

March 14, 2016



Falcon User Manual - Standard Scanning

Document Revision 16-01



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Document History

Doc Rev	Date	Changes (click blue text to go to that page)
14-01	July 2014	Initial Release (based on year).
14-02	Sept 2014	Updated rescanning content, edited IDAssist info, edited monitor calibration procedures, added finger installation
15-01	Apr 2015	Page 19 - Edit to optional image capture device description Page 45 - additional throttle information based on ECO15-1013.
15-02	Nov 10, 2015	Page 2 - Added new Document History table and rev number on page 1
16-01	March 14, 2016	Page 1 - updated copyright disclaimer. Page 10 - updated document specifications Page 102 - Added "Reduced TMD accuracy has been detected" jam

If you find errors, inaccuracies, or any other issues or concerns with this document, please contact the OPEX Technical Writers via email at: GroupTechwriters@opex.com

Opex part no. 5077000

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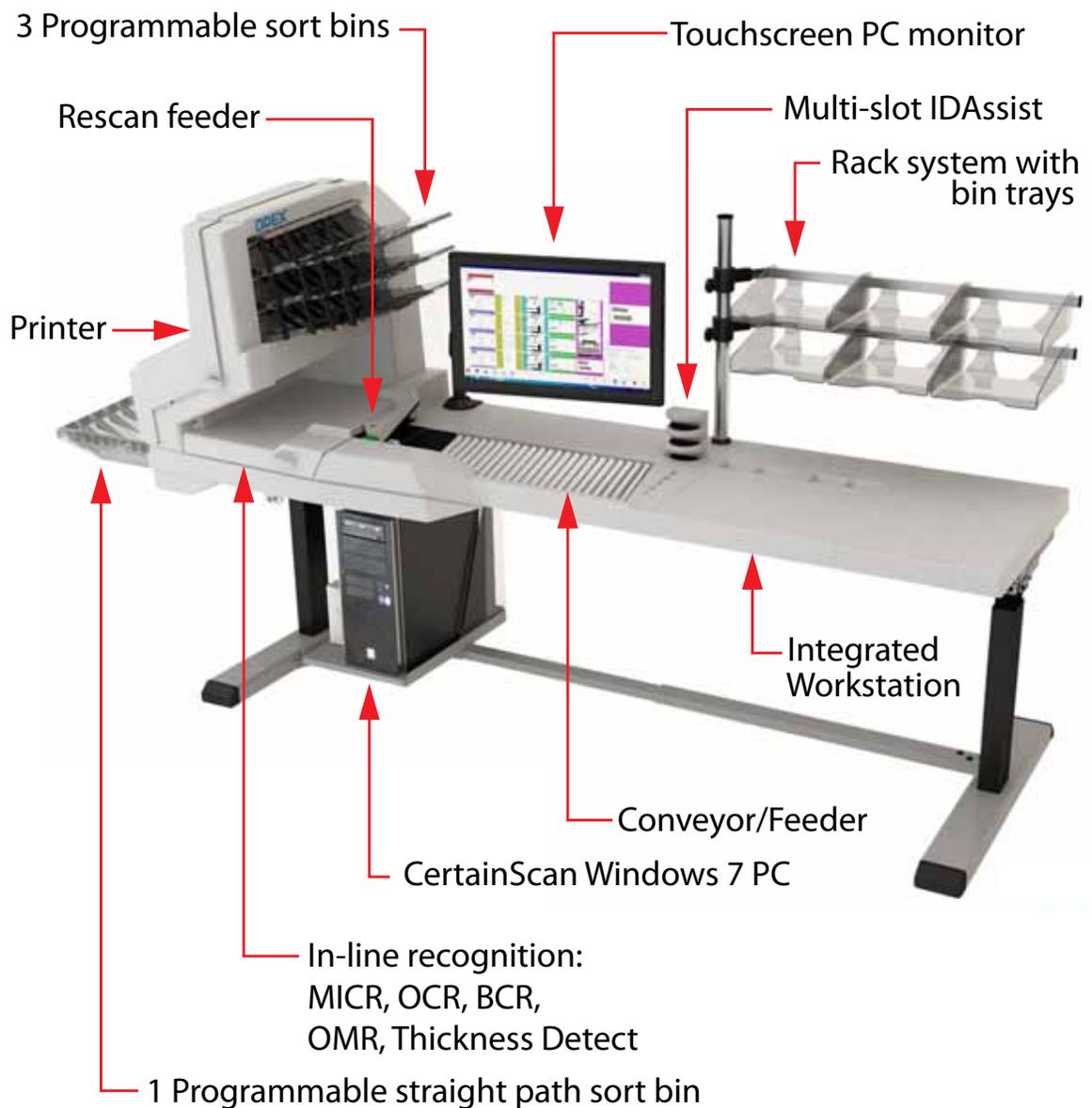
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About this Manual

The purpose of this manual is to instruct operators of the Falcon in how to use the scanner to perform tasks. This manual was written for standard scanning. If you use the Falcon for remittance processing, please refer to the “Falcon User Manual - Remittance Processing” document. For additional information on how to set up jobs, page types, audit trails and other functions of the machine, consult the appropriate Falcon CertainScan Manual (Standard or Remittance).



Overview

The Falcon™ combines OPEX's innovative one-step drop feed scanning with the performance of a high-capacity production scanner, providing the only universal document scanning workstation on the market. Regardless of your document scanning needs, Falcon is designed to attack the most difficult and daunting workflow challenges.

Features of the Falcon include:

- Color 22" LCD display with touch-screen controls
- Duplex scanner with native 300 DPI scanning
- Selectable color drop-out
- Front and back audit trail printers
- Double-feed, length, skew, thickness, and envelope detection
- Up to 12 unique page types
- 64-bit application
- 4 output trays (two fully sortable bins, one bypass bin, one reject bin)
- Robust stack feed capabilities
- Rescan Feeder - for rejected piece refeeds
- Optional multi-slot IDAssist
- Available in three different platforms: Desktop, Integrated, and Transportable

Falcon Specifications

Table 1: Falcon Specifications

Document Feeding	High-capacity auto feed Continuous drop-feed Packet feed Rescan feed
Document Specifications	Width: 2.0" to 12.25" (5.08 cm – 31.12 cm) Length: 3.5" to 18.25" (8.89 cm – 46.36 cm) <i>if running Win 7 32-bit OS</i> ; 3.5" to 25.50" (8.89 cm – 64.77 cm) <i>if running Win 7 64-bit OS</i> .
Scanning Speed	Up to 110 ppm / 220 ipm @ 300 dpi
In-line Recognition	OCR, OMR, barcodes, document type ID
Media Detection	Multifeed detection, height, length, skew and envelope detection
Document Separation	3 programmable output sort bins 1 programmable straight-path sort bin for extra thick and delicate items
Daily Duty Cycle	unlimited
Maximum Dimensions (H x W x D)	64.35" x 86.50" x 32.27" (163.45 cm x 219.71 cm x 81.97 cm)
Weight	Transportable model with auto height adjustment: 380lbs. (172kg) * Weight is unknown for the other Falcon configurations at the time of this printing
Electrical Specifications	North America: 120 VAC 1A 60Hz Europe: 220 - 240 VAC 0.6A 50Hz
Power Output	264 Watts (902 BTU/hr)
Bundled Software	CertainScan™ 3.0 64-bit host software, CertainScan Essentials™, CertainScan Edit™, OPEX Transform™, OPEX standard barcode package, Windows 7 64-bit

Table 1: Falcon Specifications (continued)

Additional Features	OPEX-provided CertainScan PC Flat-panel 22" touch-screen Packet ID IDAssist™ Integrated workstation
Optional Features	Audit trail printing (front and rear) Rear graphics printer (prints signature and Code 39 barcode) VRS* technology image enhancement Key Assist™ Reference ID MICR OPEX-provided generic mount for external capture device Multi-page type IDAssist *VRS is a registered trademark of Kofax, Inc.
Available Models	Falcon, FalconRED, and Falcon Transportable

How the Falcon works

The Falcon scanner is controlled by a single, Windows 7 driven PC. The operator interacts with the system via the CertainScan software and simply drops items onto the conveyor. The system scans the items based on the current job parameters. The scanner can capture MICR and OCR information, print audit trails on items, and sort them to a specified bin.

Software

The Falcon uses two software applications which control the system:

INtime Controller - The INtime Controller runs in the background of the CertainScan software and controls all machine related functions, such as monitoring sensors, triggering gates, and turning motors on and off. The INtime Controller runs in its own real-time operating system, called INtime. You do not need to access the INtime controller and should never close the INtime window.

CertainScan - The CertainScan software interfaces with the Controller and manages the non-machine related functions performed by the scanner. CertainScan provides an interface for setting up jobs, page types, audit trails, and for running jobs. This is the main interface with the machine.

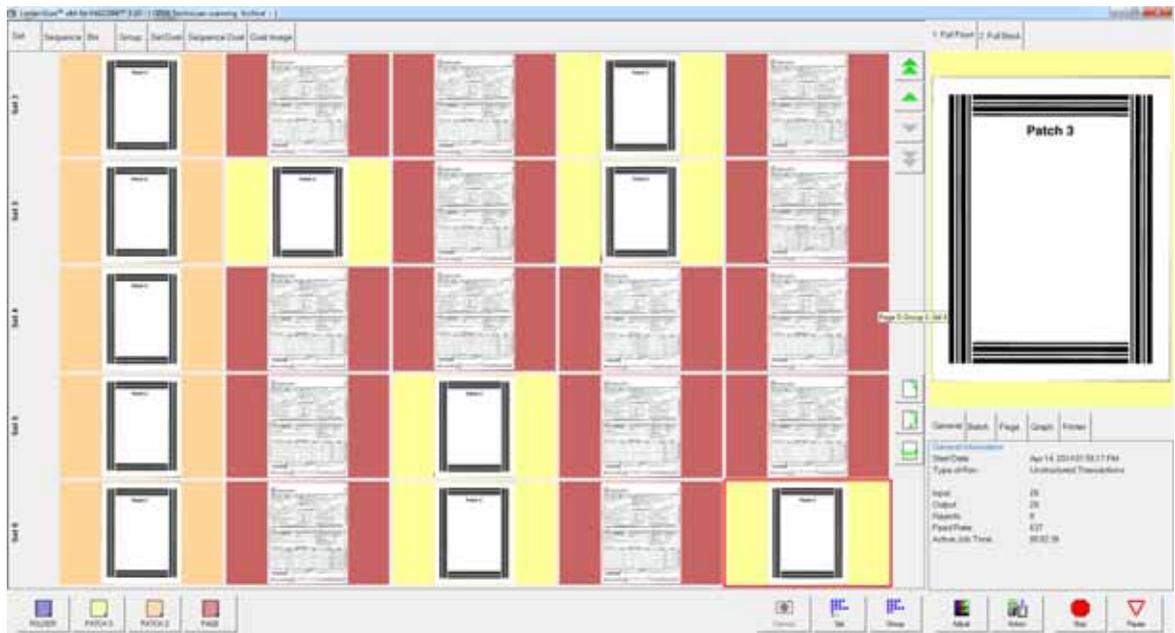


Figure 1: CertainScan Run Screen example

Jobs

A job is a collection of parameters the Falcon uses for scanning items. The jobs you set up allow you to process items in a similar manner from run to run.

The scanner captures images of items and stores the information it collects in batches, which consist of one or more sets. The definition of a set can vary from customer to customer, and even from job to job. A set may consist of several page types. For example, a folder, patch sheets, and the contents of the folder.

Structured vs. Unstructured jobs

Structured jobs require you to scan items in a particular order. For example, when running a structured job, the machine may prompt you to scan a batch ticket first, then a stub, then a check, and/or another item, and finally an envelope to signify the end of the set. If a page type is scanned out of sequence or if the system is expecting a certain page type, the system will alert you.

In an unstructured job, you can scan any of the expected page types in any sequence. The only restriction is that the boundary, in most cases an envelope, is scanned last. The boundary tells the system the current set is complete and the next set will begin.

Page types

The term “page type” is used to specify a collection of criteria that a piece must meet to be classified as a certain type of item; i.e., length, height, barcode, mark detect, MICR, etc. The system uses the page type parameters set up by your System Administrator to classify items that come into the system. When the scanner processes items in a job, it gathers data (such as length and width) on each item and compares the item to the page types you have designated for that job. This is how the system identifies each item scanned into the system. The system then collects the appropriate data from the item and sorts it according to the current job parameters.

Operation

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Overview

This chapter provides safety precautions, user interface information, and basic procedures on how to run the machine to process items with the Falcon.

Note: This manual describes operation of the Falcon scanner. If you have a FalconRED™ (Model 72 Rapid Extraction Desk installed), refer to the Model 72 Operator Guide before proceeding with this manual.

Safety precautions

Follow these safety precautions to avoid injury when operating the Falcon. Failure to follow these precautions may result in severe personal injury or damage to the machine.

- Be careful when working with AC power. Electrical wiring can be hot any time the machine is plugged in. Failure to use caution may result in electric shock or death.
- Do not set liquids (such as drinks) on the scanner that could spill into the machine.
- Keep loose objects away from any exposed, moving parts of the machine. The moving parts of the Falcon can become jammed and/or damaged by foreign objects. Also, keep hands, hair, loose clothing or jewelry away from the moving parts.
- Do not attempt to clean the machine while it is running. A cloth (or similar material) should never be used to clean moving parts such as belts or rollers. The use of such material on moving mechanisms can result in damage to the machine or severe personal injury.
- Do not use flammable, high pressure, “canned air” to clean paper scraps and dust from the machine.
- Do not move the machine while the power is on. Unplug the machine from the power source first.

Yes, some of these things seem obvious, but the Opex Legal Department says we have to write them.

Ergonomics

As in any occupation which requires you to perform the same motion repeatedly during the course of your work, it is important to consider how you perform your task. Always use proper operating procedures when operating the Falcon. Follow the directions for using and adjusting your chair and scanner. Using improper procedure can result in a potentially serious injury. The Falcon scanner has been designed for safe operation by over 95% of the user population. Operation by individuals with limited reach capability or who cannot follow the suggestions listed should be avoided or limited in duration.

To reduce possible risks, we strongly urge you to follow these suggestions:

- Maintain an upright body posture. Avoid the tendency to slump in your chair. The angle between your torso and thighs should always be close to 90 degrees.
- Adjust the seat height on your chair or the height of the scanner so that your elbow is approximately even with the top of the work surface when your arms are near your sides and your feet are flat on the floor.
- Adjust your chair position to allow your torso to touch the front edge of the scanner work surface. Chairs with arm rests that prevent this body position should not be used.
- If the touchscreen is used frequently during processing, adjust the screen's position to minimize your reach movements to the frequently touched areas.
- Your position should allow you to comfortably reach the frequent work pick-up area(s) and the frequently touched areas of the screen without extending either arm fully or changing your posture.
- Occasionally change the angle of your posture and, if possible, vary your tasks to create short breaks from the most repetitive motions.
- If possible, avoid operating the machine for longer than a single 8-hour shift.

While no suggestions can guarantee completely against work-related injuries, you will certainly increase your comfort and safety while operating the Falcon if you put these suggestions into practice. The scanner has been designed with you in mind. If it is operated correctly, you should find your work experience comfortable and enjoyable.

Main Controls and System components

The list below describes many of the controls and components of the Falcon system. Refer to Figure 2 on page 20.

Main power switch The main power switch is located on the left cover, as shown in Figure 2. This is the main “on/off” switch for the Falcon system.

UPS (Uninterrupted Power Supply) The APC UPS supplies battery power to the PC and monitor to allow a controlled shutdown of the Windows operating system. The scanner should be plugged into the AC wall outlet and not the UPS.

CertainScan PC The 32-bit or 64-bit PC with Windows 7 operating system houses OPEX’s feature-rich CertainScan 3.1 host software.

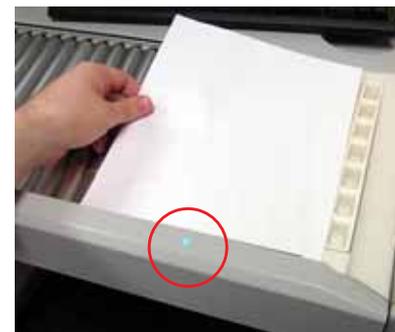
Touchscreen monitor Use the monitor to log in and out of the Falcon system. The monitor’s touchscreen controls should be used to operate the system and run jobs.

Keyboard/mouse Typically, the keyboard and mouse are only used for setting up jobs and for use with other software. Use the touchscreen monitor for running jobs and operating the machine.

MFD Override button The MFD override button allows you to disable the ultrasonic multifeed detector when you are scanning thicker pieces, such as items with sticky notes attached.



IDAssist indicator The blue IDAssist indicator LED will light up when running a job that includes IDAssist. Also, when the operator triggers IDAssist the LED will go out briefly, indicating to the operator that IDAssist has been activated. For more on using IDAssist, see “ID Assist” on page 67.



Multi-Slot IDAssist (option) This option allows you to perform up to nine different functions, which are determined by how you swipe items in the tower's three slots. For more on using the optional Multi-slot IDAssist feature, see "About the Multi-Slot IDAssist" on page 69.

External Capture device (option) An optional pole and mounting arm are available for a camera which can be used to capture images of items unable to be scanned by Falcon and inserted directly into the batch.



Note: The camera is not included in this option, just the pole, mounting arm, and software option needed.

Conveyor Angled roller system that edge justifies items before entering the feeder.

Audit trail printers (option) The optional audit trail printers are located behind the sort bins. Audit trails can be applied to the front and/or back of each scanned item.

Rear graphics printer (option) In place of the standard rear audit trail printer, this optional printer is capable of printing graphics such as signatures, logos and Code 39 barcodes. Up to five different graphics can be sprayed.

Sort bins Scanned items are sorted into one of four output bins (two fully sortable bins, one bypass bin, one reject bin).

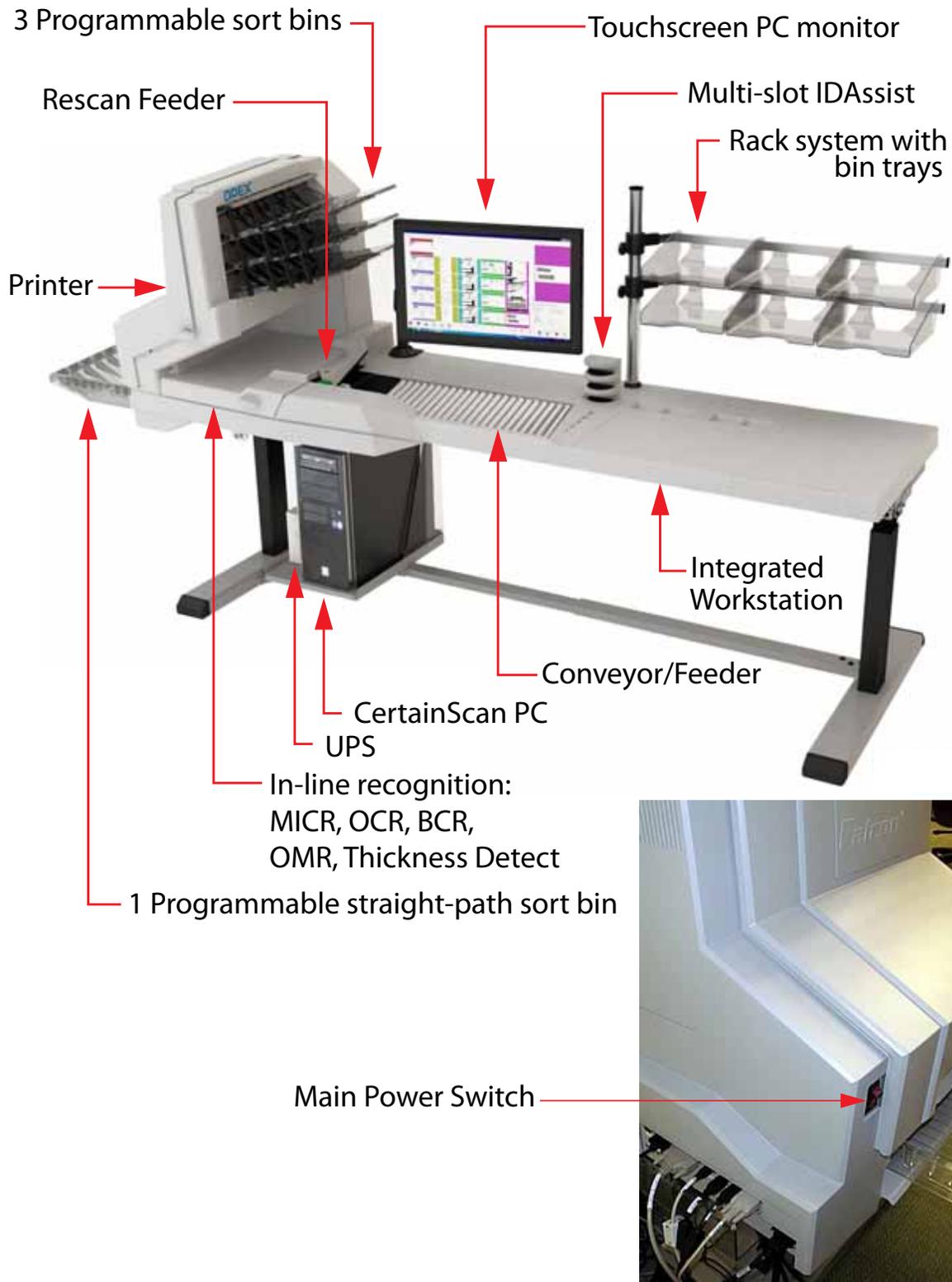


Figure 2: Main Controls and components

Getting Started

Power up the system:

If the Falcon system is not already up and running, turn on the power:

- 1 Turn on the main power switch (see Figure 2).
- 2 Press the power button on the UPS. The monitor will turn on and the computer will begin to boot up.
- 3 Log in to Windows with your Windows/network user name and password. If your Falcon is not connected to a network, you may not have to log in to Windows first. Proceed to step 4. Once the computer has finished booting Windows, it will launch the Falcon CertainScan application.

Note: If you mistakenly close CertainScan, double-click the icon on the desktop to start it again.



Log in to the system:

- 4 On the vertical menu bar, select the icon for your user account.

Note: If you do not have your own user account, ask your Falcon Administrator for assistance.

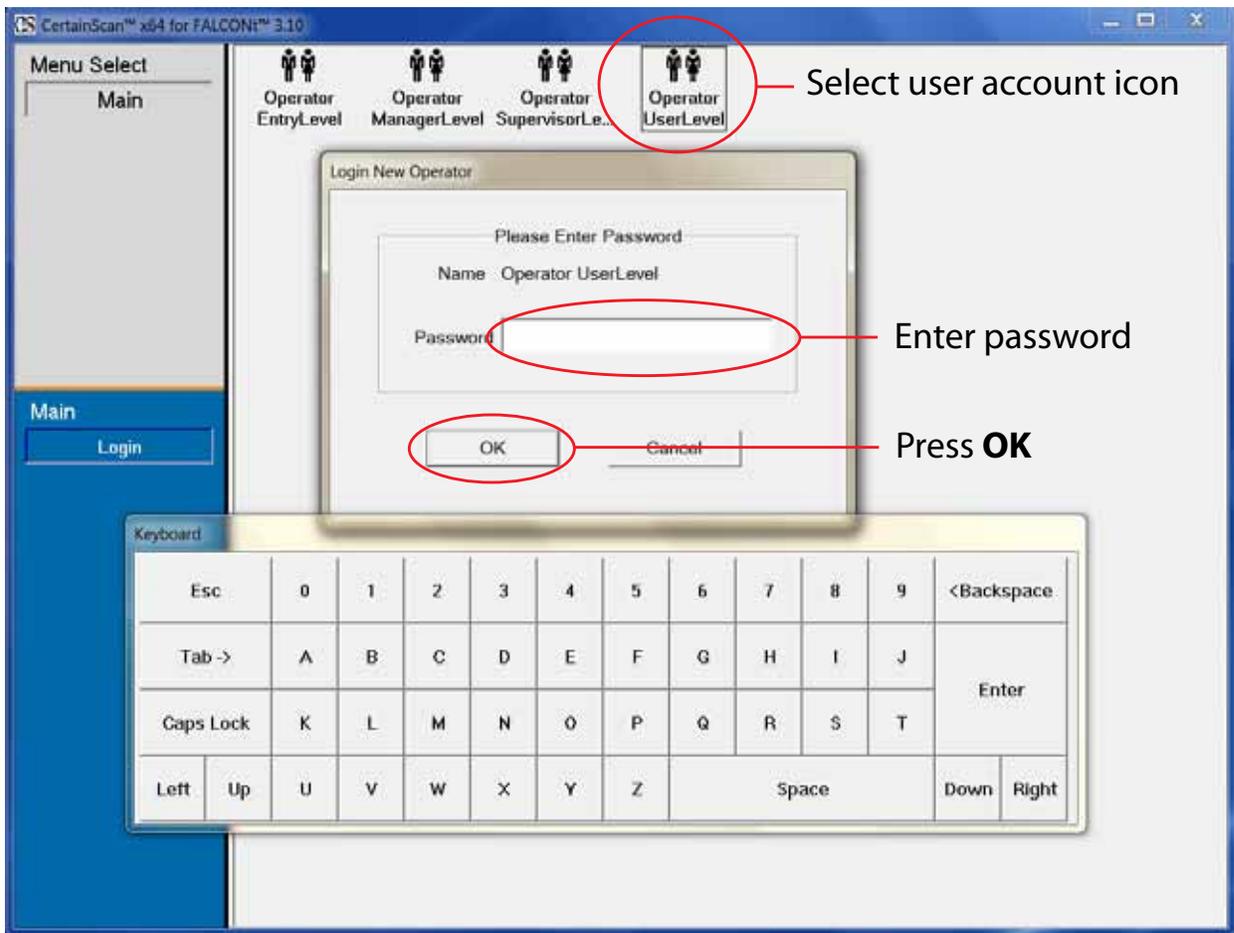


Figure 3: Login Screen

- 5 Enter your password using the on-screen or computer keyboard.
- 6 Press **OK**.

Navigating the Falcon CertainScan software

Use the CertainScan software to select jobs and scan pieces on the Falcon system. The CertainScan interface consists of:

Title bar Displays the name of the current operator and other pertinent information. Click the Falcon icon in the title bar to access the Windows functions (Restore, Move, Size, Minimize, Maximize, Close), as well as the following menus:

- The diagnostics menu is reserved for Opex technicians.
- The Help menu accesses the About screen, which provides version information for the Falcon CertainScan software.

Menu bar Provides access to the main system functions. Select a category from the menu bar and make selections from the main window or the menu options bar.

Menu options The menu options provide subcategories for the selections in the menu bar. The menu options bar will change based on the current menu bar selection.

Main window View and adjust settings and parameters in the main window.

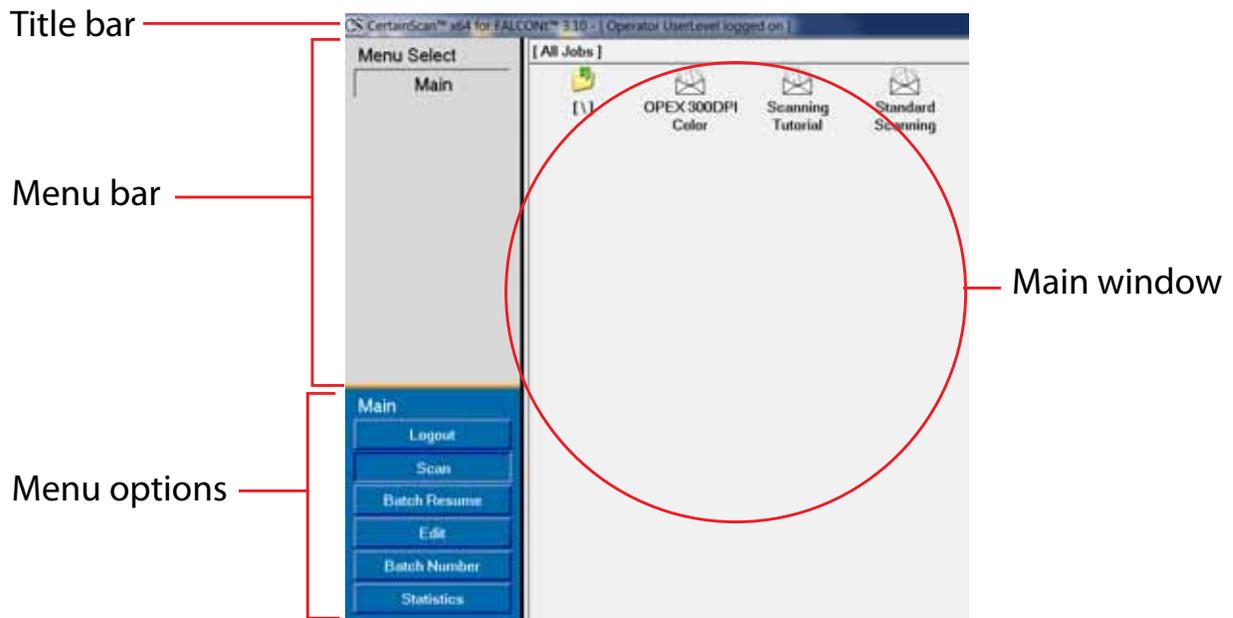


Figure 4: CertainScan interface

Running Jobs

Now that you have logged into the system and taken some time to familiarize yourself with the main controls and components, you are ready to begin operating the machine. This section will give you a general outline of how to use the CertainScan software to process items.

Select a job:

- 1 Select **Main** in the menu bar.
- 2 Click the icon for the job you want to run.

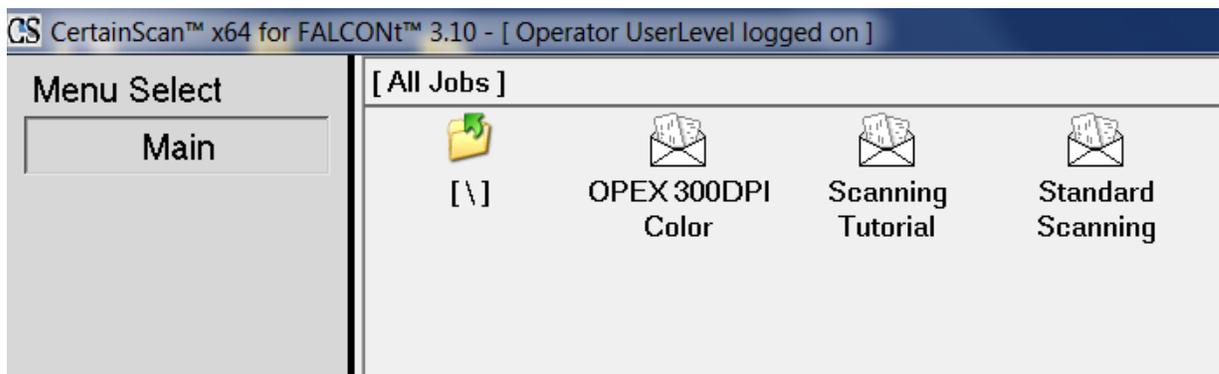


Figure 5: Main Screen

Note: The jobs you see may be different than those shown in Figure 5.

Depending on how the job is set up, the Batch Information screen may appear. Use the Batch Information screen to select a “received” date, a “processed” date, and the type of batch you want to run.

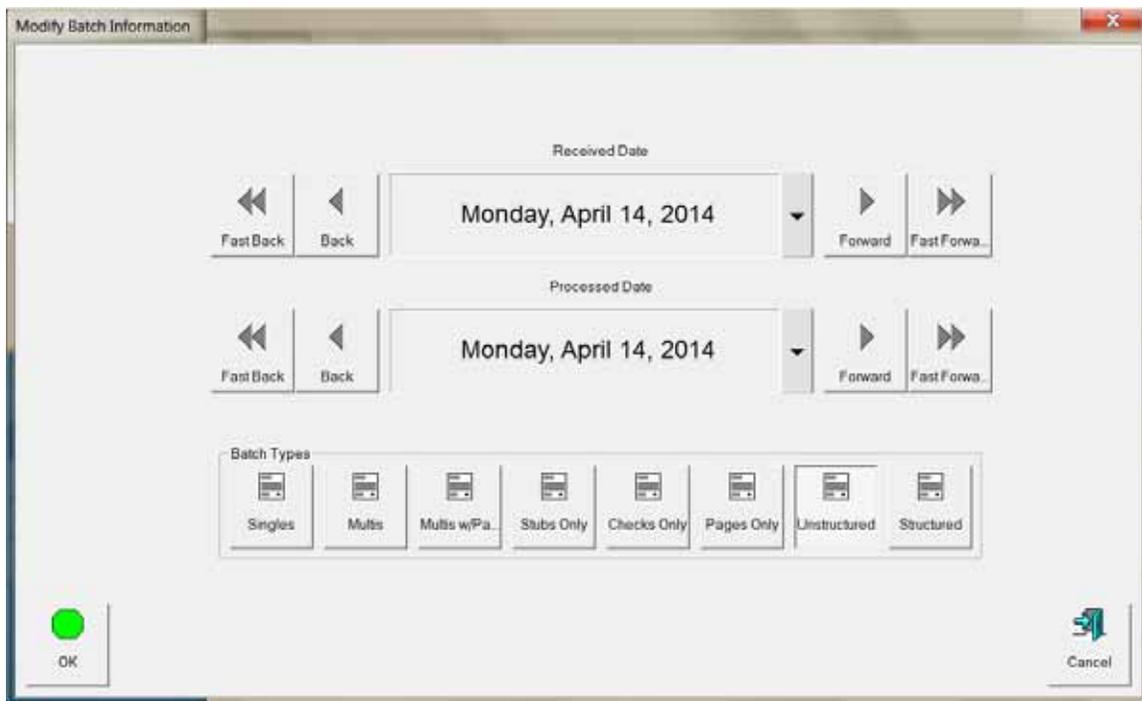


Figure 6: Batch Information screen

Using the Run Screen

The Run screen will appear after you select a job. This is the main screen you will use for scanning items.

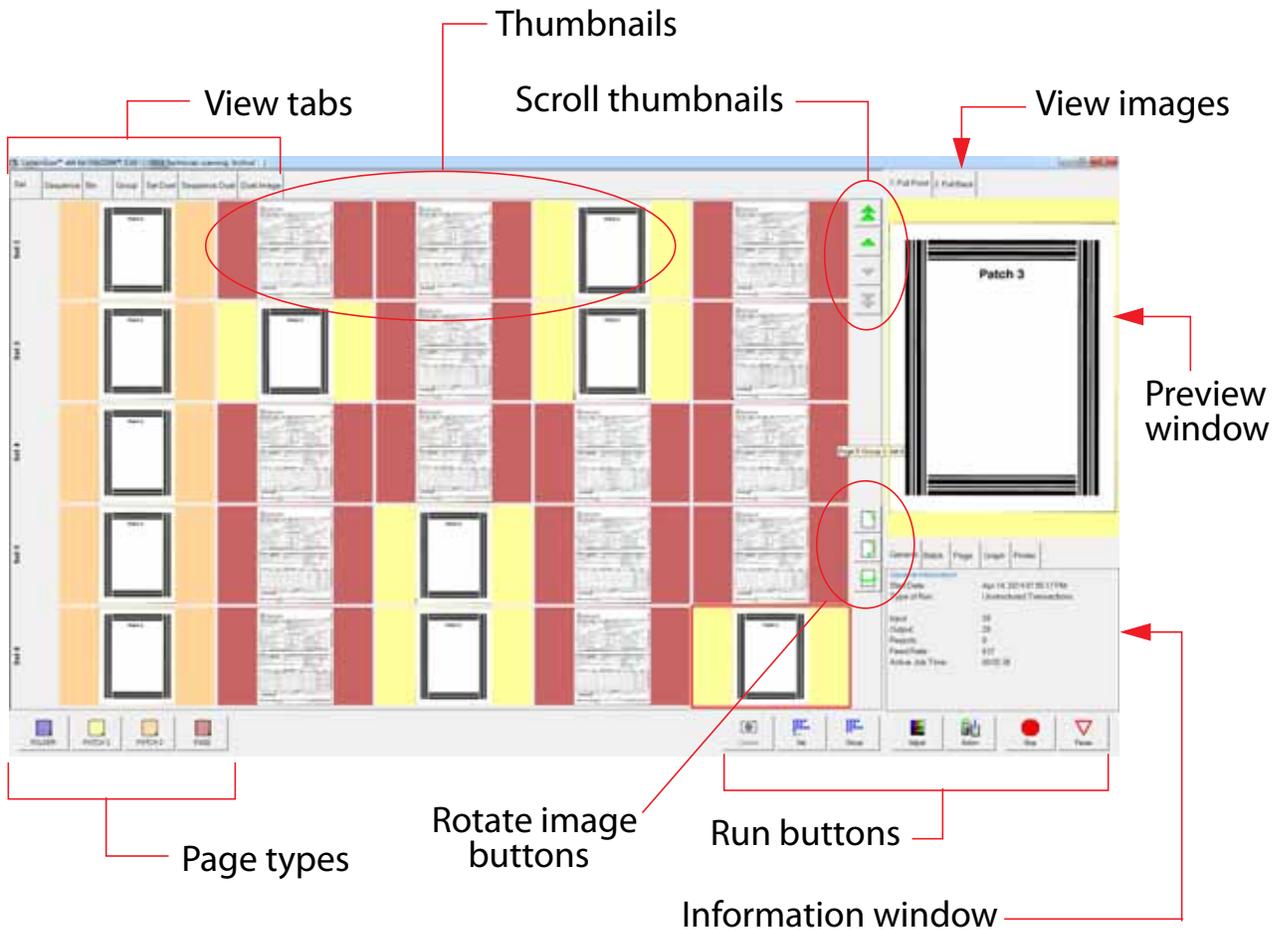


Figure 7: Run Screen

Run Screen buttons



Press **Go** to start the scanner.



The **Page Type** buttons indicate the page types assigned to the current job. The use of the buttons vary depending on the job setup. See “Assigning a page type” on page 54 for more information.



Rotate the image of the selected item. Use the three buttons to rotate the image 90 degrees clockwise, 180 degrees clockwise, and front to back. This button will only be available if it has been activated in the **System > Config > User Interface Settings** parameters.



Adjust the settings in the Capture Parameters window to enhance the quality of the output images. See “Adjusting the image quality” on page 56.



Press a **Rescan** button to replace a previously scanned image with a new one. This button will only be available if it has been activated in the batch parameters. See “Rescanning items” on page 57.



Delete an item from the batch. This is only available when the scanner is stopped. This button will only be available if it has been activated in the batch parameters. See “Deleting items from the batch” on page 62.



Void the selected item or set. This button will only be available if it has been activated in the batch parameters.



End the current **Set**. This button is only available if it has been activated in the batch parameters.



End the current **Group**. This button is only available if it has been activated in the batch parameters.



Start a **New Batch**. This button will only be available if it has been activated in the batch parameters.



Press the **Action** button to access the **Rescan**, **New Batch**, and **Void** buttons. The **Action** button only appears if two or more of these buttons (**Rescan**, **New Batch**, **Void**) are enabled.



Press the **Camera** button to insert up to two images from an external camera into the batch.



Pause the machine. Once pressed, the **Resume** button appears.



Press to **Resume** scanning. Once pressed, the **Pause** button appears.



Stop the machine. This does not end the current batch or set.



Close the current batch. The Close Batch confirmation prompt appears.



Exit the current job and close the Run screen.

Runscreen Thumbnail and Preview Image Icons

While scanning items in CertainScan, the host software displays thumbnail images in the main left panel and preview images in a smaller panel in the upper right corner of the runscreen. When images are readily available in the host software’s cache or when the system is not busy, images will display as expected. Under some conditions, when images are not immediately available, the host software will display one of the icons shown in Table 2 where the image would have been.

Note: When a batch is opened in CertainScan Edit or CertainScan, a subset of the same icons will appear. Whether or not it should appear is indicated in the last column. Refer to the “CertainScan Edit” manual for more details on using CertainScan Edit.

Table 2: Runscreen Thumbnail and Preview Image Icons

Icon	Description	Appears in CertainScan Edit?
	Image Blank Image is known to be blank according to batch’s image data.	Yes
	No Snippet Metadata Image information was not saved in the batch. This is configured in the page type.	Yes
	Processing Underway Image is not yet available. Most likely, it is still being processed for the scan.	Should not appear

Table 2: Runscreen Thumbnail and Preview Image Icons (continued)

Icon	Description	Appears in CertainScan Edit?
	Image Not Saved This image has metadata but has no image file. The page type was configured to not save this image to disk.	Yes
	Snippet Out Of Bounds This image was set up to not be the entire piece. However, when trying to extract the image for batch output, the specified region was found to lie completely outside the boundaries of the item's edges. No disk image was written for this reason.	Yes
	Image Unavailable Attempted to load the image from disk but failed. The request did not time out, so the disk to which the image is stored may be down or disconnected.	Yes
	Image Timeout Attempted to load the image from disk but the request timed out. Network might be busy or the host might be busy writing other active items to disk.	Yes
	System Busy The image is not in the cache but the system is too busy, so an attempt was not made to load it from disk. An attempt will be made when the system is not busy. The host software is probably in the middle of scanning or finishing up writing the last scanned items to disk.	Should not appear

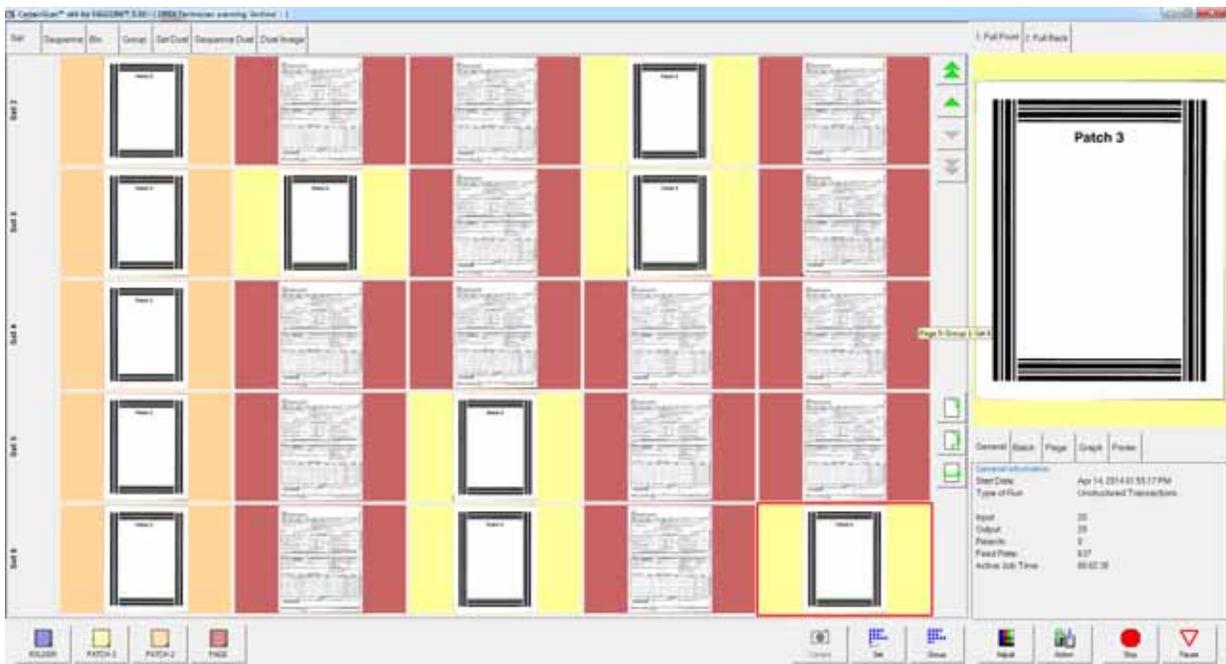
Run Screen Views

The tabs near the top of the Run screen change how the thumbnails are arranged. You can view the thumbnails by set, by the order each piece was scanned (sequence) or by the bin the piece was sorted to. You can select Set Dual, Sequence Dual, or Dual Image, which display two thumbnails for each piece.

Note: The set dual, sequence dual, and dual image views will only work properly if the page types in your job are set up to include a “secondary” thumbnail.

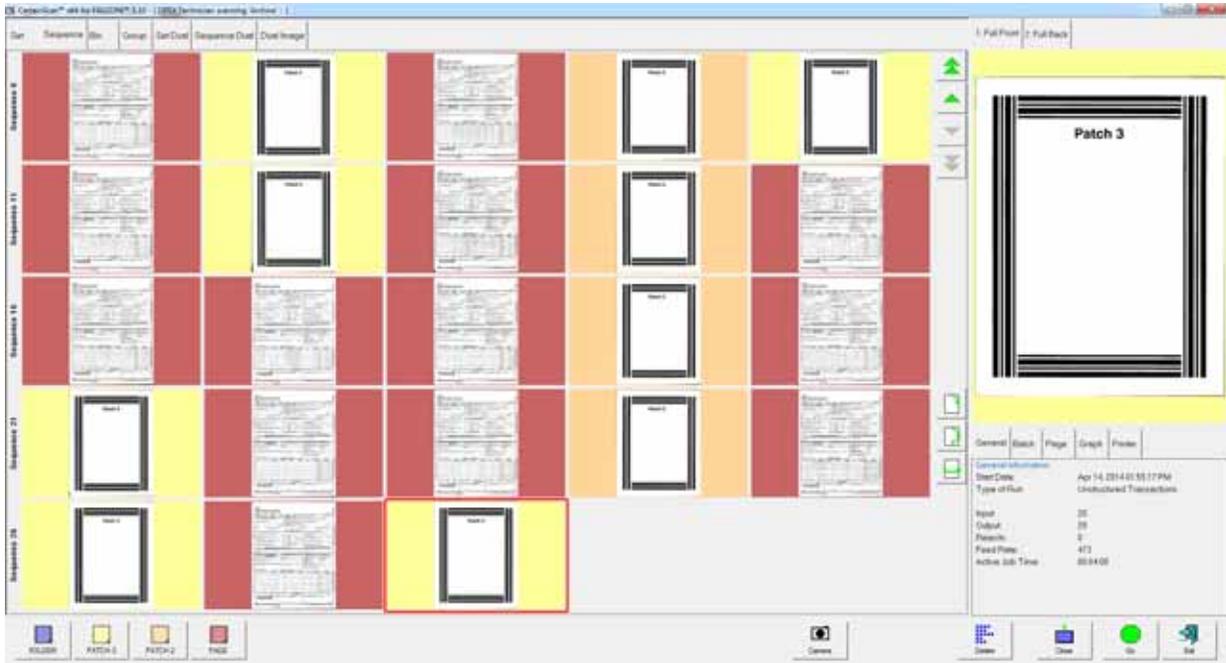
Set View

The set view groups thumbnails by set. All of the pieces are displayed in a single row from left to right in the order they were scanned. One thumbnail is displayed for each piece.



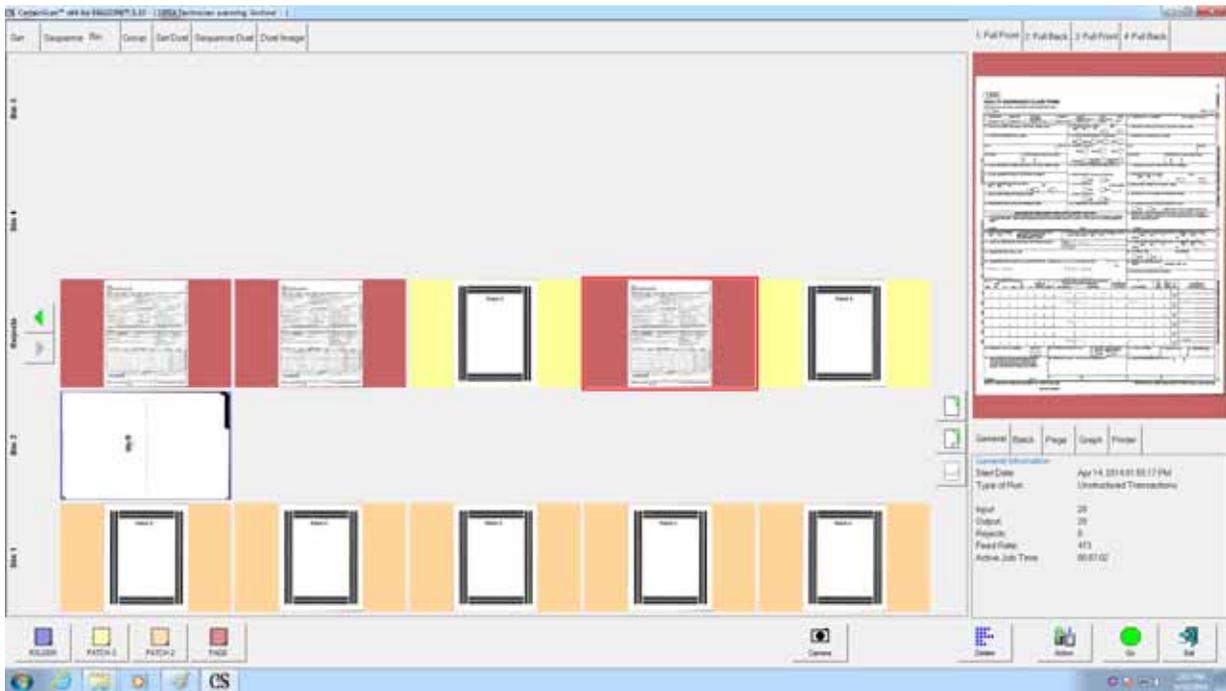
Sequence view

The sequence view displays all of the pieces in the order they were scanned from left to right. A new row will start after the fifth piece.



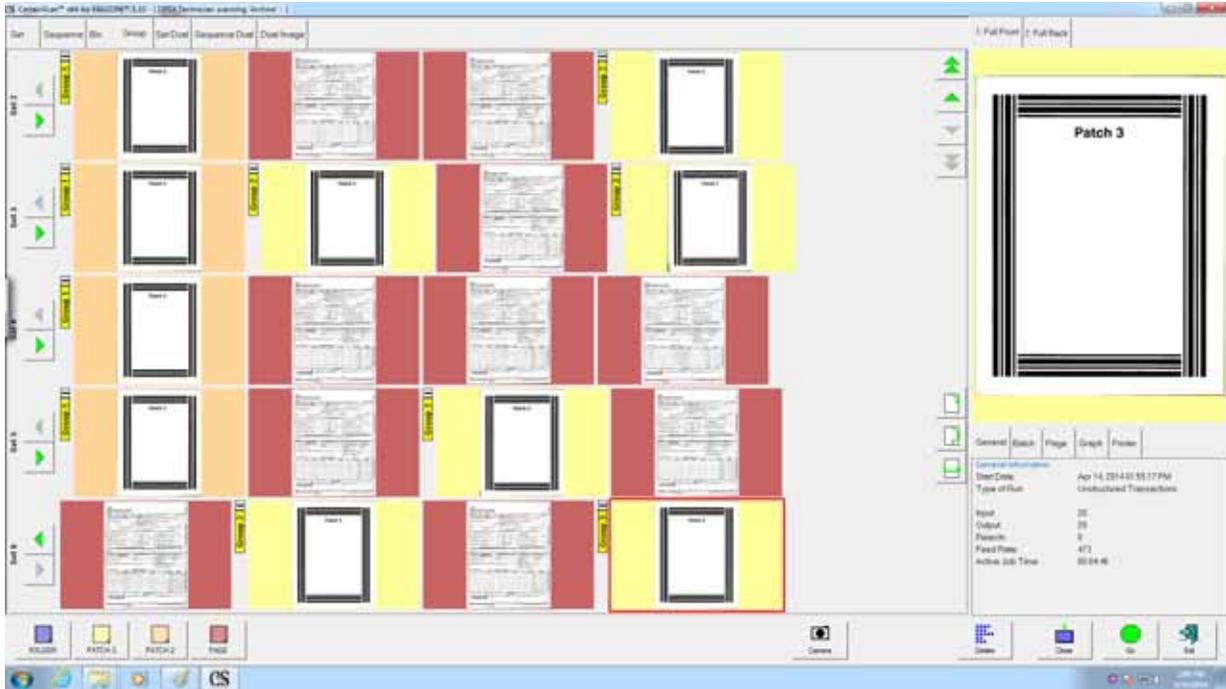
Bin view

In bin view, each row represents a bin number.



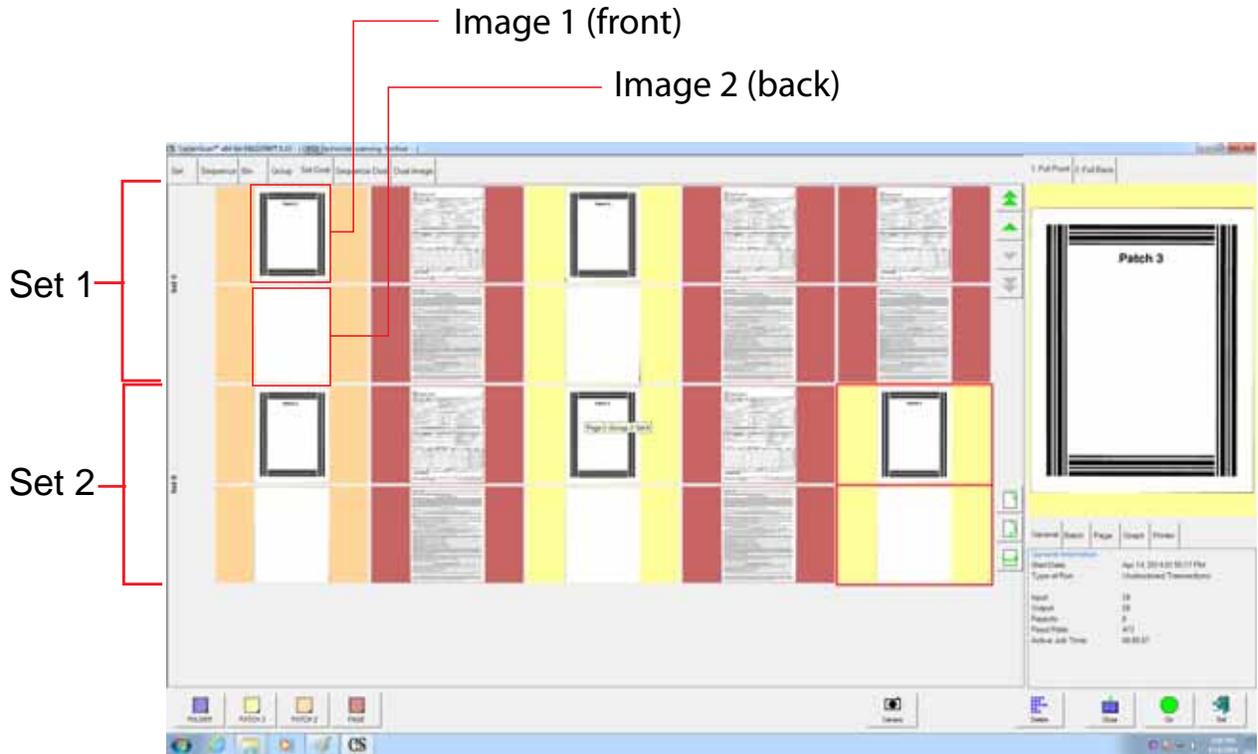
Group view

The Group view, similar to the Set view, also displays each of the group separators (or markers).



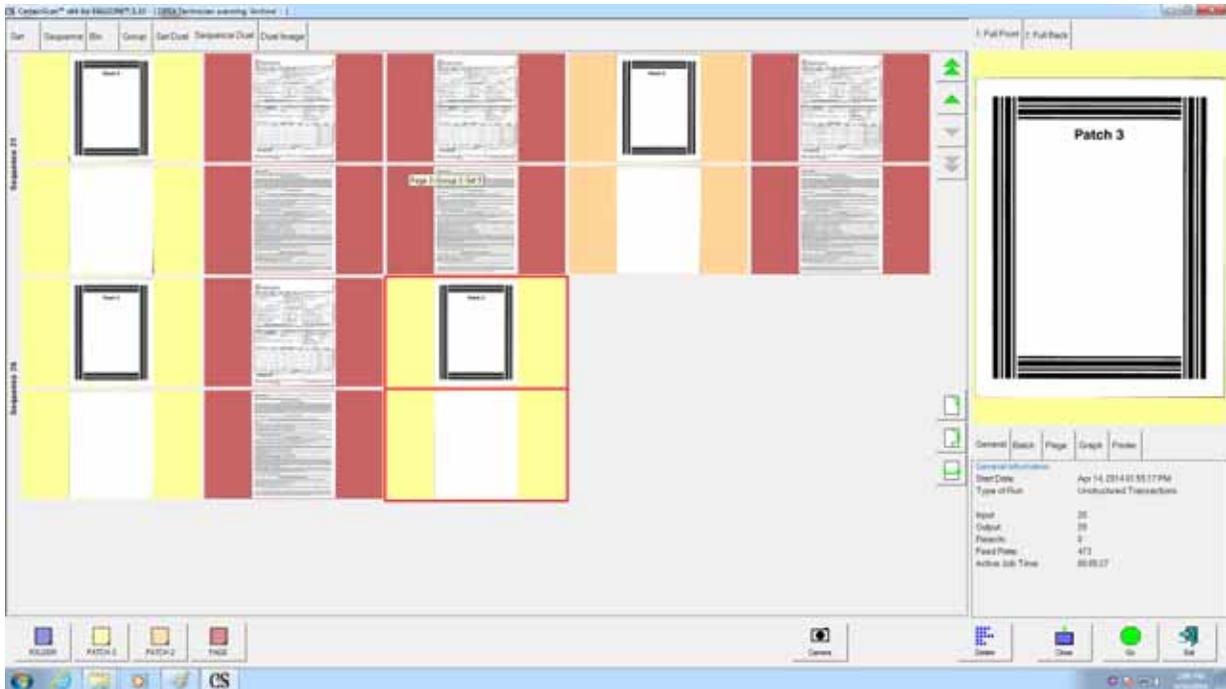
Set Dual view

The set dual view shows 2 thumbnails for each piece, grouped by set. The first row will show one image; the following row will show the secondary image.



Sequence dual view

The sequence dual view shows 2 thumbnails for each piece, grouped in the order they were scanned.

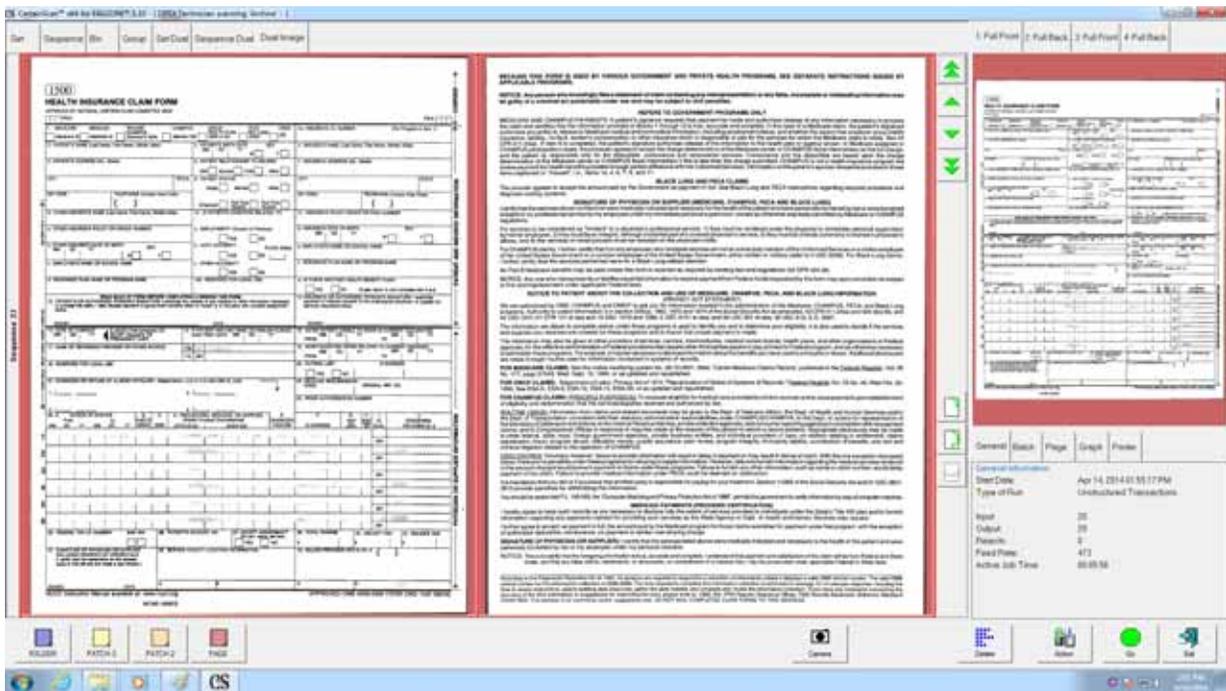


Each piece is displayed on two rows, one for each image.

Dual Image view

This is a split-screen mode in which you can view two images of a single piece at a time. The images displayed are those that you configure in Job Setup for the Page Type. You can then select two images corresponding to the “Image for Thumbnail” and “Secondary Image for Thumbnail” parameters in General Page Type Parameters. If no secondary thumbnail is selected, only the first thumbnail is displayed and the region where the second thumbnail would appear is left blank.

In the following example, both front and back images of a page are displayed.



Information window

The Information window is in the lower right corner of the Run screen. Select the tabs in the Information window to display the following:

The **General** tab displays job information such as the start time and operator name. The General Information will not change depending on the item.

The **Batch** tab includes data such as the set number, pages in the batch, and the date and time the batch was created, received, and processed.

The **Page** tab provides information about the selected thumbnail. It may include the bin the piece was sorted to, size dimensions, and page type.

The **Graph** tab displays a performance graph allowing you to select between pages per hour, or sets per hour.

The **Printer** tab provides information on the status of the ink jet audit trail printers. Check the printer tab if audit trails are not printing correctly.

The **Rejects** tab displays a list of all the possible rejects, and a count of the rejects that happened during a run.

The **Throttle** tab displays throttling status notifications that occur during a run.

Note: Touch or click in the Information window to bring up the detailed view. In the detailed view, only the info set to **YES** will appear in the information area.

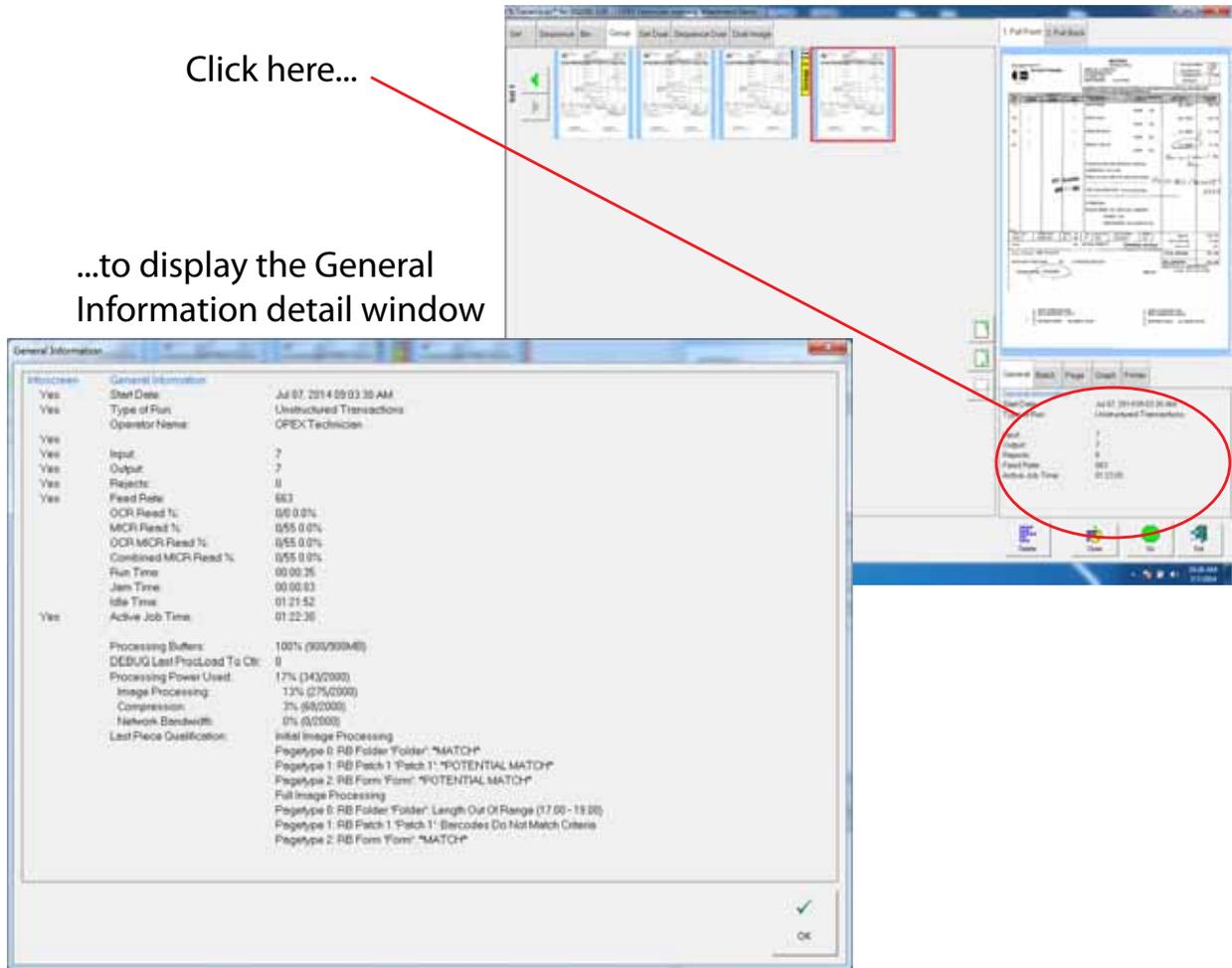


Table 3: General Information - infoscreen details

Parameter	Description
Start Date	Date and time at which the runscreen was entered. Displays the date before pressing Go , displays the time after
Type of Run	Set in the job parameters, potentially reset when runscreen was entered; Default job setting or selected by operator at the start of the batch
Operator Name	Determined at login time.
Input	Number of pieces processed for the current job.
Output	Number of pieces placed in a batch for the current job.
Rejects	Number of rejects for the current job.
Feed Rate	Pages/hr for the current job.

Table 3: General Information - infoscreen details (continued)

Parameter	Description
OCR Read %	Successful OCR Reads / Items with an OCR area defined, for the current execution
MICR Read %	Successful MICR Reads / Items with a MICR defined, for the current execution
OCR MICR Read %	Successful Optical MICR Reads / Items with a MICR defined, for the current execution
Combined MICR %	Successful Combined MICR Reads / Items with a MICR defined, for the current execution
Run Time	Sum of time during which the track was running for the current job
Jam Time	Sum of time that the jam dialog was shown for the current job
Idle Time	Sum of time during which the track was not running for the current job
Active Job Time	Sum of time between entering the runscreen and exiting the runscreen
Processing Buffers	Regarding the ImageManager, used to store uncompressed images as items are processed.
DEBUG Last ProcLoad To Ctrl	For Engineering use only
Processing Power Used	Percentage of estimated processing power used to process this item. Because there are either two processors or hyper-threading, the maximum sustainable percentage is 200%.
Image Processing	Estimated average Image Processing Time, per item, in the current execution.
Compression	Estimated Compression time, per item, in the current execution.
Network Bandwidth	Estimated average network write time, per item, in the current execution.

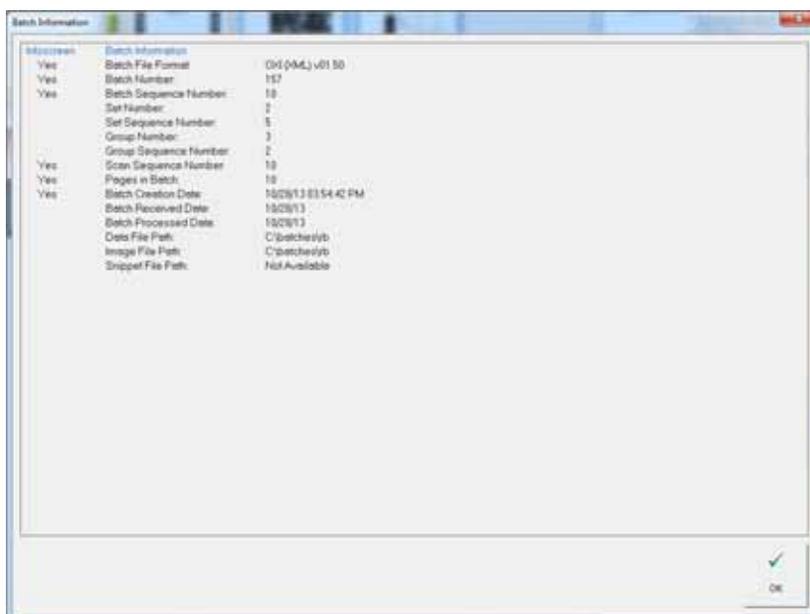


Table 4: Batch Information - detailed view

Parameter	Description
Batch File Format	{DAT, ODI, OXI, OII} as set in batch parameters in job setup
Batch Number	Determined by plug-in, operator entry, batch ticket or system. Batch parameters in job setup.
Batch Sequence Number	For the selected item. 0 for batch tickets, then the ordinal number of the item in the batch.
Set Number	Number of sets, save the batch ticket set
Set Sequence Number	For the selected item. Ordinal number of selected item within its set.
Group Number	Number of groups
Group Sequence Number	For the selected item. Ordinal number of selected item within its group.
Scan Sequence Number	For the selected item. Ordinal number with regard to scanning. Rescans will change this number for a given item.
Pages in Batch	Including batch ticket & voided items.
Batch Creation Date	Date (and time) the batch was created (when first piece was scanned)

Table 4: Batch Information - detailed view

Parameter	Description
Batch Received Date	Set by operator, otherwise today's date
Batch Processed Date	Set by operator, otherwise today's date
Batch RefIDs	Shown only if RefID enabled configured in batch parameters
ScanLink Vendor Batch ID	Shown only if RefID enabled configured in batch parameters
ScanLink Customer Batch ID	Shown only if RefID enabled configured in batch parameters
Data File Path	As per job's batch parameters.
Image File Path	As per job's batch parameters.
Snippet File Path	As per job's batch parameters.

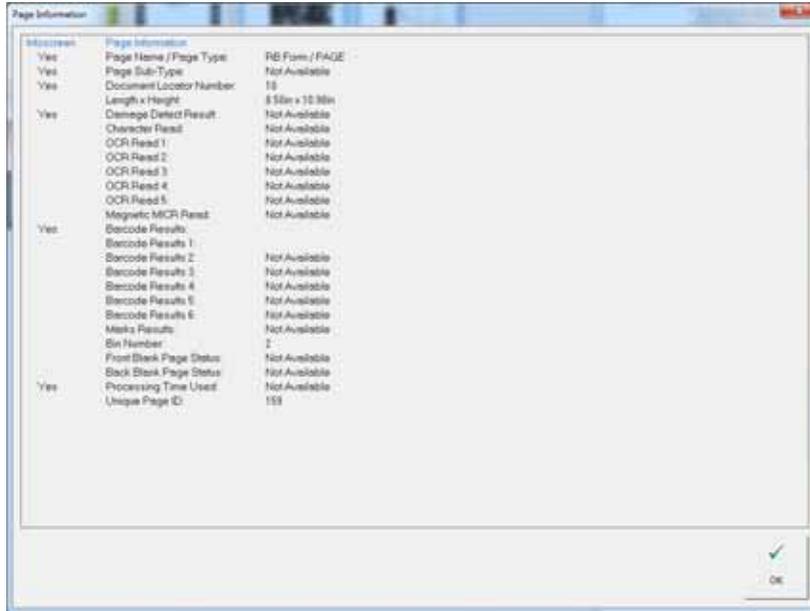
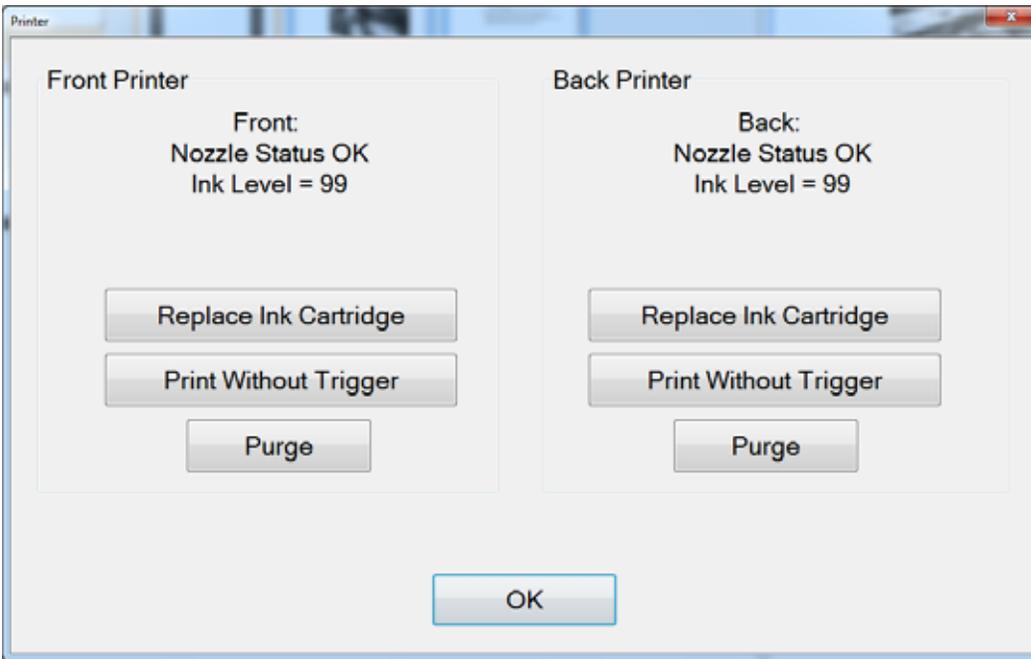


Table 5: Page Information - detailed view

Parameter	Description
Page Name / Page Type	Corresponds to pagetypes configuration for job; Selected in Job Setup
Page Sub-Type	Corresponds to pagetypes configuration for job; Page type sub-category (if available for current page type)
Document Location Number	a unique number assigned to every piece of a batch.
Length x Height	Determined for each piece scanned
Damage Detect Result	Indicator for whether damage was found on the piece
Character Read	Combined results of magnetic and optical MICR reads; Generic display of OCR1 or MICR character reads on a given piece to keep jobs consistent. If more info is desired, bring up the info panel for all the OCR and MICR details.
OCR Read 1 - 5	Results of OCR regions 1-5, as per pagetype configuration
Magnetic MICR Read	Results of MICR region, as per pagetype configuration

Table 5: Page Information - detailed view

Parameter	Description
Barcode Results	Results of Barcode 1 (same as Barcode 1 below, but visible by default)
Barcode Results 1	Results of Barcode 1 (same as Barcode Results above, but not visible by default)
Barcode Results 2-6	Results of Barcode 2-6, as per pagetype configuration
Marks Results	Indicates whether or not a mark was detected for those marks defined in the pagetype
Bin Number	Final destination of the selected piece.
Front Blank Page Status	Indicates whether or not the front side of the selected item was judged blank. Also states what % of pixels were filled.
Back Blank Page Status	Indicates whether or not the back side of the selected item was judged blank. Also indicates what percentage of pixels were filled.
Page Ref ID 1	Page RefID. Visible in RunScreen if RefID #1 is defined in Job. Always visible in Batch Editor.
Page Ref ID 2	Page RefID. Visible in RunScreen if RefID #2 is defined in Job. Always visible in Batch Editor.
Page Ref ID 3	Page RefID. Visible in RunScreen if RefID #3 is defined in Job. Always visible in Batch Editor.
Processing Time Used	Percentage of allowable time used for this piece. Allowable time is a function of track speed.
Unique Piece ID	Ordinal number per execution. Used mainly for diagnosis.



The Printer Information window provides access to printer maintenance features.



The Rejects Information window lists all of the possible rejects and shows numerically how many of each reject has occurred.

Throttling

Significant changes were made to how the system behaves when throttling. Instead of gradually slowing the feed rate, the system will now pause the feeder and conveyor when the system has reached capacity, either due to network congestion or when extensive post image processing is consuming available buffers. Throttling status notifications are available in a new tab on the run screen named “Throttle.”

Note: A System > Configuration parameter controls whether or not to display the runscreen throttle notification tab.

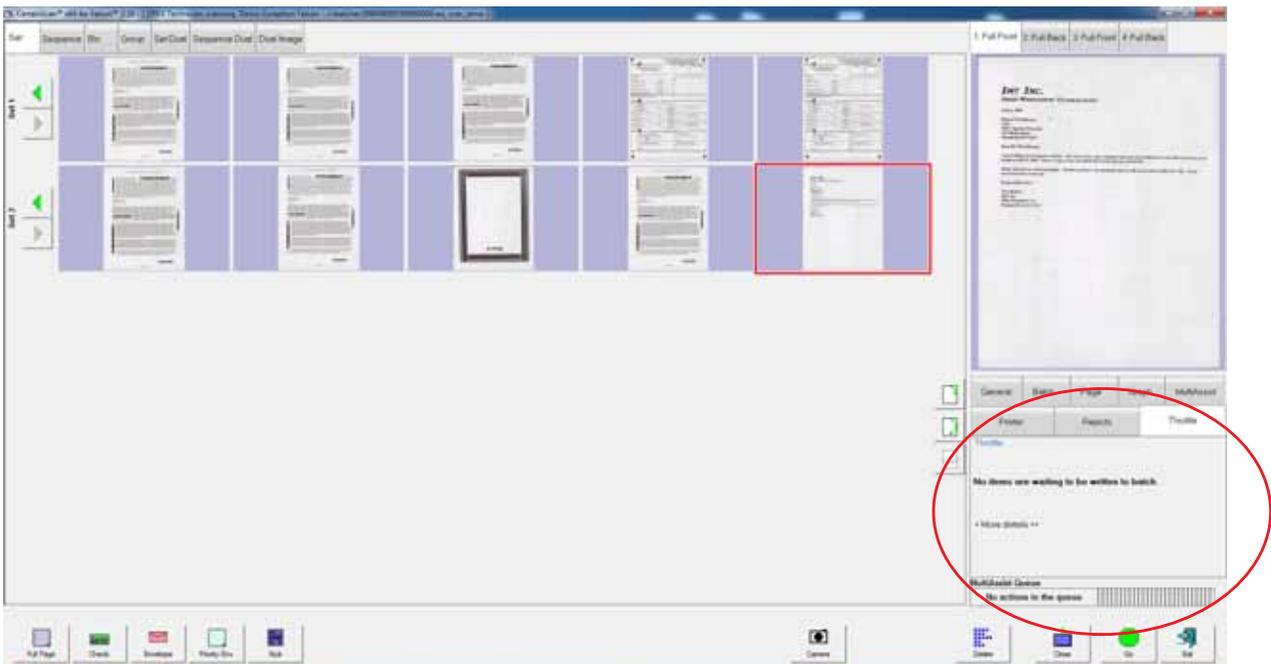


Figure 8: Run screen showing Throttle tab

While running, if the system goes into a throttling state, the host displays a notification within the Throttle tab, showing that the system is throttling, along with information about how many pieces are pending batching (see Figure 9).



Figure 9: The system in a throttling state - detail of the runscreen

Additional information windows

There may be additional information tabs that appear in the Run screen window, based on job setup. These tabs include:

MultiAssist

The **MultiAssist** tab appears if the job is set up to use the optional Multi-Slot IdAssist feature, and displays information regarding which slot, swipe method, and action has been programmed for the job.

Reference IDs

Shows the reference IDs defined for the running job. Not visible if reference IDs are not defined. The values in this panel indicate how subsequent pieces will be noted. It also indicates how the batch will be noted. Since the RefIDs for a batch are not finalized until the batch is closed, batch RefIDs may be changed at any time. Page RefIDs, however, may only be changed by rescanning the piece in question.

ScanLink

This panel is controlled by the ScanLink plug-in for the running job. This panel is not visible if a plug-in is not defined.

WholesaleWorks 0

This panel is controlled by the ScanLink plug-in for the running job. This panel is visible if the plug-in requests it. This panel is also labeled by the plug-in.

WholesaleWorks 1

This panel is controlled by the ScanLink plug-in for the running job. This panel is visible if the plug-in requests it. This panel is also labeled by the plug-in.

Preview Window/Image Viewer window

The Preview window provides a large image of a scanned item. View an image in the Preview window by selecting its thumbnail.

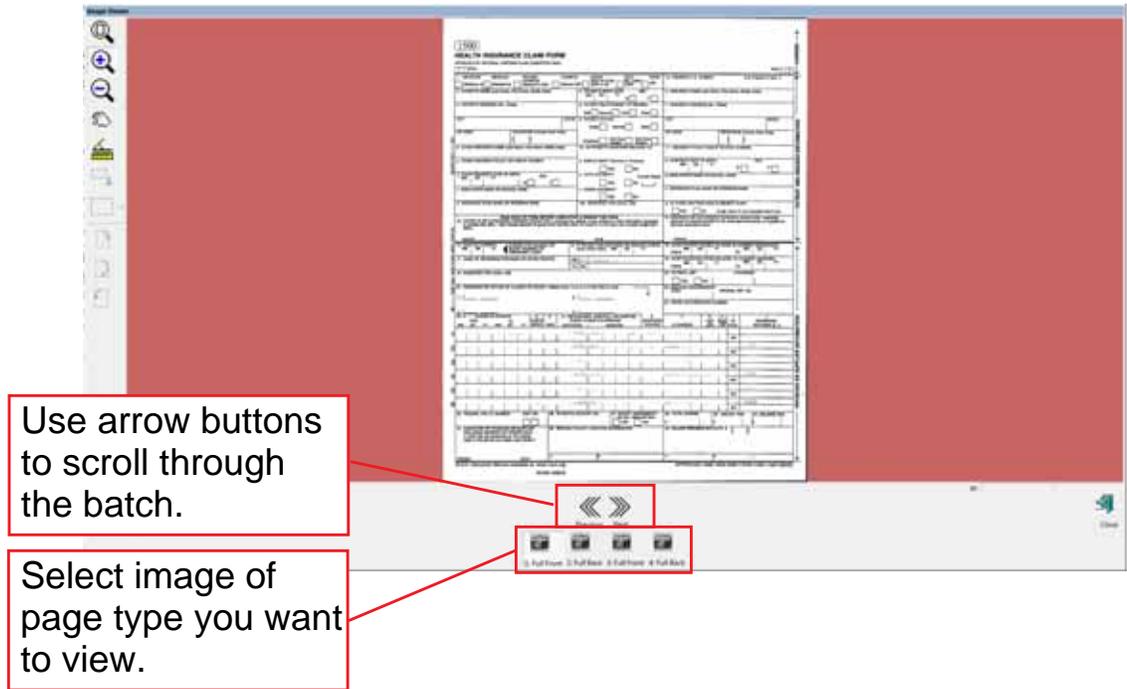
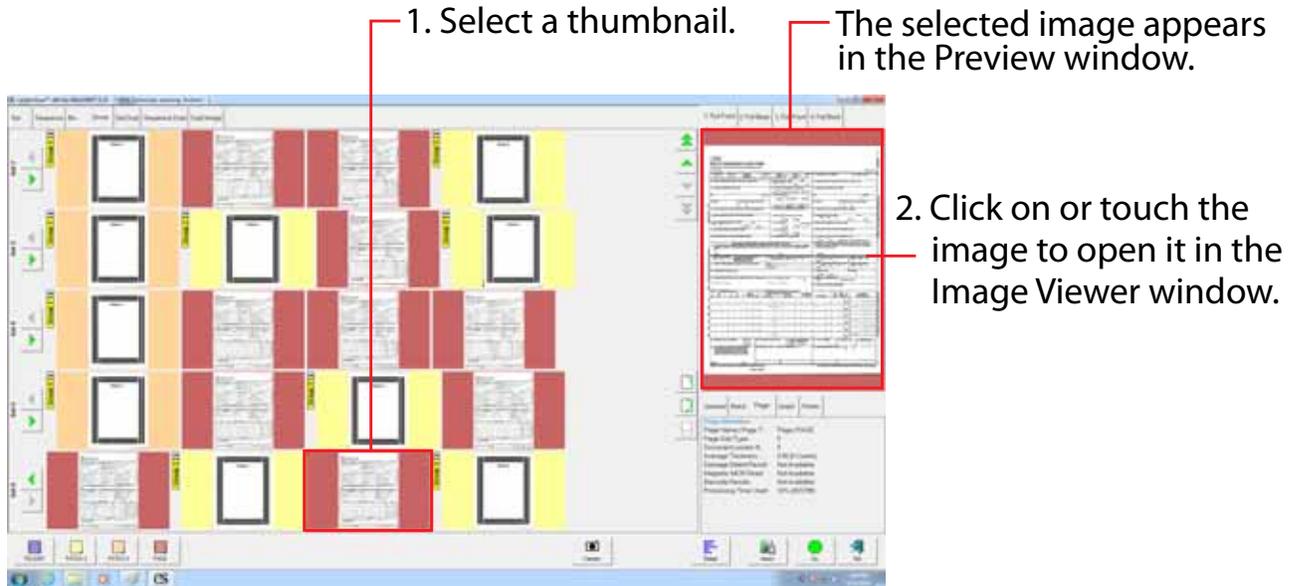


Figure 10: Preview Window/Image Viewer window

Touch the image in the Preview window to open the Image Viewer in full-screen mode, where you can enlarge or reduce the image, and scroll through and examine all images in a batch, one at a time.



The **Reset Zoom/Pan** button will return the image to its original state.



The **Zoom In** and **Zoom Out** buttons enlarge and reduce the image in the Zoom screen. Re-center the zoom by touching the new center on the monitor or use the mouse. You can also use the + and - keys on the keyboard to zoom in and out.



Use the **Ruler** function to measure distance from one place to another on the image. Use the mouse to click the Ruler button, then click and hold the left mouse button on one location while you drag the cursor to the other location. Notice that as you move the cursor from place to place, its exact position is indicated in the field.



The **Crop**, **Fill in/Redact**, and **Rotate** buttons (which are carried over from the Batch Editor) are disabled in the Preview window.



If enabled, displays the designated optical search area for the OCR & MICR scan lines.



Clicking this button will make this image the **Default** for this page type.



Close the Preview window.

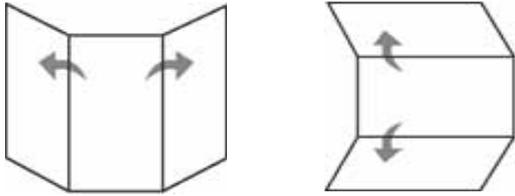


Use the **Previous/Next** arrow buttons to scroll through the batch. Use the **Full Front/Full Back** (or **Partial Front/Partial Back**) buttons to view images associated with the page type.

Scanning items

After you have selected a job, you are ready to scan items. Before you do, here are a few things to remember:

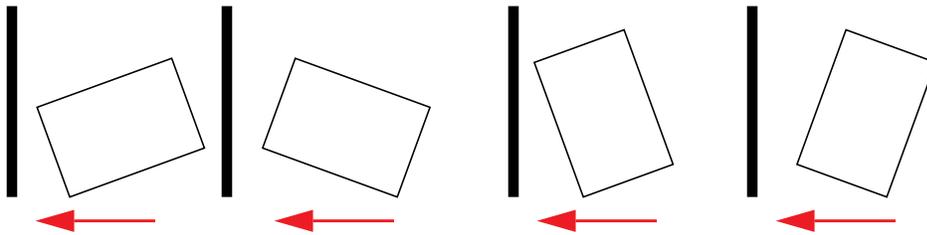
Removing items from an envelope



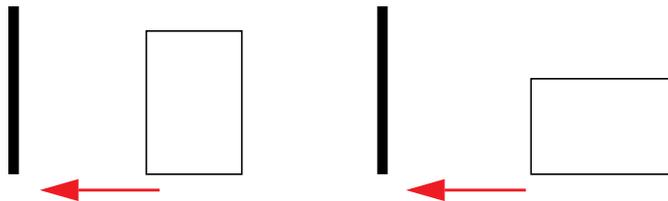
Items that are tri-folded tend to have the top and bottom sections lifted up. Prior to dropping any tri-folded items, flatten the ends, allowing for a smoother feed.

As items are dropped onto the conveyor, it's important to drop them in such a way as to have the items fully justify to the side rail prior to entering the feeder. The conveyor rollers are angled to assist in justifying the items to the side rail as they are dropped. Drop the items far enough back so that they will have time to straighten. If items are not fully justified as they enter the feeder section, skew jams may occur. It should also be noted that enough space gap should be allotted between items. At least $\frac{1}{2}$ inch between items will provide for proper image capture.

Examples: When dropping items, give enough time for items to justify. The thick line indicates feeder entrance. The arrow indicates the paper path.



WRONG - In these 4 examples, the items are dropped too close to the feeder to be justified.



RIGHT - items should be as aligned as possible as they enter the feeder.

Skew

Skew is a term used to identify when an item is misaligned when scanned. Typically, a skewed item prevents the scanned image from being read properly.

Item skew is determined by the angle in which an item enters the scanner. The angle is calculated by a set of LED transmit and receive parts that detect when one sensor is uncovered for a while. If the angle is greater than 2 degrees, then the system will jam for “too skewed”. If it jams for 5 degrees or more, contact your Opex administrator.

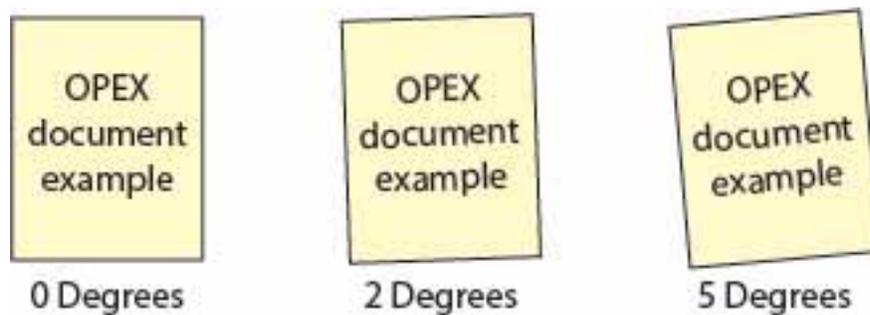


Figure 11: Skew examples

To scan items into the system

After you have selected a job, you are ready to scan items.

- 1 Press **Go** on the Run screen.
- 2 Place the first item onto the conveyor as shown in Figure 12.

Drop items here

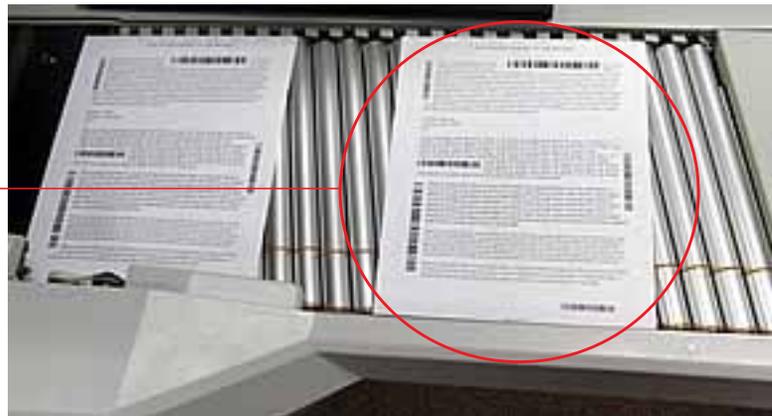


Figure 12: Ideal drop area

The machine will scan the item and place a thumbnail of the image in the set window. A large image of the item will appear in the Preview window.

- 3 Continue to place the items you want to scan onto the conveyor. The scanner will scan and sort the items depending on the job parameters.

As the scanner processes items, check to make sure:

- Items are being scanned properly.
- All critical information (MICR line, OCR line, etc.) is being collected properly.
- Items are being sorted to the correct bin.

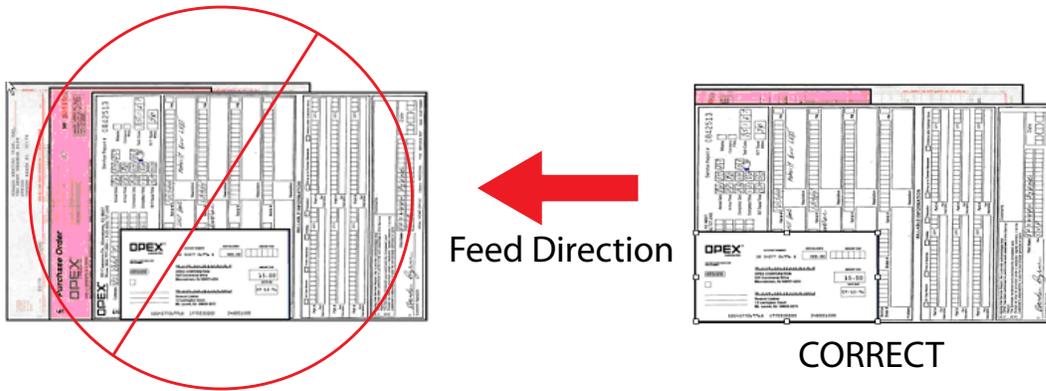
Stack Feeding

Stacks of paper (approximately 1.1 inches) can be placed on the conveyor. The conveyor rollers will carry the stack (or packet) over to the packet feeder where the top piece will be singulated from the top of the stack and fed into the scanner. The feeder will continue to pull the top page from the stack until the last page is fed.

When the feeder detects a stack of paper, the conveyor will stop to allow for the stack to pass through and will continue when the entire stack is fed. You can place more stacks on the conveyor when it stops, but keep in mind that the conveyor will only stop when the feeder encounters a stack.

Note: The conveyor operates differently depending on the Feed Mode job parameter setting: Normal, Stack, Passive. Stack feeding can be accomplished in either Stack or Normal modes. Height sensors come into effect in Stack mode as well.

Since the feeder pulls from the top of the stack, the lead sheet in the stack must be the first to reach the feeder. If the bottom piece reaches the feeder first, a paper misfeed is likely to occur. There are techniques for learning to drop packets of paper consistently and effectively. The items do not have to be perfectly aligned as long as the lead sheet is the top sheet. Review these techniques with your Falcon Administrator or your OPEX Technician or Sales Engineer.



Scanning tips

Make use of these techniques for properly handling paper and feeding items:

- Feed items with the correct side up. When searching for/reading MICR lines, the scanner will assume the items are being fed face up, with the bottom edge towards the operator.
- Make sure items are unfolded and place them on the conveyor directly in front of the point of extraction. This will give the machine a chance to justify each page dropped against the common edge and will assist in deskewing the item before it reaches the feeder. For maximum effect, the paper should be unfolded so that it is flat and makes contact with the conveyor rollers and feed rings.
- 8-½ x 11" sheets can be scanned in portrait or landscape. The scanner is outfitted with 12.25" image sensors and can accommodate larger pieces of paper as well.
- Checks and remits should be dropped in the same orientation as if you were reading them. Other landscape pages can also be automatically detected if their page width or height is unique.
- To scan two or more items, such as a page with a sticky note attached, first press the MFD Override button. This will disable the scanner's ultrasonic multifeed detector and allow the "2-page" piece into the system.

MFD Override
button



Assigning a page type

You can manually assign a page type to the next item you scan by pressing the appropriate **Page Type** button. These buttons are only available if they have been activated in the general job parameters.



Figure 13: Sample page type buttons

In a structured job, the page type buttons will also indicate which page types the system expects to see next. For example, if the job expects to see either a batch ticket or a stub to start a set, their corresponding page type buttons will appear in color (as shown in Figure 14).

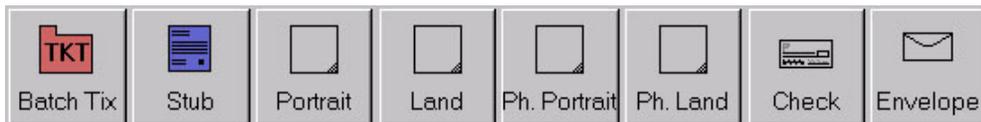


Figure 14: Sample page type buttons (structured job)

Page type locking

Depending on the job setup, you may also have the ability to apply a page type to several items. With page type locking enabled, you can press the page type button twice and “lock” the page type button down. Once the button is “locked,” all the subsequent pieces will be classified as this page type until the end of the set/transaction or when the lock is released.



A red box around a page type button indicates that the lock is in place.

Note: This feature does not work with Virtual pages. For more on Virtual Page Types, see “CertainScan Manual - Advanced Features”.

Assigning page sub-types

If one or more of the page types in your job contains sub-types, you must assign the item a sub-type before scanning it into the system. Page Sub-Types must be enabled in the General Page Type Parameters in order for this feature to appear.

To assign a page sub-type:

- 1 While running a job, press the appropriate page type button. For example, if you are scanning forms into the system, press the **Forms** page type button (see Figure 15).

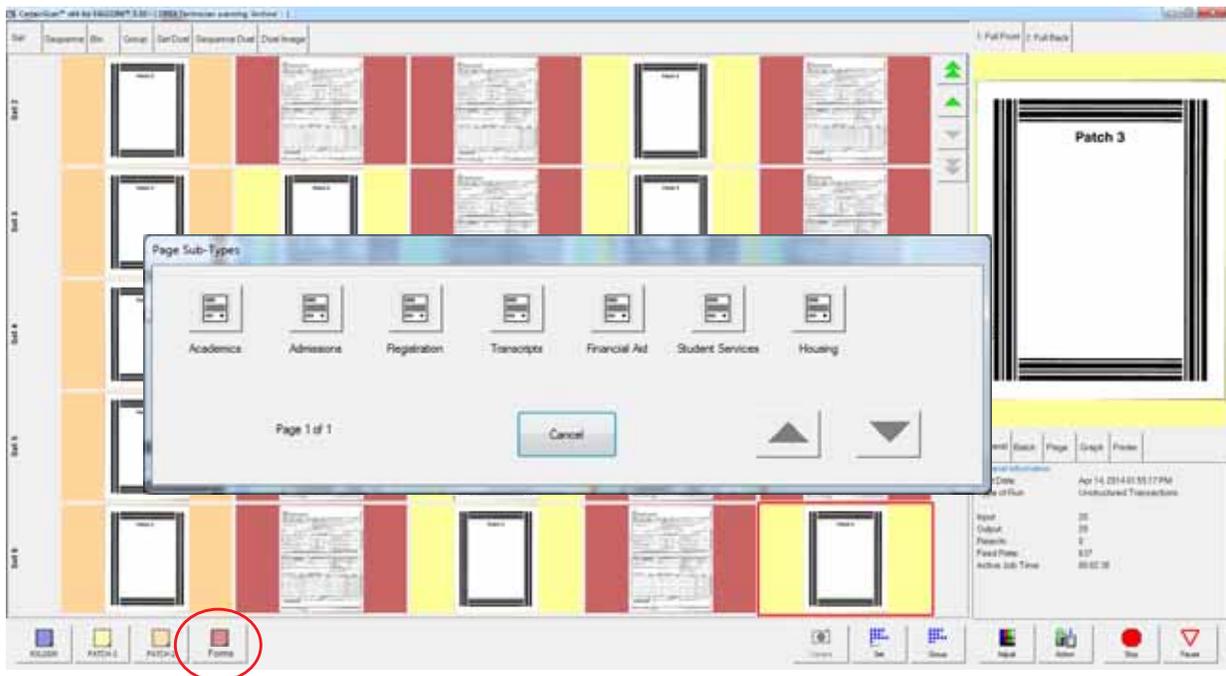


Figure 15: Assigning a page sub-type

- 2 Select from the available page sub-types.
- 3 Scan the item.

Adjusting the image quality

Fine tune the quality of the item images by pressing **Adjust** on the Run screen. The Adjust Capture Parameters screen will appear, where you can modify the gamma, brightness and dropout colors for all or one image.



Figure 16: Adjust Capture Parameters screen

Table 6: Adjust Capture Parameters screen buttons

Gamma	When enabled, the Gamma panel allows you to adjust the balance between bright and dark areas of the image.
Brightness	Adjust the brightness of the item images from Light to Dark . Press a button to adjust the brightness. The default is Normal .
Dropout	Remove a color (Red , Green , Blue , or White) from the item image. The default is White . To use this feature, the items must be printed with a specific dropout color.
Adjust All/ Adjust One	Select Adjust All to apply these changes to all the items in the current job, or Adjust One to make the adjustments only to the next item scanned.
Defaults	Return to the default capture parameters.

Rescanning items

There are a couple reasons and methods for rescanning items:

- If you are not pleased with a particular image, you can rescan the item while the job is running. CertainScan has a **Rescan** button that allows you to replace a poor image or item scanned out of order by using the normal feeder. Steps for this method are described below.
- After a multi-feed reject, the feeder and conveyor will stop, a jam dialog will appear on screen, the Rescan Feeder LEDs will flash blue, and the Pre-Feed MFD Override LED will flash green. The flashing in these two areas alerts you that either one may be chosen to re-feed the reject:
 - **Rescan Feeder** - The Falcon Rescan Feeder is a mechanism that allows the operator to feed a single or multiple items into the machine which had been rejected or the auto-feeder is not able to feed. See “About the Rescan Feeder” on page 58 for more details.
 - **Pre-Feed** - The Falcon has another entry point at which the operator can interject rejected sheets: this entry point is in the Pre-Feeder mechanism and is primarily designed for multiple rejects to be stacked; alleviating the need to insert them one at a time. See “About the pre-feeder mechanism” on page 60 for more details.

To rescan an item:

- 1 Select the item’s thumbnail.
- 2 Take the item out of the sort bin.
- 3 Press **Rescan** to replace the item in the batch.

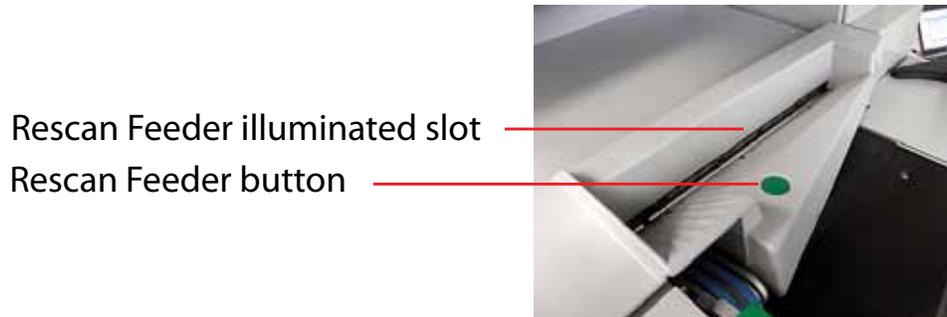
Note: If an audit trail was printed on the item the first time it was scanned, you may press **Rescan NP** (no printing) to replace the item in the batch. This way, no additional audit trails will be printed on the item.

- 4 Drop the item onto the conveyor.
- 5 Verify that the image is acceptable.

Note: The **Rescan** buttons will only be available if activated in the batch parameters.

About the Rescan Feeder

The Rescan Feeder consists of an illuminated slotted opening in the scan bed cover and a button to activate/deactivate the mechanism directly to the right of the slot.



The Rescan Feeder can only be activated via the Rescan Feeder button when the machine is in a jammed or paused state.

In the event of a jam, the Rescan Feeder slot will flash blue at a 0.5 second interval; alerting the operator that it may be selected for use to re-feed any rejected or jam sorted items. If the operator activates the Rescan Feeder, the jam dialogue will disappear from the screen and the slotted opening in the scan bed cover will become solidly lit blue; alerting the operator that the Rescan Feeder is now active and the machine expects items to be injected there.

To use the Rescan Feeder without multi-feed detection in the event of a jam:

- 1 When the Rescan Feeder slot is flashing, press the button located directly to the right of the slot.
- 2 Wait for the jam dialog to disappear and the slot to become solidly lit.
- 3 Inject the item(s) one at a time into the slot.



- 4 When finished, press the Rescan Feeder button again.

The slot will no longer be illuminated and feeding will resume at the auto-feeder

To use the Rescan Feeder with multi-feed detection in the event of a jam:

- 1 When the Rescan Feeder slot is flashing, press and hold the Rescan Feeder button until the Rescan Feeder slot begins to flash rapidly.
- 2 Wait for the jam dialog to disappear.
- 3 Inject the item(s) one at a time into the slot.
- 4 When finished, press the Rescan Feeder button again.
- 5 The slot will no longer be illuminated and feeding will resume at the auto-feeder.

Using the Rescan Feeder when the machine is paused

If the operator pauses the machine, the Rescan Feeder slot will flash blue at a 0.5 second interval; alerting the operator that it may be selected to inject a single or multiple items into the machine. If the operator activates the Rescan Feeder, the slotted opening in the scan bed cover will become solidly lit blue; alerting the operator that the Rescan Feeder is now active and the machine expects items to be injected there.

To use the Rescan Feeder without Multi-Feed detection during the paused state:

- 1 When the Rescan Feeder slot is flashing, press the Rescan Feeder button.

- 2 Wait for the slot to become solidly lit.
- 3 Inject the item(s) one at a time into the slot.
- 4 When finished, press the Rescan Feeder button again.

The slot will no longer be illuminated and feeding will resume at the auto-feeder.

To use the Rescan Feeder with Multi-Feed detection during the paused state:

- 1 When the Rescan Feeder slot is flashing, press and hold the Rescan Feeder button until the Rescan Feeder slot begins to flash rapidly.
- 2 Inject the item(s) one at a time into the slot.
- 3 When finished, press the Rescan Feeder button again.

The slot will no longer be illuminated and feeding will resume at the auto-feeder.

About the pre-feeder mechanism

The pre-feeder mechanism consists of left and right pre-feeder wheels located directly to the right of the feed belt and the MFD override LED and the MFD override button.

Pre-Feed MFD Override button

Pre-Feed MFD Override LED



The pre-feeder mechanism can only be activated via the MFD override button when the machine is in a jammed or paused state. In the event of a jam, the Pre-Feeder LED will flash green at a 0.5 second interval; alerting the operator that it may be selected for use to re-feed any rejected or jam sorted sheets. If the operator activates the Pre-Feeder, the LED will be solidly lit green and the Pre-Feeder arms will raise to allow the item(s) to be placed under them. Selecting the Pre-Feeder again will cause the Pre-Feeder LED to shut off, the

jam dialogue to disappear from the screen, the pre-feed nip wheels will lower to the top of the item(s) and feeding will resume.

To use the Pre-Feeder in the event of a jam:

- 1 When the Pre-Feed LED is flashing, press the Pre-Feed MFD Override button.
- 2 Wait for the pre-feeder arms to be raised and the Pre-Feed LED to be solidly lit.
- 3 Place all sheets to be fed under the pre-feeder arms.
- 4 Press the Pre-Feed MFD Override button or hit the continue button in the jam dialogue.

The jam dialogue should disappear, the Pre-Feed LED will no longer be illuminated, and feeding should resume at the auto-feeder.

If the operator pauses the machine, the Pre-Feed LED will flash green at a 0.5 second interval; alerting the operator that it may be selected to inject a single or multiple items into the machine. If the operator activates the Pre-Feeder, the LED will be solidly lit green and the pre-feeder arms will raise to allow the item(s) to be placed under them. Selecting the Pre-Feeder again will cause the machine to exit the paused state, lower the Pre-Feed nip wheels onto the top of the item(s) and feeding will resume.

To use the Pre-Feeder during the paused state:

- 1 When the Pre-Feeder LED is flashing, press the Pre-Feed MFD Override button.
- 2 Wait for the Pre-Feeder arms to be raised and the Pre-Feed LED to be solidly lit.
- 3 Place all sheets to be fed under the pre-feeder arms.
- 4 Press the Pre-Feed MFD Override button or press the resume button.

The Pre-Feed LED will no longer be illuminated, and feeding should resume at the auto-feeder.

Deleting items from the batch

When the machine is stopped, you can delete items from the batch. Click the **Delete** button to delete an item image.

Note: The **Delete** button will only be present if activated in the current job.

The action of the **Delete** button depends on the setting of the **Allow Delete** batch parameter:

- If the parameter is set to **Delete Last Item**, you will only be able to delete the most recently scanned item image from the batch. Press **Delete** to delete the last image.
- If the **Allow Delete** parameter is set to **Delete To End Of Batch**, you can also choose an item thumbnail and delete the selected item and all the items scanned after the item. When the **Delete** button is pressed, the Confirm Delete window (Figure 17) will appear.



Figure 17: Confirm delete

Note: It is not possible to delete a single item image from the middle of the batch within CertainScan. If you need to delete an image from the middle of the batch, you must also delete all the images to the end of the batch as well.

Starting a new batch

There are several ways to start a new batch, such as:

- Press the **New Batch** button while the job is running to begin a new batch with the next scanned item.
- Press the **Close Batch** button, then scan the new batch ticket or the first item of the new batch.
- Scan a batch ticket (if the **New Batch Mode** Job parameter is set to **Auto**).

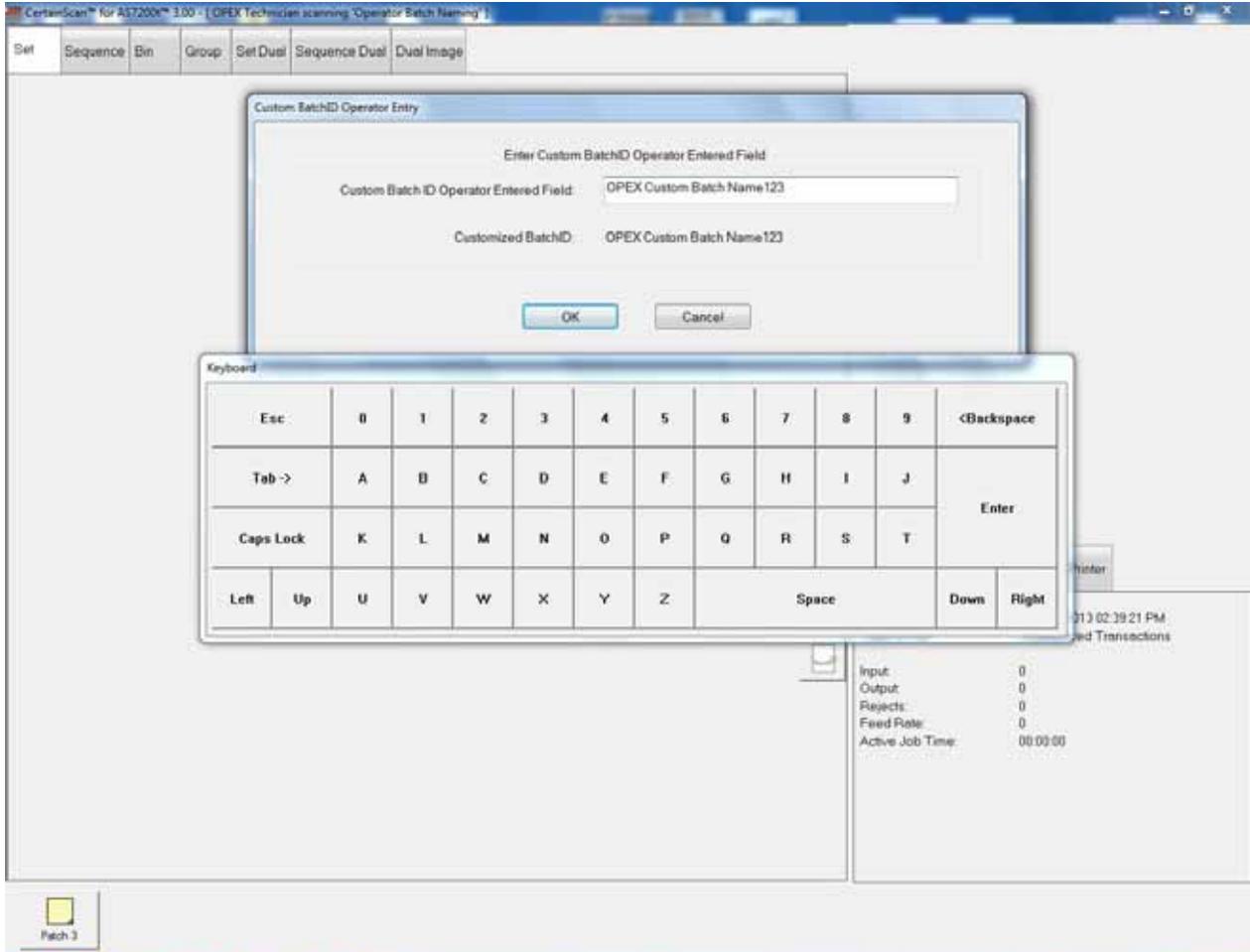
Note: The **New Batch** button will only be available if activated in the batch parameters.

Flexible Batch Naming

This feature allows you to place a prompt at the start of a new batch, in which you can enter a custom batch name. The name can be manually typed in using the keyboard or touch-screen keypad, or scanned in from a barcode scanner (from a box or lot number, for example).

Note: File names cannot contain the following characters:

" / \ [] : ; | = , + * ? < >



Four Levels of Document Separation

CertainScan provides four levels of separation for your workflow, offering flexibility in arranging items within a batch.

CertainScan Document Separation Boundaries	
Standard Scanning	Remittance Processing
Batch (highest)	Batch (highest)
Set	Transaction
Group	Group
Page (lowest)	Page (lowest)

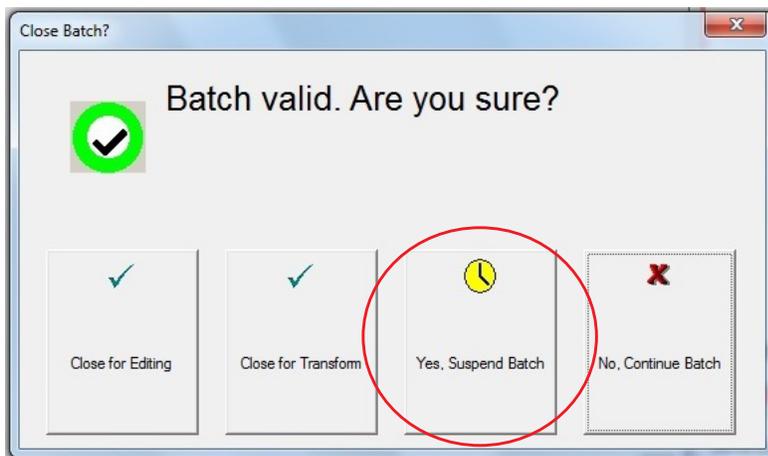
Set and Transaction levels function identically and differ by their names only. The Group level of separation functions essentially the same way as the Set/Transaction level, in that a special page type can be selected to serve as the start or end of the group within a Set/Transaction.

Suspend and Resume Multiple Batches

CertainScan allows you to exit the job run screen without closing a batch. Additionally, CertainScan lets you open and suspend an unlimited number of batches. You can even scan a different batch while leaving other batches suspended. This has two main benefits:

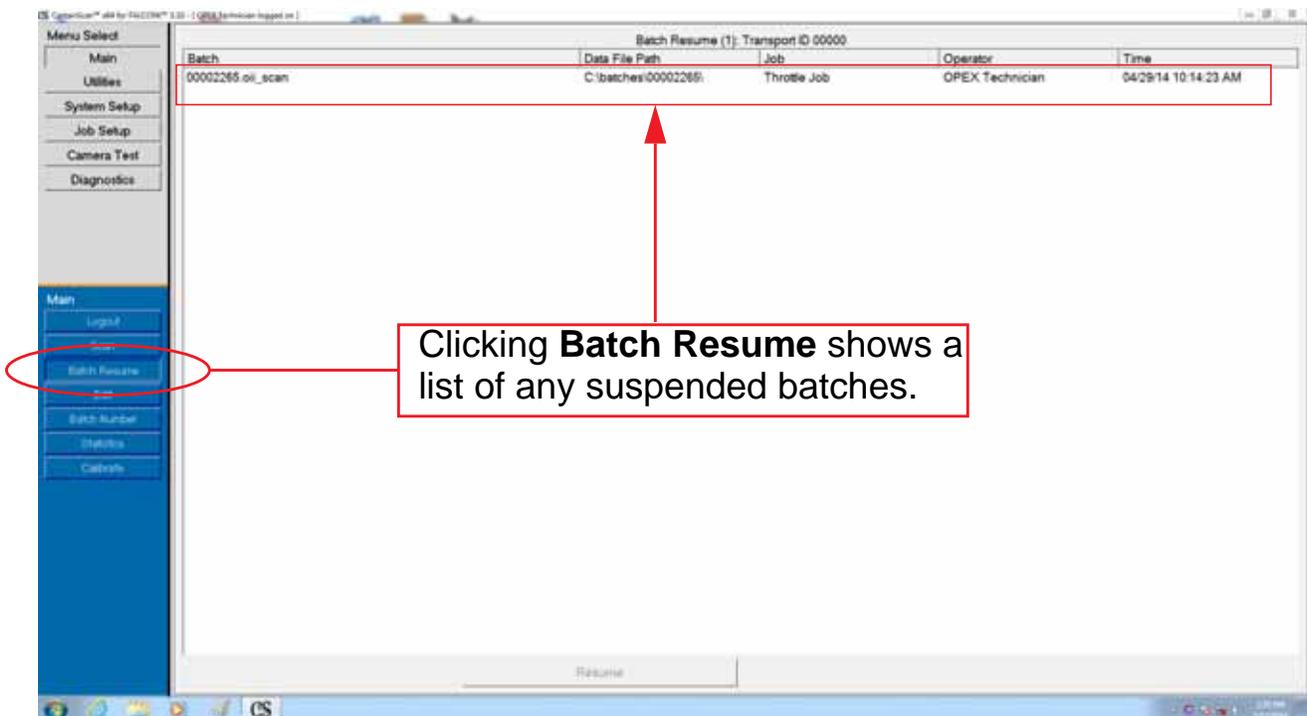
- 1 Job and page type profiles can be created or edited without ending the job and rescanning the batch.
- 2 For very large batches that cannot be completed in one shift, the operator can suspend a batch and then resume it later.

With the multiple-batch feature enabled, you will be presented with the Suspend Batch option upon exiting the Run screen.



Note: CertainScan also retains the options of single-batch-only suspension and of disabling batch suspension entirely.

You can view a list of suspended batches by clicking the **Batch Resume** button from the Main Menu. From here you can select the desired batch and resume scanning.



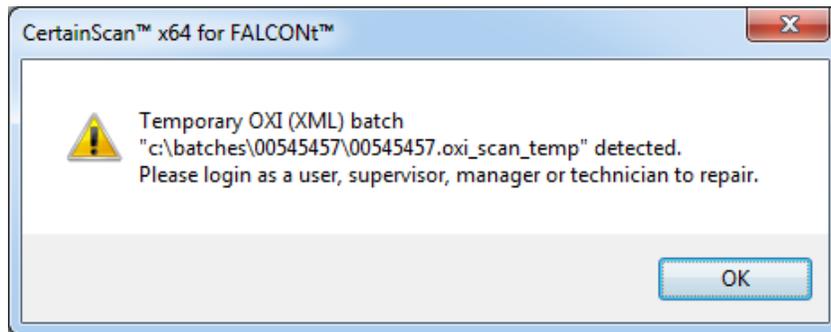
Ending the job

When you have finished scanning items, press **Stop** to put the system in standby mode. From standby mode, you can restart the job, **Delete** the last scanned item, view thumbnails, or **Exit** the job and return to the Scan screen.

Note: You can also press the **Close Batch** button to close the current batch and exit the job when prompted.

Using Batch Editor to fix incomplete batches

If there is a problem with the machine and/or CertainScan does not close properly during a run, a batch may not be closed and saved properly. If this is the case, you will be notified that a temporary batch file exists when restarting CertainScan.



Consult your Falcon Administrator if you receive this error message.

ID Assist

The ID Assist tracking system provides an additional method for identifying and/or taking action on items to be scanned. ID Assist must first be enabled in the job in order to use this feature. Note that ID Assist will NOT work in Stack Feed mode.

ID Assist uses three through-beam sensors: ID Assist #1 and ID Assist Verify are used together to initially enable the ID Assist feature. ID Assist #2 is used for tracking of items that have been dropped.

Using ID Assist

To trigger ID Assist, swipe the item left to right in front of the ID Assist verify and ID Assist #1 sensors (see Figure 18) and release. The ID Assist verify sensor puts the ID Assist feature in an “alert” state waiting to see if the item will be moved to the right, blocking ID Assist #1. If the item is not swiped left to right, ID Assist will not be engaged.

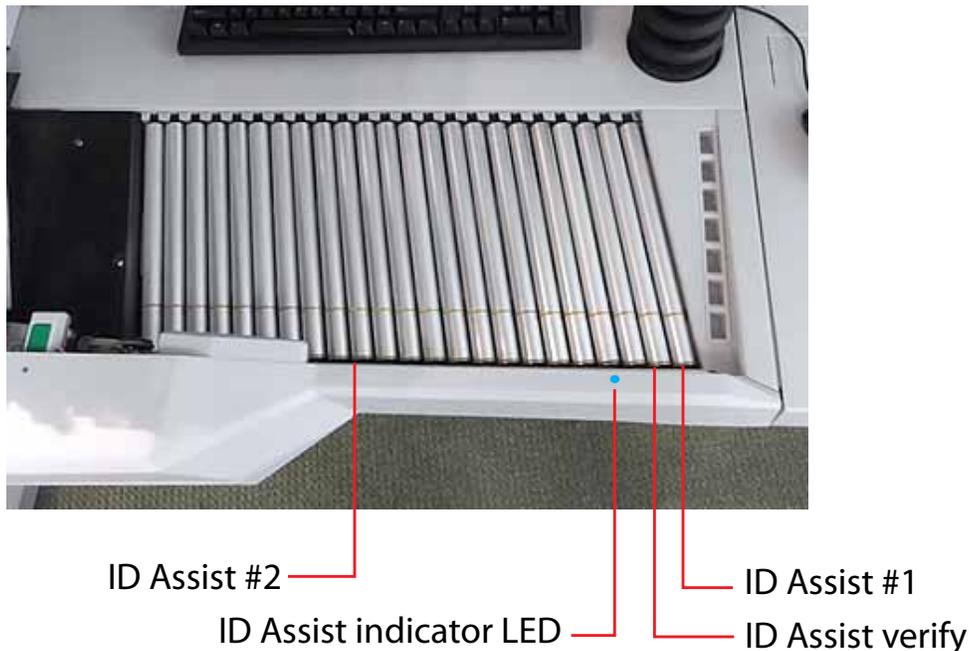


Figure 18: ID Assist sensors

When a job is run that uses ID Assist, the ID Assist indicator LED will be solidly lit. When ID Assist is triggered, the indicator light will blink, indicating that ID Assist was activated. Once the item is processed, ID Assist will be disabled.

If you swipe left to right and do not release the item, or if you grab the item from the conveyor after releasing it, the sensors will time out and the ID Assist feature will be disabled.

IDAssist functions

IDAssist (and the optional Multi-slot IDAssist) can be used for the following functions:

Color The color select trigger identifies items that are to be scanned in color without having to touch the screen. This is very useful in a color select job, when you need to tell the system which items to scan in color and which items to scan normally.

Dropout Similar to color select, this allows for you to trigger a specified color dropout for an item (red, green or blue).

Transaction boundary Use the transaction boundary trigger instead of the Transaction button on the run screen. The transaction boundary trigger will start a new transaction with the item that triggers the sensor.

Automatic rotation of document Tell the system to rotate the resulting image automatically.

Page type determination requirement Use the IDAssist function to identify a page type. This function is very useful if you have two page types that are identical in every way or if there are multiple sets of identical page types. In these cases, the page types can be set up so that the only way one of the page types will be identified will be if you trigger the IDAssist function. For example, in a job with two identical items, a check and a money order page type, the check and money order can have the same exact attributes with the only distinction being that money orders must have been triggered by IDAssist. That way, the system will recognize the checks you scan normally as belonging to the check page type.

Page sub-type selection The page sub-type selection function is useful in jobs that have a page type with many page sub-types. Use the trigger to bring up the page sub-type selection screen so you can choose from among the available sub-types.

Note: When using the “Page Sub-Type Selection” IDAssist function, you must select the sub-type before the item enters the scanner. If a page sub-type

is not selected, the item will be assigned the default page sub-type. If no default page sub-type has been assigned, the item will be rejected.

Override feed control The override feed control function allows you to disable multifeed detection for thicker pieces that may not pass through normally.

About the Multi-Slot IDAssist

The functionality of the optional Multi-slot IDAssist is identical to IDAssist, but offers up to nine different preassigned functions per job. Note that when Multi-slot IDAssist usage is defined in a job, IDAssist is disabled since the two systems use different operator/piece tracking methods.

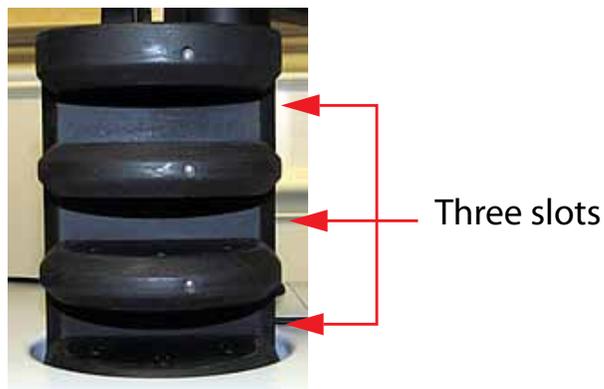


Figure 19: Multi-Slot IDAssist

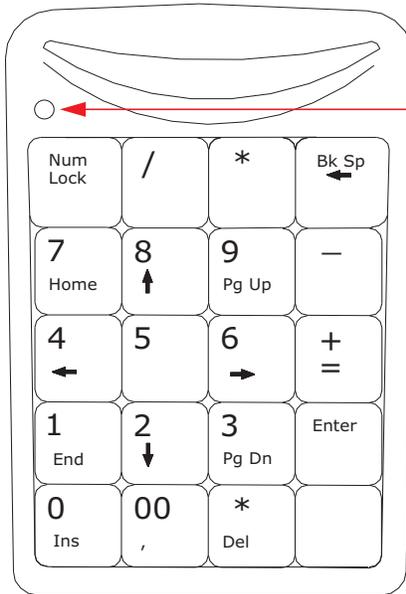
The Multi-slot IDAssist has three slots, each offering three different function selections. Depending on how the item is moved in these slots will trigger the predefined function. The three methods to select specific functions per slot are:

- Slide the item from left to right in the slot
- Slide the item from right to left in the slot
- Insert the item straight in and pull straight out

If you are using this optional feature, your Administrator should provide you with information on its assigned functionality per job.

Key assist

KeyAssist, a purchasable option, allows you to use the keys on an external keypad to perform specific functions in the Run screen, such as selecting a page type, starting and stopping jobs, and rotating images. This feature alleviates the repetitive motion of reaching to touch the monitor.



Make sure Num Lock is enabled (LED lit)

External keypad

KeyAssist currently uses a hard-coded keyboard mapping, depending on the Job Type. There are two mapping schemes, described below:

- Mapping Scheme 1 - the original KeyAssist scheme that supports eight page types and does not support a New Group key function (groups did not exist when this scheme was devised).
- Mapping Scheme 2 - uses double key combinations to support 12 page types and a New Group button. It also remaps New Transaction and Solicit Custom Data to double key combinations.

The KeyAssist feature will not work with structured jobs, as they require page types in a specific order. Also, you cannot use KeyAssist with Reference ID in the same job, as Reference ID already utilizes keyboard input.

Note: In addition to specific KeyAssist capabilities, you can often use the **Enter** and **Esc** keys to accept and cancel dialog boxes. This capability is standard to Windows apps, and is available whether or not KeyAssist has been activated.

Scheme 1 Mapping for “Generic” jobs

If the job’s **General Job Parameters > Job Type** parameter is set to **Generic**, the keys are mapped as follows:

Key	Function
1-8	selects page types 1 through 8 (and page sub-types 1-8, when the sub-type dialog is displayed)
9	Solicit Custom Data ScanLink Call
0	selects a new transaction
+	starts/stops the track
/	rotates the piece 90 degrees clockwise
*	rotates the piece 180 degrees
-	flips the front and back images (if the page type is set up to scan front and back images)

Scheme 1 Mapping for “WholesaleWorks” jobs

If the job’s **General Job Parameters > Job Type** parameter is set to either **WholesaleWorks Generic** or **WholesaleWorks Specific**, the keys are mapped as follows. Note that the presence and contents of “Tab0” and “Tab1” are dictated by the ScanLink plug-in used by the job in question:

Key	Function
1-8	selects page types 1 through 8 (and page sub-types 1-8, when the sub-type dialog is displayed)
9	Solicit Custom Data ScanLink Call
0	selects a new transaction
+	starts/stops the track
/	no action
*	Toggle popup of “Tab 0”
-	Toggle popup of “Tab 1”

Scheme 2 Mapping for “Generic” jobs

If the job’s **General Job Parameters > Job Type** parameter is set to **Generic**, the keys are mapped as follows (Note that some mapping are double presses. For example, 0,1 indicates pressing 0 and then 1 in quick succession):

Key	Function
0,1 - 1,2	selects page types 1 through 12
1 - 9	when the sub-type dialog is displayed, selects page sub-types 1-9
7,7	selects a new transaction
8,8	selects a new group
9,9	Solicit Custom Data ScanLink Call
+	starts/stops the track
/	rotates the piece 90 degrees clockwise
*	rotates the piece 180 degrees
-	flips the front and back images (if the page type is set up to scan front and back images)

Scheme 2 Mapping for “WholesaleWorks” jobs

If the job’s **General Job Parameters > Job Type** parameter is set to either **WholesaleWorks Generic** or **WholesaleWorks Specific**, the keys are mapped as follows. Note that the presence and contents of “Tab0” and “Tab1” are dictated by the ScanLink plug-in used by the job in question (Note that some mapping are double presses. For example, 0,1 indicates pressing 0 and then 1 in quick succession):

Key	Function
0,1 - 1,2	selects page types 1 through 12
1 - 9	when the sub-type dialog is displayed, selects page sub-types 1-9
7,7	selects a new transaction
8,8	selects a new group
9,9	Solicit Custom Data ScanLink Call

Key	Function
+	starts/stops the track
/	rotates the piece 90 degrees clockwise
*	Toggle popup of "Tab 0"
-	Toggle popup of "Tab 1"

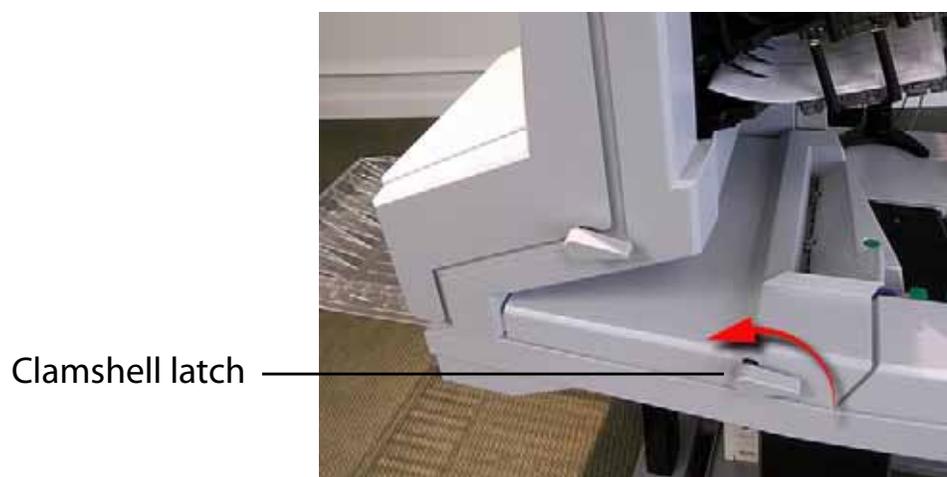
Clearing paper jams

During normal operation of the machine, you may encounter an error message halting the scanner. The prompt on the machine will offer you two options: to **CONTINUE** or to **CANCEL**. The error message is informing you of a paper jam or a sensor error. If this is the case, check the machine for paper jams as described here. After you clear the jam or ensure that the track is clear, press the **Continue** button.

Note: The scanner may also reject items that are misfed, skewed, or because the item was not properly identified. In these cases, the scanner will stop after all the paper in the track has been sent to the reject bin. If the paper doesn't clear into the reject bin after selecting **Continue**, then you need to open the cover(s) and remove the paper(s).

Access the scanner area:

- 1 Turn the latch counterclockwise to release the clamshell. The clamshell will swing to the open position.



- 2 Clear any jammed paper or debris in this area.
- 3 To close the scanner clamshell, hold onto the latch and gently pull the cover closed.

NOTICE: Slamming the clamshell down can damage the image sensors.

- 4 When the cover reaches the closed position, rotate the latch clockwise until you hear the lock snap into place.

Access the transport area:

- 1 Turn the transport latch counter-clockwise and pull the transport door away from the scanner.
- 2 Clear any paper or debris that is caught in the transport area.

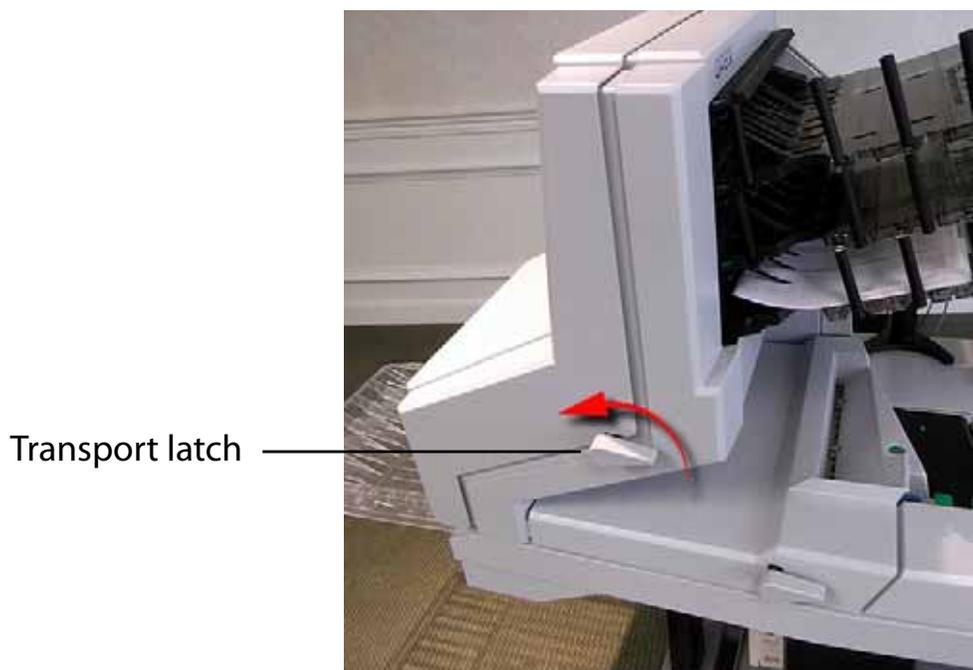


Figure 20: Opening the transport stacker cover

- 3 To close the transport cover, hold onto the latch and gently pull the cover closed.
- 4 When the cover reaches the closed position, rotate the latch clockwise until you hear the lock snap into place.

Clearing the bins

When removing the paper from the output bins, pull the item from the side of the bins. The trays have been designed to allow access to the smallest of pages in the bins. Pressing the green release buttons (one for each bin) will lift the knock-down tabs (the top fingers), which are designed to easily re-insert a item that may have jammed in the transport.



Maintenance

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Touchscreen Monitor

Calibrating the monitor

The Falcon uses an HP Touch Screen Monitor (Opex # 2887800). This LED backlit touchscreen 21.5 inch monitor features a 3-sensor optical touchscreen, and is calibrated for its touch sensitivity before it leaves Opex. However, you may need to recalibrate, especially if it is in use for an extended period of time.

To calibrate the monitor

- 1 The monitor must be kept clean to operate properly. Use canned air to blow off dust and debris, especially along the edges and seams in the encircled areas as highlighted in Figure 21.



Figure 21: Touchscreen monitor

- 2 Make sure the USB cable is connected from the computer to the monitor.
- 3 Select **Start > Control Panel > Tablet PC Settings**.
Note: The Tablet PC Settings control panel will only appear after Microsoft Windows 7 recognizes a connected touch monitor.
- 4 On the **Display** tab in the Tablet PC Settings window, select the name of the monitor you want to calibrate from the drop-down menu.

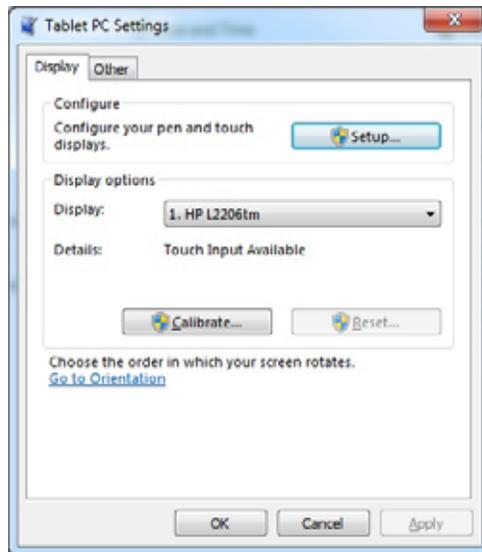


Figure 22: Select the display

- 5 Click the **Calibrate ...** button and follow the on-screen instructions.

Removing/Replacing the printer cartridge

The scanner's imprinter and HP ink cartridge are accessible when the transport area is open. When you remove a cartridge, pay close attention to the position and orientation of the cartridge so it can be replaced properly.

When you install a new printer cartridge, first check the expiration date of the new cartridge you plan to use. The Falcon printer cartridges (in sealed containers) have a shelf life of two years from the date of manufacture.

Accessing the printers

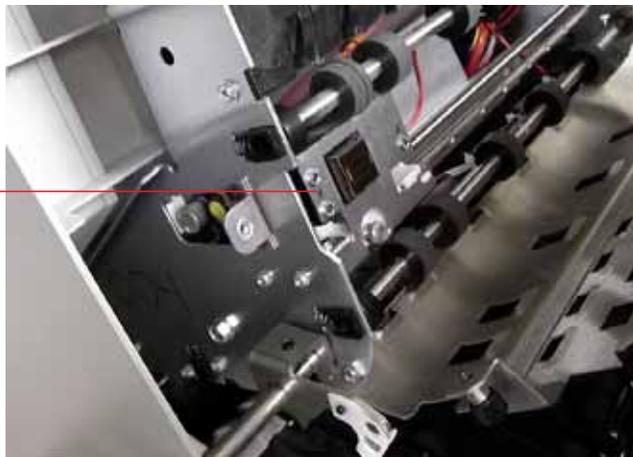
- 1 Open the transport rear door by disengaging the latch handle.
- 2 To access the front printer:
 - a. Loosen the thumbscrew shown in the following figure.

Loosen thumbscrew



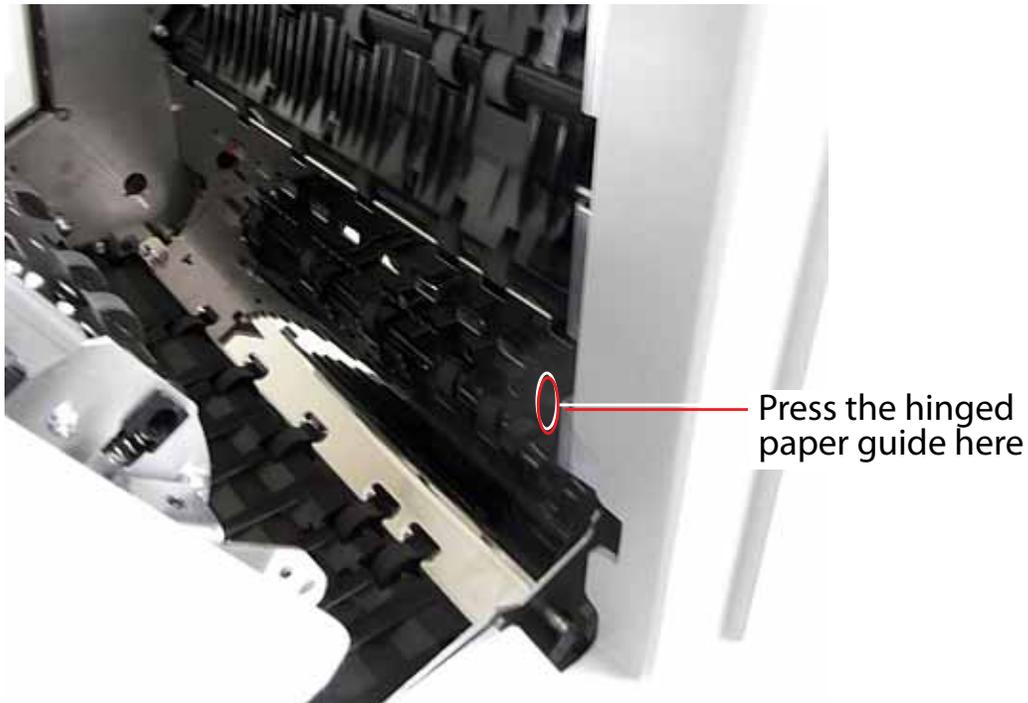
- b. Swing open the paper guide to expose the printer assembly.

Printer assembly



3 To access the back printer:

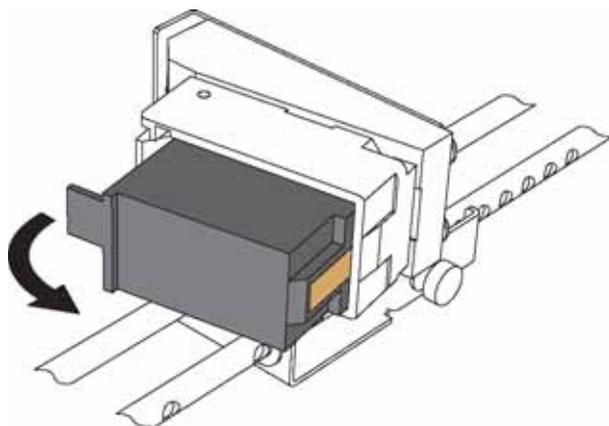
- a.** Press the hinged paper guide to release the latch. The optimal location for pressing the guide is between the two small screws.



- b.** Swing open the paper guide to expose the printer assembly.

To remove/replace a printer cartridge:

- 1** Pull the tab on the rear of the printer cartridge and rotate outward, as shown in the figure below.



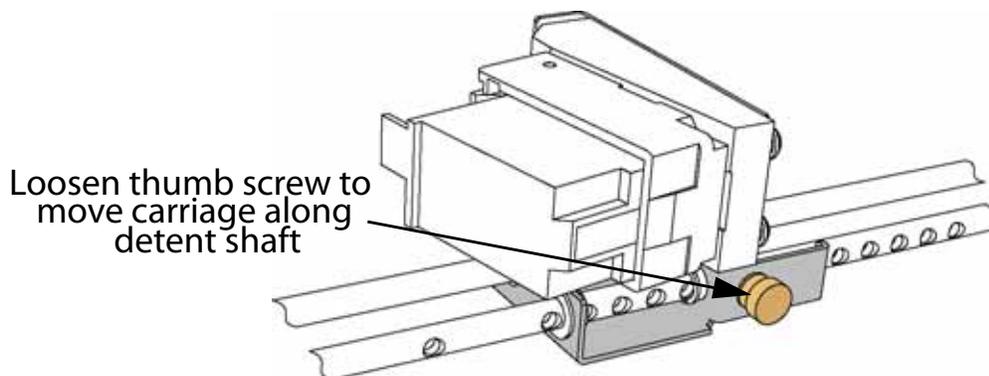
- 2** Insert the new cartridge by tipping the front end of the cartridge in first, and then pushing in the rear of the cartridge until it “clicks” into place.

- 3 In Printer Diagnostics, select **Replace Ink Cartridge** to reset the ink drop count to zero.

Adjusting the printer carriage position

You can adjust the vertical print position on items by moving the printer carriage. The printer carriage is fixed to a shaft with detents that position the printer so it sprays ink through the holes in the paper guide. A thumb screw holds the printer in the detents. If you do not position the printer in a detent, the thumb screw sticks out, preventing you from closing the paper guide.

To adjust the carriage position, loosen the thumb screw, slide the carriage to a new detented position on the shaft, and then retighten the thumb screw.



Attaching the bins and stacker fingers

This procedure describes how to install the upper and lower stacker fingers. Stacker finger(s) will need to be reinstalled if they become dislodged or broken, through abuse, for example. It is best to remove the bins for easier access when reinstalling them. Simply pull the bins out and set them aside.

Lower Stacker Fingers

The lower stacker fingers come pre-assembled and only need to be put in place. Load them into the slots at the bottom of each bin base.

Keep the end of the stacker finger centered in the slot, and push down the bottom of it so the finger's pin can slide underneath the small tabs on each side. Release it, and the spring inside will hold it in place against the tab.

Note: When installing the lower finger, it is important that the finger must be oriented at an upward angle as shown. If the finger is held down flat, it is not possible to install it.

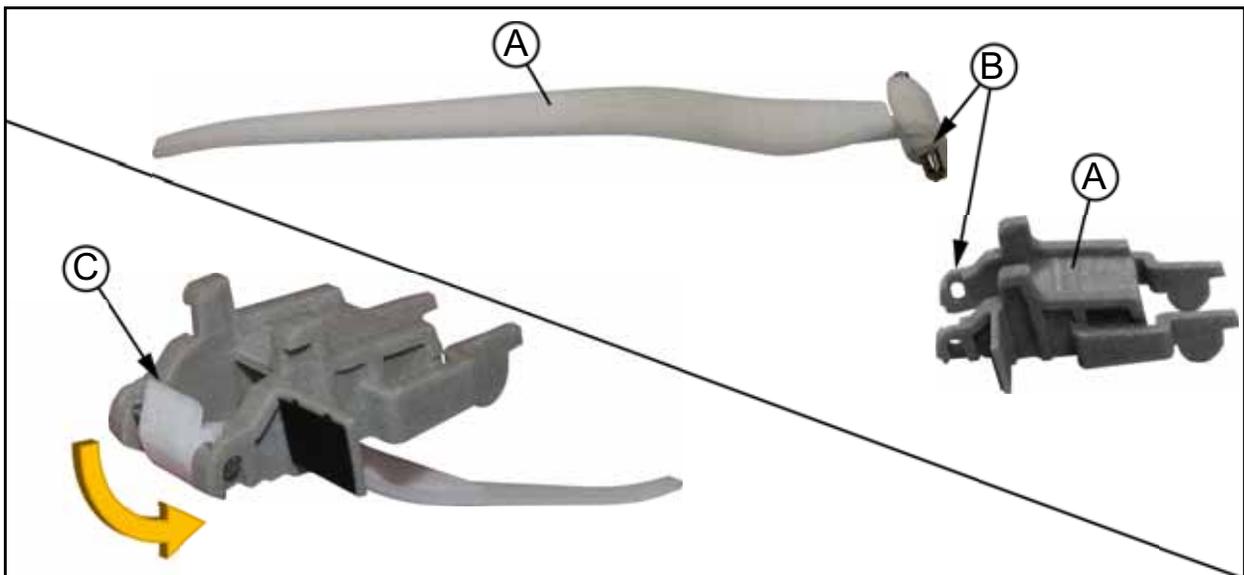


Note: On production machines, the stacker fingers are black. The white stacker finger shown above was used to provide better contrast in the photo.

Upper Stacker Fingers

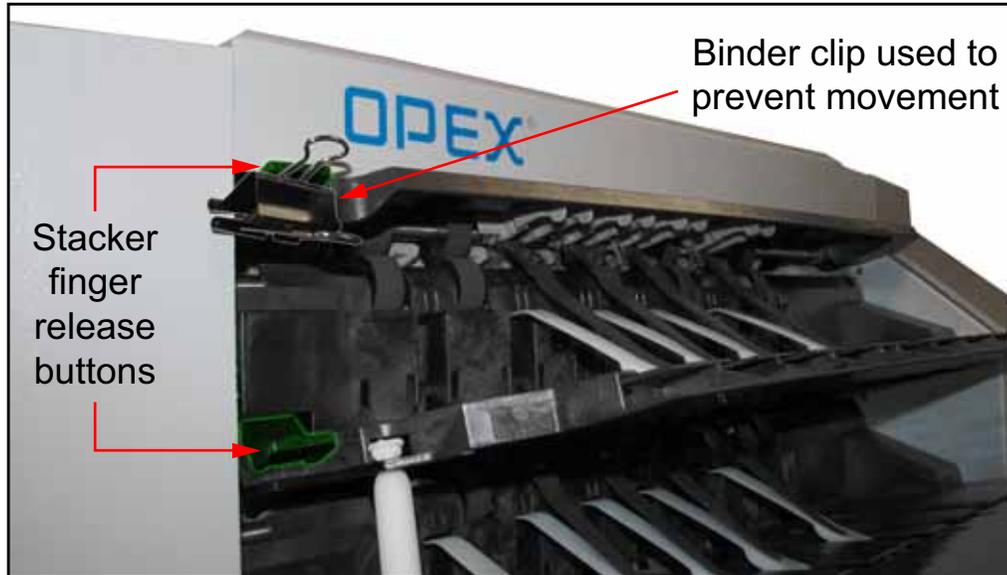
The upper stacker fingers are provided in two pieces. To connect them, position the arm and body with their flat surfaces facing up (A). Load the arm's pin into the holes at the end of the body, with the plastic tabs on the arm lined up with the notches on the body (B). The pin does not just get forced down into the holes. It should be put into one hole, with the arm over to one side, slightly off center. Then by sliding the center-line of the arm back to the center-line of the pivot, the other end of the pin will be inserted into its hole.

Once the arm's pin is in place, flip the arm under the body so the arm's flat side is down and the end lever points up (C).

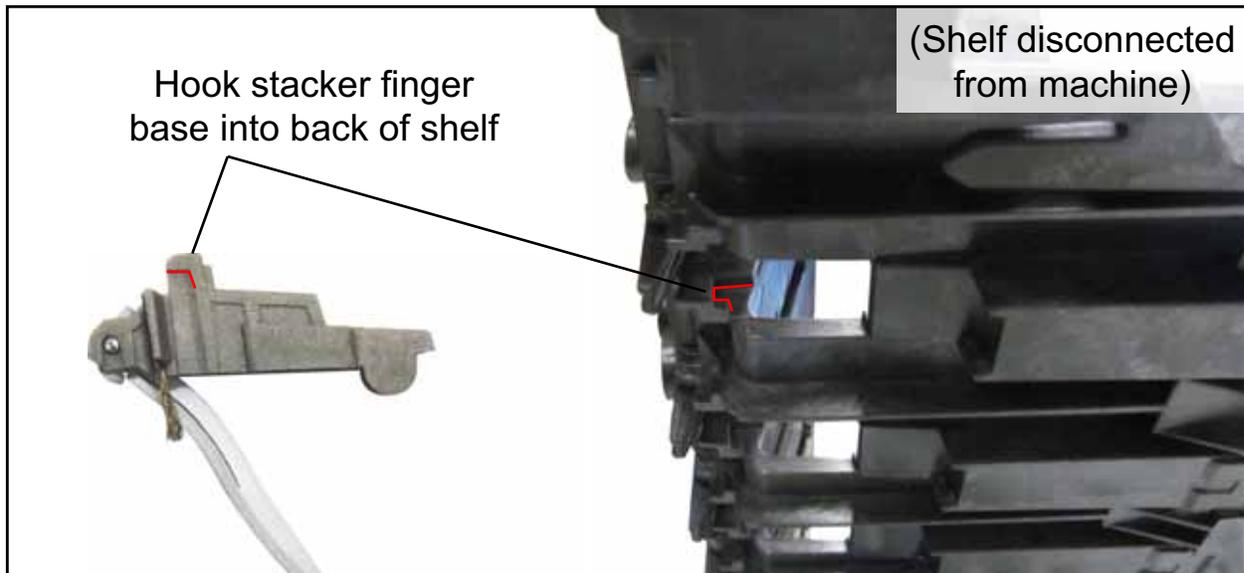


Attaching the upper stacker fingers properly requires accurate positioning between the finger's lever and the finger release button's levers. To simplify the process, wedge an object underneath the release button so it cannot move

while you are working on it.

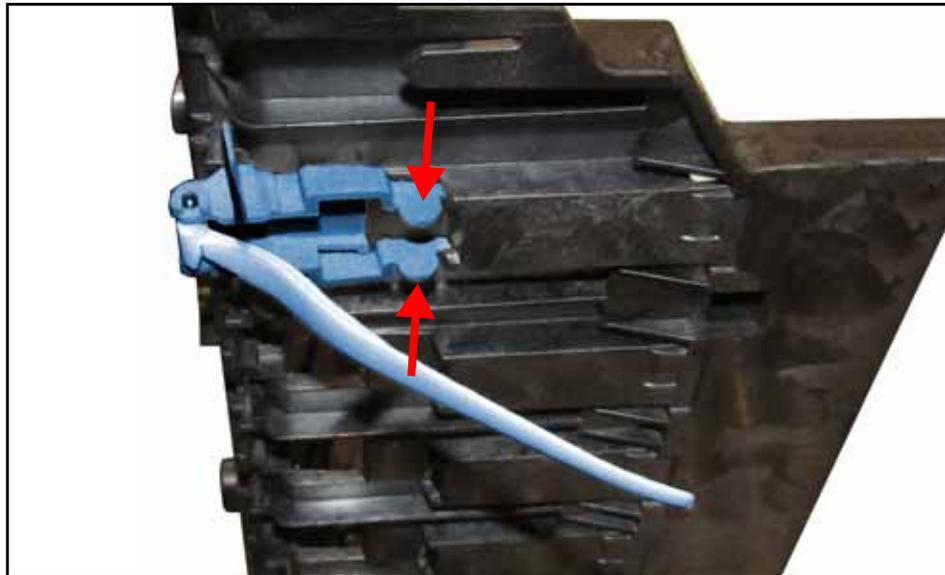


Load the upper stacker finger's body into position, back-first, so its top hooks into the corner as shown below.



Rotate the front of the stacker finger's body up and gently squeeze the rounded

tabs together so the end tabs can fit into their slots.



Bins

Insert the stacker bins. The stacker bin positions are:

- Top: Side justifiers on top and bottom
- Middle: Side justifiers on bottom only
- Bottom: No side justifiers



Cleaning the system

When properly maintained, the Falcon will continue to operate efficiently and smoothly. However, over time, dust and dirt buildup can degrade the performance, resulting in problems such as skewing, double feeds, item hesitation and damage. The conveyor, stacker assembly, feed assembly (feed belts, idler pulleys, pre-feed tire, retard pad) and the CIS (contact image sensor) require regular cleaning.

Regular and scheduled maintenance will ensure that the Falcon continues to function properly, with minimum downtime and maximum efficiency. This maintenance procedure consists of debris/dust removal and general cleaning.

 **Caution:** Be careful when working with cleaners. A cleaner-soaked cloth or similar material should never be used to clean moving objects. For example, do not clean belts or rollers when the motors are running. The use of a cloth or a similar material on moving mechanisms can result in severe personal injury. If a belt, roller, pulley, or a similar part needs to be cleaned, hand-crank it during cleaning or clean it while stationary.

Conveyor and transport assemblies

- 1 Stop all jobs and ensure that all motors are stopped.
- 2 Check the transport area once a shift. Open the transport door (Figure 23) and clear the area of paper debris, dust, envelope flaps, etc.



Figure 23: Transport area

- 3** Vacuum dust and debris from the stacker bins.
- 4** Vacuum dust and debris from the conveyor rollers.

Contact image sensor

The glass contact image sensors should be cleaned at the beginning or end of each shift, or as needed. If you see lines appearing on the image previewed on the screen, then it is likely there is a speck (toner, white out, paper, glue, etc.) attached to the glass obstructing the view. Wipe the glass clean and the line should not appear on the image when the piece is scanned again. Be sure to clean the top camera glass if the line appears on the front side of the image.

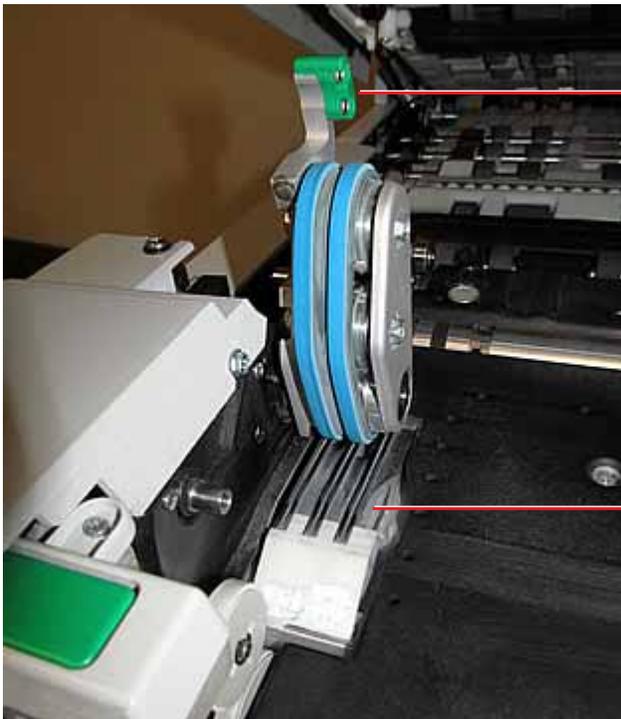
The contact image sensors are located underneath the scanner cover. Apply Windex (the recommended glass cleaner) to a lint-free rag and wipe the imager glass top (front camera) and bottom (back camera). The top camera is on the underside of the cover directly above the bottom camera.



Feed assembly

Black lines on the image can be caused by dirt (toner, ink, white out, glue, etc.) transferred from the paper to the rollers and feeder. Clean the feed mechanisms on a weekly basis.

Lift the tab on the feed assembly to clean the retard pad underneath. Also clean the feed rollers that lead up to the feeder.



Feed assembly tab

Retard pad

A Statistics

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Falcon Statistics

CertainScan provides you with tools to:

- Create statistics reports
- Back up statistics
- Restore statistics

Operators with User, Supervisor, and Manager-level accounts have access to the report functions.

Creating statistic reports

Use the statistics reports to evaluate the efficiency of jobs you have run. The Falcon can generate:

- **Individual Reports** - Provide information on each job run. When you select the criteria for generating individual reports, if more than one job run fits the criteria, a separate report is created for each run.
- **Summary Reports** - Provide information on a job range defined in the Statistics Reports Criteria window.

These two types of reports both have the following sections:

- General Information
- Overall System Performance Measures
- Performance Details

To create a statistics report:

- 1 In the Menu bar, click **Main**, then **Statistics** in the Options menu.

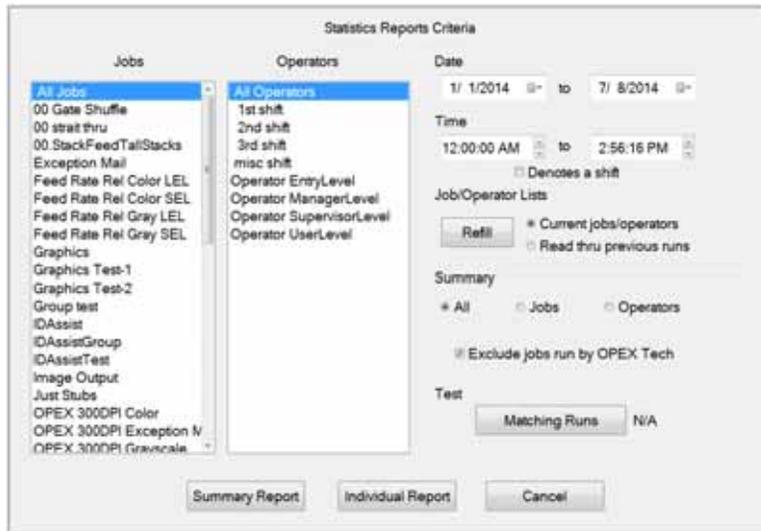


Figure 24: Statistics Report Criteria screen

- 2 In the Statistics Reports Criteria window, set the parameters for the report as shown in Figure 24:
 - Jobs - select the job(s) for which you want to run a statistics report.
 - You can select several individual jobs for a single report, however, if you click **All Jobs**, it automatically deselects the individual jobs (since they would be included in the “All Jobs” category).
 - Operators - select the operator(s) and/or the shift for which you want to run a statistics report.
 - You can select several individual operators for a single report, however, if you click **All Operators**, it automatically deselects the individual operators (since they would be included in the “All Operators” category).
 - Clicking any one of the **Shift** options will select all operators during that scheduled shift. The default setting, **All Operators**, includes all shifts.
 - Date - set the start and end date for the report. In Figure 24, the Summary report was run for a single day, but virtually any range can be selected.
 - Time - set the start and end time for the report. In Figure 24, these parameters were set to include the 3rd shift (12:00 AM-8:00 AM) and the first shift (8:00 AM to 4:00 PM).
 - Job/Operator Lists - select one of the radio buttons:

- **Current jobs/operators** - To use the job names and operators currently stored in the Controller's memory (as shown in the Jobs and Operators lists).
 - **Read thru previous runs** - To find runs deleted from the current list of jobs and operators. For example, if a job file was deleted from the Job Name frame, it is still stored in the stats file. You can access it by selecting this radio button, then clicking the **Refill** button.
- 3** In the Summary section, select one of the radio buttons:
- **All** - to generate a statistics report for every job run that matches the selected criteria
 - **Jobs** - to generate a statistics report sorted by job name(s)
 - **Operators** - to generate a statistics report sorted by Operator name(s)
 - Check the box to exclude jobs run by the OPEX Technician in your report.
- 4** Click the Test **Matching Runs** button to see how many jobs have been run that match the criteria selected above.
- If **N/A** appears to the right of the button, then there are no jobs to report that match the criteria listed. Change your search criteria.
 - If a number appears after the **Matching Runs** button, continue to the next step.
- 5** Click the **Summary Report** button at the bottom of the screen.

A statistics report for the selected criteria will appear. Figure 25 shows the report for the above criteria.



Figure 25: Statistics Report window

The tool bar across the bottom of the Statistics Report window shows:

- **Left/Right Arrows** - use to move through the content of your report(s). If unneeded, the arrows are disabled (grey).
- **Printer button** - click to open the printer dialogue window, where you can select a printer (if one is connected) to print your report.
- **Export button** (the letter E) - click to automatically back-up the report to the location specified by the **System Setup > System > Statistics Settings > Statistics Report Export Filename** parameter.
- **Exit button** - click to close the Statistics Report window.

General Information statistics

The following table lists the terms that appear in the General Information section of the statistics report.

Table 7: General Information Statistic terms

Term	Definition
Job Name	Name of job reported. If you are creating a summary report for two or more jobs, All appears in this field.
Operator	Name of operator included in report. If you are creating a summary report for two or more operators, All appears in this field.
Run Type	Type of run determined by setting the Default Batch Type Batch parameter. Can be: <ul style="list-style-type: none">• Singles• Multis• Stub Only• Check Only• Multis With Pages• Unstructured Transactions• Page Only• Structured Transactions• Mix The Default Batch Type parameter can also be set in the Modify Batch Information window that appears when first starting a job, if the Prompt Operator for Process & Recv Dates Batch parameter is set to Yes .
Start Time	Time first job in the specified time window started.
End Time	Time the last job in the specified time window stopped.
Jobs Included	(Summary Report only) Lists the number of jobs included in the report.
Jobs Ended	(Summary Report only) Lists the number of jobs that ended in the specified time window.

Overall System Performance Measures statistics

The table below lists the terms that appear in the Overall System Performance Measures section of the statistics report.

Table 8: Overall System Performance Measures terms

Term	Definition
Input	Number of pieces fed into the machine.
Output	Number of pieces successfully processed by the machine. This number is figured by subtracting the number of rejects from the number of pieces input.
Jam Rate	Number of jams per run. The formula for the Jam Rate is: $\text{Jam Rate} = \frac{\text{Input}}{\text{Jams}}$
Rejects	Number of pieces rejected.
Feed Rate	Number of pieces per hour the Falcon is currently feeding. The formula for the Feed Rate is: $\text{Feed Rate} = \frac{\text{Input} * 6600}{\text{Active Job Time (seconds)}}$
Output Rate	Number of pieces per hour the Falcon is processing. The formula for the Output Rate is: $\text{Output Rate} = \frac{\text{Output} * 6600}{\text{Active Job Time (seconds)}}$
Jam Clear Time	Average time the Falcon was halted while the Operator was clearing a jam. The formula for the Jam Clear Time is: $\text{Jam Clear Time (seconds)} = \frac{\text{Jam Time (seconds)}}{\text{Jams}}$
Reference Feed Rate	Number of pieces fed into the Falcon per hour. The formula for the Reference Feed Rate is: $\text{Reference Feed Rate} = \frac{\text{Input} * 6600}{\text{Run Time (seconds)} + (\text{Jams} * \text{Ref. Jam Clear Time (seconds)})}$

Table 8: Overall System Performance Measures terms (continued)

Term	Definition
Reference Output Rate	Number of pieces processed by the Falcon. The formula for the Reference Output Rate is: Reference Output Rate = $\frac{\text{Output} * 6600}{\text{Run Time (seconds)} + (\text{Jams} * \text{Ref. Jam Clear Time (seconds)})}$
Reference Jam Clear Time	Estimated time it takes to clear a jam. This number is fixed at 20 seconds.

Performance Details statistics

The following table list the terms that appear in the Performance Details section of the statistics report.

Note: All times noted in the formulas in this table are in seconds. For example, if the Active Job Time appears as “00:01:49” then that means one minute (60 seconds) plus 49 seconds, or 109 seconds.

Table 9: Performance Details terms

Term	Definition
Active Job Time	Time the Falcon was either actively running or was halted due to a jam. Active Job Time is broken down by: <ul style="list-style-type: none">• Run Time• Jam Time
Run Time	Total run processing time.
Jam Time	Total time the Falcon was halted for a jam.
Idle Time	Time the Operator was in the Run Job window, but the Falcon was not processing pieces.

The Rejects section lists the reasons for the rejected items and how many items were rejected for each reason.

Table 10: Reasons for rejected items

Length Too Long	Results when an image is longer than the maximum allowable image size of the system or when outsourcing is set to reject an image longer than a defined length.
Length Too Short	Results when outsourcing is set to reject an image shorter than a defined length.
Gap Too Small	Results when the gap between pieces is shorter than the minimum feed gap defined in the machine parameters.
Too Thin	Results when out sorting is set to reject a piece thinner than a defined minimum allowable thickness.
Too Thick	Results when out sorting is set to reject a piece thicker than a defined maximum allowable thickness.

Table 10: Reasons for rejected items (continued)

Unable to Capture Image	Results when the imager fails to capture the image within the period of time that it is expected to.
Unable to Process Image	Results when an image fails processing due to a failure other than running out of processing time.
Blank Image Detected	Results when a job is set to reject blank pages and the piece was determined to be a blank page.
Does Not Match Expected Page Types	Results when the system could not match a piece to any of the page types in a particular job.
Bad MICR Read	Results when the result from the combined MICR read does not have sufficient valid characters or a valid checksum.
Batch Ticket Expected	Results when a piece is identified as something other than a batch ticket when the system is expecting a batch ticket.
Stub Expected	Results when a piece is identified as something other than a stub when the system is expecting a stub.
Check Expected	Results when a piece is identified as something other than a check when the system is expecting a check.
Page Expected	Results when a piece is identified as something other than a page when the system is expecting a page.
Envelope Expected	Results when a piece is identified as something other than an envelope when the system is expecting an envelope.
Money Order Expected	Results when a piece is identified as something other than a money order when the system is expecting a money order.
Cash Expected	Results when a piece is identified as something other than cash when the system is expecting cash.
Check Listing Expected	Results when a piece is identified as something other than a check listing when the system is expecting a check listing.
Batch Limit Detected	Results when the maximum transactions, pieces, stubs, or checks as defined in the batch parameters has been reached.

Table 10: Reasons for rejected items (continued)

Last Transaction Not Complete	Results when the current transaction does not fit the defined transaction criteria and a piece is identified as a page type that defines a new transaction.
Current Transaction Already Complete	Results when a transaction has met its defined criteria and a new piece that is not defined to start a new transaction is identified.
Batch Ticket Not Expected	Results when a piece is identified as a batch ticket after valid pieces are already included in the batch unless auto batch mode is in use.
Ran Out of Time Processing Image	Results when the software has run out of the time that it has available to process a particular image. The amount of time it has available depends upon track speed.
Could Not Detect Document Edges	Results when image processing is unable to detect the edges of an item that has been scanned.
No Page Sub-Type Selected	Results when a piece is identified as one with page sub-types and no default page sub-type has been specified and the operator did not make a page sub-type selection.
ScanLink Plug-in Requested a Reject	Results when the ScanLink plug-in has requested that the piece be rejected.
ScanLink Plug-in Timed Out	Results when the host has not received a response back from the ScanLink Plug-in within the required amount of time.
Could Not Create a Batch	Results when the software was unable to create a batch due to an inability to open and write a new file or an error within the system.
Detected a Duplicate Batch	Results when the software has detected a duplicate batch either via the used batch list or by finding batches in the batch directories with the same batch number.

Table 10: Reasons for rejected items (continued)

Failed Saving Image	Results when there is an error trying to add or rescan a piece to a batch.
Magnetic MICR Response Missing	Results when the software does not receive a response from the magnetic MICR when it is expecting one.
Cannot Process Printer Data	Results when there is an error in sending the audit trail information down to the printer.
Required Item Expected	Results when an item is of the wrong priority to be scanned in the current location within a transaction. (Structured batches only.)
Only One Item of this Type Expected	Results when only one item of the scanned item's priority is allowed, and that required item is already present within the batch. (Structured batches only.)
New Transaction Required	Results when a new transaction must be started in order to add this item to the batch. (Structured batches only.)
Jamsorts	All input pieces immediately following a reject when the job parameter "Stop Machines for Rejects" is set to something other than 'No' until the reject is cleared. All input pieces immediately following a jam until the jam is cleared.

The Jams section lists the reasons for the jams that occur.

Table 11: Reasons for jams

Duplicate Batch Detected	A batch could not be started because a batch with the same name already exists.
Too Many Consecutive Rejects	Results when the number of consecutive rejects is greater than the machine parameter maximum consecutive reject count.
Software Problem Detected	Results when the controller receives invalid information from the host or there is an assert or exception within the controller.

Table 11: Reasons for jams (continued)

Vertical Turn Sensor Missing	Results when the controller is expecting to see a piece pass by the vertical turn sensor but it has not within the time period that we are expecting it.
Stacker Entry Sensor Missing	Results when the controller is expecting to see a piece pass by the stacker entry sensor but it has not within the time period that we are expecting it.
Bin 2 Gate Sensor Missing	Results when the controller is expecting to see a piece pass by the bin 2 gate sensor but it has not within the time period that we are expecting it.
Feed Entry Multifeed Sensor Blocked	The Feed Entry MultiFeed Sensor is blocked.
Feed Input Multifeed Sensor Blocked	The Feed Input MultiFeed Sensor is blocked.
Unexpected Piece at Stacker Entry Sensor	Results when a piece is detected at the stacker entry sensor that the software was not expecting. This is usually caused by a piece that was intended to go to the stacker bypass bin but did not make the correct decision in time. A gate that did not fire properly can also cause it.
Unexpected Piece at Bin 2 Sensor	Results when a piece is detected at the bin 2 sensor that the software was not expecting. A gate that did not fire properly usually causes this to occur.
Invalid Piece Complete Response	Results when an invalid piece id is received from the host upon piece completion.
Piece Thickness Sensor Null Below Minimum	Results when the thickness sensor is lower than the minimum null defined in the machine parameters.
Piece Thickness Sensor Null Above Maximum	Results when the thickness sensor is greater than the maximum null defined in the machine parameters.

Table 11: Reasons for jams (continued)

Piece Thickness Sensor Runout Problem	Results when the thickness sensor runout is greater than the maximum runout defined in the machine parameters.
Missing Piece at Straight Through Path	Results when the piece was supposed to go to the stacker bypass bin but didn't.
Batch Manager has an Internal Error	Results when there is an internal error within Batch Manager.
Detected a File Write Error	Results when the software detects a problem with writing image or batch files to the specified directories.
ScanLink Plug-in Failed	Results when there is a failure sending information to the ScanLink plug-in.
ScanLink Plug-in Requested a Jam	Results when the ScanLink Plug-in has requested a jam.
Host to Controller Report Missing	Results when the controller is expecting piece information from the host and does not receive it within the expected time window. This is frequently caused by pushing the system to its limits or by something causing the system to get out of sync.
Jam Caused by Reject	Results whenever a reject other than Jamsorts occurs. Thus every reject other than Jamsorts is counted as a jam under this category. The Job Parameter "Stop Machines for Rejects" must be set to something other than "No" for rejects to jam the machine. Otherwise, rejects will be directed to the reject bin and processing will continue.
Double Detected	The Multifeed Sensor indicates that two pieces are being fed together.
MFD Skew Angle Exceeded Sensor Blocked	The MFD Skew Angle Exceeded Sensor is blocked.

Table 11: Reasons for jams (continued)

MFD Skew Damage Exceeded Sensor Blocked	The MFD Skew Damage Exceeded Sensor is blocked.
Out Of Bounds Sensor Blocked	The Out Of Bounds Sensor is blocked.
Out of Bounds Detected	A piece is too tall for the imager.
Justification Sensor Blocked	The Justification Sensor is blocked.
Feed Singulation Defeat Button Stuck	The override feed control button is stuck in a down position.
Skew 9 Sensor Blocked	The Skew 9 Sensor is blocked.
Skew 8 Sensor Blocked	The Skew 8 Sensor is blocked.
Skew 7 Sensor Blocked	The Skew 7 Sensor is blocked.
Skew 6 Sensor Blocked	The Skew 6 Sensor is blocked.
Skew 5 Sensor Blocked	The Skew 5 Sensor is blocked.
Skew 4 Sensor Blocked	The Skew 4 Sensor is blocked.
Post Feed MFD Trail Sensor Blocked	The Post Feed MFD Trail Sensor is blocked.
Stepper Stall Detected	A Stepper Motor has stalled.
Pre Crush Roller Sensor Blocked	The Pre Crush Roller Sensor is blocked.
Feed Entry RX Present Sensor Blocked	The Feed Entry RX Present Sensor is blocked.
Fan Failure Detected	A fan has stopped functioning.
Roller Bed Motor Fault Detected	This event can occur during a job activation of the roller bed motor and a stall, over-current, under-current, thermal warning or thermal shutdown is detected by the stepper controller.

Table 11: Reasons for jams (continued)

Feeder Motor Fault Detected	This event can occur during a job activation of the feeder motor and a stall, over-current, under-current, thermal warning or thermal shutdown is detected by the stepper controller.
Scan Bed Motor Fault Detected	This event can occur during a job activation of the scan bed motor and a stall, over-current, under-current, thermal warning or thermal shutdown is detected by the stepper controller.
Stacker Motor Fault Detected	This event can occur during a job activation of the stacker motor and a stall, over-current, under-current, thermal warning or thermal shutdown is detected by the stepper controller.
ID1 Assist Verify Jammed	This event can occur during a run when the sensor ID1 ASSIST VERIFY sensor is blocked longer than the configurable amount of time has allowed. The id assist sensor jammed time (5000) machine parameter configures this timeout. The default is 5000 milliseconds or 5 seconds.
Servo Fuse 1 Fault Detected	This event can occur during a run when the fuse for the servo motor, which controls the upstream or right-hand pre-feed arm, is detected to be open or blown.
Servo Fuse 2 Fault Detected	This event can occur during a run when the fuse for the servo motor, which controls the downstream or left-hand pre-feed arm, is detected to be open or blown.
Roller Bed Fan Fault Detected	This event can occur during a run when the fan for the roller bed motor is not detected as operating.
Feeder Fan Fault Detected	This event can occur during a run when the fan for the feeder motor is not detected as operating.

Table 11: Reasons for jams (continued)

IO Link Down Detected	<p>This event occurs when the RJ45 cable between the IO stepper board and the OPEX IO link port is unplugged, and when the IO stepper board is powered off. If either of those conditions are true and the scanner is running, the controller will issue the IO Link Down Detected jam and CertainScan will present a stoppage dialog screen with the text of “Link Down, Check Cable and Power”.</p> <p>The new Machine Parameter > Module Disable Parameters > disable io link down detection is associated with this event. If disable io link down detection is set to 0 (the default), this event will be detected and jam if necessary as described above. If disable io link detection is set to 1, this event is not detected.</p>
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Table 11: Reasons for jams (continued)

Imager Error Detected	This event occurs during any machine job start when the imager is detected as not ready to capture images.
Unexpected Piece detected at Drop Slot	This event will occur if a sheet is detected at the “System Entry” sensor when the Drop Slot is not active.
Reduced TMD accuracy has been detected	<p>(Introduced in CertainScan version 3.10.274, 3.10.275 and 3.20.25) Its intent is to alert the technician when Falcon believes the TMD needs servicing.</p> <p>The need for servicing is determined when the automatic setting of the TMD DAC has been found to differ three or more times over the last two weeks. The cause for the automatic setting changes is most likely due to staple accumulation around the TMD magnet and/or sensor chip.</p> <p>The history of the automatic setting of the TMD DAC is contained within the TMD_DAC_Settings_Log.dat file. It is recommended that you delete the log file from the C:\OPEX directory to avoid seeing this error message (at least) once more after the TMD has been serviced.</p>

The Stops section lists the following:

Table 12: Reasons for stops

Feeder Jammed	Results when the lower skew detect sensor has been blocked for a specified period of time. Both the feed jammed time and feed streaming time define this period.
Upper Skew Detect Sensor Blocked	Results when the upper skew detect sensor is blocked by something when the system is attempting to start up.
Middle Skew Detect Sensor Blocked	Results when the middle skew detect sensor is blocked by something when the system is attempting to start up.
Lower Skew Detect Sensor Blocked	Results when the lower skew detect sensor is blocked by something when the system is attempting to start up.
System Entry Sensor Blocked	Results when the system entry sensor is blocked by something when the system is attempting to start up.
Vertical Turn Sensor Blocked	Results when the vertical turn sensor is blocked by something when the system is attempting to start up.
Stacker Entry Sensor Blocked	Results when the stacker entry sensor is blocked by something when the system is attempting to start up.
Bin 2 Gate Sensor Blocked	Results when the bin 2 gate sensor is blocked by something when the system is attempting to start up.

Table 12: Reasons for stops (continued)

Stacker Door Open	Results when the stacker door is detected to be open during a run or when the system is attempting to start up.
Transport Door Open	Results when the transport door is detected to be open during a run or when the system is attempting to start up.
ScanLink Plug-in Requested a Stoppage	Results when the ScanLink Plug-in has requested a stoppage.
Too Skewed	Results when a piece is detected to be too skewed to pass through the system safely.

Glossary

Audit Trail User-definable information printed on items and/or displayed on item images.

Barcode A series of bars and spaces arranged in a predetermined pattern to represent elements of data.

Batch One or more transactions. Information on pieces is grouped and sent to the user in batches.

Bitonal Image format where every pixel is either black or white.

Category Grouping of similar parameters.

Checksum A character included within a barcode whose value is based on other characters within the data string. It is used to perform a mathematical check to ensure the data is accurately read.

CertainScan A character included within a barcode whose value is based on other characters within the data string. It is used to perform a mathematical check to ensure the data is accurately read.

DLL Dynamic Link Library. Plug-ins supplied by third-party vendors.

Document Any single sheet of paper processed by the Falcon.

Dropout Removing a selected color from an item image. The Falcon can remove red, green, or blue from item images.

Grayscale Image format where all pixels are processed as a shade (level) of gray. Gray levels range from 0 (black) to 255 (white).

Host PC The PC that runs the scanner. CertainScan is installed on the Host PC, as well as the INtime Controller, which manages the system's non machine-related functions.

INtime Controller Software that controls all machine-related functions. Runs in the background of the CertainScan software.

Job A profile of parameter settings you use for processing items. When you run items through the Falcon, you must specify which job to run. Jobs allow you to process pieces in a similar manner from run to run.

Julian Dates A number representing a date. In the Julian Calendar, each day is assigned a three-digit number. January 1st would be 001, January 2nd would be 002, on up to December 31st which is 365. Every fourth year (leap year) has 366 days. Customers often use Julian dates to keep track of late payments.

MICR Magnetic Ink Character Recognition. Used by the scanner to read the magnetic ink letters, numbers, and symbols found on items such as checks and batch tickets.

Multi A transaction (in the remittance world) consisting of one or more stubs followed by one or more checks.

OCR Optical Character Recognition. Used by the scanner to identify letters, numbers, and symbols on items.

Operator The person running the machine.

Page Type A collection of criteria (such as length, height, barcode, mark detect, MICR, etc.) that a piece must meet to be classified as a certain type of item. Each job includes one or more page types.

Piece Any single sheet of paper processed by the Falcon.

Print Field Items that make up an audit trail.

Single A transaction consisting of an item and a check.

Skew A term used to identify when an item is misaligned when scanned. Typically, a skewed item prevents the scanned image from being read properly.

Snippet An image captured from a scanned item. Each item may have up to 10 snippets associated with it.

Transaction Defined by the customer in a number of ways. For example: Check(s) and stub(s), with or without attachments, and an envelope (e.g., in a payments job it can contain singles, multis, mixed, check only, etc.)

Transaction Boundary A term used to indicate the beginning or end of a single or group of page types in a transaction. Typically, a specific page type is used to identify this boundary either at the beginning or end of a transaction.

Transaction Sorting A term used to indicate jobs in which prior items within a transaction determine the sorting of later items.

Ultrasonics The production of sound waves above the frequency of human hearing 20 KHz to 500 KHz that can be used in a variety of applications. In the Falcon, ultrasonics is used for multifeed detection.

USB (Universal Serial Bus) An external bus standard that supports data transfer.

User The person running the machine.