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SCANNING OVERVIEW

Enterprise Content Management supports a range of document scanners from standard desktop units for personal scanning to specialized high-speed, high-volume units for production scanning.

Personal desktop scanners can be used to create multi-page TIFF image files. These are added to a folder like other electronic documents with the Add Document function described later in this user manual.

Most new Incoming Correspondence documents will be scanned into the system using the high-end scanners. These specialized scanners have features such as double-sided scanning. They run sophisticated production document scanning software with advanced capabilities such as automatic blank page detection and removal, black border removal, and document skew correction. The scanning system software has been customized to meet USDA's requirements as shown in this section.

Documents are usually scanned in groups (batches) of documents. Each document in the batch must be properly prepared before scanning. All paperclips and staples must be removed.

For documents that don't have Bar Code Separator Sheets, Patch Code Separator Sheets must be placed in front of each document in the batch. A "Patch Code" is a special bar code used on separator sheets that identifies the beginning of a new document. The patch codes or bar codes tell the scanner where individual documents begin and end. Each batch must contain documents that are all separated by bar codes or all separated by patch codes – batches can't be mixed.

Document Scanning

When ready for scanning, the scan operator double-clicks the icon for the scanning application. The Splash screen is displayed as shown in **Figure 1**.



Figure 1: Scan Application Splash Screen

After the splash screen is displayed, the logon screen is then displayed (not shown). After logging in, the user can begin scanning documents.

A prepared batch is placed in the scanner to be scanned. The Scan Documents screen appears as shown in **Figure 2**.



Figure 2: Scan Documents

The operator first selects the Module type. 'Correspondence Management' is currently the only module type in the list. In the future, other module types will be available. The scan operator then selects the Separator type (Bar Code Sheets or Patch Code Sheets).

Bar Coded Separator Sheets are only used to scan documents that users have submitted to have scanned into existing folders. Users initially create a Bar Coded Separator Sheet by using the Add Document function for an existing folder. The index values for the folder are printed on the Bar Coded Separator sheet.

After selecting the separator type for the batch, the scan operator clicks the <Scan> button to start scanning.

This screen allows the scan operator to print additional Patch Code Separator Sheets when necessary. To print new patch code separator sheets to place between documents, the scan operator clicks the <New Patch Code Sheet> button.

To create a new Bar Code Separator Sheet for a document, the operator clicks the <New Bar Code Sheet> button. A new bar code sheet may be needed if the scanner cannot read the bar codes on the separator sheet for a document that was submitted by a user for scanning. This can happen if the print toner is not dark enough. The system will catch the problem in Quality Control (as explained below) and the document will need to be rescanned. When the operator clicks the <New Bar Code Sheet> button, the screen in **Figure 3** is displayed.

Print New Bar Code Sheet

Application: Correspondence Management

Control Number: 1077

Document Type: Supporting Documentation

Document Title:

Author:

Document Security Restrictions

View: Same as Folder Restrictions

Edit: Same as Folder Restrictions

Delete: Same as Folder Restrictions

Administrator: Same as Folder Restrictions

Print **Exit**

Figure 3: Print New Bar Code Separator Sheet

The operator enters the values exactly as they are printed on the original Bar Code Separator Sheet and clicks the <Print Sheet> button. The new Separator Sheet is printed.

The operator replaces the old Separator Sheet with the new one and rescans the document.

QUALITY CONTROL

When the documents are finished scanning, the Quality Control screen in **Figure 4** is displayed. This screen allows the scan operator to view the images that were just scanned. Pages may be rearranged or deleted.

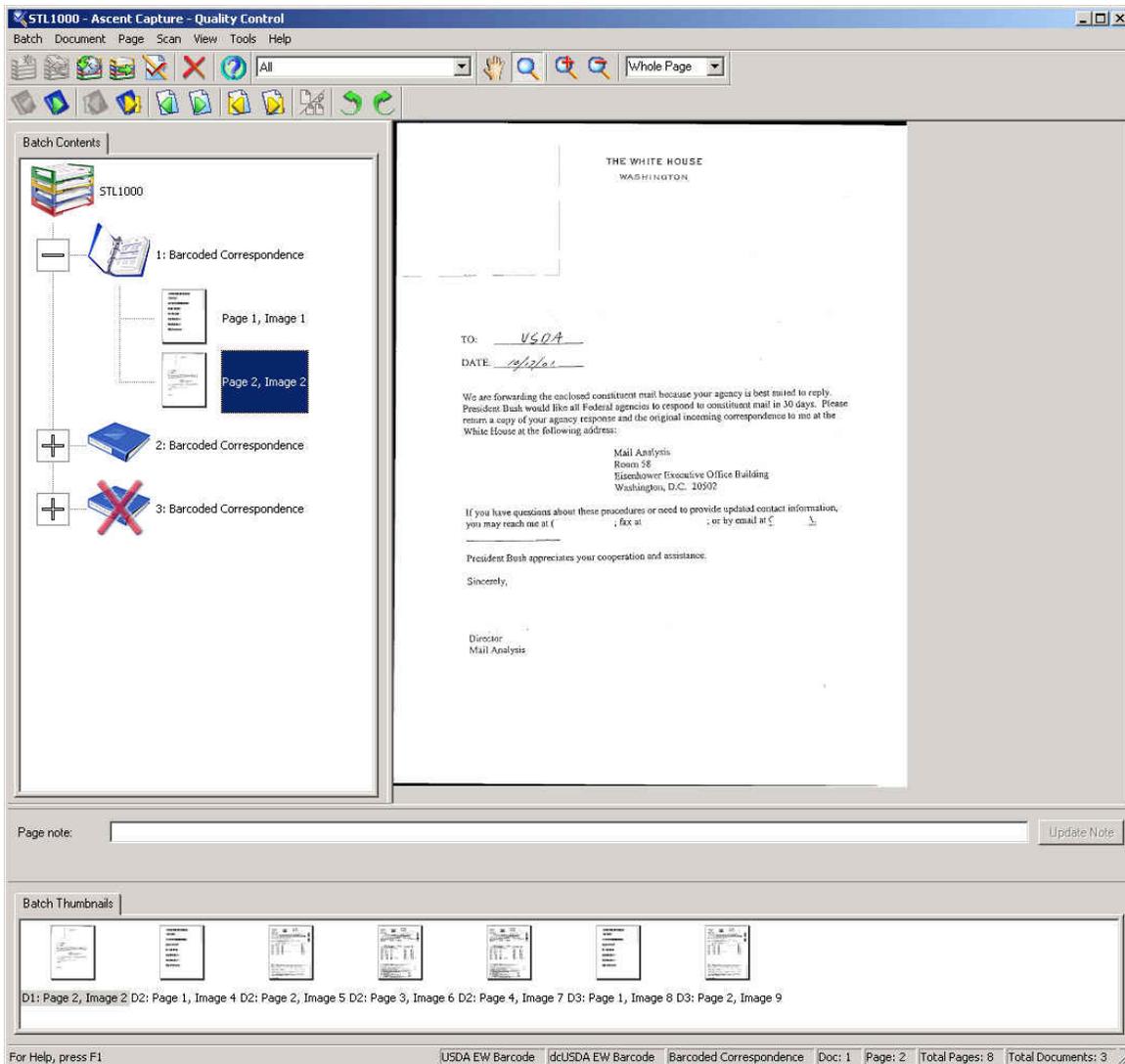


Figure 4: Quality Control Check

The left panel lists each document and each page within the document. When the user clicks on a page, it is displayed in the viewer panel on the right. The operator steps through each document in the batch to ensure that it was scanned properly. To step through the documents, the user clicks on individual pages in the Batch Contents list on

the left hand side, uses keyboard keys or uses the batch navigation buttons on the toolbar. The up and down arrows allow the user to view the next or previous page in the batch.

Images displayed in the quality control screen can be rotated if any pages were scanned upside down or sideways. The images can be rotated to the correct position by clicking the appropriate button on the quality control screen toolbar. If an image is rotated, the system will keep its new orientation when the document is stored. The user can zoom displayed images if necessary to enlarge the document in the window.

Individual documents or pages can be deleted by using the <Document> and <Page> menus or by clicking the <Delete> button. If a document is deleted from a batch, that document needs to be rescanned. If it is rescanned before closing the batch, it will be included in the current batch. Otherwise, it would need to be scanned in a new batch.

For bar-coded batches, documents whose bar codes could not be read are displayed with a big red X through them as shown in **Figure 5**.

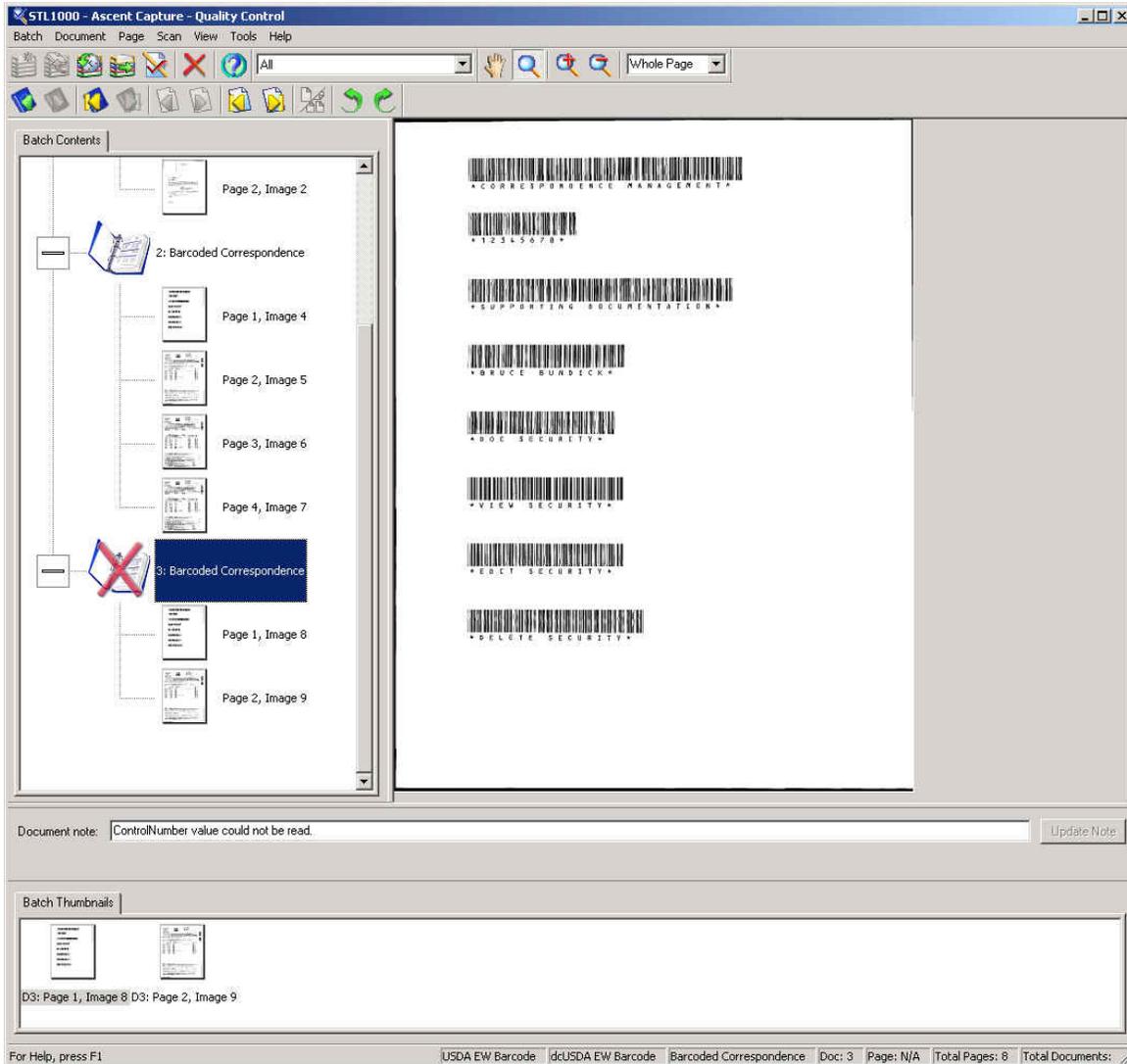


Figure 5: Quality Control - View Bad Document

When the user clicks on the bad document, the bar code Separator Sheet is displayed and the Document Note explains which fields could not be read. The user then needs to delete this document from the batch before closing the batch as shown in **Figure 6**.

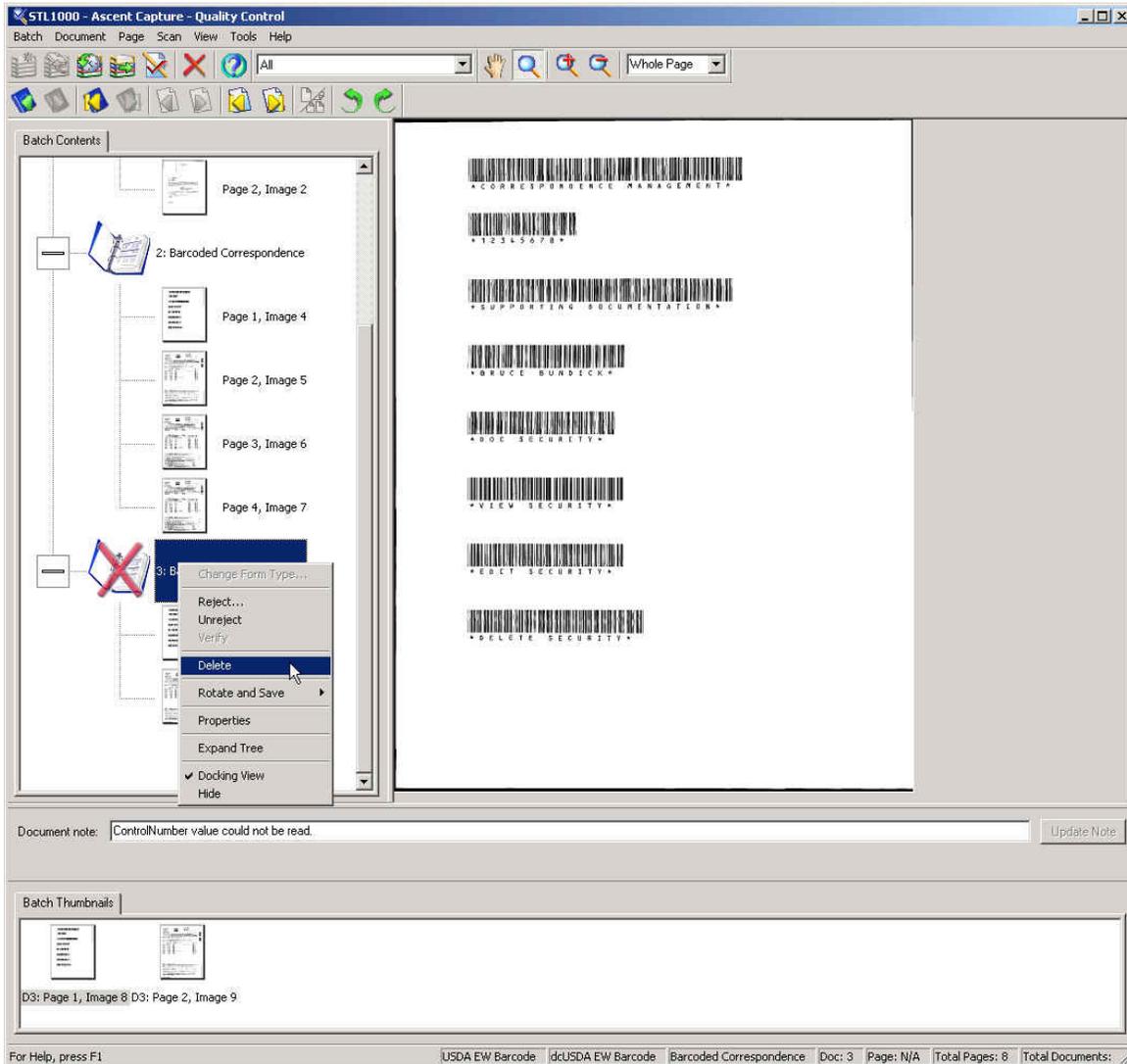


Figure 6: Quality Control - Delete Bad Document

To delete a bad document, the operator selects the document, does a right mouse click and then selects Delete. The operator may also delete a document by highlighting the document and clicking the <Delete> key or the red [X] icon at the top of the screen.

If the quality of the scanned documents in an entire batch is unacceptable, the user can delete the batch by selecting the <Delete> option from the <Batch> menu. The operator is prompted to confirm the deletion. The operator then needs to rescan the batch.

After determining that all documents in the batch are acceptable, the scan operator closes the batch as shown in **Figure 7**.

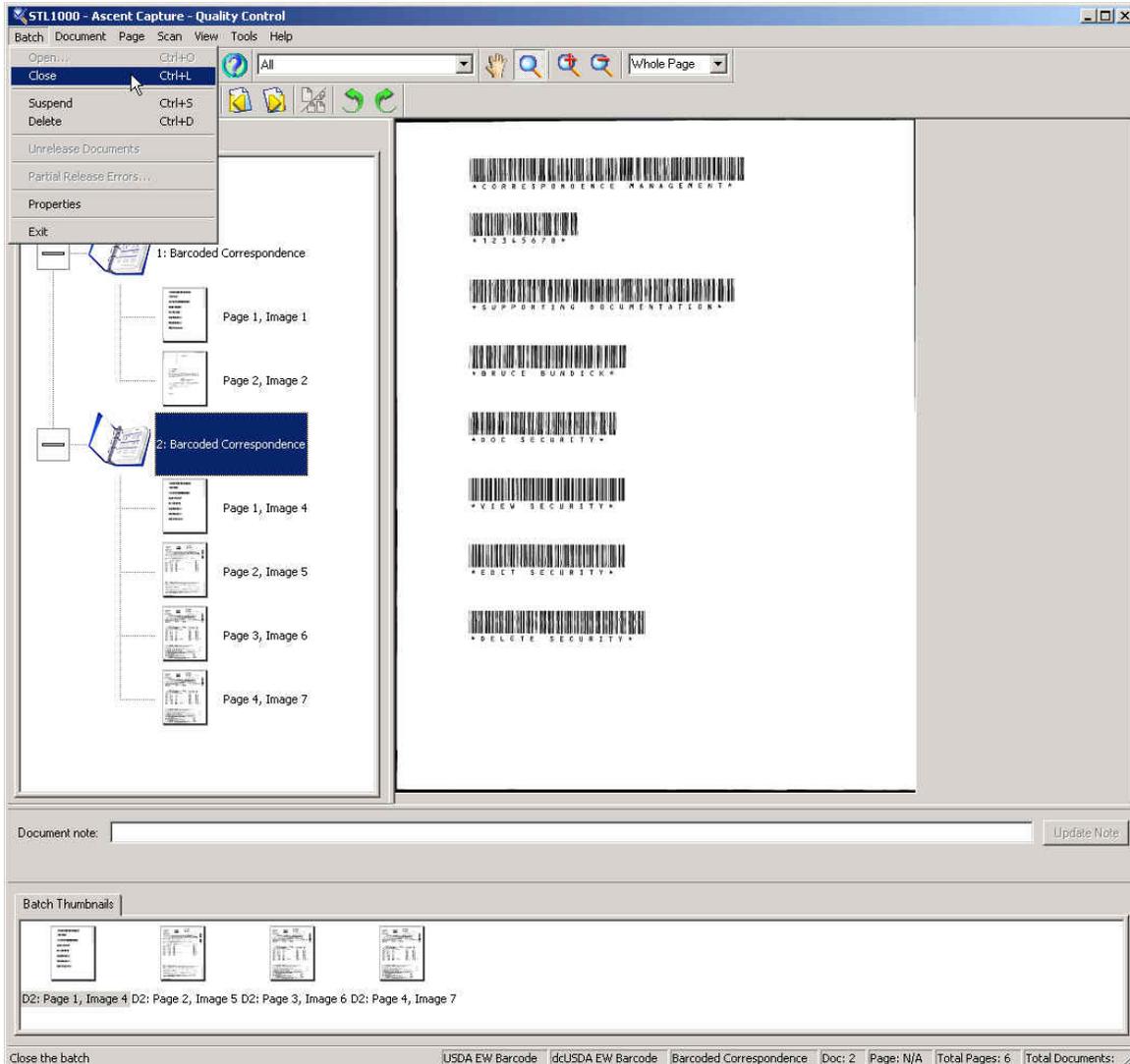


Figure 7: Quality Control - Close Batch

The keyboard shortcut equivalent for popular menu choices are shown next to the menu choice. For example, the scan operator could also 'Close' the batch by clicking Ctrl – L.

For batches with bar code Print Separator Sheets, the documents are indexed using the bar code values and stored in the repository. The documents are indexed in the folder associated with the control number.

INDEXING

For documents with patch code separators, the Document Indexing screen is displayed in **Figure 8**. The scan operator uses this screen to enter some basic information about the document.

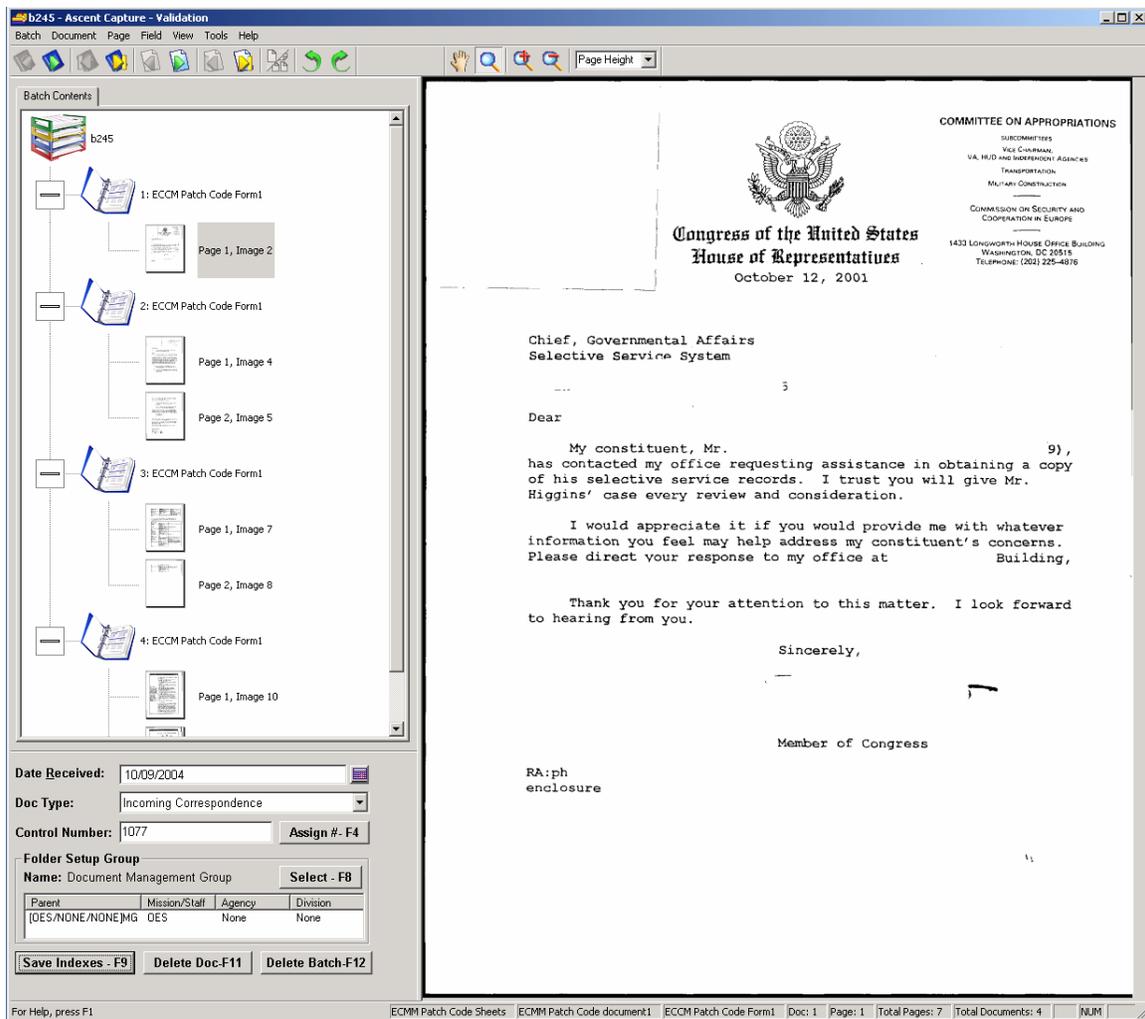


Figure 8: Document Indexing

The scan operator clicks on a document in the left panel and enters index information about the document. The operator first enters the Date Received that is stamped on the document. The Date Received field will default to the value that was entered for the previous document. To change the Date Received the operator can edit what was entered or click the calendar icon to select a different date using the calendar.

The operator then selects one of the following document types:

- Incoming Correspondence,
- Incoming Attachment,
- Draft Response,
- Final Response,
- Signed Copy,
- Outgoing Attachment,
- Supporting Documentation,
- Clearance Signature Document, or

- Miscellaneous.

Other document types may be added in the future. Document types that are added will automatically appear in the drop-down menu.

The diagram in **Figure 9** shows a close-up of the index fields section.

The screenshot shows a software interface for document indexing. It includes the following elements:

- Date Received:** A text input field containing "10/09/2004" and a small square icon to its right.
- Doc Type:** A dropdown menu currently showing "Incoming Correspondence".
- Control Number:** A text input field containing "1077" and a button labeled "Assign #- F4".
- Folder Setup Group:** A section containing:
 - Name:** "Document Management Group" and a button labeled "Select - F8".
 - A table with the following data:

Parent	Mission/Staff	Agency	Division
[OES/NONE/NONE]MG	OES	None	None
- Bottom Buttons:** "Save Indexes - F9", "Delete Doc-F11", and "Delete Batch-F12".

Figure 9: Indexing Screens Close-up

For any document type other than Incoming Correspondence, the scan operator must enter an existing control number so the document is stored in the proper correspondence folder. The <Assign #> button is disabled for these document types. If the operator enters a control number that is not associated with an existing folder, an error message will be displayed.

For an Incoming Attachment to be added to the same folder as an Incoming Correspondence document, the indexing operator will need to keep track of the Control Number assigned to the Incoming Correspondence document and enter it as the Control Number for the Incoming Attachment.

For Incoming Correspondence, the scan operator will usually have the system automatically generate a control number by clicking the <Assign #> button. The scan operator may enter an existing control number if an Incoming Correspondence document should be included in an existing folder.

For documents that have new control numbers assigned, the scan operator must select a Folder Set Up group that will receive the document in their inbox so they can set up the folder. The group defaults to the previously selected group but can be changed by clicking the <Select Group> button. The diagram in **Figure 10** shows the Select Folder Setup group screen that is displayed.

Mission/Staff: OES

Agency: None

Division: None

Groups:

Name	Parent Groups	Set up Days	1st Folder Owner
Document Management Group	OES/NONE/NONE IMG	1	Document Management Group

Figure 10: Select Folder Setup Group

The user selects one of the Folder Set-Up groups. The Folder Set Up Groups that may receive new Incoming Correspondence must first be added by an Application Administrator.

Figure 11 shows the fields now filled in for a new Incoming Correspondence document.

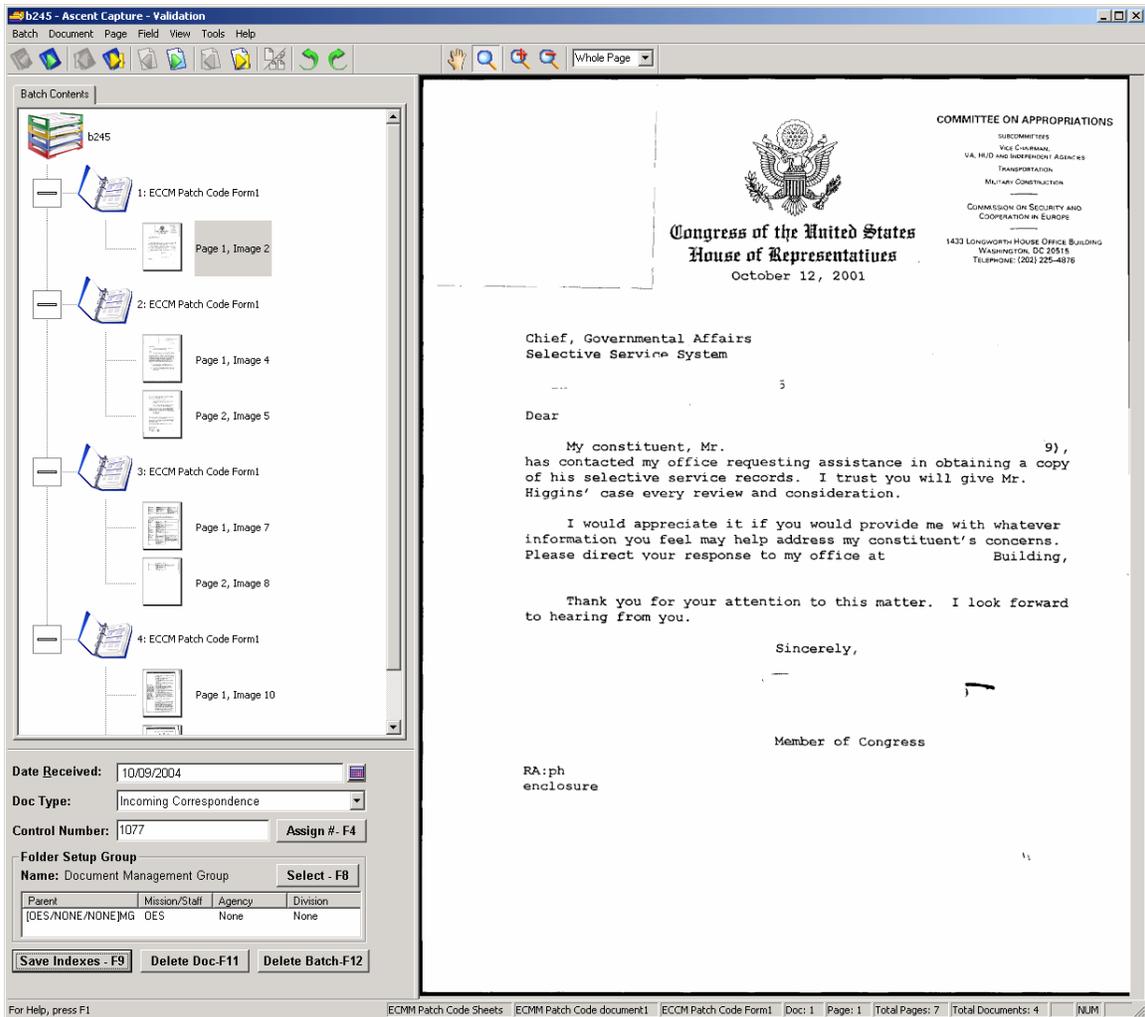


Figure 11: Document Indexes Entered

After entering all index values for the document, the operator clicks the <Save Indexes> button. The index values are now saved for the document and the next document is displayed as shown below.

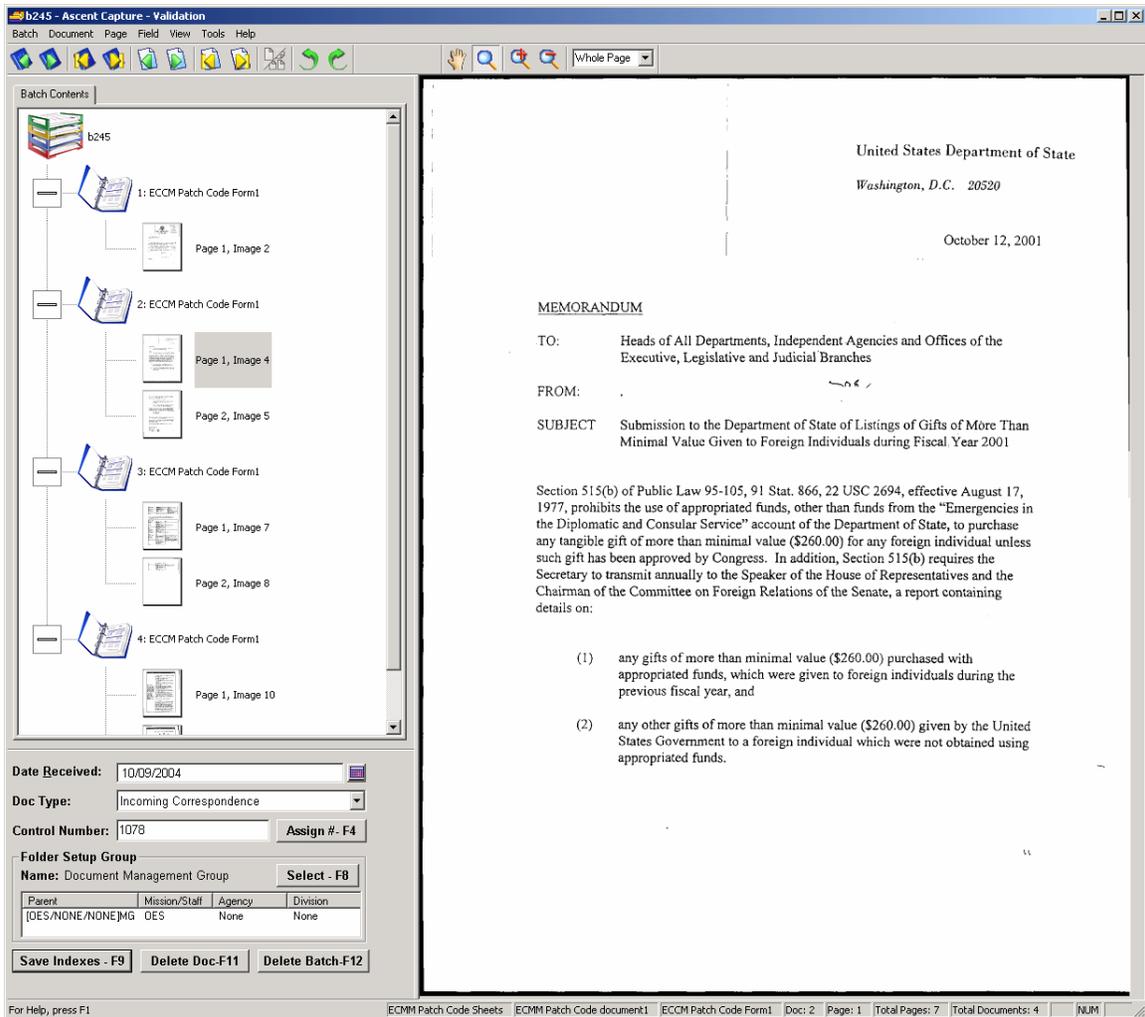


Figure 12: Second Document Index Fields Entered

After the last document has its index values saved, the system asks the user if the batch should be committed now as shown in **Figure 13**.



Figure 13: Commit Batch Dialog Screen

If the user clicks the <Yes> button, the documents will be sent to the repository. If the user clicks the <No> button, the documents are not committed yet. The user can select documents to review and change index values that have been assigned. When ready to commit the documents, the user must select the Menu option to 'Close Batch' (same as

shown in the Quality Control example). This sends the batch of documents to the repository.

Before closing the batch, the scanning operator rubber-bands the batch and places a Batch Separator Sheet on it with the date scanned and batch number (shown at the top of the documents window). The batch number will be stored as an index value with each document that is scanned. Later, if the original document needs to be located, the batch that contains it can be easily identified and located.

After the batch of documents has been scanned, indexed and committed, it is automatically transferred to the content management system. Each scanned document is automatically read (OCR) by the scan software and the words in the document are stored in the image file. Each document is then stored in the repository. The words for each document are registered in the Correspondence Management system to support full text searches of documents. It may take several minutes for scanned documents to be transferred, processed and stored in the repository.

For each Incoming Correspondence document that is stored, a new Set Up Folder task is written to the Inbox of the users in the Folder Set Up group selected on the indexing screen by the scanning operator. The Folder Owner of the new folder is set to the 1st Folder Owner associated with the Folder Setup group that was selected. To add or make changes to a Folder Set group see Administrator Functions - Folder Set up Groups.

Documents other than new Incoming Correspondence documents are stored directly in the folder based on the control number for the document. No tasks are written to inboxes for these documents. Whenever a document is added to a folder, the system records the user who added the document along with the date created.