AS3600

OPERATOR MANUAL

From the President of OPEX Corporation

The AS3600i or AS3600t offers an extremely flexible and efficient method to capturing images and data

The AS3600 is OPEX's inaugural image scanner device. Although we have been capturing images of documents and checks with our IEM product for over 10 years, until now we have not had the ability to capture images of various size documents. With the versatility of the AS3600 Scanner, the customer has the ability to capture the necessary information in a single touch, eliminating the prep process associated with other scanning devices.

The AS3600i is either mounted to an OPEX Model 51 or Model 60 Rapid Extraction Desk for processing mail from envelope to image. The AS3600t provides a solution for scanning processes that exclude mail or remittance.

Whatever the application, the key to this process is YOU, the AS3600 OPERATOR. We've gone to great lengths to design our equipment to be user friendly, and believe that you will be pleased with the final result.

Thank you for taking the time to familiarize yourself with the contents of this manual. We trust that you will enjoy using the AS3600 scanner and that it will make your job more enjoyable and productive.

Sincerely,

OPEX CORPORATION

Mark Stevens
President/CEO

Table of Contents

Appendix A
Statistics

Glossary

Index

AS3600
Operator Manual

Chapter

Introduction

1

OPEX ®

CORPORATION

Five sort bins

Touch-screen PC monitor

Printer

PC controller

In-line recognition: MCR, OCR, BCR, OMR, thickness detect

Model 51 Rapid Extraction Desk (optional)

Semi-automatic document feeder

Drop feeder
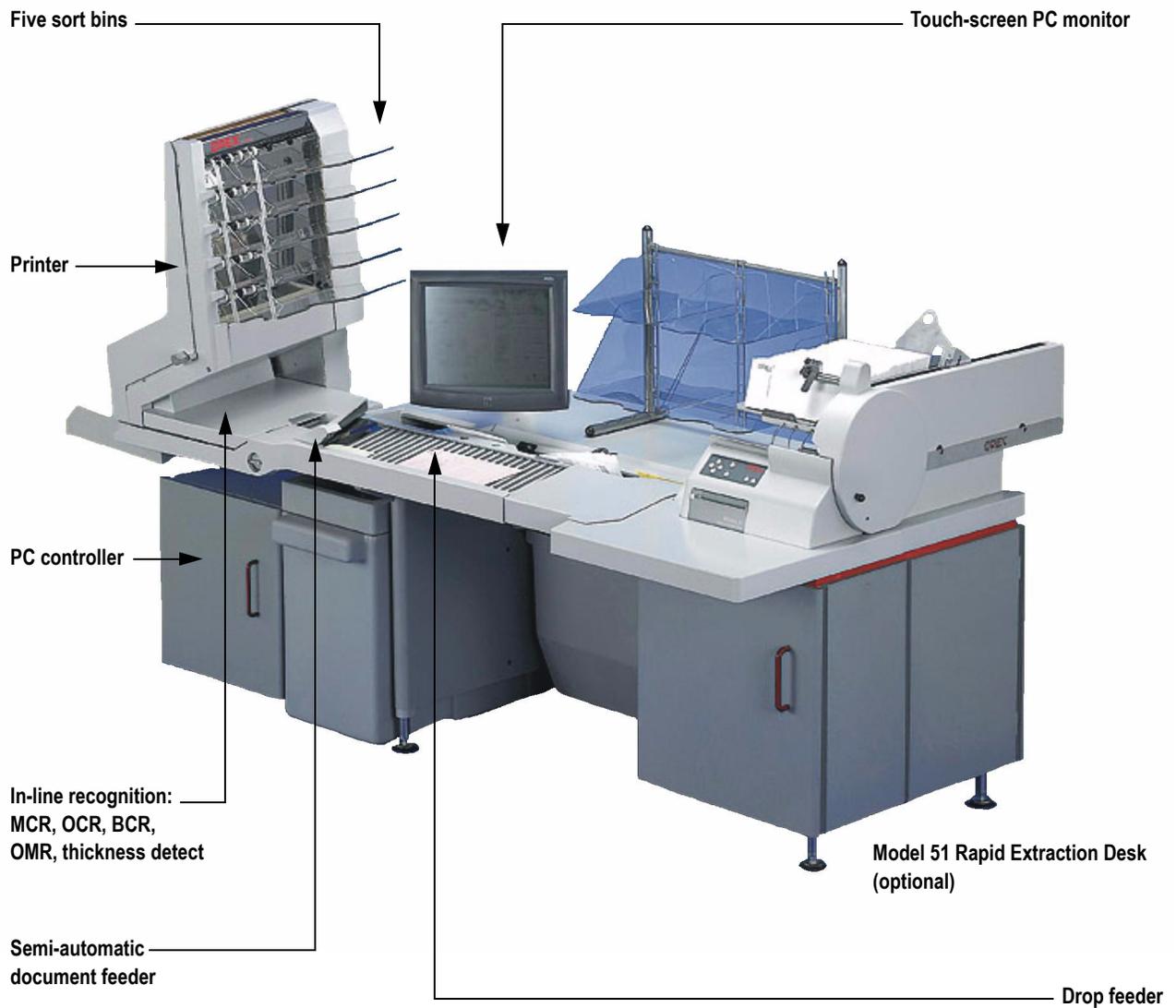
PC-exposed model

Overview

The AS3600 is a high-speed, color scanner that serves to reduce the costs and time involved in processing documents. By scanning paper documents and converting them into electronic files, the AS3600 makes processing mail and other paper documents as simple as pressing a few buttons. In just one step, the AS3600 can identify, prepare, capture, orient, read, create an audit trail, and sort your documents for you.

The AS3600 system can process up to 3600 pieces of mail per hour. It can scan unfolded legal size sheets, envelopes, checks and stubs, to business cards. It will maintain transaction boundaries automatically, indicating the beginning and end of a group of documents in a transaction.

Other features of the AS3600 include:

- **PC Controller**   A powerful computer platform completes a turnkey scanning system. Allows data to be easily accessed throughout the capture process.

- **Color 15" Flat-Screen Display**   Provides a large, clear display for easy document viewing.

- **Touch-screen controls**   Eliminates the immediate need for the keypad because of its convenient accessibility -- command of the system is always within arm's reach.

- **Duplex scanner from 100 to 300 DPI: 60 ppm B & W, 60 ppm Gray Scale, 60 ppm Color (100 DPI)**   Allows most documents to be imaged in its original format.

- **Drop Feeder**   Directs the document into position to ensure that the best image is captured --- operator need only drop documents onto the feeder to be scanned.

- **Semi-automatic packet feeder**   Allows the operator to drop multiple pages onto the feeder, which are then automatically separated and scanned as individual pages without additional operator assistance.

- **Output formats available: IEM or ASCII, TIFF and JPEG**   The system generates one of two file formats, IEM or ASCII. IEM Format consists of a single binary data file and single stacked image file. The ASCII data format is a generic data file and individual TIFF and/or JPEG image files.

- **Double feed, length, thickness and envelope detect**   Detects and identifies transaction boundaries through the use of a unique "intelligent scanning" ability.

- **Image Enhancement**   Uses a process known as "dynamic image enhancement" to enhance overall image quality with features such as image de-skew, cropping and dynamic thresholding.

- **In-Line Barcode Recognition, Magnetic Ink Character Recognition (MICR), Optical Mark-Sense Recognition (OMR) and Optical Character Recognition (OCR)**   Allows the operator to pre-select a variety of recognition and sort combinations.

- **Imprinter (front and back)**   Imprints data on either the front, back or both of each document for thorough audit trail from the initial contact to the completion of processing. The audit trail can be electronically embedded in a selected zone of the image.

- **Six output trays**   Controls workflow by allowing the operator to select any number of sort combinations using four full bins, one thick-mail bin and one reject bin.

- **Selectable color dropout (Red, Green, Blue)**   Allows the operator the choice of selecting one of three available dropout colors, dropout is dependent upon a range of Pantone colors. Dropout colors can be selected for an individual piece or for a packet of pages you are about to drop onto the feeder.

- **Paper sizes: 8.5" x 14" maximum; 2" x 3.5" minimum**   Captures a wide array of paper, from a document as small as a business card, a full page letter or legal size page.

AS3600 specifications

| Speed	Up to 60 pages/minute
Paper & Envelope Specifications	Length: 3.5" to 14"
	Height: 2" to 8.5"
	Thickness: Up to 1/16"
Sound Level	Below 72 dB
Duty Cycle	25,000 pages per day
Operator/Service Clearance	3' all around
Electrical	USA: 120 VAC, 3.5 AMPS, 60 Hz
	EUROPE: 240 VAC, 2 AMPS, 50 Hz

How the AS3600 Works

The AS3600 system is controlled by a single, Windows XP driven PC. On the PC are the INtime Controller and the AS3600 Host software, which control the system. The operator interacts with the system via the Host software, and simply drops documents onto the drop feeder and the AS3600 scans the items based on the current job parameters. The AS3600 can capture MICR and OCR information, print audit trails on the documents, and sort them to a specified bin.

Software

The AS3600 uses two software applications:

INtime Controller   The INtime Controller runs in the background of the Host 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 are should never close the INtime window**.
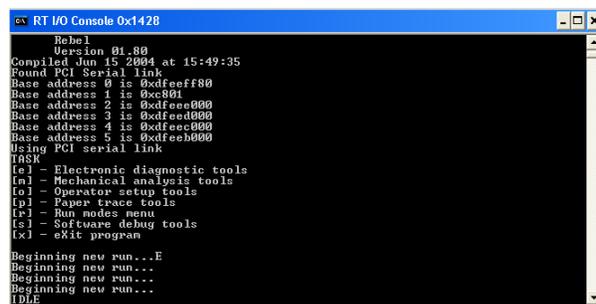
Host software   The Host software interfaces with the Controller and manages the non-machine related functions performed by the AS3600. The Host software provides an interface for setting up jobs, page types, and audit trails, and for running jobs. **This is the main interface with the machine**.
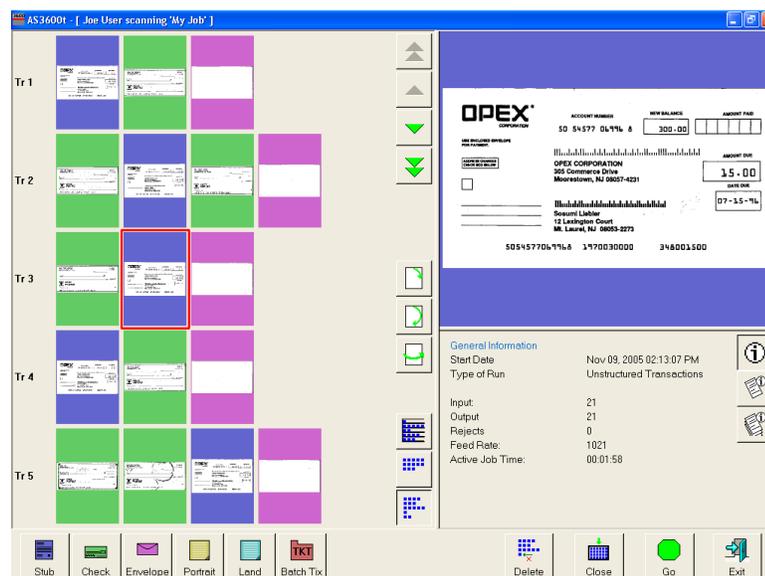
Jobs

A job is a collection of the parameters the AS3600 uses for scanning documents. The jobs you set up allow you to process documents in a similar manner from run to run.

The AS3600 scans documents and stores the information it collects in batches, which consist of one or more transactions. The definition of a transaction can vary from customer to customer, and even from job to job. A transaction may consist of several page types, for example, a check, a stub (or remittance piece), and an envelope.

Structured vs. Unstructured jobs

Structured jobs require you to scan documents 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 document, and finally an envelope to signify the end of the transaction. If a page type is scanned out of sequence or if the system is expecting a certain page type, the AS3600 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 transaction boundary, in most cases an envelope, is scanned last in the transaction. The transaction boundary tells the system the current transaction is complete and the next transaction will begin.

Page types

The AS3600 uses the page type parameters set up by your AS3600 Administrator to classify documents that come into the system. When the AS3600 processes documents 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 document scanned into the system. The system then collects the appropriate data from the document and sorts it according to the current job parameters.

Chapter

Operating the System

2

OPEX ®
CORPORATION

Overview

Chapter 2: "Operating the System" provides basic information on how to process documents with the AS3600. Refer to Chapter 2 for safety precautions, user interface information, and how to run the machine.

NOTE: This manual describes operation of the AS3600 scanner. If you have a Model 51 or Model 60 Rapid Extraction Desk installed, refer to the RED Operator Guide before proceeding with this manual.

Safety precautions

Follow these safety precautions to avoid injury when operating the AS3600. 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 AS3600 can become jammed and/or damaged by foreign objects. Also, keep hands, hair, loose clothing or jewelry away from the moving parts.

- **Do not lift the feeder arm while the machine is running.**

- **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.

Main controls and system components

The list below describes many of the controls and components of the AS3600 system. Refer to Figure 1 on page 2-3.

Main power switch   The main power switch is located either on the back of the machine on the rear of the PC box (on PC-enclosed models), or on the electrical box under the stacker bins (PC-exposed models) as shown in Figure 1. This is the main "on/off" switch for the AS3600 system. For more info on turning the AS3600 system on and off, see page 2-4.

UPS (Uninterrupted Power Supply)   The APC UPS will provide backup battery power to the AS3600 PC to complete transactions or save work should the site's AC power supply be interrupted.

Touch-screen monitor   Use the monitor to log in to and out of the AS3600 system. The monitor's touch-screen controls should be used to operate the system and run jobs.

Conveyor   Place documents onto the drop feeder for scanning into the AS3600 system.

Retard pad switch   Engage and disengage the retard pad. The retard pad allows you to drop small stacks of documents (up to 1/8") onto the conveyor and scan them into the system.

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

Sort bins   Scanned documents are sorted into one of five selectable output bins.

Rapid Extraction Desk (RED)   Opens and presents contents of mail to the operator for placement onto the drop feeder and scanning into the AS3600 system. The RED will handle mail of varying shapes and sizes.

Back of PC box (PC-enclosed models)

Main power switch

PC-exposed models

Main power switch

Sort bins

Touch-screen monitor

Audit trail printer

Model 51 Rapid Extraction Desk (optional)

Semi-automatic packet feeder

Stacker bypass bin

Retard pad switch

PC box (PC-enclosed models)

Conveyor

PC
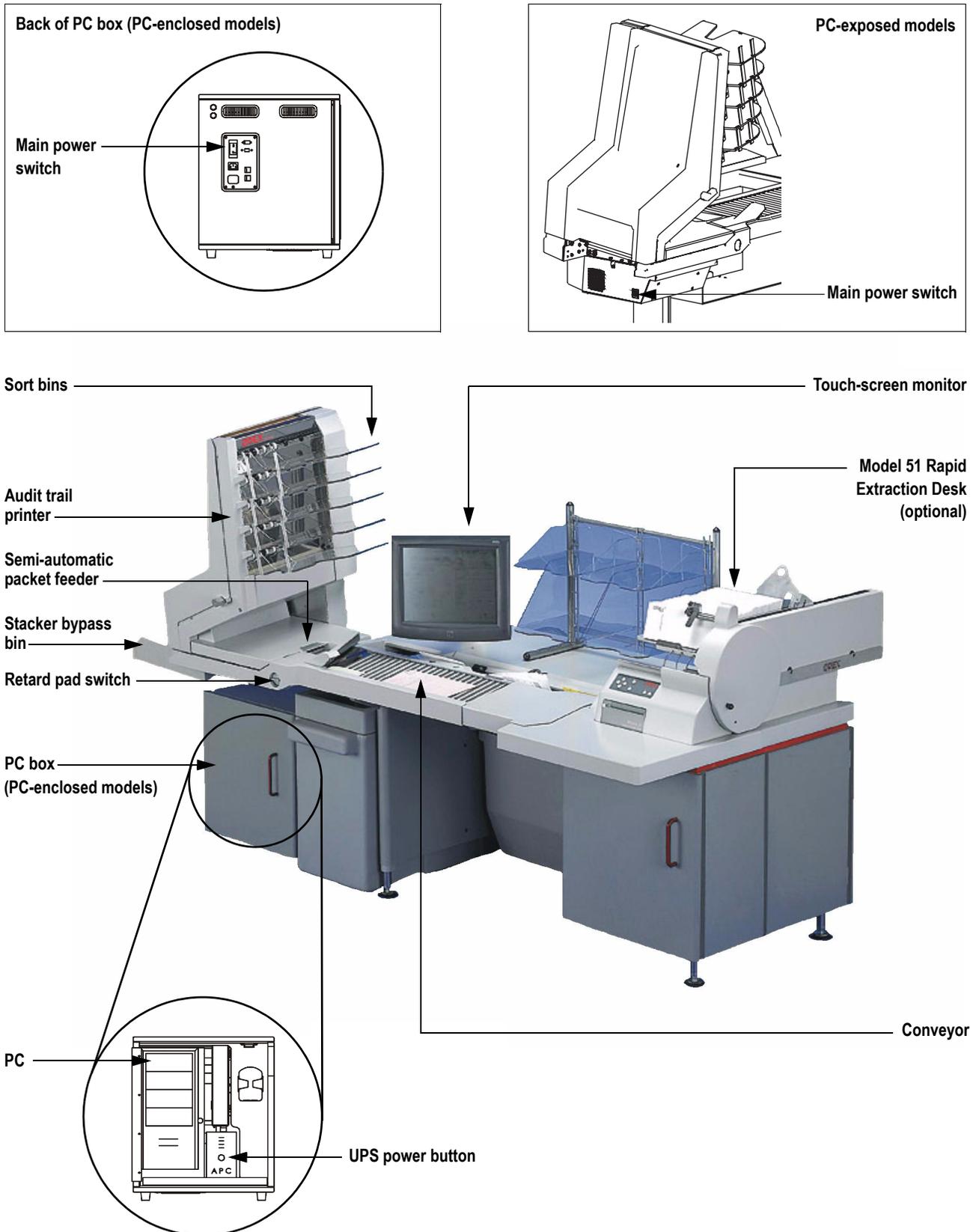
UPS power button

FIGURE 1:   Main controls and components

Getting Started

Power up the system:

If the AS3600 system is not already up and running, turn on the power:

1 Turn on the main power switch (see Figure 1).

2 Press the power button on the UPS. The monitor will turn on and the computer will begin to boot up. Once the computer has finished booting Windows, it will launch the AS3600 Host application.

> **NOTE:** If you mistakenly close the Host application, double-click the icon on the desktop to start it again.

Log in to the system:

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

> **NOTE:** If you do not have your own user account, ask your AS3600 Administrator for assistance.
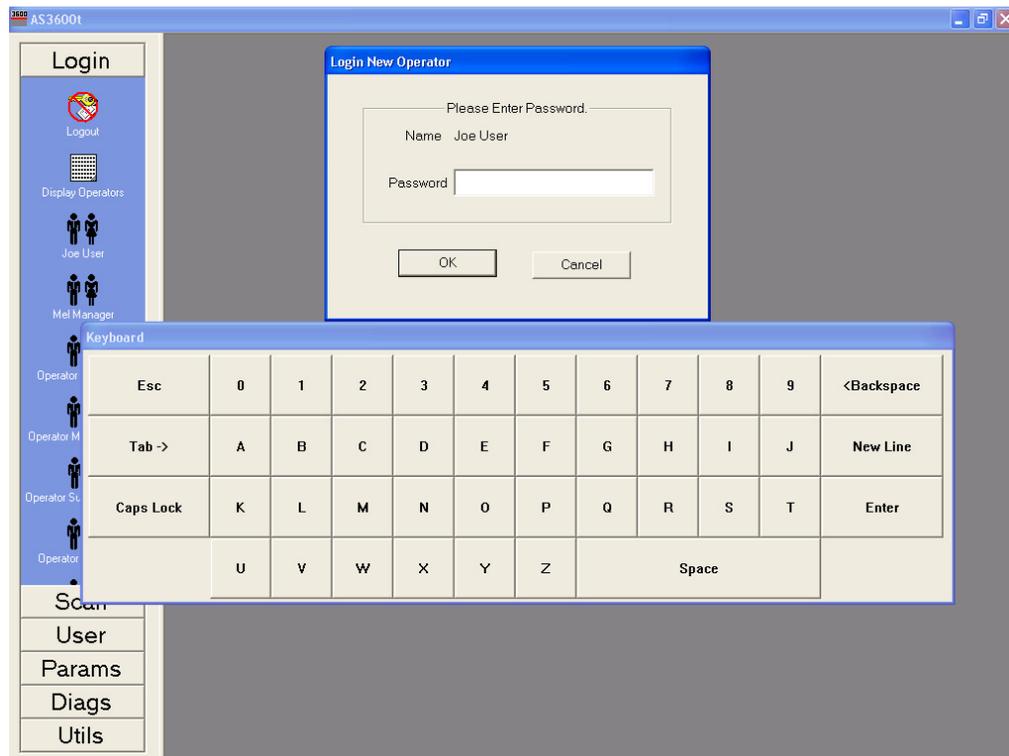
FIGURE 2: Login screen

4 Enter your password via the on-screen keyboard or computer keyboard. Press **OK**.

Navigating the AS3600 Host software

Use the AS3600 Host software to set up and process jobs on the AS3600 system. The Host software interface consists of:

Title bar   The title bar displays the name of the current operator and other pertinent information. Click the AS3600 icon in the Title bar to access the Windows functions (Restore, Move, Size, Minimize, Maximize, Close), as well as the following menus:

- The **Application** menu allows operators to close windows within the Host software or exit the Host software.
- The **Diagnostics** menu contains the AS3600 system options. These options are used by OPEX technicians to evaluate system performance.
- The **Help** menu accesses the About screen, which provides version information for the AS3600 Host software.

Explorer Bar   The vertical Explorer Bar provides lists of the various system parameters. Select parameters in the Explorer Bar and view and/or adjust them in the main window.

NOTE: Click the right mouse button in the Explorer Bar to select large or small Explorer Bar icons.
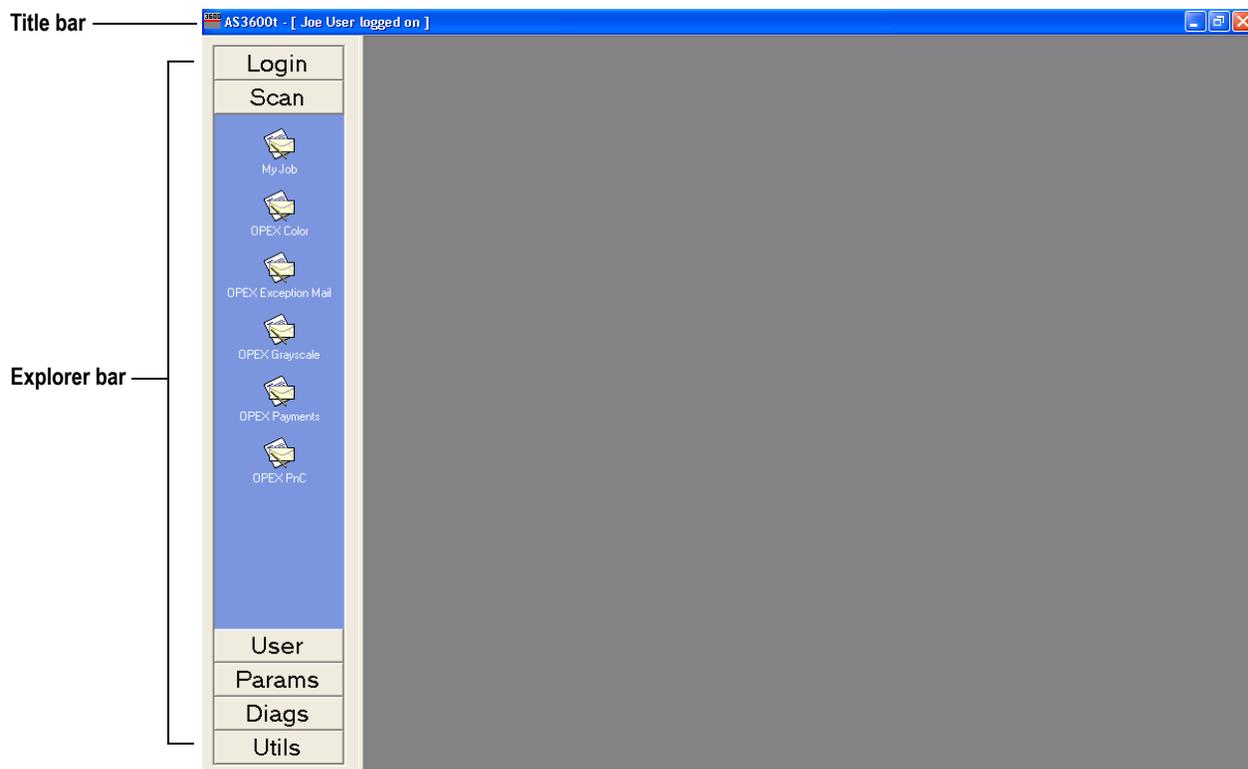
FIGURE 3:   Host software interface

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 AS3600 Host software to process documents.

Select a job:

1 Select the **Scan** tab in the Explorer Bar.

2 Select the icon for the job you want to run.

> **NOTE:** If there are more than 6 saved jobs listed in the Explorer Bar, a **Display Jobs** icon will appear under **Scan**. Click **Display Jobs** to open the jobs dialog box, where you can more easily select the desired job. The jobs dialog box can contain up to 48 jobs.

FIGURE 4: Scan screen

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

FIGURE 5: 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 documents.

Thumbnails

Scroll thumbnails

Preview window

Rotate image buttons

Information window

Run buttons

Page types

View buttons

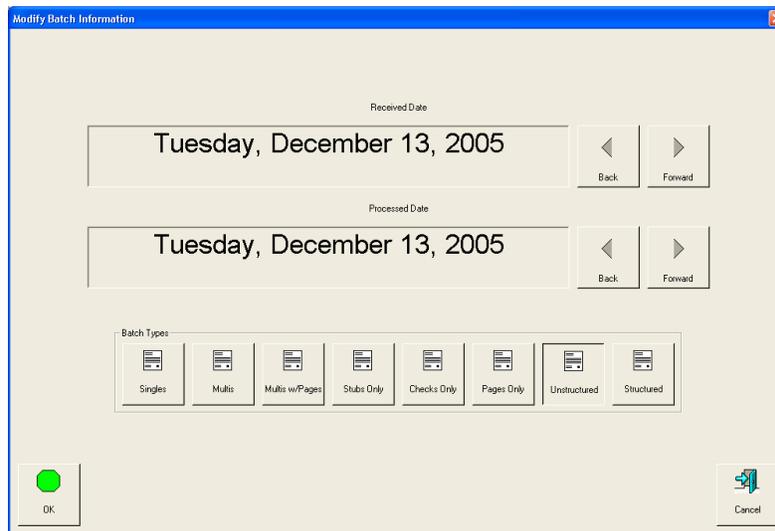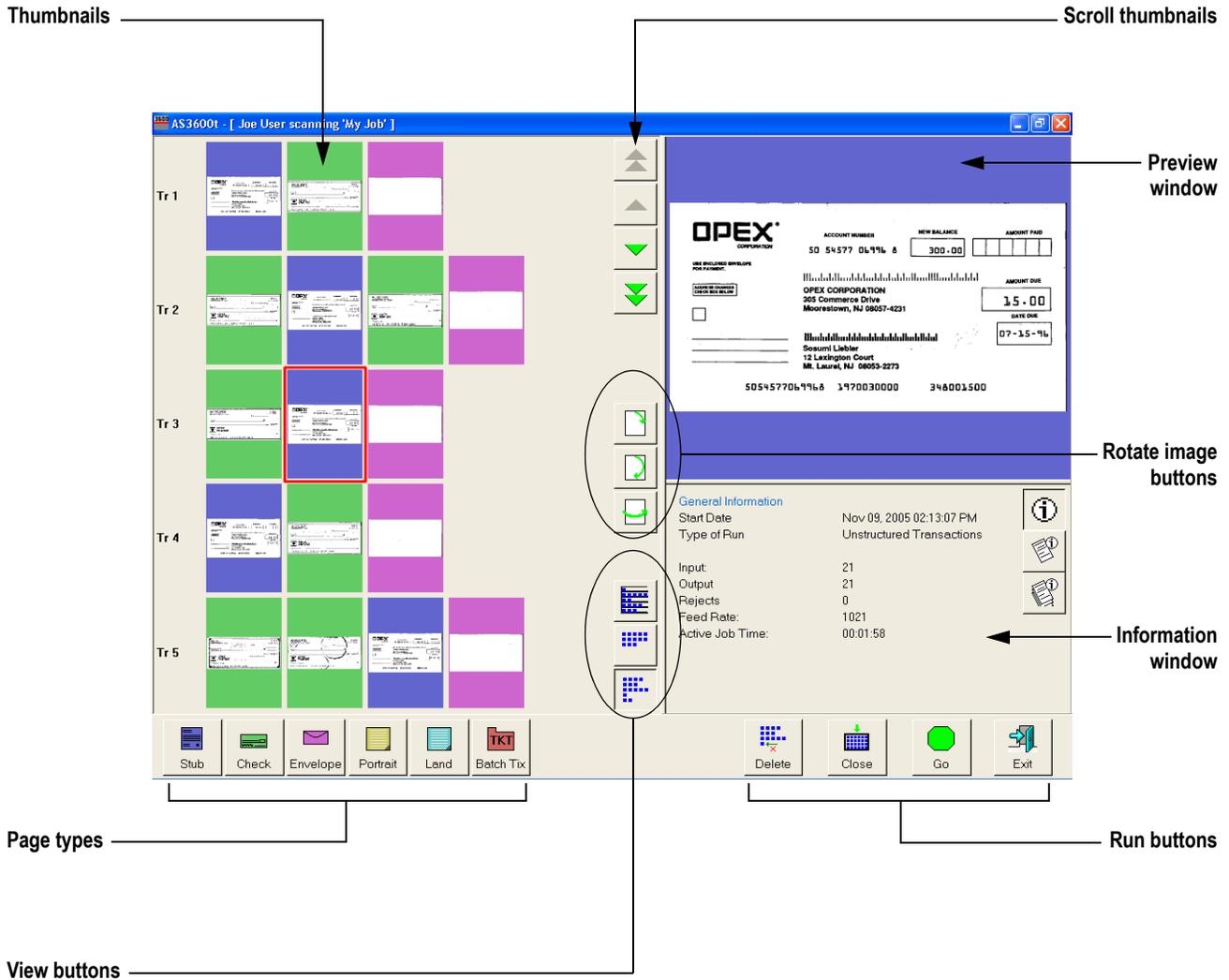**FIGURE 6:   Run screen**

Run screen buttons

Go	Press **Go** to start the scanner.
Stub	The **Page Type** buttons allow the operator to designate the page type of the next document. The **Page Type** buttons will only be available if they have been activated for the current job.
(Bin View)	Press the **Bin View** button to group the document thumbnails according to the bin they were sorted to.
(Sequence View)	Press the **Sequence View** button to list all the thumbnails in the batch sequentially by the order they were scanned.
(Transaction View)	Press the **Transaction View** button to group the document thumbnails by transaction.
(Rotate)	**Rotate** the image of the selected document. Use the three rotate buttons to position the image as desired. These buttons will only be available if activated for the current job.
Adjust	**Adjust** the settings in the Capture Parameters window to enhance the quality of the output images. See "Adjusting image quality" on page 2-18.
Rescan	Press a **Rescan** button to replace a previously scanned image with a new one. See "Rescanning documents" on page 2-19 for more information.
Delete	**Delete** a document from the batch. The **Delete** buttons, if enable in the current job, are only available when the machine is stopped. See "Deleting documents from the batch" on page 2-20.
Void Item	**Void** the selected document or transaction. The **Void** buttons are only available if activated for the current job. See "Voiding documents and transactions" on page 2-20 for more information.
Trans	End the current **Transaction**. This button will only be available if it has been activated for the current job.
New Batch	Start a **New Batch**. This button will only be available if it has been activated for the current job.
Action	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.
Stop	**Stop** the machine. This does not end the current batch or transaction.
Close	**Close** the current batch.
Exit	**Exit** the current job and close the Run screen.

Information window

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

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

The **Piece Information** window provides information about the selected image. Piece information may include the bin the piece was sorted to, it's size dimensions, and page type.

Batch Information includes data such as the transaction number, pages in the batch, and the date and time the batch was created, received, and processed.

NOTE: Touch on an Information window to view an enlarged version with expanded information.

General Information

Start Date Displays the date before pressing **Go**, displays the time after
Type of Run Default job setting or selected by operator at the start of the batch
Input Total pages scanned during the current run
Output Total pages to be saved in the batch
Rejects Pieces that have been rejected during the current run
Feed Rate Pages/hour
Active Job Time Total time for the current run

General Information	
Start Date	02:54:26 PM
Type of Run	Unstructured Transactions
Input:	18
Output	18
Rejects	0
Feed Rate:	720
Active Job Time:	00:01:49

Piece Information

Page Name/Page Type Selected in Job Setup
Page Sub-Type Page type sub-category (if available for current page type)
Length & Height Determined for each piece scanned
Average Thickness Value Thickness of the piece as determined by the system
Character Read Combined results of magnetic and optical MICR reads
Barcode Results Up to 3 per page
Processing Time Used Time used for each piece

Piece Information	
Page Name / Page Type	Stub / STUB
Page Sub-Type	Not Available
Length x Height	6.56in x 3.48in
Average Thickness Value	0.73 (11 Counts)
Character Read	5054577069968 1970030000 34
Barcode Results	080574234
Processing Time Used:	20% (224/1112)

Batch Information

Batch File Format How the system stores batch information
Batch Number System assigned or from a batch ticket
Batch Sequence Number System assigns to each page scanned
Scan Sequence Number Each page scanned is tracked even if it is later deleted
Pages in Batch System assigned
Batch Creation Date Date (and time) the batch was created
Batch Received Date System assigned or selected by operator at batch start
Batch Processing Date System assigned or selected by operator at batch start

Batch Information	
Batch File Format	ODI (ASCII) v01.20
Batch Number	001071
Batch Sequence Number	8
Scan Sequence Number	8
Pages in Batch	18
Batch Creation Date	3/8/2005 2:54:44 PM
Batch Received Date	3/8/2005
Batch Processed Date	3/8/2005

FIGURE 7:   Information windows

Preview/Zoom windows

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

Touch the image in the Preview window to open the Zoom screen, where you can enlarge or reduce the image and view any associated snippets.

NOTE: Touch the screen at another center point to re-center the zoom. You can re-center the zoom before or after enlarging or reducing the image.
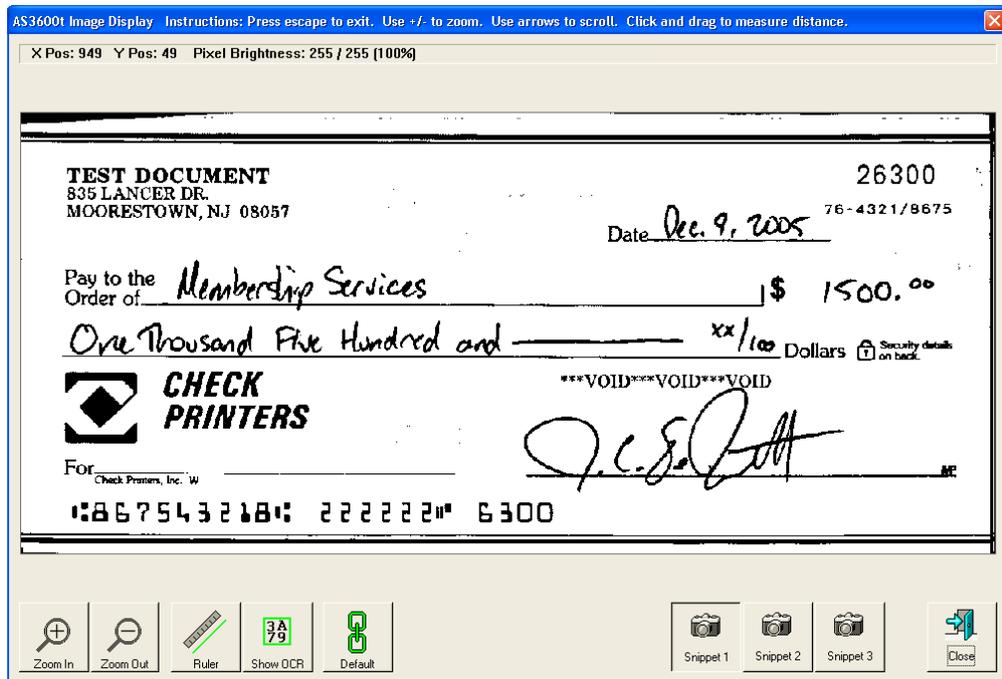

FIGURE 8: Zoom screen

	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 as noted in Figure 8.
	Display the designated scan area for the OCR lines.
	View any **Snippets** associated with the image.
	Close the Zoom window.

Press the **Snippet #** buttons to view the snippets associated with the selected page type. For example, if you are scanning checks your system may be set up to capture images of specific parts of the check, such as the back of the check or the CAR region.
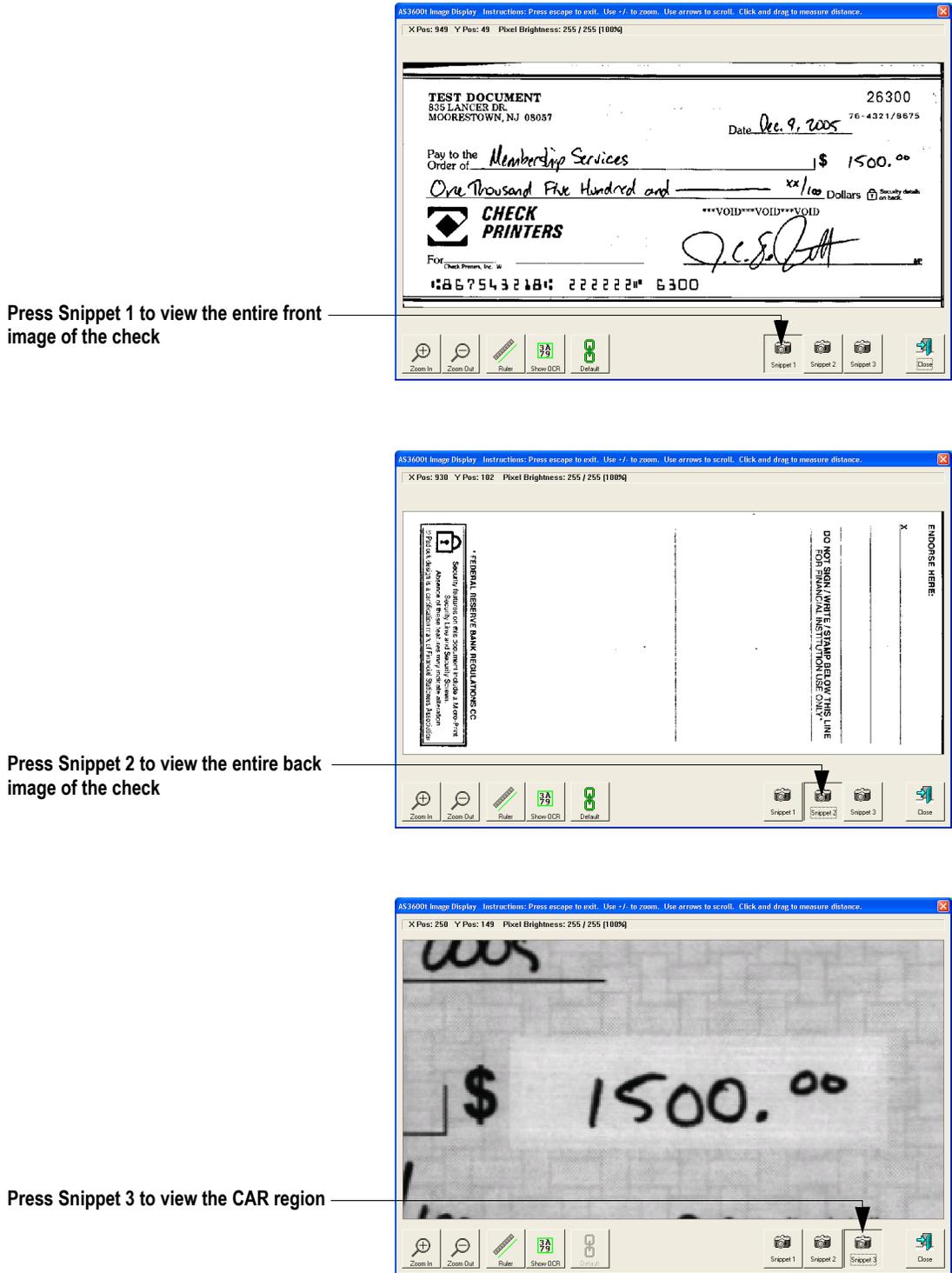
Press Snippet 1 to view the entire front image of the check

Press Snippet 2 to view the entire back image of the check

Press Snippet 3 to view the CAR region

FIGURE 9: Viewing snippets

Scanning documents

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

1 Press **Go** on the Run screen.

2 Set the retard pad switch to the desired position. To send a small stack of documents through the scanner at once, engage the retard pad switch. To send thicker documents through one at a time, set the switch to the Off position as shown in Figure 10.

> **NOTE:** When engaged, the retard pad will separate each page on the stack. The top sheet of the stack must be the first page to reach the retard pad. This will prevent pages feeding out of order or possibly jamming the feeder.

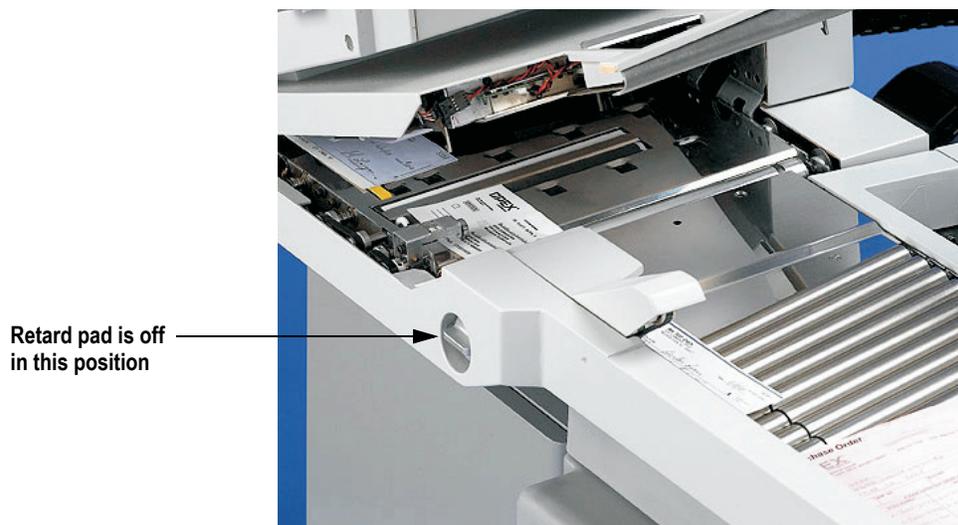> **NOTE:** Turn the retard pad off to feed torn or damaged documents.

Retard pad is off
in this position

FIGURE 10: Adjust the retard pad switch

3 Place the first document onto the conveyor as shown in Figure 11.

Drop documents here
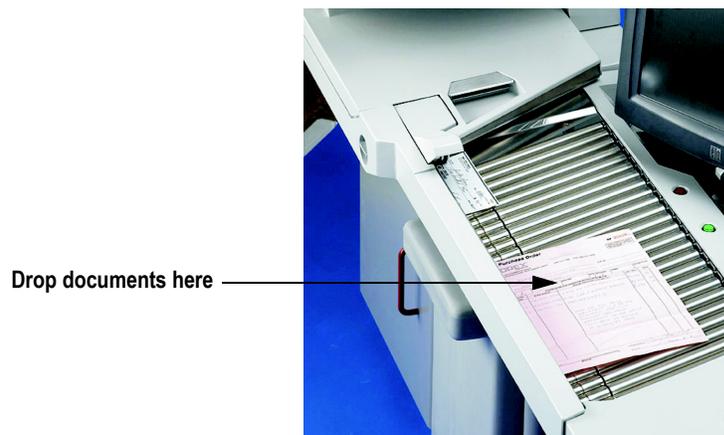
FIGURE 11: Ideal drop area

The AS3600 will scan the document and place a thumbnail of the image in the transaction window. A large image of the document will appear in the Preview window. In this example, the system recognizes 8.5 × 11 sheets of paper as belonging to the "Portrait" page type. This is the default for any page of this size which contains no other significant identifier (such as a barcode or MICR line).
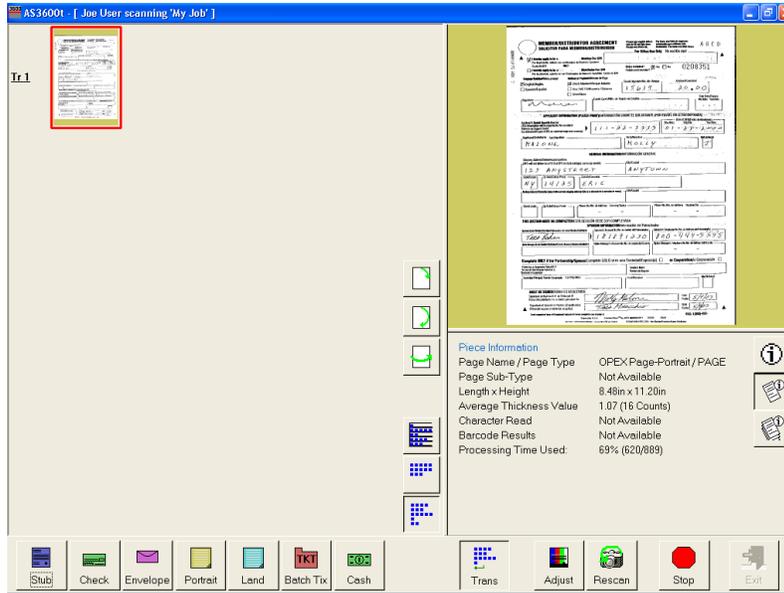
4 Place the next document you want to scan onto the conveyor. In this example, the document is a check. The system recognizes the check by the presence of a MICR line at the bottom.
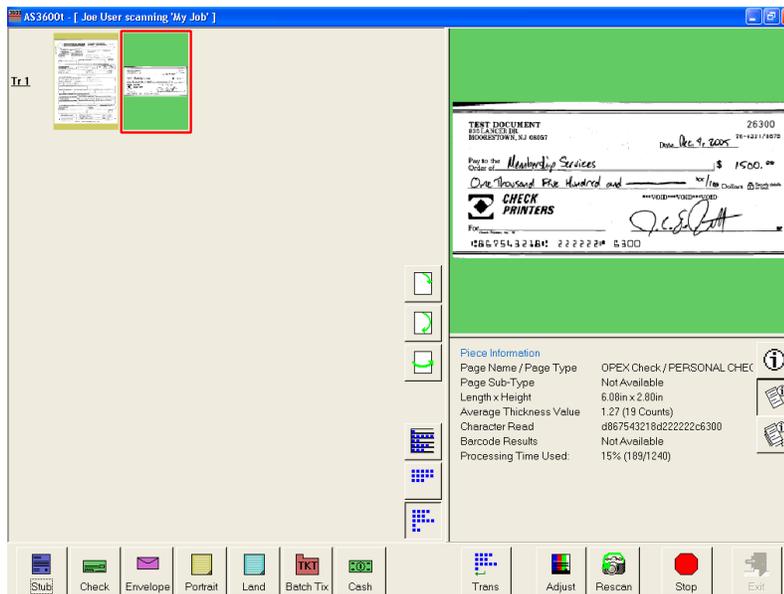
5 Place an envelope onto the conveyor. The system will recognize the document as an envelope. In this example, an envelope is set up as the transaction boundary and ends the current transaction.
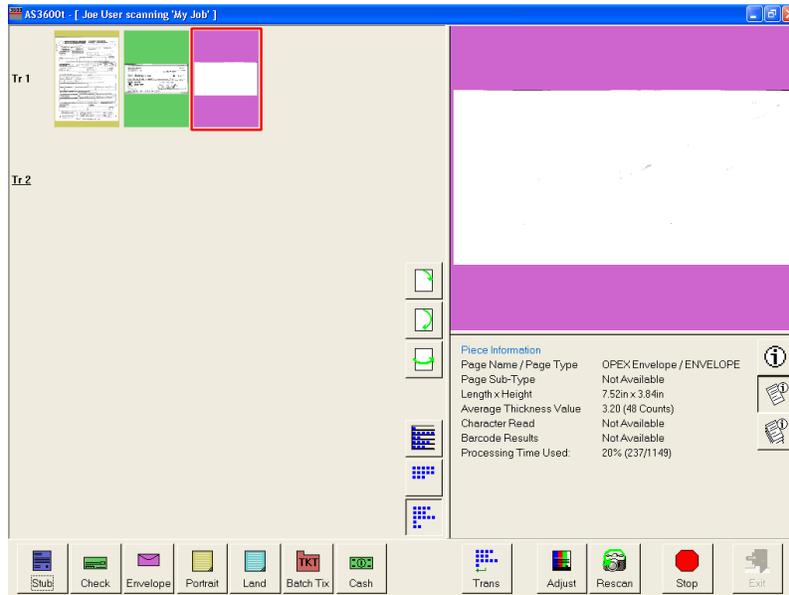
The next document scanned (in this example, another check) will start a new transaction.

New transaction
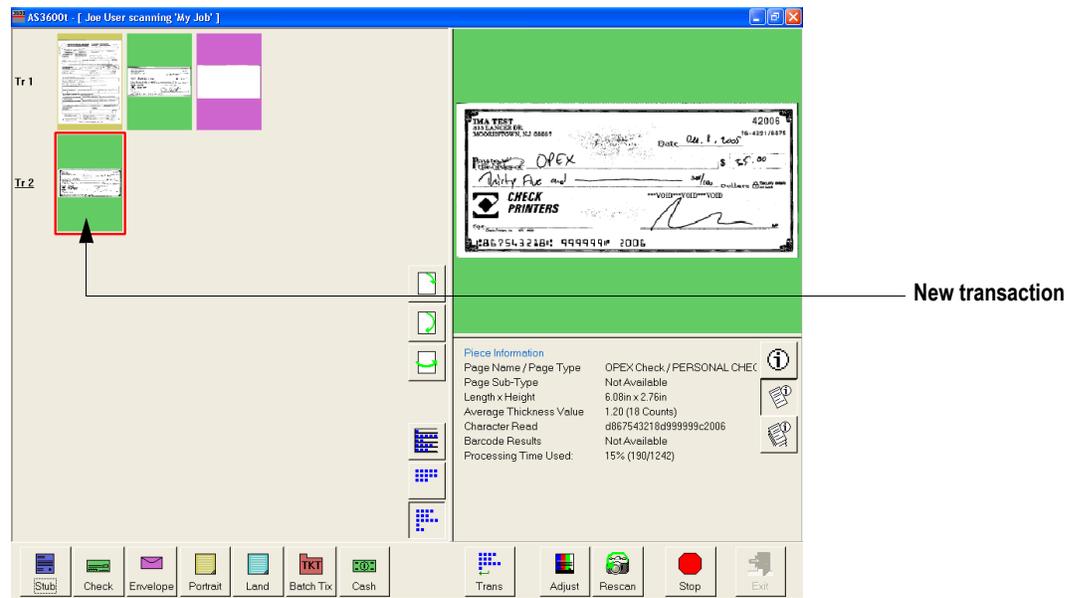
6 Continue to place your documents onto the conveyor. The AS3600 will scan and sort the documents depending on the current job's settings.

> **NOTE:** Unfold any folded pages so they lay flat on the conveyor. Folded pages will not be scanned correctly and may jam the system.

NOTE: Feed documents with the correct side up. When searching for/reading MICR lines, OCR lines, and mark boxes, the AS3600 will assume the documents are being fed face up, with the bottom edge towards you.

As the AS3600 processes documents, check to make sure:

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

Scanning tips

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

- Make sure documents 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 document 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.

- Packets of paper (2-20+ sheets of paper) can be placed on the conveyor. The conveyor rollers will carry the 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. The retard pad switch needs to be engaged for the feeder to perform separation. However, if documents are torn or damaged, they may be damaged further with the retard pad engaged.

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 documents do not have to be perfectly

aligned as long as the lead sheet is the top sheet. Review these techniques with your AS3600 Administrator or your OPEX Technician or Sales Engineer.

Feed Direction

CORRECT
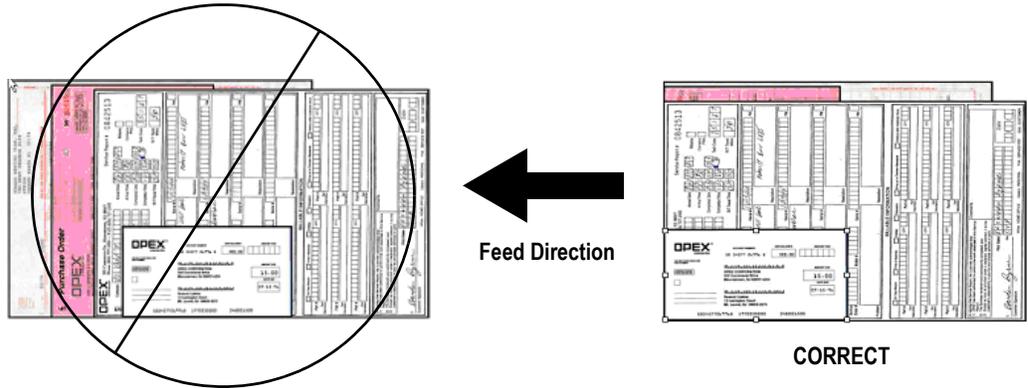
*   The Drag Finger can be used to help create drag on paper larger then 8" wide. This helps prevent pages from skewing when positioned in front of the feeder. This flexible piece of rubber will improve performance when feeding packets of paper. The finger can also be depressed to move it out of the paper path, if necessary.

*   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.

Assigning a page type

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

FIGURE 12: Sample page type buttons (unstructured job)

NOTE: Depending on the job's settings, you may have to assign a page type to some (or all) documents you scan. In this case, the Page Type button will stay depressed until you click another button, and the system will process each document as this page type.

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 transaction, their corresponding page type buttons will appear in color (as shown in Figure 13).
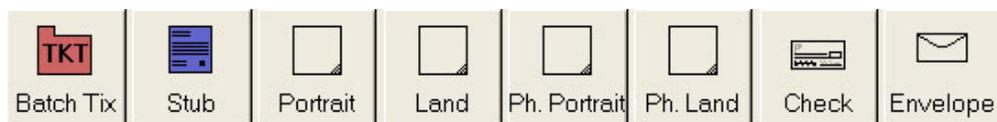

FIGURE 13: Sample page type buttons (structured job)

Assigning page sub-types

If one or more of the page types in the current job also contain sub-types, you must assign the document a sub-type **before** scanning it into the system. To assign a page sub-type:

1 While running a job, press the appropriate page type button. For example, if you are scanning cash into the system, press the **Cash** page type button.

2 Select from the available page sub-types.
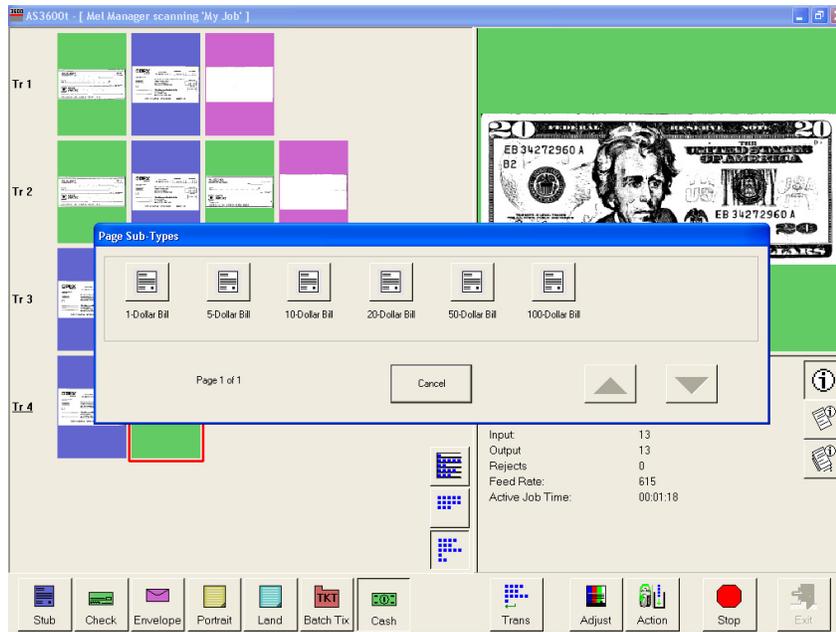
FIGURE 14: Assigning a page sub-type

3 Scan the document.

NOTE: If you do not assign a page sub-type before you scan an eligible document, the system will assign the default page sub-type to the document. For example, if you are scanning cash and you have the 1-dollar bill set up as the default, all the cash you scan will be classified as 1-dollar bills unless you assign another sub-type as described.

Adjusting image quality

Fine-tune the quality of the document images by pressing **Adjust** on the Run screen. The Adjust Capture Parameters screen will appear, where you can modify the brightness and dropout colors for the images.

FIGURE 15: Adjust Capture Parameters screen

Table 1 describes the Adjust Capture Parameters screen buttons.

TABLE 1: Adjust Capture Parameters screen buttons

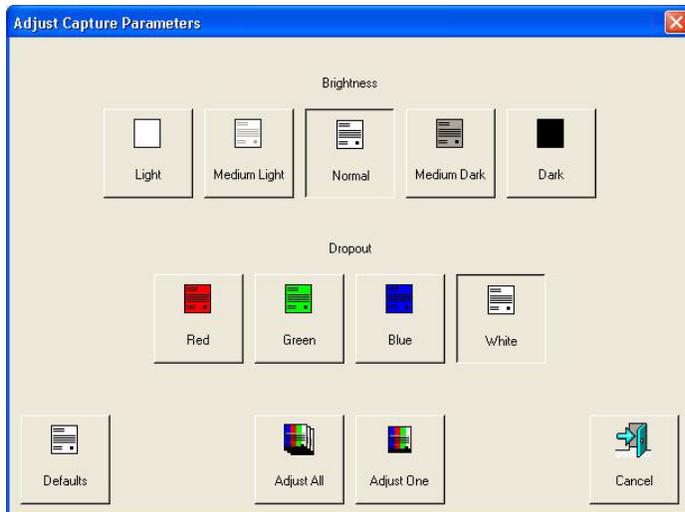|	
Brightness	Adjust the brightness of the document images from **Light** to **Dark**. Press a button to adjust the brightness. The default is **Normal**.
Dropout	Remove a dropout color (**Red**, **Green**, **Blue**, or **White**) from the document image. The color you select will appear as white. The default is **White**. **NOTE:** To use this feature, the documents must be printed with a specific dropout color.
Adjust All/ Adjust One	Select **Adjust All** to apply these changes to all the documents in the current job, or **Adjust One** to make the adjustments only to the next document scanned.
Defaults	Return to the default capture parameters.

Rescanning documents

If you are not pleased with a particular image, you can rescan the document while the job is running. To rescan a document:

1 Select the document's thumbnail.

2 Take the document out of the sort bin.

3 Press **Rescan** to replace the document in the batch.

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

4 Drop the document onto the drop feeder.

5 Verify that the image is acceptable.

NOTE: The **Rescan** buttons will only be available if activated for the current job.

Deleting documents from the batch

When the machine is stopped, you can delete documents from the batch. Press the **Delete** button to delete a document image.

NOTE: The **Delete** button will only be present if activated for the current job.

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

- If the parameter is set to **Delete Last Item**, you will only be able to delete the most recently scanned document 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 a document thumbnail and delete all the documents scanned after the selected document. When the **Delete** button is pressed, the Confirm Delete window (Figure 16) will appear.
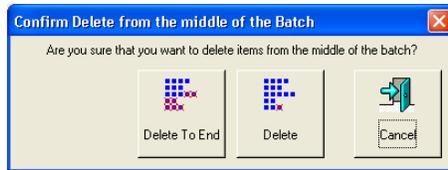
FIGURE 16: Confirm delete

NOTE: It is not possible to delete a single document image from the middle of the batch. 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.

Voiding documents and transactions

The void functions allow you to mark a scanned document or transaction as invalid by placing a VOID stamp over the document's image(s). Use the void functions, for example, as an alternative to the delete functions if you would like to keep a record of the fact that a document was scanned into the system and later deemed invalid.

NOTE: The **Void** buttons will only be present if activated for the current job.

To mark a document as void, highlight the document's thumbnail and press **Void Item** to void only the selected document, or **Void Transaction** to void the selected document and all other documents that are part of the transaction. The VOID stamp will appear over the image and the document will be designated as void in the batch file. Press **UnVoid Item** to remove the VOID stamp.
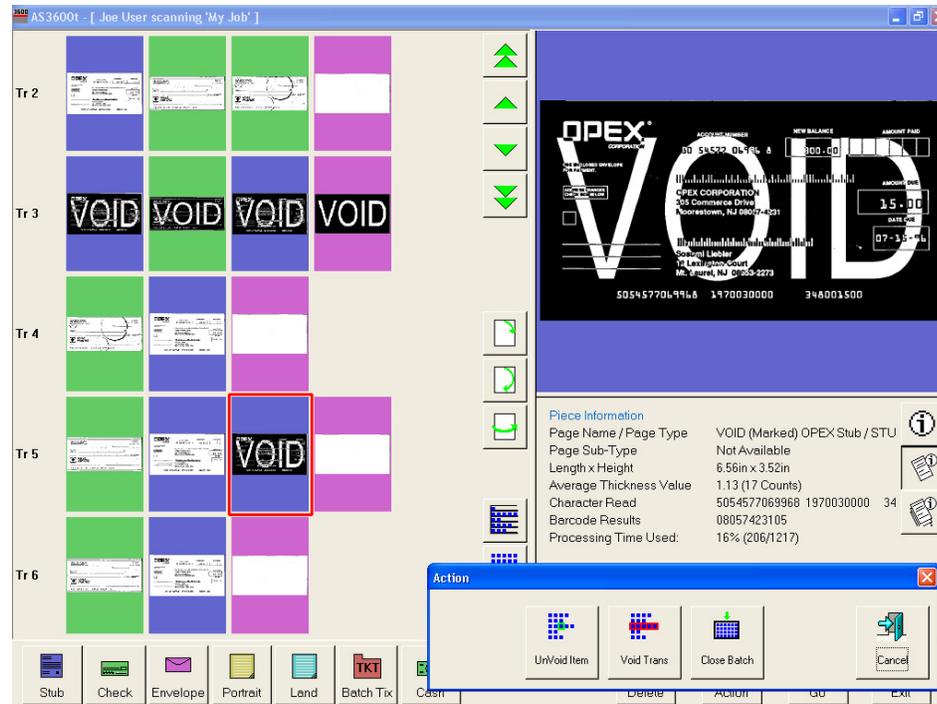
FIGURE 17: Voiding documents

Starting a new batch

There are three ways to start a new batch:

- Press the **New Batch** button while the job is running to begin a new batch with the next scanned document.

- Press the **Close Batch** button, then scan the new batch ticket or the first document of the new batch.

- Scan a batch ticket. If the New Batch Mode parameter is set to Auto, scanning a batch ticket will start a new batch.

NOTE: The **New Batch** button will only be available if activated for the current job.

Ending the job

When you have finished scanning documents, press **Stop** to put the system in standby mode. From standby mode, you can restart the job, **Delete** the last scanned document, 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.

Viewing/editing the batch

Use the Batch Editor to display previous document images by batch, and to delete and/or void images from old batches. To access the Batch Editor:

1 Select **User** > **Batch Editor.**
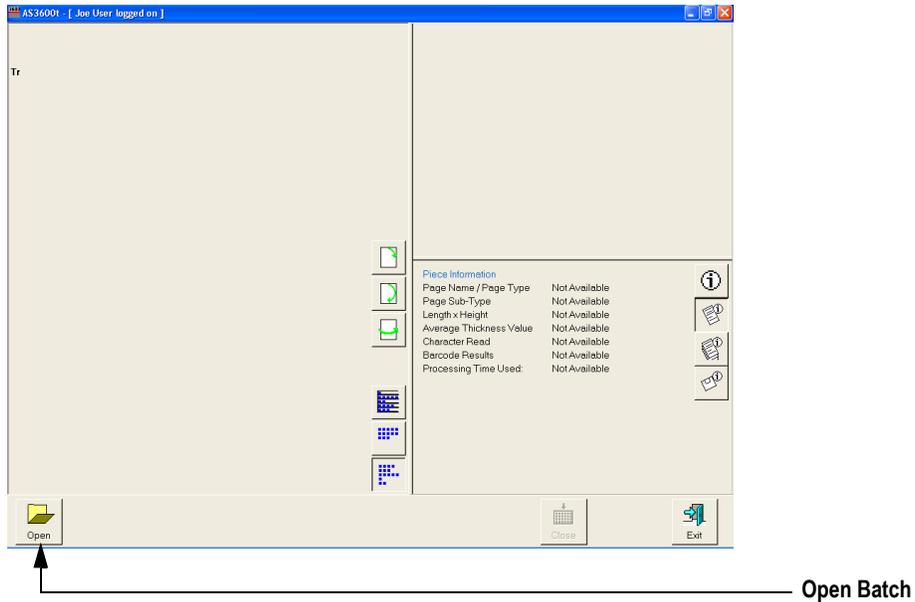
Open Batch

FIGURE 18: Batch Viewer

2 Click the **Open Batch** button.

3 Navigate to the directory on your network where your batches are saved (see your AS3600 Administrator). The batches are saved in folders by their batch number. Open the folder for the batch you want to view and double-click on the .odi, .oxi, or .dat file to view the batch.

> **NOTE:** If you do not know the batch number you are looking for, try to use the date the batch's folder was last modified for reference.
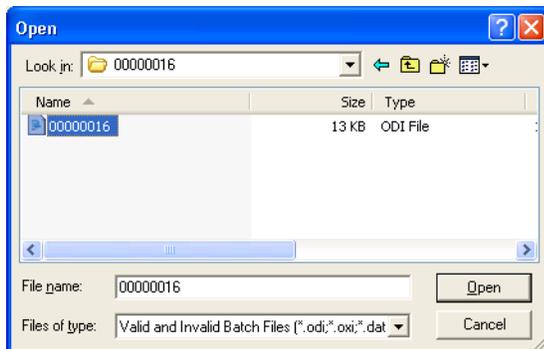
FIGURE 19: Opening the batch

4 View, delete, and void the document thumbnails in the same way as in the Run screen (see "Using the Run screen" on page 2-8).

FIGURE 20: Viewing the batch

NOTE: When voiding documents and transactions in the Batch Editor, check the **Mark Voids** button to mark the images in the resulting batch file as void. View the piece information data to determine if the image was marked (as VOID in the batch file) or unmarked.

Clearing Paper Jams

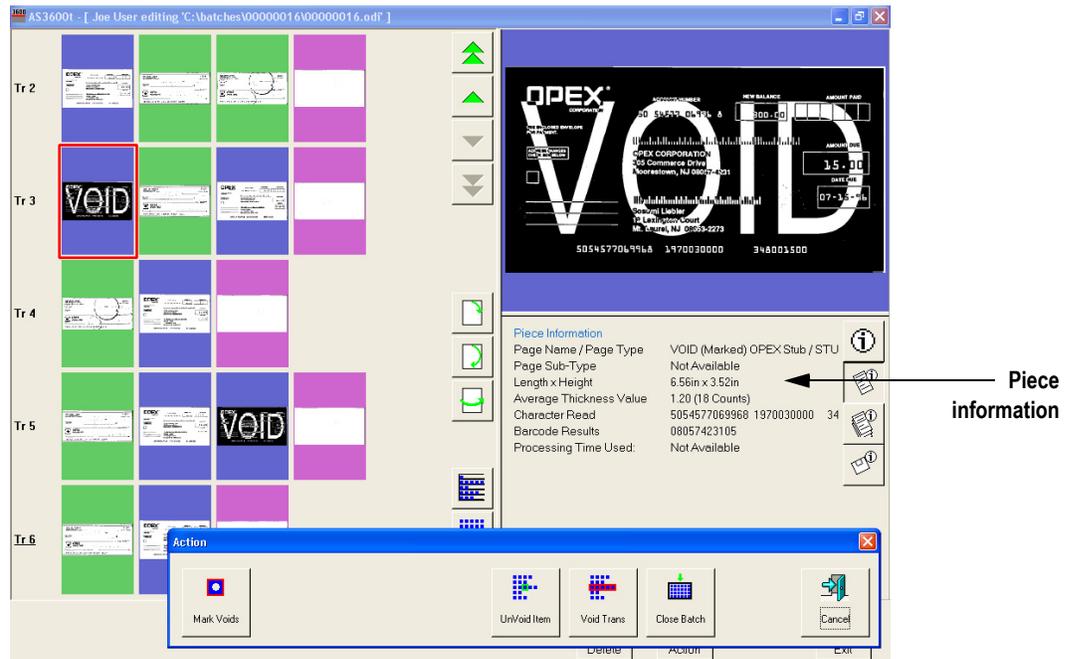During normal operation of the machine, you may encounter an error message halting the scanner. The prompt on the machine will offer you two options: to **CONTINUE** or to **CANCEL**. The error message is informing you of a paper jam or a sensor error. In this case, check the machine for paper jams as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

NOTE: The scanner may also reject documents that are misfed, skewed, or because the document 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).

To open the scanner cover:

1 Place your left hand on the latch.

2 Depress the latch to release the cover. The cover will swing to the open position.

Depress the latch to release the cover
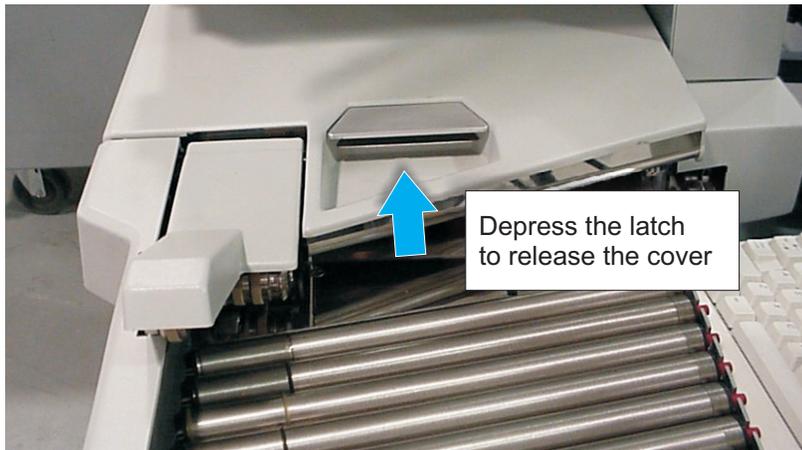
3 Clear any jammed papers in this area.

To close the scanner cover:

Hold the cover and press the latch back to the closed position until you hear the cover latches click into place.

NOTE: Close the scanner cover gently. Slamming the cover down can damage the image sensors.

To open the stacker transport cover:

1 Place your left hand on the latch and turn it counterclockwise.

CAUTION DO NOT OPEN OR CLOSE THE COVER BY APPLYING PRESSURE TO THE STACKER COVER.

2   When the latch releases, gently push open the left side using the handle.

HANDLE
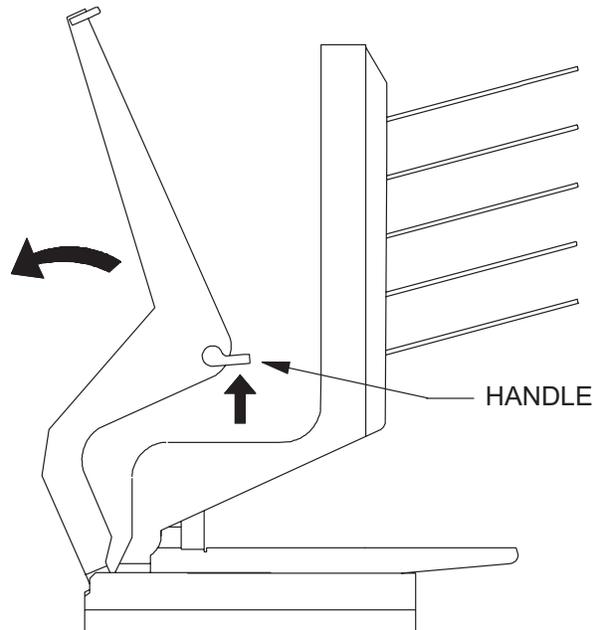
FIGURE 21: Opening the stacker transport cover

3   Clear any jammed papers in this area.

To close the stacker transport cover:

1   Hold onto the latch and gently pull the cover closed.

2   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 piece from the side of the bins. The trays have been designed to allow access to the smallest of pages in the bins.

Remove paper
from the side
of the bins
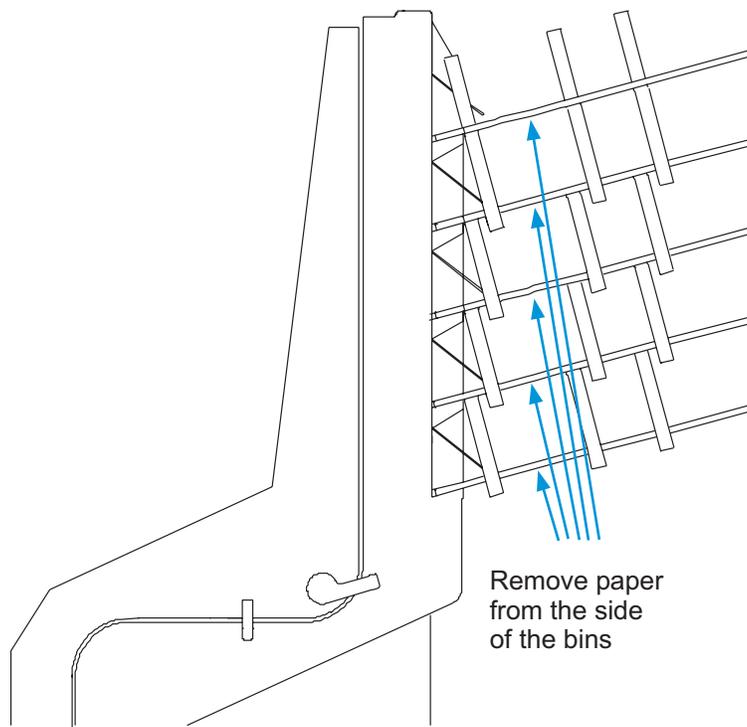
FIGURE 22: Clearing the output bins

Chapter

Operational Maintenance

3

OPEX ®

CORPORATION

Calibrating the Touch Screen Monitor

The monitor 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 Go to **Start > Settings > Control Panel**.

 - The Control Panel window appears.

2 Double-click **Elo Touchscreen**.

FIGURE 23: Elo Touchscreen Icon

3 Click **Align**.

4 Follow the instructions on the screen, using the monitor (not the mouse) to touch the three targets.

 - The Check Video Alignment dialog box appears.

 NOTE: Make sure you touch the monitor's surface. Do not use the mouse to perform this step, as you are calibrating the monitor to touch.

5 Touch around the screen, making sure the cursor follows where you touch.

6 If the test was successful, touch **Yes**.

7 If the test was not successful, you are prompted to repeat the test. Complete Steps 3 through 6 again.

8 When finished, touch **OK** to close the Elo Touchscreen Properties window.

Removing/Replacing the Printer Cartridge

The scanner's imprinter and HP ink cartridge are accessible when the stacker cover 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 AS3600 printer cartridges in sealed containers have a shelf life of two years from the date of manufacture.

To remove/replace a printer cartridge:

1 Open the stacker transport cover.

2 To access a printer, press the appropriate lever in the direction shown in Figure 24 to unlatch the paper guide. The door will be released and the cartridge exposed.
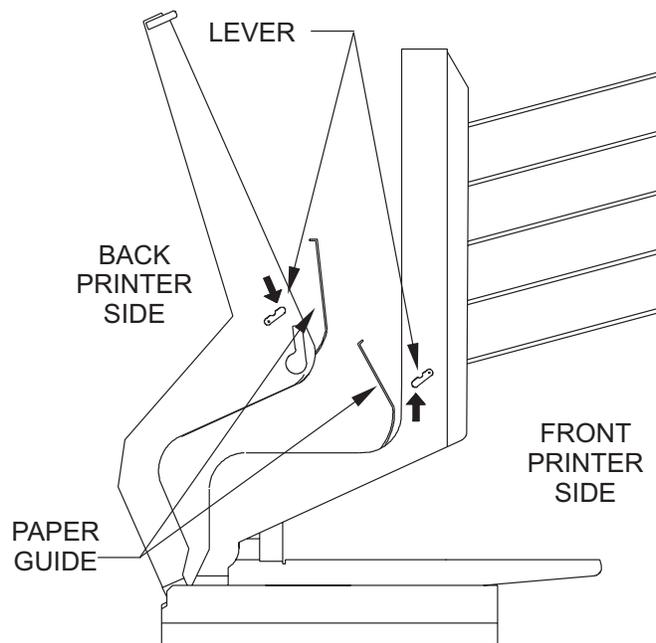
FIGURE 24: Printer release levers

3 Press in the cartridge release lever (behind the cartridge, shown in Figure 25) and push back the lock down latch (Figure 26) to open it. The cartridge is now free to remove.
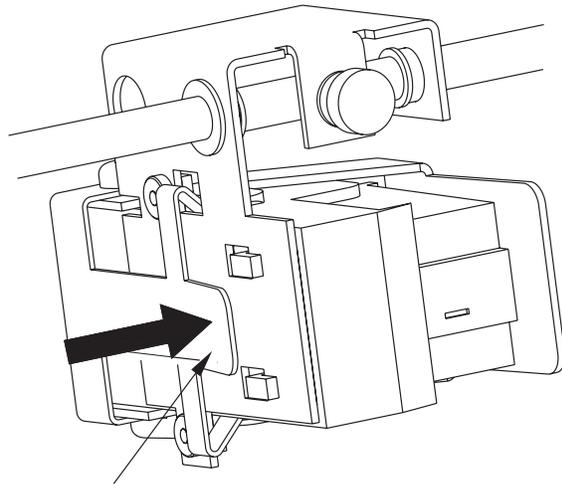
LEVER

FIGURE 25: Cartridge release lever

NOTE: Make sure the printer cartridge does not fall out.
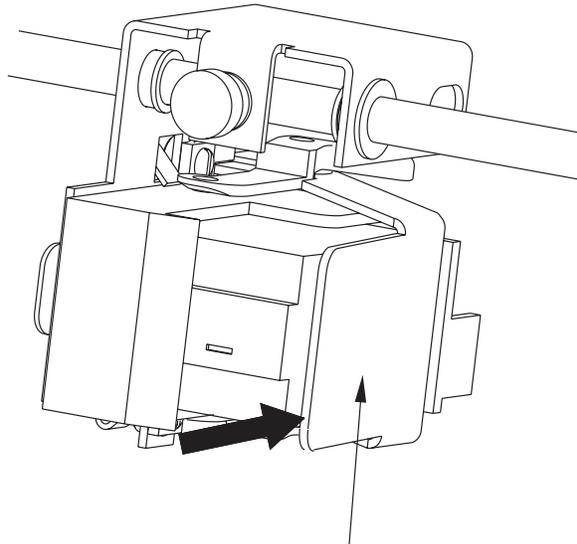
LATCH

FIGURE 26: Cartridge lock down latch

4 Remove the cartridge.

5 Insert the new cartridge. Do not try to push the cartridge straight into the carriage. Instead, tip the cartridge so that the bottom, back corner of the cartridge slides in first.

Push CARTRIDGE into
back corner first.

CARRIAGE
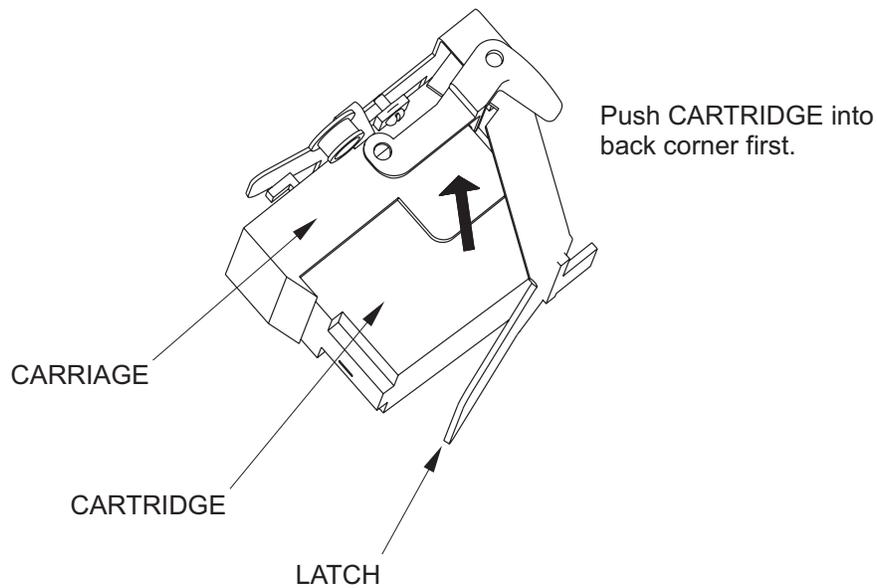
CARTRIDGE

LATCH

FIGURE 27: Installing the printer cartridge

6 Close the latch.

NOTE: Make sure you do not hold down the lever while closing the latch.

Adjusting the printer carriage position

You can adjust the vertical print position on documents 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.

To adjust the printer cartridge position:

1 Loosen the thumb screw.

2 Slide the carriage to the desired position on the detented shaft.

-   There are 22 location notches to position the imprinter.

3 Tighten the thumb screw in place.

> **NOTE:** If you do not position the printer in a detent, the thumb screw sticks out, preventing you from closing the paper guide.

Loosen THUMB SCREW to move CARRIAGE along DETENT SHAFT.
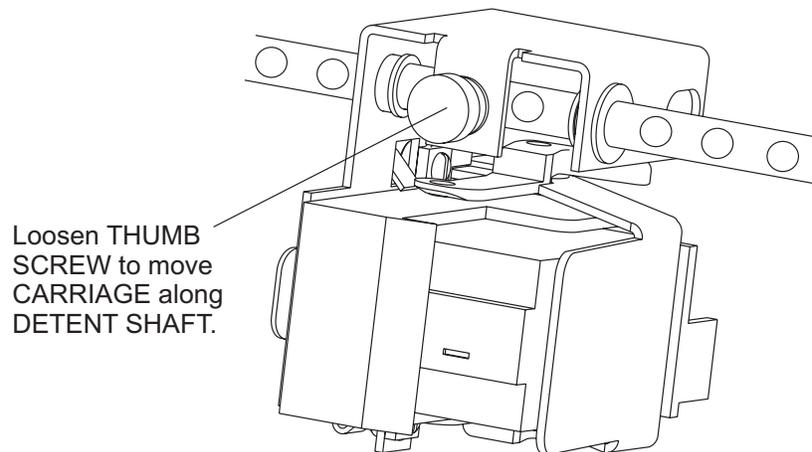
Cleaning the System

When properly maintained, the AS3600 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, document 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 AS3600 continues to function properly, with minimum downtime and maximum efficiency. This maintenance procedure consists of debris/dust removal and general cleaning.

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 stacker assemblies

1 Stop all jobs and ensure that all motors are stopped.

2 Check the stacker cover once a shift. The stacker cover should be opened and cleared of paper debris, dust, envelope flaps, etc.

   NOTE: The cover needs to be closed before scanning can begin again.

3 Vacuum dust and debris from the conveyor rollers and the stacker assembly (see Figure 28).
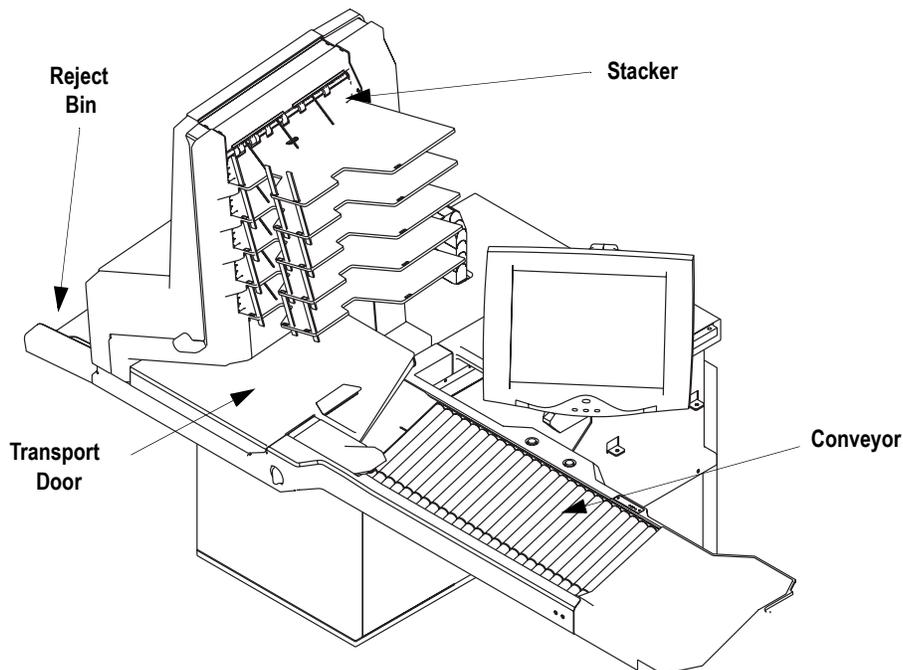
FIGURE 28: Conveyor and Stacker Assembly

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 (belts and pad).

1 Stop all jobs and ensure that all motors are stopped.

2 Lift the feed arm assembly up (hinged on the left side) and loosen the thumb screw on the back side (see Figure 29).

3 Disengage the cover by sliding it forward away from the hinge and remove it.
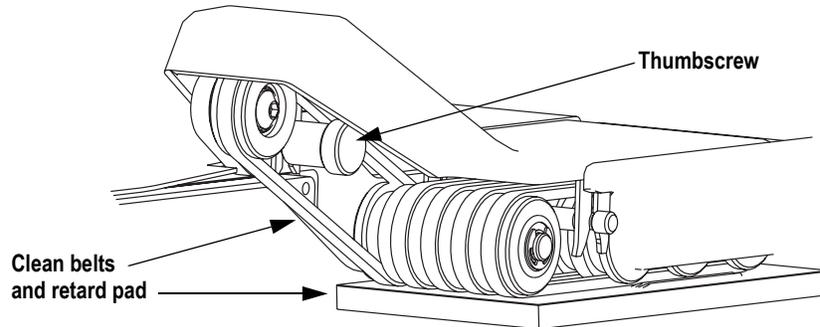
FIGURE 29: Belts and retard pad location

4 While holding the Feed arm upright, vacuum dust and debris from belts and pulleys.

5 On a weekly basis or if the dirt buildup on the pulleys appears excessive, clean the top side of the feed belts (see Figure 30). To do this:

    a. Spray a mild detergent onto a lint-free cloth and wipe the belts clean.

    b. Rotate the belts manually to ensure that the entire surface area is cleaned. While manually rotating the belts, check the idler pulleys for dirt buildup.
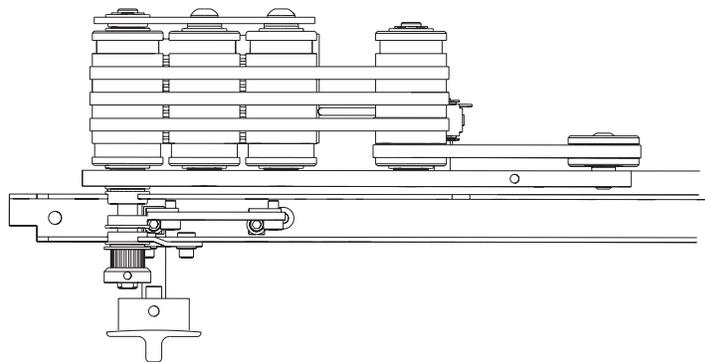
FIGURE 30: Feed Belt Assembly

Ink can also get transferred to the retard pad making it slick. When the feeder knob is in the upright position, the pad can be removed and cleaned easily.

6 Turn the feeder knob to the upright position (see Figure 31).

Feeder knob up =
Retard Pad engaged

Feeder knob down =
Retard Pad disengaged
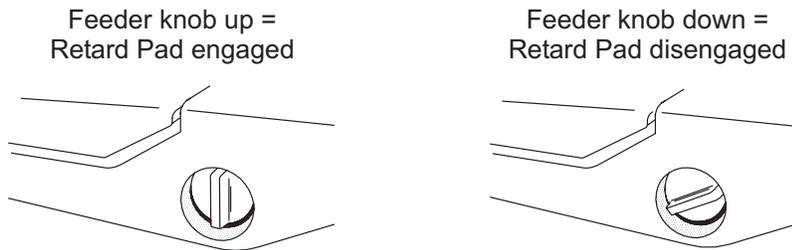
FIGURE 31: Feeder knob position

7 Lift the retard pad out of the AS3600.

8 Spray a mild detergent onto a lint-free cloth.

9 Wipe the retard pad thoroughly, including inside the grooves.

Retard Pad removed
for cleaning
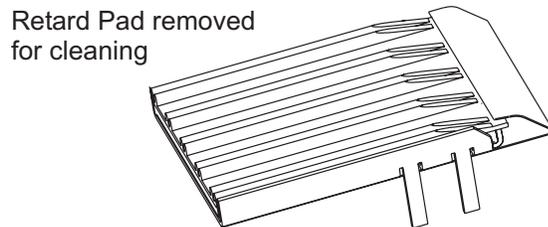
FIGURE 32: Clean the retard pad

- Clean the retard pad once per shift or if build-up on the pad causes feed problems.

10 Hold the feed arm in an upright position and return the retard pad to its proper location.

11 While holding the Feed arm in the upright position, vacuum dust and debris from the pre-feed nip roller and flexible finger area.

12 Spray a mild detergent onto a lint-free cloth and clean the pre-feed nip roller and finger.

Retard
Pad

NIP
Roller

Flexible
Finger
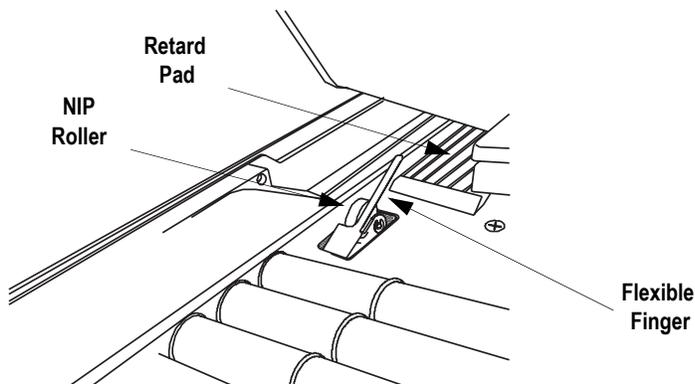
13 Mount the Feeder cover and tighten the thumb screw.

14 Lower the feed assembly down to operating position.

Contact image sensor

1 Stop all jobs and ensure that all motors are stopped.

2 Open the Transport Door using the metal handle.

3 Using glass cleaner and a lint-free cloth, clean the upper and lower CIS glass.

Upper glass is on the underside of the cover

Lower glass
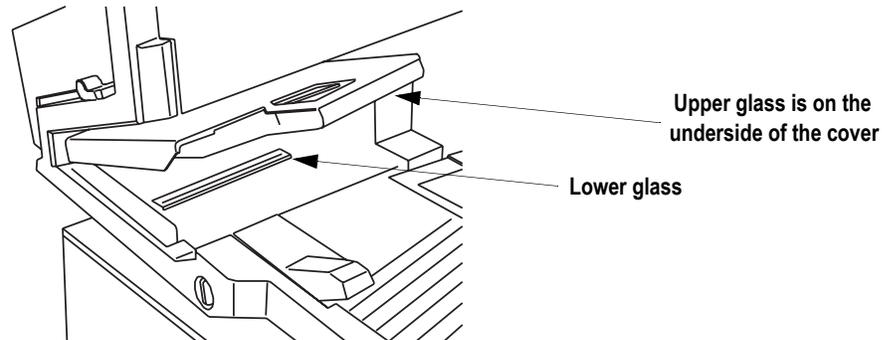
FIGURE 33: Cleaning the Contact Image Sensor glass surfaces

- Windex (the recommended glass cleaner) can be applied to a lint-free rag and wiped on the imager glass top (front camera) and bottom (back camera). The top camera (not viewable in this picture) is on the underside of the cover directly above the bottom camera.

The glass should be cleaned at the beginning or end of each shift, or as needed. If the operator sees 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.

Thickness detect rollers

1 The Thickness Detect mechanism is located inside the Transport assembly. Open the Transport Door and look to the left side.

Upper Thickness Detect Roller
Lower Thickness Detect Roller

Push on the rubber band on the crush roller to rotate it.
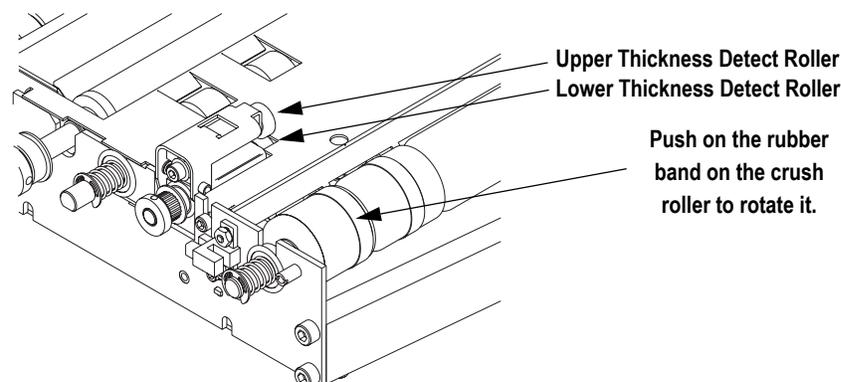
2 Clean the surface of the upper thickness detect roller with isopropyl alcohol. Rotate the roller as required to ensure that the entire surface is cleaned.

3 The upper roller is held by a roller arm that is hinged on the left side. Lift the upper roller to provide access to the lower roller (do not attempt to force it beyond the stop). Remove any deposits from the lower roller by scraping with a fingernail or nonmetallic implement. The lower roller can be rotated by rotating the crush roller. Push on the rubber band on the crush roller. Rotate as required to enable removal of deposits from the entire surface of the lower thickness detect roller.

Appendix

Statistics

A

OPEX®

CORPORATION

AS3600 Statistics

The AS3600 host software provides you with tools to:

• Create statistics reports

• Back up statistics

• Restore statistics

NOTE: Operators with User, Supervisor, and Manager-level accounts have access to the Report functions.
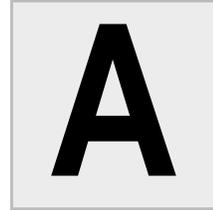
Creating statistic reports

Use the statistics reports to evaluate the efficiency of jobs you have run. The AS3600 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.

The Individual Report and the Summary Report are very similar. Both have the following sections:

• General Information

• Overall System Performance Measures

• Performance Details

To create a statistics report:

1 In the Explorer bar, click **User**, then either **Individual Report** or **Summary Report.**

-   For this exercise, click **Summary Report.**
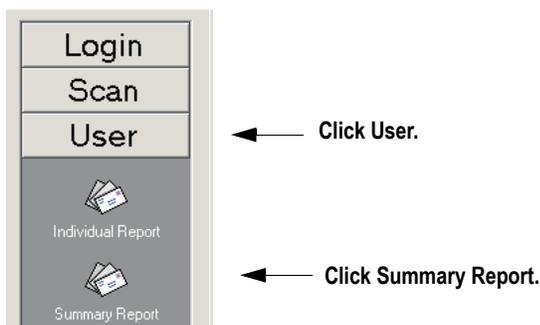
-   The Statistics Reports Criteria window appears.
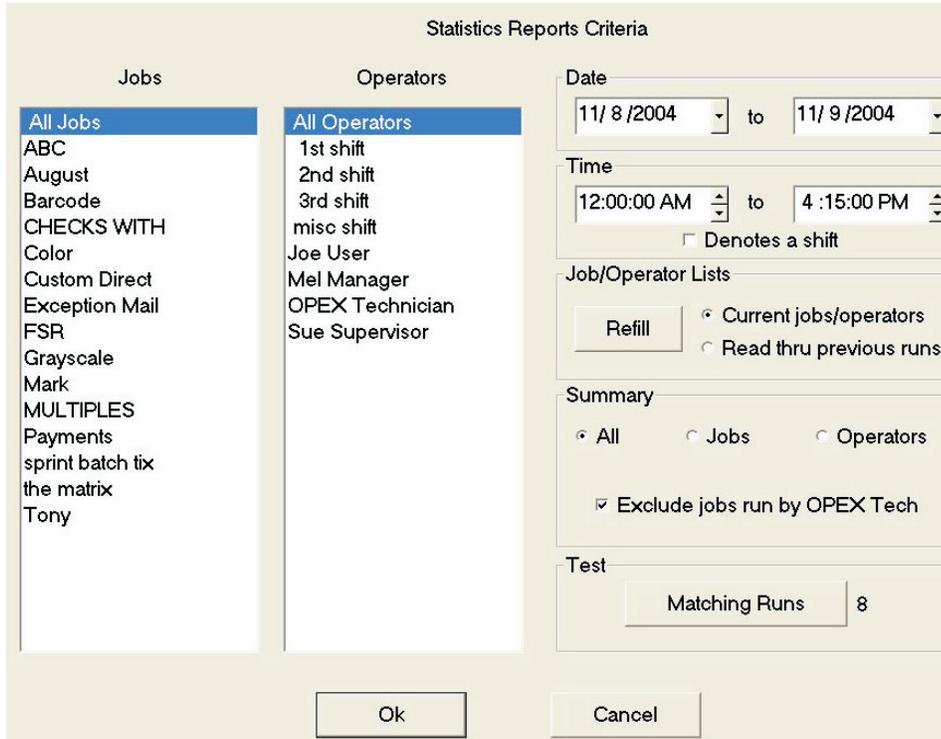
FIGURE 34: The Statistics Reports Criteria window

2   In the Statistics Reports Criteria window, set the parameters for the report as shown in Figure 34:

-   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 34, 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 34, 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.

- If a number appears after the **Matching Runs** button, clicking **Ok** will generate a statistics report for the selected criteria.

5 Click **Ok**.

- The statistics report will appear. Figure 35 shows the report for the above criteria.


```
---------------------------------------------------------------------------
       OPEX Scan Summary Report For OPEX Breadboard Serial Number A0001

Job Name:                        All  Start Time:        11/08/04 12:00:00 AM
Operator:                        All  End Time:          11/09/04 04:15:00 PM
Run Type:              Mixed
Jobs Included:                     8  Jobs Ended:                          8
---------------------------------------------------------------------------
                   OVERALL SYSTEM PERFORMANCE MEASURES
Input:                   35          Jam Rate:              8 pieces/jam
Output:           29 (82.9%)         Rejects:               6 (17.1%)

Feed Rate:              220 /hr  Reference Feed Rate:         217 /hr
Output Rate:           182 /hr  Reference Output Rate:       180 /hr
Jam Clear Time:         18 sec  Reference Jam Clear Time:     20 sec
---------------------------------------------------------------------------
                      PERFORMANCE DETAILS
                          JOB TIME
          Active Job Time:                            00:09:32
               Run Time:              00:08:19    (87.2%)
               Jam Time:              00:01:13    (12.8%)
          Idle Time:                                 00:10:32

OUTPUT
          Batch Tix                          7    24.1%    20.0%
          Check                              7    24.1%    20.0%
          Stub                              14    48.3%    40.0%
          Others                             1     3.4%     2.9%

REJECTS
          Length Too Long                    0     0.0%     0.0%
          Length Too Short                   0     0.0%     0.0%
          Gap Too Small                      0     0.0%     0.0%
          Too Thin                           0     0.0%     0.0%
          Too Thick                          0     0.0%     0.0%
          Double Feed                        0     0.0%     0.0%
          Too skewed                         0     0.0%     0.0%
          Unable to Capture Image            0     0.0%     0.0%
          Unable to Process Image            0     0.0%     0.0%
          Blank Image Detected               0     0.0%     0.0%
          Poor Image Quality                 0     0.0%     0.0%
          Could Not Determine Page Type      0     0.0%     0.0%
          No Bin Available                   0     0.0%     0.0%
          Magnetic MICR Response Missing     0     0.0%     0.0%
          Bad MICR Format                    3    50.0%     8.6%
          Printer Response Missing           0     0.0%     0.0%
          Printer Not Ready                  0     0.0%     0.0%
          Failed Saving Image File           0     0.0%     0.0%
          Failed Saving Batch                0     0.0%     0.0%
```

FIGURE 35: 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 **Params > Config > Statistics Settings > StatsExportFilename** parameter.
- **Exit button** (red stop sign) - 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 2: 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: • **Singles** • **Multis** • **Stub Only** • **Check Only** • **Multis With Pages** • **Unstructured Transactions** • **Page Only** • **Mixed** 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 3: 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 AS3600 is currently feeding. The formula for the Feed Rate is: $$\text{Feed Rate} = \frac{\text{Input} * 3600}{\text{Active Job Time (seconds)}}$$
Output Rate	Number of pieces per hour the AS3600 is processing. The formula for the Output Rate is: $$\text{Output Rate} = \frac{\text{Output} * 3600}{\text{Active Job Time (seconds)}}$$
Jam Clear Time	Average time the AS3600 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 AS3600 per hour. The formula for the Reference Feed Rate is: $$\text{Reference Feed Rate} = \frac{\text{Input} * 3600}{\text{Run Time (seconds)} + (\text{Jams} * \text{Ref. Jam Clear Time (seconds)})}$$
Reference Output Rate	Number of pieces processed by the AS3600. The formula for the Reference Output Rate is: $$\text{Reference Output Rate} = \frac{\text{Output} * 3600}{\text{Run Time (seconds)} + (\text{Jams} * \text{Ref. Jam Clear Time (seconds)})}$$
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 4: Performance Details terms

Term	Definition
Active Job Time	Time the AS3600 was either actively running or was halted due to a jam. Active Job Time is broken down by: • **Run Time** • **Jam Time**
Run Time	Total run processing time.
Jam Time	Total time the AS3600 was halted for a jam.
Idle Time	Time the Operator was in the Run Job window, but the AS3600 was not processing pieces.

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

TABLE 5: Reasons for rejected items

Length Too Long	Results when an image is longer than the maximum allowable image size of the system or when outsorting is set to reject an image longer than a defined length.
Length Too Short	Results when outsorting 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.
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.

TABLE 5: Reasons for rejected items (continued)

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.
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 a document 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.
API 3600 Link Plug-in Requested a Reject	Results when the API 3600 Link plug-in has requested that the piece be rejected.
API 3600 Link Plug-in Timed Out	Results when the host has not received a response back from the API 3600 Link 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 5: 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 6: Reasons for jams

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.
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.
Bin 3 Gate Sensor Missing	Results when the controller is expecting to see a piece pass by the bin 3 gate sensor but it has not within the time period that we are expecting it.
Bin 4 Gate Sensor Missing	Results when the controller is expecting to see a piece pass by the bin 4 gate sensor but it has not within the time period that we are expecting it.
Bin 5 Gate Sensor Missing	Results when the controller is expecting to see a piece pass by the bin 5 gate sensor but it has not within the time period that we are expecting it.
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.

TABLE 6: Reasons for jams (continued)

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.
Unexpected Piece at Bin 3 Sensor	Results when a piece is detected at the bin 3 sensor that the software was not expecting. A gate that did not fire properly usually causes this to occur.
Unexpected Piece at Bin 4 Sensor	Results when a piece is detected at the bin 4 sensor that the software was not expecting. A gate that did not fire properly usually causes this to occur.
Unexpected Piece at Bin 5 Sensor	Results when a piece is detected at the bin 5 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.
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.
API 3600 Link Plug-in Failed	Results when there is a failure sending information to the API 3600 Link plug-in.
API 3600 Link Plug-in Requested a Jam	Results when the API 3600 Link 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.

The Stops section lists the following:

TABLE 7: 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.
Bin 3 Gate Sensor Blocked	Results when the bin 3 gate sensor is blocked by something when the system is attempting to start up.
Bin 4 Gate Sensor Blocked	Results when the bin 4 gate sensor is blocked by something when the system is attempting to start up.
Bin 5 Gate Sensor Blocked	Results when the bin 5 gate sensor is blocked by something when the system is attempting to start up.
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.
API 3600 Link Plug-in Requested a Stoppage	Results when the API 3600 Link 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 **G**

OPEX®
CORPORATION

Administrator   Person with a Manager-level account. An administrator sets page type, audit trail and job parameters and has full access to the system.

Audit Trail   User-definable information printed on documents and/or displayed on document 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.

Document   Any single sheet of paper processed by the AS3600.

Dropout   Removing a selected color from a document image. The AS3600 can remove red, green, blue, or white from document images.

Explorer Bar   Vertical menu bar on the left side of the screen. Use the Explorer Bar to navigate through the various system parameters and utilities.

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

Host   Operator's main interface with the machine. Software that interfaces with the INtime Controller to manage the system's non machine-related functions.

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

Job   A profile of parameter settings you use for processing documents. When you run documents through the AS3600, you must specify which job to

run. Jobs allow you to process pieces in a similar manner from run to run.

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

Multi   A transaction 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 documents.

Operator   The person running the machine.

Page Sub-Type   Group of page types that allow operators to further classify documents. A page type may have several sub-types associated with it.

Page Type   A profile of the characteristics for a type of piece. Each job includes one or more page types. Once you have defined a page type, you can set up a job to process pieces that match that page type profile in a consistent way. For example, the page type "Check" contains parameters that match the profile of a personal check. When you run a personal check, the AS3600 recognizes it as a "Check" page type, and processes the personal check as it does all other "Check" page types. The AS3600 comes with eight predefined default page types, which you can use as templates for new page types specific to the customer's needs.

Piece   Any single sheet of paper processed by the AS3600.

Single   A transaction consisting of a document and a check.

Skew   Deviations from straight lines in scanned images.

Snippet   An image captured from a scanned document. Each document may have several snippets associated with it.

Special Item   For each job, this is the piece responsible for signaling the beginning or end of a transaction.

Structured Transaction   Structured transactions must contain the specified number and order of documents.

Transaction   Defined by the customer, and can be defined 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.

Unstructured Transaction   A transaction that can contain any number of pieces and page types. There is no structured order for feeding these pieces other than the "Special Item" page type. This must always be first or last, according to how it is set up to signal the next transaction.

Index

I

AS3600 Operator Manual - OPEX Corp. Use Only - Not for Distribution