to accept the value and apply it to the selected unit(s) / motors.

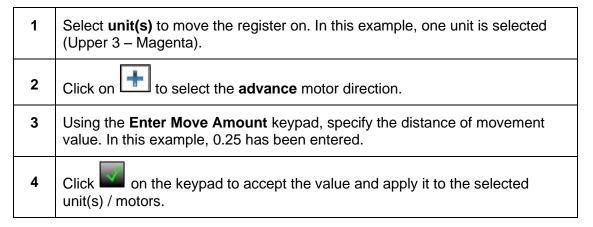
Moving Lateral Motor in Direction of Operator



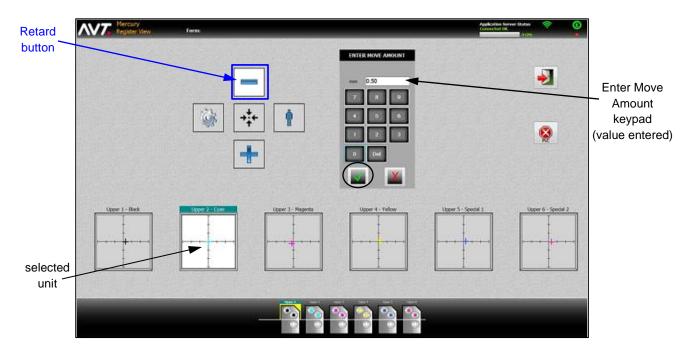
Select unit(s) to move the register on. In this example, three units are selected (Upper 4 – Yellow, Upper 5 – Special 1, Upper 6 – Special 2).
 Click on to select the operator motor direction.
 Using the Enter Move Amount keypad, specify the distance of movement value. In this example, 0.30 has been entered.
 Click on the keypad to accept the value and apply it to the selected unit(s) / motors.

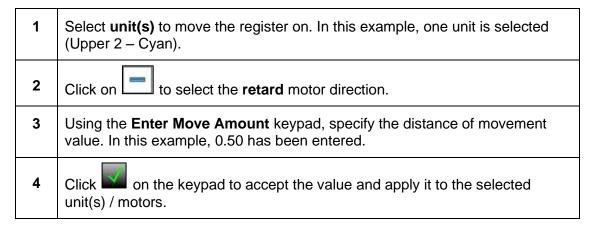
Moving Circumferential Motor in Direction of Substrate Travel





Moving Circumferential Motor in Opposite Direction of Substrate Travel





Appendix A: Using Virtual Fountains

This appendix describes the virtual fountain feature.

A virtual fountain is a placeholder for Mercury fountain settings without a corresponding physical fountain being connected to the Mercury system. Metal decorator and sheet fed presses with small fountain counts often must print on substrates in multiple passes to complete the desired image.

By providing a selection of virtual fountains, a metal decorator, and other sheet fed presses with a limited number of fountains, you can store in one form the fountain profiles for several "passes" through a press. When stored this way the profiles of a multi-pass job can be managed as a set and reused in future printings, even if the color sequence changes when the profiles are reused.

Virtual fountains contain the following fountain attributes:

- color name
- zone profile
- zone locks
- sweep value
- water value
- target densities
- preset profile
- preset image

Virtual fountains are not associated with any actual rail of servo motors, so they cannot be set with Run Inker, Set Press, or CIP3 Auto Set.

Notes:

- Your system must be configured to use virtual fountains. During configuration it is recommended that you change the name of the inkers that are virtual fountains, because there no graphical cues on the press schematic to indicate which inkers are real and which are virtual.
- A virtual fountain should never require a zero set for any reason.
- Virtual inkers and sweeps cannot be tested, zeroed, or retracted.
- ➤ All Form operations should work for all fountains. Also, CIP3 presetting will function with virtual inkers with some special limitations. See *Preset Virtual Inker Presses* to learn how to use CIP3 presetting with virtual inkers.
- CLC operations will not function with virtual inkers.

Example with Multi-Pass Printing

A metal decorator press, which is a unitized press without a turn-bar, will have the total number of press fountains configured for the number of colors to be stored for each form. This is normally 8 to 16 colors. There will be no change in the fountain configuration for actual press fountains. For the virtual fountains, the SPU Name is always "NA".

Following are the basic steps for multi-pass printing, which uses a small unitized press for printing images with several colors.

Load the form from CIP3 or change the current color, load the first set of plates on the press, and then swap the fountain profiles from the virtual inkers to the actual inkers to print the first pass. 2 Print the entire press run for the actual colors being printed for Pass #1. 3 Load another set of plates on the press, swapping fountain profiles from virtual inkers to actual inkers. 4 Print the entire press run again, with the same printed stock, for the actual colors being printed for Pass #2. 5 Repeat steps 3 and 4 until all colors are printed on the printed stock. 6 Save and end the form. You can choose to save the form between each pass or only after the last pass.

Below is a typical metal decorator press with virtual fountains.



Virtual Fountains

Revision History

Version 1.7

Revision Date	Revised By	Version	Section / Page Numbers	Revision Description
9/22/2020	MC/SW	1.7 A	All Sections 2, 6, 7, 8, 9	 Initial release of V1.7. Updated screen shots, as needed. Moved Single-Sided, Two-Sided, Multiple, Newspaper, and Tower press sections from Vol 2 to Vol 1. Added new sections 6 - "Using Ink Sweep and Water Ramping", 7 - "Using HMI Touchpad for Sweep and Water Ramping", 8 - "Using a CIC Press" and 9 - "Using Register Motor Moves". Added new section 2.6 - "Preset Virtual Inker Presses". Added info to section 2.4 for zone data display on Preview Image.

Version 1.6

Revision Date	Revised By	Version / EO	Section / Page Numbers	Revision Description
11/28/2017	SW	1.6 A	All	Initial release of V1.6.
		(17392)		 Updated screen shot, as needed.
		,		 Incorporated updates for V1.60 that include new section for Newspaper Press.

Version 1.5

Revision Date	Revised By	Version / EO	Section / Page Numbers	Revision Description
2/6/2017	SW	1.5 A (17147)	All	Initial release of V1.5; renamed document to Advanced User's Manual - Optional Features.
				Moved all core functions to document called Advanced User's Manual – Core Functions.
				Converted V1.2 from Frame to Word.
				Updated all screen shots.
				 Incorporated updates for V1.32, V1.40, and V1.50.

Versions 1.0 - 1.2

Revision Date	Revised By	Version / EO	Section / Page Numbers	Revision Description
1/19/2009	SW	1.0 A	All	Initial release of MC-NW.
1/5/2010	SW	1.1 A (15325)	All	Initial release for Mercury 1.1.
5/26/2010	SW	1.2 A (15448)	All	 Initial release for Mercury 1.2: Numerous user interface updates. Deleted some sections, moving them to Mercury Training & User Guide. Changed name to Advanced User Manual and reduced word count. Made updates for CIP3 special colors and image/data rotation settings.

Revision Date	Revised By	Version / EO	Section / Page Numbers	Revision Description
6/8/2010	SW	1.2 B (15600)	All	Updated all screen shots with main toolbar, to include Color OK button.
			Section 8	Added new sections 8.3.2 "Copying/Pasting Ink Zones during CLC" and 8.3.3 "Adjusting Ink Zones with % Inc/Dec during CLC".
10/20/2010	SW	1.2 C (15724)	Section 3	Updated section 3.1.5 to add more details on offset calibration.
11/9/2010	SW	1.2 D (15714)	Section 5	Updated section 5.1.1 to add a subhead section called "Setting New Form Color Order".