

SMRTR AXIS

Document Management System

Administrator Guide



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Introduction

SMRTR Axis™ (aka: Axis or SMRTR Express Axis) is a flexible and adaptable tool to automate, secure and share your documents. Its self-service portal provides one central repository for all of your business documents that is easily searchable and accessible to all employees. All you need to access the system is a browser, and a login supplied by your System Administrator. The intuitive user interface and automation capabilities make your life easier almost immediately.

Audience

This Administrator Guide is intended for use by System Administrators, and technically-oriented individuals who will support and configure a site using Axis. A separate manual (the User Guide) addresses the more general user population and day-to-day use of the application.

What does Axis do for you?

1. Captures your documents – in many cases automatically
2. Brings order to an otherwise chaotic world: Classifies each using data extracted from the document itself and other sources
3. Publishes and Deliver documents to appropriate internal and external stake holders
4. Is one central source of information, easily accessible to those with proper permissions
5. Includes power APIs for software developers to further leverage your library of documents

Axis features include:

- Fast search and retrieval – search through thousands of documents and find just what you need in seconds.
- Analytics – turns activity and data into actionable insights to help improve Axis operations
- Capture – documents from almost anywhere can often be automatically captured, separated, classified, stored and distributed with little or no effort on your part. OCR, bar-code and database lookups speed the process and improve accuracy over manual alternatives. Some features are available in the core Axis product; other enhanced mechanisms may be available in add-on products (like SMRTR Desktop Capture).
- Flexible automation helps streamline capture, classification and distribution of your documents.
- Robust Security ensures that documents are protected within an enterprise-grade system of permission-based security.
- Integration – integrates with your existing systems on almost any platform: Windows, Linux, IBMi, Unix and Cloud. Can also integrate with many accounting and ERP systems.

Add-on options

- Desktop Document Capture – From scanners or other sources, this interactive tool is used to capture, arrange, separate and classify documents before sending them to Axis for storage and retrieval.
- Form Designer - Create professional looking documents, perform calculations, conditionally customize your messaging based upon your audience promoting products and extending special offers based upon buying history. Design once and deploy to many.
- High volume print and mail management

Pre-integrated products

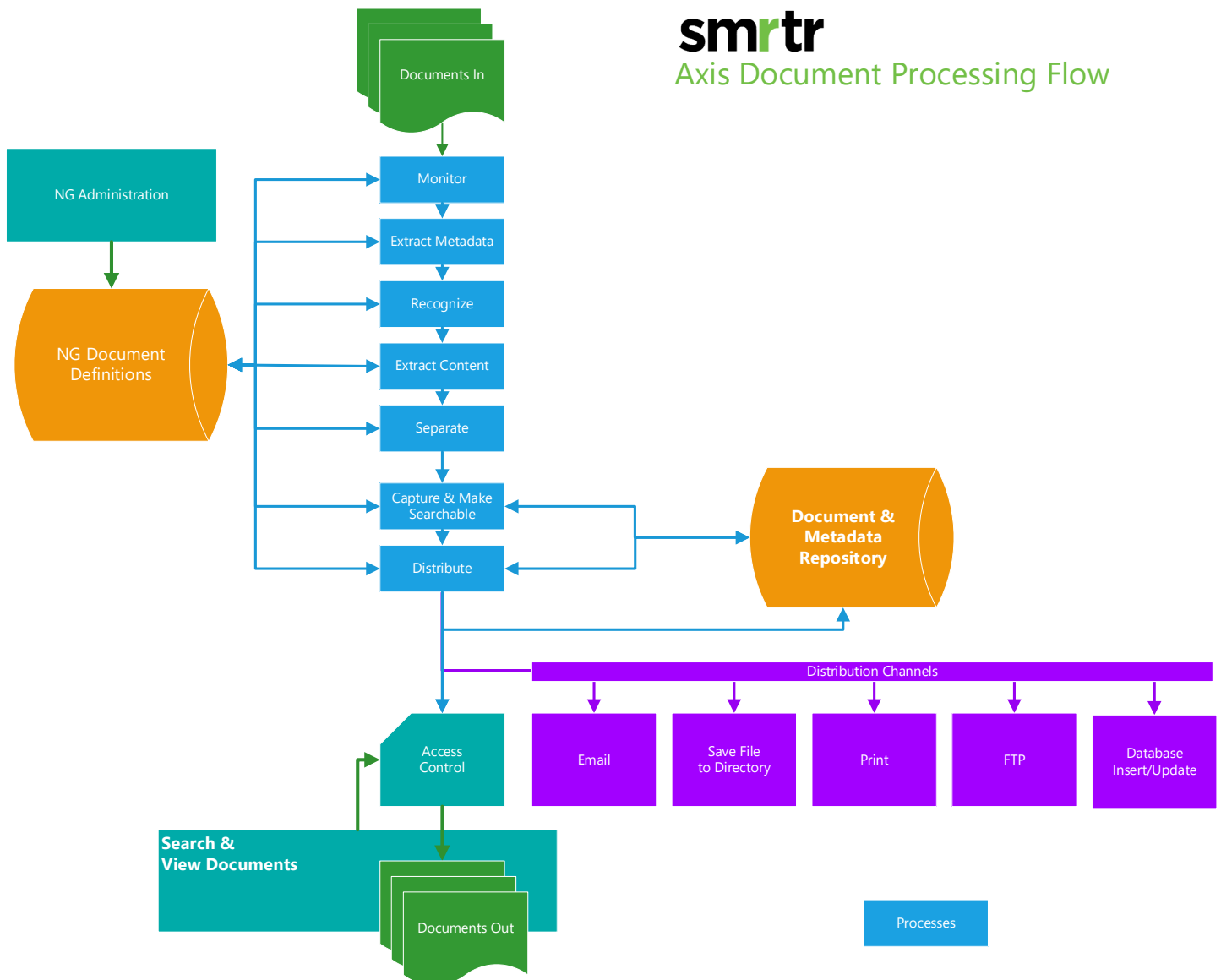
SMRTR has pre-integrated Axis with the following other 3rd party products. Please keep this list in mind should you require what these product supply, as it will make your efforts easier.

TO DO: Verify the list, and supply additional Products for this list:

- SYSPRO ERP
- NCR ERP
- Tungsten AP Essentials

Basic flow of information

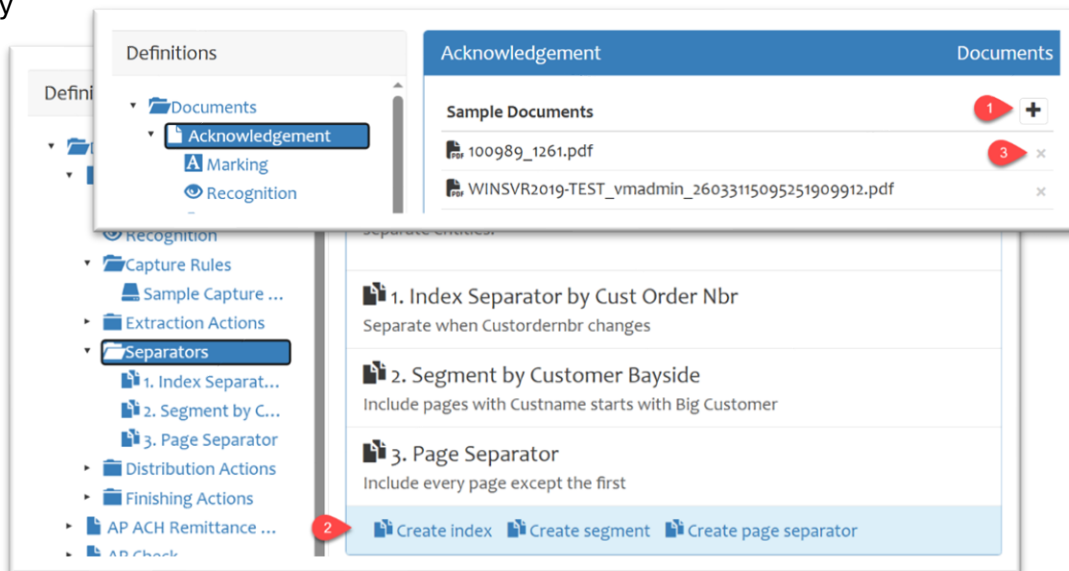
smrtr Axis Document Processing Flow



Conventions

The following are typical conventions used throughout the software

- **Add an item:** When adding something, you are generally presented either with a + button (1) or a link at the bottom of the current section (3), or may be accessible via a right-click on one of the menu items shown in the left panel.
- **Delete and Item:** typically shown as an “x” to the right of that item on a list. Sometimes it may be accessible via a right-click menu (as is the case on the left-panel’s menu items).
- **Select an item:** Click on that item



Getting Help

Documentation is available from the Main Menu in Axis. Here you can view this documentation, and/or download a copy.

If you require further assistance, please contact your System Administrator. If they require more assistance, they may contact SMRTR directly to obtain product support, administration assistance and/or additional training and consulting. Contact information may be found at our website:

<https://smrtrsolutions.com/>

Support requests may also be submitted directly to SMRTR on our web site under the “Help” menu option.

Licensing

Named User Licensing

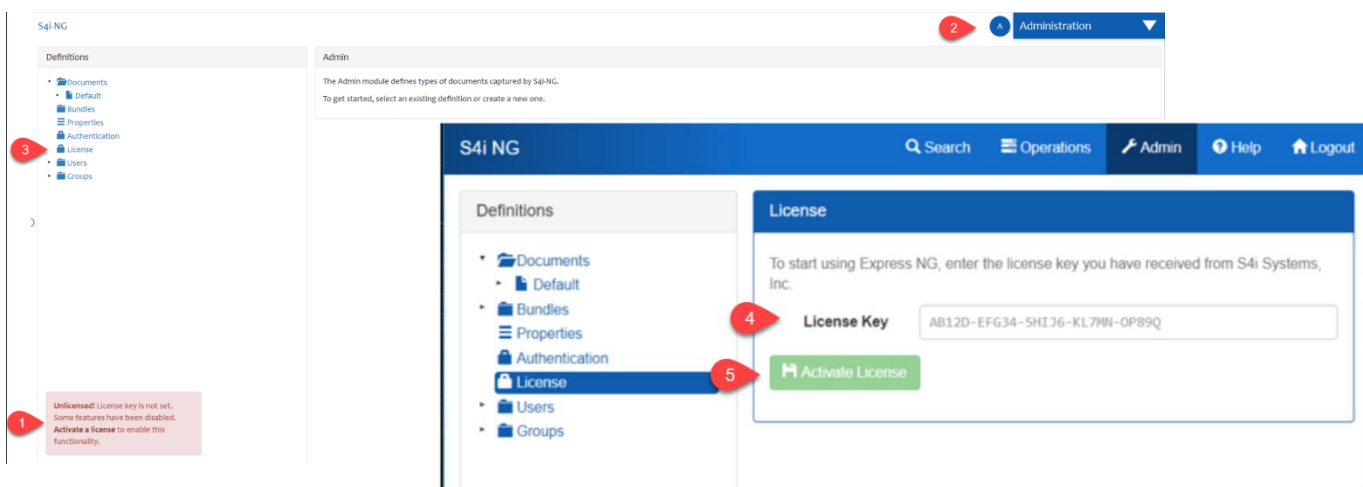
Axis is licensed based on “*named user*” - as opposed to “concurrent licensing”. For example: you may have purchased 15 users; only those 15 individual people who are identified as specific [Users](#) in Axis will have access to Axis. This list of named Users is maintained in the Axis Administrative area. If a user were to later leave the company, you may remove them from the list to free up a license for someone else. But the total number of users shown here cannot exceed the number of users purchased. These licenses are not to be shared among multiple individuals. 1 license is intended for use by 1 person.

New System: Add your license / Activate

Often, the initial activation of your new Axis system will be performed by SMRTR as they install the software. However, you may be asked to perform this step. If so, please use the following steps.

You will receive a License Code from SMRTR. Keep this code in a safe place in case it is ever needed again in the future.

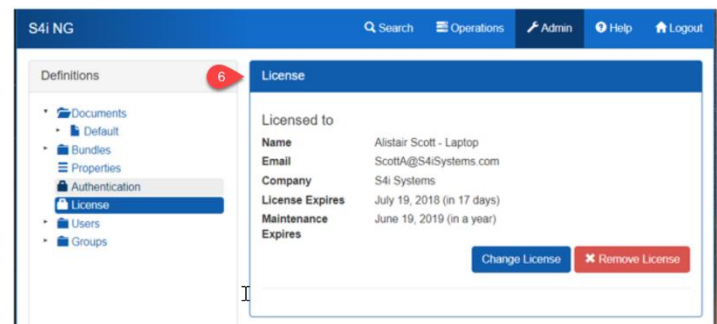
1. Log into Axis for the first time. SMRTR will supply you with the initial User ID and password. You will see a warning message at the lower left indicating that you are not yet licensed.
2. Navigate to the Administrator Menu,
3. then the select the License page at the left

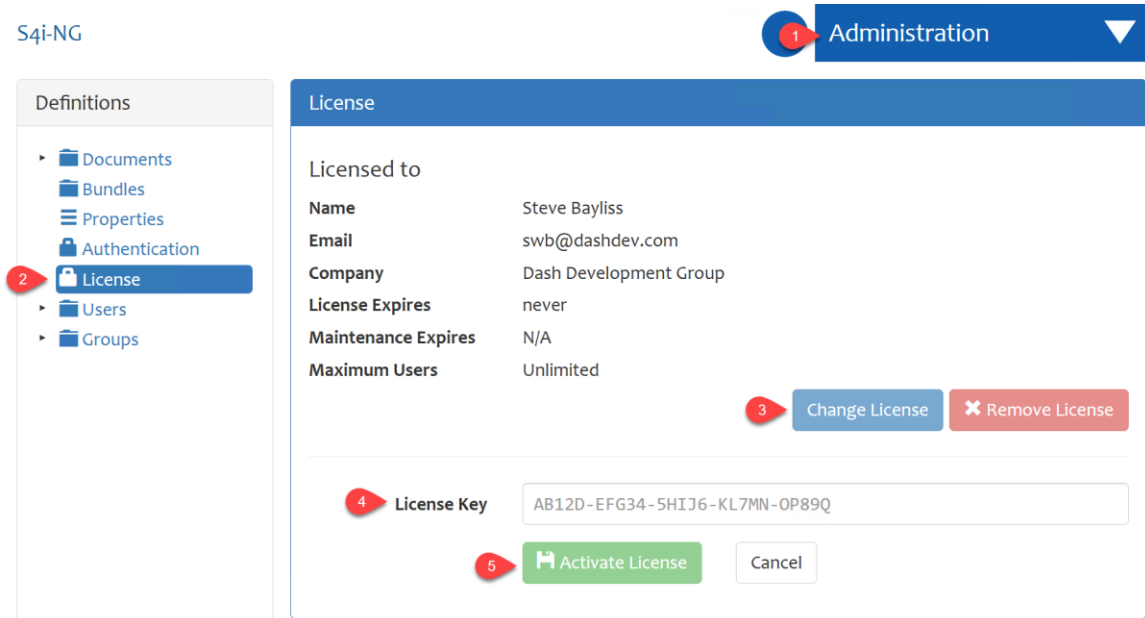


4. Enter the new “License Key” code supplied to you by SMRTR
5. Click the “Activate License” button
6. You will then be taken to the License Page. Your license is now successfully installed.
7. Please restart the S4i-NG services from the Windows Services panel.

Change your License

There are times when you wish to update your license. For example, when you’ve purchased new user’s for Axis. You will receive a new License Key Code from SMRTR. To enter that code, please use the following instructions:





1. Navigate to the Administration Menu (top right), then
2. Select the “License” page from the list at the left
3. Click the “Change License” button
4. Enter the new “License Key” code supplied by SMRTR
5. Click Activate License

After Entering a License Key

After updating licenses, to take effect, restart the Windows service “S4i-NG – Profile”. Re-starting this service also restarts the “S4i-NG – Webapp” service.

Document Setup Decision Tree

Ask the following questions when you're trying to decide how to set things up for a particular [Document Type](#):

1. From where should Axis new documents to process (what is the source for new docs)?
 - a. See the Operations Menu – one or more of the following. Each of these represent the settings for different mechanisms that Axis uses to obtain new documents on which to work. Within each section are the settings you'll need to specify the source location(s):
 - i. [Output Queue Monitor](#)
 - ii. [File System Monitor](#)
 - iii. [FTP Monitor](#)
 - iv. [Readsoft Monitor](#) (very rarely used)
2. Is this a new type of Document with a new set of rules?
 - a. Create a new [Document Definition](#) from the Administration, [Documents](#) menu item. The document Definition houses most of the rules that determine how a particular type of document will be processed.
3. Is there information on the printed page that I need to use for Recognition, Meta Data (keywords), Delivery, Extractions or other data? If Yes:
 - a. Upload a Sample of the Document Type in question (See the [Document Definition](#) screen)
 - b. If your document is a searchable PDF, then use the [Marking](#) feature
4. Can I “train” the software to match a particular type of document with a specific Document Definition (which houses the rules about what action(s) will be performed upon it). The software can look at a document and now know what Document Definition to use based on some of its attributes.
 - a. Use the [Recognition](#) feature
5. [Capture Rules](#) – This is a rarely used feature. You can probably effectively ignore it unless your SMRTR consultant coaches you otherwise.
6. Must some of the information you need for either [Metadata](#) or Distribution be extracted from a database?
 - a. Use the [Extraction Actions](#) feature
7. Does the file that was sent to Axis need to be split up into smaller, individual documents?
Example: 1 PDF contains multiple Customer Invoices, and you wish each invoice to be treated individually. Or do you have 1 physical file from which you want to logically group documents that meeting some specific criteria? Example: Place all invoices for 1 customer into a single [Logical Document](#) so I can email them together.
 - a. Use the [Separators](#) feature

8. Do you want Axis to distribute your documents to others by email, printer, file system, FTP, or update a database?
 - a. Use the [Distribution Actions](#) feature
9. Do you want to add an additional “overlay” to successfully captured document? Think of this like adding a watermark.
 - a. Use the [Finishing Actions](#) feature
10. When delivering a document type, do you want to include not only the primary document, but other document types that are related to it? Example: Send a Customer Invoice with a copy of the Customer Purchase Order.
 - a. Use the [Bundles](#) feature

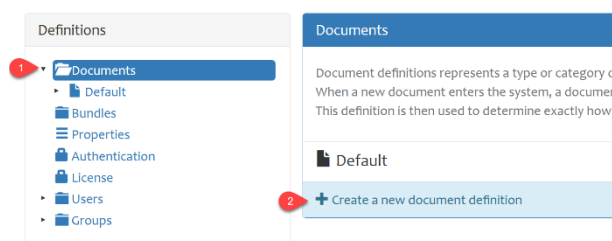
Administration Menu

Documents (Document Definition)

Displays the list defined “[Document Definitions](#)”. A Document Definition houses all of the conditions and rules necessary for Axis to process any given document. Most commonly, each Document Definition is specific to a type of [Document Type](#) (Example: Invoice, Purchase Order, Vendor Correspondence). Hence, you’ll often see the names of Document Definitions mirroring the name of a Document Type.

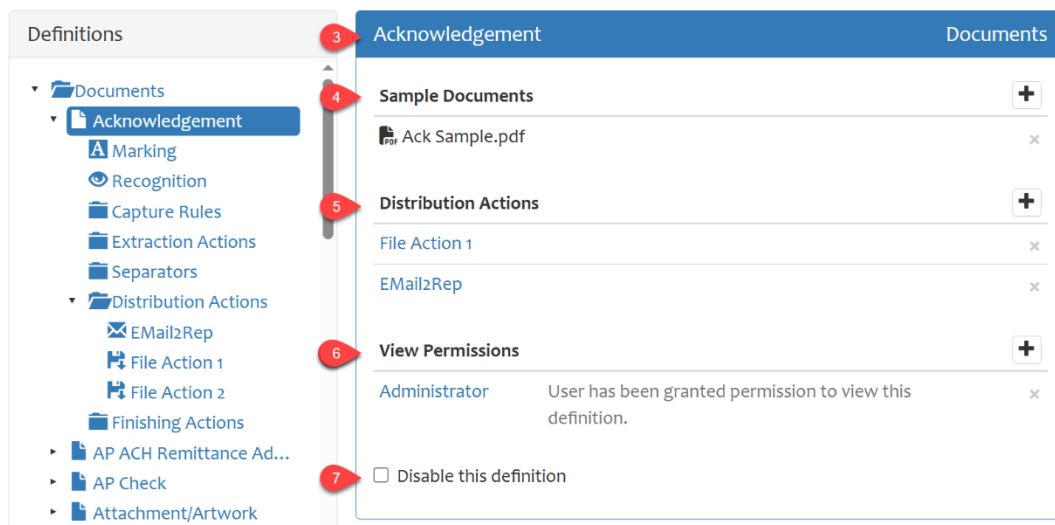
Create a New Document Definition

1. Select “Documents” from the left menu
2. Click the “Create a new document definition” button
3. **Title:** In the title bar at the right, click on the text “Click here to name this definition”. Then type the name of your document type (Example: Customer Invoice, Packing Slip, Vendor Purchase Order, etc.)
4. **Sample Documents:** Click the + sign to import a sample of this document. This will be used later in the [Marking](#) section. Note that you are also allowed to import a sample during the process of defining Marking later too. Samples may be imported from
 - a. Disc or
 - b. from documents already stored in Axis (Browse Repository). When using Browse Repository, only those documents that were imported into Axis using the currently select Document Definition will be displayed here.
 - c. Once a sample document is uploaded, the built-in [metadata](#) properties are extracted. These metadata values are then available for use in creating recognition rules. Additional data can be extracted from locations within the document itself by using the [Marking](#) function.
 - d. {Optional}
5. **Distribution Actions:** Click the + sign to assign any [Distribution Action](#) that you wish to be triggered automatically when any new document of this type is ingested. Choose from any of the actions shown on the drop-down list. {Optional}
 - a. These actions are separately added and maintained via the “[Distribution Actions](#)” menu option at the left (within the current Document Definition).



6. **View Permissions:** You may grant Groups or individual Users permission to view this document type. Note that this Document Type is effectively invisible to all users to whom permission has not been granted (either directly, or indirectly through their membership in a Group).

7. **Disable this Definition –** check to render the selected Definition disabled



Additional Steps: After creating the basic Document Definition, you have several other steps you may take to complete the entire Document Definition. These options are found in the “tree” at the left of the screen below the Document Definition Name:

8. **Set up [Marking](#)** to extract define the locations of various data on your document. Once defined, this data can be extracted from the document itself to fill in properties (meta data). {Optional}
9. **Define [Recognition Rules](#):** Identify the conditions that allow Axis to match any given document with the current Document Definition. Once a document is matched to a specific Document Definition, the rules for processing that document are then known. **{Required}**
10. **Define [Capture Rules](#)** if needed {Optional}
11. **Define [Extraction Rules](#)** to obtain additional data from either internal or external sources (like a database). {Optional}
12. **Define [Separators](#)** to tell Axis under what conditions should a single large document be split into smaller “[logical documents](#)”. {Optional}
13. **Define [Distribution Actions](#)** to tell Axis how to distribute the document {Optional}
14. **Define [Finishing Actions](#)** to add content or graphics to the document before it is stored in Axis {Optional}

Each of these additional steps is described in detail below...

PRO TIP: As you read, You might wish to keep in mind that many of the settings discussed in this section could benefit from their values being set to something that varies by document. Check out the following section of this document: [Including Document Property values as variable information](#)

Marking

OPTIONAL. Marking is aimed at filling [Document Properties](#) (aka: Keywords or indexes or metadata) with text from specific locations (ie: zone / coordinates) you select from a searchable PDF document's page. You select the text's location and the property you wish filled using this process. Those Document Properties become critical later: Document Properties are key to how Axis organizes documents and how users they find a document: by searching the database of Document Properties.

NOTE: Marking and Text Extraction work only under the following conditions

- The Documents used are always searchable PDF documents. This means that the text you wish to extract is stored in the PDF as searchable text, not merely a picture of text.
- The data you wish to read from the document resides in consistent locations on the printed page: At the same coordinates on each page. Marking does not work well if your incoming PDF contains mixed formats or differing documents.

Marking allows you to

1. Upload a sample document with which you will work to create the “Map” of the document.
2. Draw a box around the text to be extracted from the Document. This identifies a location on the sample document that contains some bit of information (Example: the Customer name). The text value extracted from that location will be assigned to the Property of your choosing (next step).
3. Assign that area to a Property. There is another section of the Administrator function where you can define the master list of properties.
4. Repeat steps 2 and 3 for as many properties as you wish to define for this Document Type.

Add/Edit Marking to a sample document

Before starting,

- Make sure you have first added one or more representative sample documents on the [Document Definition](#) page.
- You can perform your marking against the 1) whole document, or 2) against the [Logical Document](#) that results from a Separator. If you plan on doing the latter, make sure you've created your [Separator](#)(s) before performing the Marking.

Definitions

- Documents
 - Acknowledgement
 - Marking**
 - Recognition
 - Capture Rules
 - Extraction Actions
 - Separators
 - Distribution Actions
 - Finishing Actions
- AP ACH Remittance Advice
- AP Check
- Attachment/Artwork
- Bill of Lading
- Certification Doc
- Customer Correspondence
- Customer Misc
- Customer PO
- Default
- Drawing
- EDI 945
- Expense Report
- Inspection Report

Marking

Document

Whole document

« Section 1 of 1 »

« Page 1 of 42 »

Locations

Custname
on every page
extracted together

Custordernbr
on every page
extracted together

Zoom

100%

Cursor

Location/Zone Indicator

The Outdoors Company

Dash, Inc.
P.O. Box 777
Great Outdoors
Reg: 15781935534/04
Tax:

ORDER ACKNOWLEDGEMENT
000792

Dash DDX - SYSPRO Enabled Document Management

Shipping address
Bayside Bikes
2 Beach Road
Bayside North
Seattle
WA
USA
98101-

Shipping Instructions : Road

Customer
: Bayside Bikes
P.O. Box 8
Bayside North
Seattle
WA
USA
98111-
Customer # : 0000001
Telephone : 206-555-4562
Fax : 206-555-4567

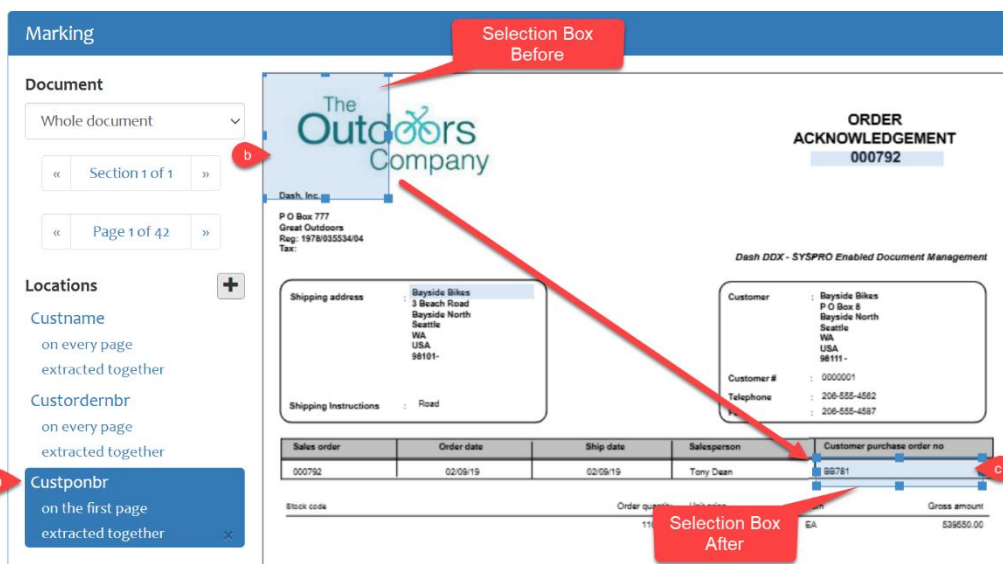
Sales order	Order date	Ship date	Salesperson	Customer purchase order no
000792	02/09/19	02/09/19	Tony Dean	98781

Stock code	Order quantity	Unit price	Uom	Gross amount
	110.000	4905.000	EA	539550.00

1. Select the appropriate Document Definition
2. Choose “Marking” to configure
3. **Choose a sample:** Choose the Sample document from the drop-down menu. If you have previously created Separators (1 or more), you can choose to work on either the Whole document, or one of the Separators to work with the resulting [Logical Documents](#).
4. **Navigating pages:** Depending on your choice in step 3, you may use the left/right navigation buttons to move either through the Pages (if Whole document was chosen), or Sections (if a Separator was chosen). This allows you to check your later choices against various pages in the larger document to make sure they work as you expect.
5. **Add new Location:** Click the + button to add a new Location. Choose from the list of [Document Properties](#) shown, or choose “Create Property” from the bottom of this list to create a brand new Property. In doing so you are indicating that you wish to have that Property filled with something from the printed page (you’ll define what in subsequent steps below).

6. **Selection Box:** After having chosen the Property, it will appear in the list (approx. center of the screen). It will also generate a “Selection Box” on-screen in the upper left corner of the sample document. This box represents the zone or location from which the data will be retrieved. You will most likely want to move it and/or resize it to be located over your desired data.

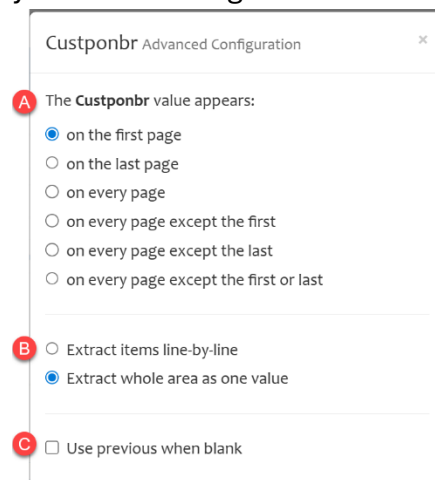
- Select the desired Property from the list in center-screen.
- Click and hold on the Selection Box. It is initially created in the top left of the sample page shown.



- Drag it to the desired location.
- Resize the Selection Box by clicking and holding on any of the Resize Handles (small squares in the corners and sides). Make your Selection Box big enough to fit all of the data you want your Property to be populated with (ie: to the maximum length that that data may grow). But not too large so you prevent other extraneous information from “leaking” into your Property.

NOTE: The Selection Boxes for any and all Properties are always displayed on the Sample document at the right of the display to provide full visual context. Only the Selection Box for the currently selected property will display the Resize Handles.

7. **Advanced Configuration:** Looking at the Property, you will see below it something like “on the first page” and “extracted together”. These words represent the Advanced Configuration settings for this Properties Marking. You can change that (and see other options) by double clicking on the Property. You will see a menu of settings pop up, like the one shown to the right → This helps control how the Property will be filled:
- Control where Axis will expect the property to appear (First page only, last page, every page, etc.)
 - Used when the area you are extracting contains several lines of text. Options are:
 - Extract items Line-by-Line** creates an array of values in that column (as stored in the database). Visually, in Search Results it shows each value separated with a “/”. Great when you want to search by the individual values (Example: a column of account numbers, where you’d want to search for documents containing 1 of those account numbers).
 - Extract the whole area as one value** – concatenating multiple rows into 1 continuous value with only a space as a separator in that single field. The values are stored in the database with no separator. Great when you really want the continuous text (Example: a 2 line report title that you want to capture in total).
 - If the text extracted is blank, then you can tell Axis to use the previous non-blank value (Example: it might have last been on a prior page)
8. Don’t forget to SAVE your work



Editing: To Edit any given Location, just click on it. From there you can adjust the location of the Selection Box and/or any Advanced Configuration settings.

Recognition

REQUIRED. This action houses the criteria used to match a new incoming document ([Document Type](#)) with the appropriate [Document Definition](#). When that match occurs, the selected Document Definition’s actions and rules will be used to process the Document.

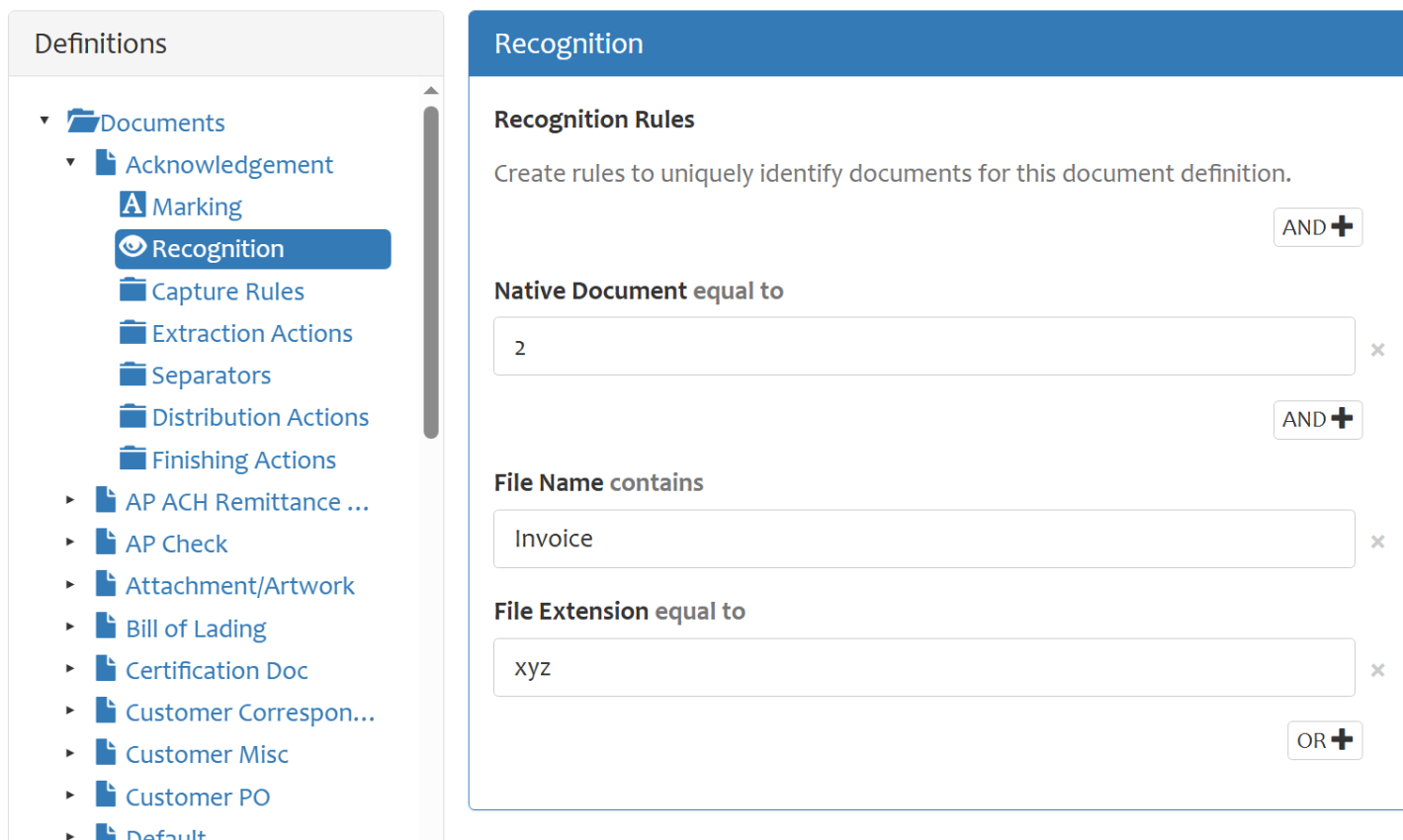
Every Document Definition contains a set of recognition rules. These rules are used to determine which document definition to associate with a new incoming document. If the document's [metadata](#) and/or [Document Properties](#) meets the criteria of the recognition rules, it is assigned to that particular Document Definition.

For example, a recognition rule may be defined where the incoming file name must contain the word "invoice". Documents with the word "invoice" in the file name will then be captured under the Document Definition that contains that recognition rule.

A recognition rule is composed of comparison operations. An example of a comparison operation is where the metadata property named "title" is equal to the value "invoice". Several comparison operations can be combined using simple Boolean operations. A set of "and" operations may be combined by using "or" operators.

There are two main ways to classify a document, either by using information that is external to the document or to examine its internal contents. The external recognition rules are resolved first in order to prevent reading a document's contents unnecessarily.

The use of external information is the preferred method of recognition, from a performance point of view. Scanning and interpreting document contents can be time consuming



The screenshot displays the 'Definitions' sidebar on the left and the 'Recognition' configuration panel on the right. The sidebar lists various document types, with 'Recognition' selected under 'Documents'. The 'Recognition' panel shows a list of rules for a document definition. The rules are:

- Native Document equal to**: 2
- File Name contains**: Invoice
- File Extension equal to**: xyz

The rules are combined using 'AND' and 'OR' operators. The first two rules are grouped by an 'AND' operator, and the third rule is grouped by an 'OR' operator.

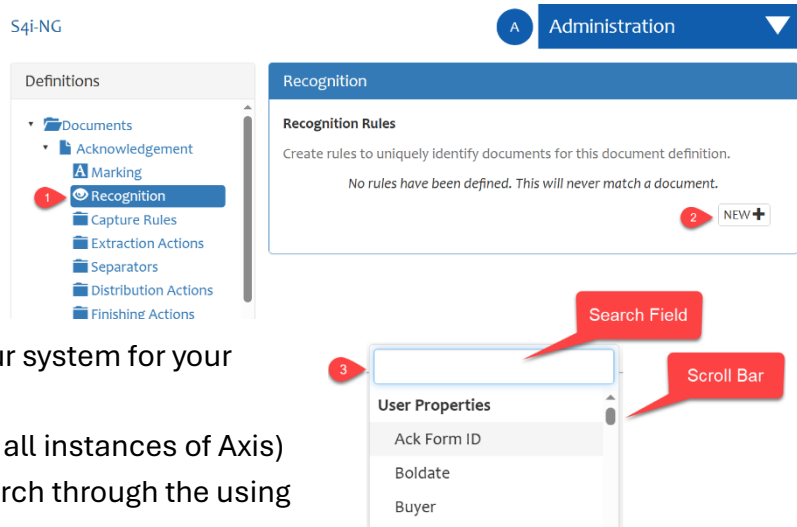
In the above example, the rules state, that in order for a file to use this Document Definition,

1. Criteria Group 1: The "Native Document" property (an internal one) must = 2 OR

2. Criteria Group 2: The File Name property CONTAINS the word “Invoice” AND the file extension equals XYZ
 - a. The properties used in this set of criteria are both external properties consisting of the actual incoming file name and the file name extension.

Add Recognition Rules

1. Select from the Definitions menu at left: “Documents”; then your selected Document Definition; then “Recognition”
2. Click the “New” button to create a new set of Rules
3. Choose a Property to be used for comparison. These are grouped by
 - a. User Properties (ones created on your system for your documents) or
 - b. System Properties (those created on all instances of Axis)
 - c. You may scroll through the list or search through the using the prompt at the top
4. Choose the comparison Type (to the right of the Property Name you just selected). Default: “equal to”. For each rule, you are able to choose a Comparison Type from the list. This always defaults to “equal to”, but you can change it by clicking on those words then selecting one of the alternatives listed. In doing so, you are determining how the selected Document Property will be compared to the value(s) you will enter immediately below.



Comparison Type	Is TRUE when the Properties Value...
Equal To	is equal the value entered here
Not Equal To	Is NOT equal the value entered here
In List	matches one of the items in the list of values you enter here for comparison. Used when there are multiple values to compare against.
Exists	Exists... meaning, the property contains something. Anything.
Missing	Does not exist... meaning the property is empty and contains no value at all.
Contains	Is at least a partial match. Example: Where I enter a value of 123 as the match value here, then Properties of 00 123 00 or 123 4567 or 999 123 all match because the string “123” is found somewhere within the Property.
Starts With	Starts with the value I entered here. Example where I enter a Value of ABX, a match will be found if the document property is ABX ZZZ, but not ZZZ ABX .

Ends With	Ends with the value I entered here. Example where I enter a Value of ABX, a match will be found if the document property is ZZZ ABX , but not ABX ZZZ.
Matches Regex	Matches a Regular Expression. It is outside of the scope of this manual to define Regex, but information on this technique can be found on the internet.

5. Enter the Value to be compared to. When you start typing here you may see a list of values below. This is a list from the documents currently in the system that *might* be the value you're looking for. You can choose from this list, or continue to enter what ever value you wish (even it its not on the displayed list).

6. If you want to add additional criteria choose

- AND+** button... to add to a Group where multiple Properties that must be evaluated as TRUE (This AND That).
- OR+** button...to create a new Group of Properties that should be evaluated – separately from the first Group. This too may contain evaluation of one or more Properties.
- Example: Group 1 is true OR Group 2 is true. When either Group is True, evaluation stops and it is assumed that the document is recognized as being destined to use the current Document Definition.

7. Continue adding Properties to check until you've created a good, **unambiguous** set of criteria.

 It is important that the criteria you create in Recognition is distinct and unambiguous. Axis will match any individual document with only 1 Document Definition: the first one it encounters. If your criteria is too vague it may lead to unpredictable results.

Capture Rules

NOT USED. The Capture Rules section of this software is not currently in use. If you have questions on this topic, please discuss with your SMRTR consultant.

Extraction Actions (extract from Database)

OPTIONAL. Extraction Actions add additional metadata to a document by retrieving that information from various databases like that of your ERP or other systems. This is a powerful mechanism for integrating Axis with other systems that your company may be using. Extraction Actions always involve:

1. a JDBC URL to connect to your database, plus
2. SQL code to facilitate the read and extraction of data.
3. The mapping of Axis [Document Properties](#) to be used as
 - a. inputs to the SQL code – almost always as a part of the selection criteria within that SQL code. The initial values of the Properties used as inputs most often originate from the document itself during the prior action of [Marking](#).
 - b. Outputs from the SQL Result set so that its results can be captured as Properties on your document.

You may have multiple Extraction Actions defined within a single Document Definition.

i **PRO TIP:** Once you've digested the basics of an Extraction action, you might want to check out a little more creative, advanced technique here: [Cool Technique: Use SQL Functions to manipulate Axis Properties](#)

continued on next page...

...continued

A Administration ▼

Definitions

- Documents
 - Acknowledgement
 - Marking
 - Recognition
 - Capture Rules
 - Extraction Actions**
 - DDXDemo SQL DB
 - Separators

Extraction actions

Extraction actions add additional metadata to a document from various sources. This metadata can come from the internal contents of a document or from an external database.

DDXDemo SQL DB

Distribute to jdbc:sqlserver://WINSVR2019-TEST:1433;DatabaseName=DDXDemo;encrypt=false

Create database action

List of existing Extraction Actions

A Administration ▼

Definitions

- Documents
 - Acknowledgement
 - Marking
 - Recognition
 - Capture Rules
 - Extraction Actions
 - DDXDemo SQL DB**
 - Separators
 - Distribution Actions
 - Finishing Actions
 - AP ACH Remittance Advice
 - AP Check
 - Attachment/Artwork
 - Bill of Lading
 - Certification Doc
 - Customer Correspondence
 - Customer Misc
 - Customer PO
 - Default
 - Drawing
 - EDI 945
 - Expense Report

DDXDemo SQL DB Database Extraction

Fetch additional metadata from an external database.

Database URL

jdbc:sqlserver://WINSVR2019-TEST:1433;DatabaseName=DDXDemo;encrypt=false

User Name **Password**

sa

Assign properties as inputs and outputs of the database query.

Input Properties 1. Custorderno Custordernbr	Output Properties 1. Lookup_3 Custponbr 2. Lookup_1 Custname
--	---

Supply the sql query to run when processing this document.

SELECT TOP 1 Lookup_3, Lookup_1 From Main where DocID = {{Custorderno}}

☐ Disable this definition

Add or Edit an Extraction Action

1. Select Documents \ your Document Definition \ Extraction Actions
2. Choose what you want to do:
 - a. Create new action: choose the link labeled “Create database action” at the bottom of the right panel.
 - b. To edit an existing action: choose from the list of existing Extraction Actions in the right panel or from the tree-style display at the left.

3. **Title:** You can click on the Heading to add or change the name of this Extraction Action. Hint: Its best to name it something short, but that describes what it does. It will be easier to ID later.
4. **Database URL:** Enter the URL for the database you wish to access. You may need assistance from your system Admin or see the [Connect to a Database: Database URL Tips and Examples](#) in this manual.
5. **User Name & Password:** Enter the Username and password needed to access the database
6. **SQL Query:** Enter the SQL Query that will be used to retrieve the desired information from your database. The syntax for the query will vary depending on the database you are accessing.
7. **Variable Names:** you can create and use Variable Names within your SQL statement. These function as a named placeholder that will be replaced with a value at run-time based on the Input Properties settings (see step 8 below). These Variable Names are created by surrounding the name itself text in double brackets. Example: {{myVariableName}} ...or see the sample SQL in the screen snapshot above.
 - a. When you add a variable name to your SQL code, it will appear on the list of “Input Properties” (located above the SQL query section and on the left side of the panel for this list).
 - b. Within any given SQL statement it is highly recommended that you ensure your Variable Names are unique. This is recommended to avoid confusion.
 - c. These variables are commonly used in the WHERE clause of a SQL statement to limit the records returned to those that are applicable to the document being processed. But you may use such variables elsewhere in your statement too if it becomes necessary.
8. **Input Properties:** Here you may assign one of your [Document Properties](#) to pair with your Variable Name. Choose from the Properties on the drop-down list. In doing so, you are telling Axis to use the value of that Document Property to replace the Variable Name seen in your SQL code at the time the SQL code runs. This is a way of dynamically altering your SQL statement using Properties associated with the document currently being processed.
 - a. **Example:** In your SQL code, define your Variable Name in this way: {{X}}. You assign it to Document Property “Custorderno” (aka: Customer Order Number) on the Input Properties list. Then, if the Property contains a value of “1234”, then when the SQL statement runs, it will replace each occurrence of {{X}} with 1234.
 - b. **Tip:** It is not necessary to name your Variable the same as your Document Property – though it might make your SQL code more easily readable for you.
 - c. The drop-down list shows all properties on your system. It is not limited to those associated with the currently selected document type. It is therefore possible to choose a Document Property that has no value, or has no purpose being used on the Document Type you are processing. It is up to the Administrator to ensure proper assignment.
 - d. Because the purpose of the Input Property is to pass a useful value to the SQL statement, you should ensure that the Document Property you have chose has been previously filled

with something of use. The assigning of values to these Properties can only occur in activities that have taken place before the Database Extraction: the Marking process, a Monitor Task, the API call which uploaded the document.

9. **Columns of data are returned** by your SQL statement. In the example above, columns called Lookup_3 and Lookup_1 are returned. See reference 9 in the screenshot.
 - a. Each column returned by your SQL statement is then listed in the list of Output Properties (see to the left of item #10 on the screenshot above on the right side of the panel)
10. **Output Properties:** Here you may assign one of your [Document Properties](#) to pair with one of the columns of data returned by your SQL statement. Choose from the Properties on the drop-down list. In doing so, you are telling Axis to copy the value returned in that column to the selected Document Property.
 - a. **Example:** Your SQL statement returns a column named Lookup_1. That column has a value of “ABC Company”. You associate it with a Document Property called “Custname” (short for Customer Name). From that point forward (until it is subsequently overwritten), the Custname Document Property’s value is now “ABC Company”.
 - b. The drop-down list shows all properties on your system. It is not limited to those associated with the currently selected document type. You should exercise caution in choosing an appropriate Document Property. As soon as you add a value to a Property for a particular Document, this Property will now be carried with that specific Document – even if had never been previously used for this type of document in the past.
11. **Disable this Definition:** Check this box if you wish to prevent this Extraction Action from being executed. This gives you a mechanism for keeping this Action on file, but it will not be used until you clear this checkmark.
12. **Save your changes**

What happens if my SQL statement returns multiple rows?

Each of the values in the returned rows is saved to the chosen Output Properties. If 1 row is returned, then only 1 value will be in your Output Property. If multiple rows are returned, then your single Property will contain multiple values. If you wish to restrict the Output Properties to one single value, you must structure your SQL statement so that it returns only one row.

The precise syntax for this varies depending on which flavor of database you are using. Example: Microsoft TSQL (SQL Server) or Access would use the TOP clause like this: “SELECT **TOP 1** myfield FROM mytable”. Other databases may have this capability, but the syntax can be very different than what is shown in this example.

Separators

OPTIONAL Controls the process of splitting a single physical file into multiple, smaller pieces called [“Logical Documents”](#). The new Logical Documents are what is seen by the outside world – either through Viewing or distribution. The initial physical file is what is physically stored internally in Axis in its unaltered (un-separated) state. It may also be viewable in addition to the Logical Documents that come from it.

This might seem a little odd when compared to what happens in the physical world, but there is a 3-fold rationale behind it: 1) This approach preserves the ability in the future to alter the way documents are separated, then to reprocess them with the new separation rules. 2) It preserves the integrity of the original file. 3) It increases the flexibility of the software to package documents in different ways simultaneously.

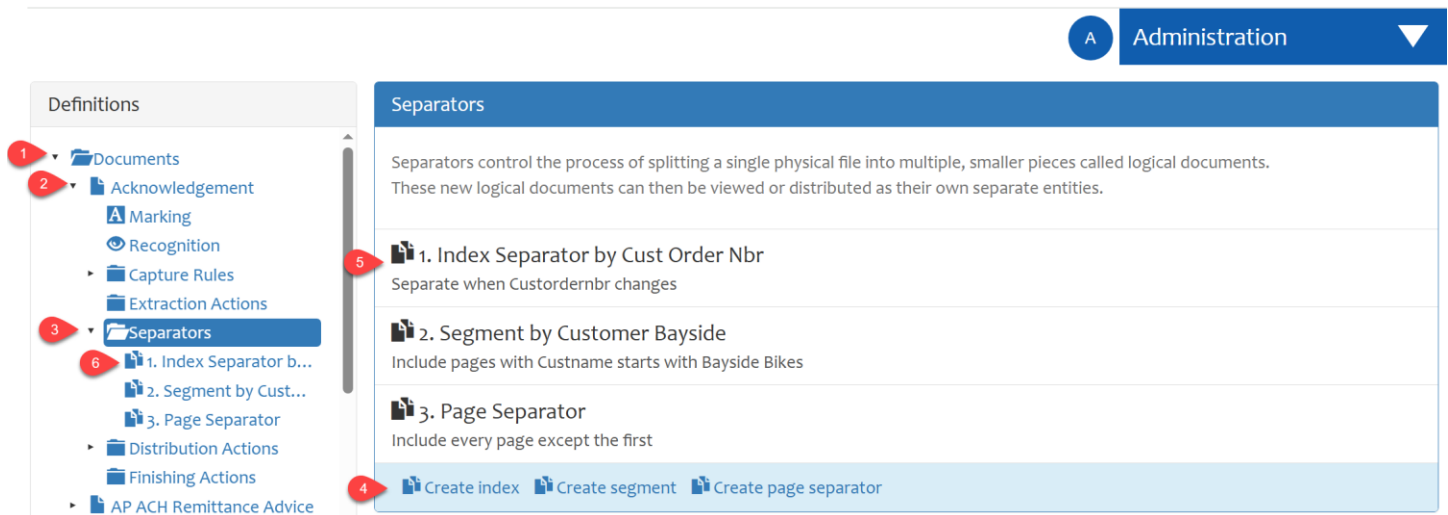
Example: A single PDF may contain 10 different Invoices. A Separator – based on the change of Invoice number – could “split” this PDF into 10 separate Logical Documents. Reading through the original file sequentially, a new Logical Document is created when the Invoice Number changes. At that point, each individual invoice is searchable by itself, and may be distributed individually (rather than as the group of 10).

Multiple Separators: You may define multiple Separators using a variety of methods to create separation. Each defined Separator may also include separate Distribution Actions. A single document will be subject to all of the defined separators where the criteria for the Logical Document’s separation is matched. The resulting Logical Documents, from each applicable separator, can all exist in Axis at the same time.

Multiple Separator Methods: There are 3 different methods that you can use individually or together to separate Logical Documents: Index Separators, Segment Separators and Page Separators. Each is discussed in more detail in their respective sections below. You may also define multiples of any single kind of separator (Example: you could have 3 different Index Separators and 2 Segment Separators, but no Page Separators).

Order of processing: In all cases, documents are processed sequentially from first to last page. Separators never re-order the Logical Documents that they generate.

 **PRO TIP:** A special Document Property called “Index” can be very helpful in some circumstances. It will contain the name (title) of the Separator that produced any given Logical Document. For the original (unseparated) document it will contain the words “Whole Document”. This can be super handy if you show this column in a Search. It gives you a way to track down the source of a specific instance of a document.

Add / Edit Separators

From the Administration section...

1. Select the Documents menu item (at left)
2. Choose the Document Definition to which you wish to add Separators (at left)
3. Choose “Separators” from the menu (at left)
4. To Add a new Separator: Choose the type of Separator from those listed at the bottom of the Separators screen (to the right). Each of these types is described in detail below.
5. To edit existing Separators click on the Separator name at the right, - or - expand the Separators menu at the left (3) and click on the Separator name at the left (6)

Don't forget to Save your work when you are done making changes

Create an Index Separator

Index Separator – use when you wish to parse the document, and “create” a new [Logical Document](#) when one or more properties change from what it was previously in that sequential reading of the document.

Example: Watch the Invoice number which is in the same location on every page in the original file. When it changes, then create a new Logical Documents – effectively creating 1 Logical Document per Invoice.

1

1. Index Separator by Cust Order Nbr

Index

Produces sections of a document where the content of all the locations is the same. Adding locations will separate the document into smaller pieces.

2

Location

+

Custordernbr

x

3

Distribution Actions

+

File Action 1

x

4

☐ Disable this definition

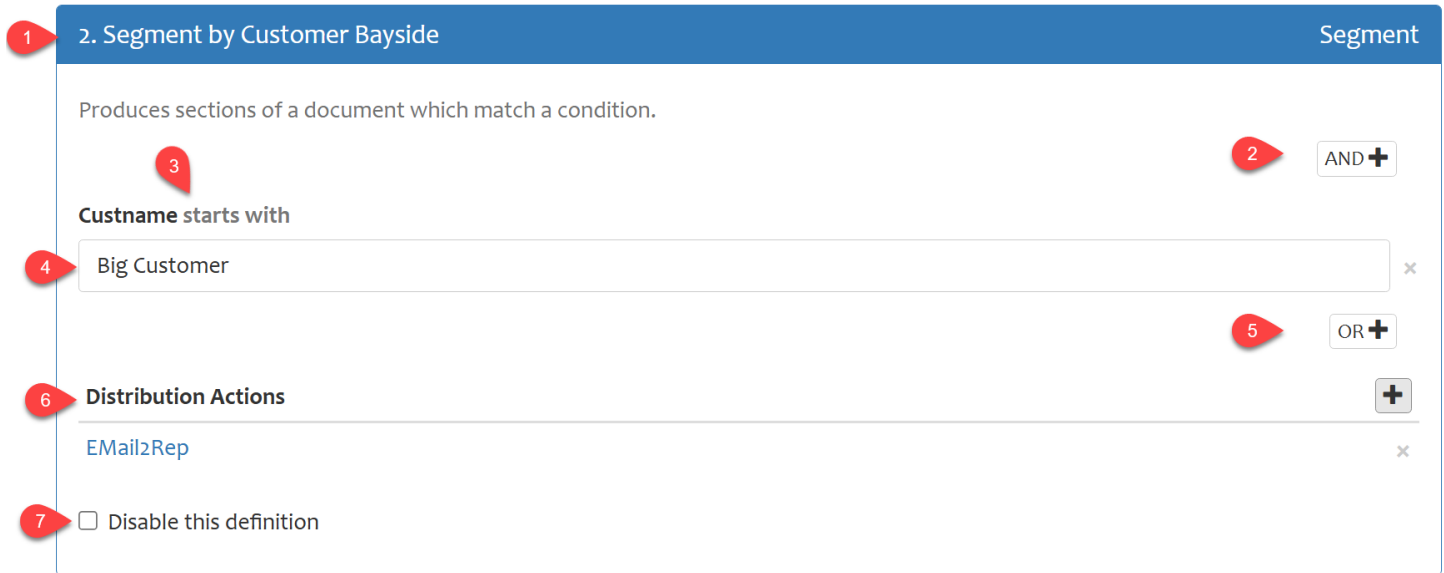
- Title:** You can click on the Heading to add or change the name of this Separator. Hint: Its best to name it something short, but that describes what it does. It will be easier to ID later.
- Location:** Choose one or more [Properties](#) that you wish to have monitored for changes:
 - Click + to add a new Property to watch
 - Choose from the drop-down menu (this includes only those properties not yet used)
 - To remove a Property from the list, click the x to the right of the row
- Distribution Actions:** Choose one or more of the pre-defined [Distribution Actions](#) to use for this Separator action.
 - Click + to add a new [Distribution Action](#) to the list
 - Choose from the drop-down menu (this includes only those Distribution Actions not yet used)
 - To remove a Distribution Action from the list, click the x to the right of the row
- Disable...** : Optionally you may Disable the current Separator. If this box is checked, this Separator will not be used.

Create a Segment Separator

Segment Separator – Use this when you wish to create a [Logical Document](#) that may be comprised of non-contiguous pages and more flexible and complex comparisons (equal to, not equal to, contains, starts with, etc.).

Example: You have 1 large file that contains many invoices. You wish to gather all the invoices for a major customer who's names are like "Big Customer Store #1", "Big Customer Store #2", etc. You can create a Separator that gathers all pages where the Customer Name property STARTS WITH "Big Customer". They may be on non-contiguous pages in the original file, but Axis will have all

invoice meeting that criteria gathered together in 1 Logical Document – sorted in the same relative order that they were in the original file.



1. **2. Segment by Customer Bayside** Segment

Produces sections of a document which match a condition.

3. **Comparison:** AND +

4. **Value:** Custname starts with Big Customer x

5. **Comparison:** OR +

6. **Distribution Actions:** +

EMail2Rep x

7. ☐ Disable this definition

1. **Title:** You can click on the Heading to add or change the name of this Separator. Hint: Its best to name it something short, but that describes what it does. It will be easier to ID later.
2. Click “AND” to start adding new criteria
 - a. Choose one or more [Properties](#) that you wish to have monitored for changes:
 - b. Choose from the drop-down menu
 - c. To remove a Property from the list, click the x to the right of the row
3. **Comparison:** The comparison operator defaults to “equal to”. You can change this by clicking on those words and choosing any of the other alternative operations shown on the list.
4. **Value:** Enter the value(s) you which to look for in the selected Property
5. You can add additional critiria by choosing “AND” (2) or “OR” (5), then repeating steps 2a though 4 until you have completely identified the criteria you wish to use in this Separator.
6. **Distribution:** Choose one or more of the pre-defined [Distribution Actions](#) to use for this Separator action.
 - a. Click + to add a new Distribution Action to the list
 - b. Choose from the drop-down menu (this includes only those Distribution Actions not yet used)
 - c. To remove a Distribution Action from the list, click the x to the right of the row
7. **Disable:** Optionally you may Disable the current Separator. If this box is checked, this Separator will not be used.

Create a Page Separator

Use this method when you wish to create [Logical Documents](#) based on page numbers, as opposed to any of the content of the document(s). NOTE that Page Separators are generally rarely used.

Example: I am storing Fax transmissions. I want to ignore page 1 (a typical cover page), but store all remaining pages. In this instance you can tell Axis to work with a Page Range, starting with Page 2 and running through the end of the document.

3. Page Separator Page Separator

Separator type

Page Range

Produces a section containing a range of pages from a document.

Negative amounts are relative to the end of the document, with -1 being the last page, -2 being the second-to-last page, and so on.

Start page **End page**

2 -1

Distribution Actions +

The document can always be retrieved via search. Assign an action to automatically distribute the document.

☐ Disable this definition

1. **Title:** You can click on the Heading to add or change the name of this Separator. Hint: Its best to name it something short, but that describes what it does. It will be easier to ID later.
2. **Separator Type:** Choose the Separator Type from the drop-down list
 - a. Page Range
 - b. Start Page Range
 - c. End Page Range
 - d. Fixed Page Count
3. **Page settings:** Choose the Page settings – these differ based on “Separator Type” (2) chosen:
 - a. If “Page Range: Enter the starting page, and the ending page. Read the on-screen help text to learn how to ID the end of a document (last page, 2nd last, etc).
 - b. If “Start Page Range: Enter the number pages to be selected starting at the beginning of the document (ie: the first X number of pages).
 - c. If End Page Range: Enter the number of pages you wish to be selected at the end of the document (ie: the last X number of pages).
 - d. If Fixed Page Count: Enter the number of pages to select. Subsequent pages will be a separate Logical Document of X length. Example; If you enter “2” here, then your first

Logical document will be the first 2 pages of the physical document. The next 2 pages will be a separate logical document, and so on until you run out of pages in the physical document. Therefore a physical document of 10 pages will result in 5 logical documents using this method.

4. **Distribution Actions:** Choose one or more of the pre-defined [Distribution Actions](#) to use for this Separator action.
 - a. Click + to add a new Distribution Action to the list
 - b. Choose from the drop-down menu (this includes only those Distribution Actions not yet used)
 - c. To remove a Distribution Action from the list, click the x to the right of the row
5. **Disable:** Optionally you may Disable the current Separator. If this box is checked, this Separator will not be used.

Distribution Actions

Define these actions to automatically output documents to one or more various destinations: email, FTP, write to the local file system, print, write or update a Database or delete from a database. Email and print are the most commonly used, but the other actions are available should you need them.

The mere existence of a Distribution Action does not cause it to be run. A Distribution Action is slated to be run by referencing it on the [Document Definition](#) Screen and/or on one or more of the [Separators](#).

Each of these output destinations are capable of being configured to use entered (hard-coded) information and/or variable information driven by using metadata that's been gathered thus far in the documents journey through Axis. For example, if emailing, the "To" addresses on the email could be populated using metadata that's already been gathered for the current document from the documents contents (See "[Marking](#)") and/or from an external database (See [Extraction Actions](#)), etc.

Note that at any time after documents are Captured users who can locate a document in the Axis Viewer are also capable of manually emailing or printing those documents. Because they are manually initiated, those methods are not considered "Distribution Actions". Distribution Actions, in the context of a Document Definition, represent automated processes the occur when a new document is ingested into Axis.

Distribution Actions: Email Action

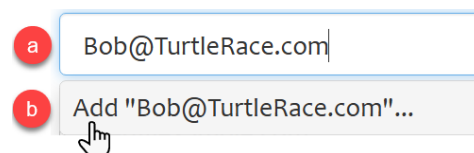
Use this type of action if you wish to automatically send the document by Email when it is initially being processed. Note that you may *manually* send the document later from the Viewer – but that approach is not governed by the rules you create here.

When email is sent, it is sent through your Email Server using the SMTP protocol. The settings to allow Axis to properly address your Email Server SMTP are found on the [Email Distribution Task](#) on the Operations menu.

i Email Actions available in Bundles too: The *mechanics* described here *also* apply to Email Distribution Actions that are specific to a Bundle. Those actions created and maintained within the Document Definition are separate and in addition to those created and maintained as a part of a Bundle. See the Bundle Section of this manual here: [Bundles <<NEED EXPLANATION-INCOMPLETE>>](#)

Editing Email Addresses: For any of the email address fields you may add one or more email address (with the exception of the From Email Address where you are limited to 1 address). You are able to choose from the Axis user's list, add new email addresses here, and/or use a Document Property that contains one or more email addresses.

1. **Axis Users/Groups:** Click on the drop-down box to display a list of internal users and groups. You may choose one or more of these.
2. **Manual Entry:** To manually add an email address, just
 - a. start typing your address. Once you have entered something that looks like a full email address, including the domain,
 - b. a drop-down menu will appear with that email address displayed. To the left of that address is the word "Add". Click on that word to add the address to your list of destinations.
3. **Document Property:** To use a Document Property



1 Email Sample Email Distribution

2 To:

3 CC:

4 BCC:

5 Reply-To:

6 From:

☐ Request read receipt

7 Subject:

8 Filename:

9
 Format

 Hi {{indices.CustName}}
 Attached is your Order Acknowledgement. Please contact us if you have any questions.
 Your Pal,
 Franky

10 ☒ Disable this definition

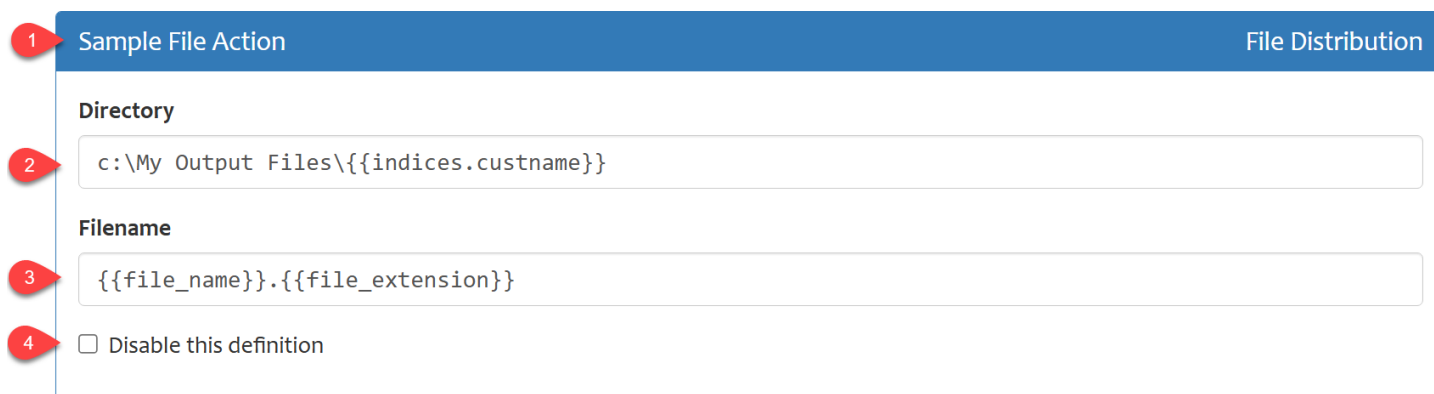
- 1. Title:** Enter the title for this action. Something short, but reasonably descriptive is recommended
- 2. To:** Enter the “TO” email address(es).
CC Address (Carbon Copy): Click on the ... button to expand this section. Once expanded you’ll see additional email address properties below, including CC. Entering email addresses for these is similar to entering them on the TO address (as described above).
- 4. BCC (Blind Carbon Copy):** addresses appearing here will not display on the email seen by other recipients.
- 5. Reply-To:** Enter the address(es) that to which replies will be sent
- 6. From:** Enter the single email address that recipients will see as the “From” address. Only 1 is allowed.

7. **Request a Read Receipt:** you can request that receipt be sent to the “From” address when the message is read by the recipient(s). This is a request. The recipient is often prompted to ask if they wish to send a receipt. It is their choice to do so or decline. They cannot be forced to send a receipt, so there are some that you may not receive. That is likely due to the recipients choices, not the systems involved.
8. **Subject:** Enter the subject line that you wish to appear on the email message.
9. **Body:** Enter the body text you wish to be sent. You may use the formatting buttons as shown here.
10. **Disable this definition:** By default, this is unchecked – and therefore enabled. Check this box if you wish to prevent this distribution action from being executed.

Distribution Actions: File Action

Determines where to save files on your local storage system, and what to name them.

File Actions available in Bundles too: The mechanics described here *also* apply to File Distribution Actions that are specific to a Bundle. Those actions created and maintained within the Document Definition are separate and in addition to those created and maintained as a part of a Bundle. See the Bundle Section of this manual here: [Bundles](#) <<NEED EXPLANATION-INCOMPLETE>>



1 Sample File Action File Distribution

2 Directory
c:\My Output Files\{{indices.custname}}

3 Filename
{{file_name}}.{{file_extension}}

4 ☐ Disable this definition

1. **Title:** Enter the title for this action. Something short, but reasonably descriptive is recommended
2. **Directory:** Enter the full directory path where you wish the output file to be stored.
3. **Filename:** Enter the file name you want the output to be saved as. While you can do it, it is uncommon to simply enter a fixed name here. Much more common is to construct the file name from the various Document Properties so that you wind up with something at least somewhat descriptive and unique. It is important to strive for uniqueness since Axis will overwrite the any

existing file with the same name (duplicates names are never allowed). See the section “[Including Document Property values as variable information](#)” for more information.

- 4. Disable this definition:** By default, this is unchecked – and therefore enabled. Check this box if you wish to prevent this distribution action from being executed.

Distribution Actions: Print Action

Enter one or more Printer Actions to distribute your document(s) to this list of printers. Note that the printers themselves must be accessible and visible from the server on which Axis is installed. In Windows servers this means that all of the printers you wish to use must appear on the Windows printer list.

i Print Actions available in Bundles too: The *mechanics* described here *also* apply to Print Distribution Actions that are specific to a Bundle. Those actions created and maintained within the Document Definition are separate and in addition to those created and maintained as a part of a Bundle. See the Bundle Section of this manual here: [Bundles <<NEED EXPLANATION-INCOMPLETE>>](#)

1 My Printer Action Print Distribution

2 Printer HP Deadly Laserbeam

3 Copies 1

4 Orientation ☒ Auto portrait/landscape
☐ Portrait
☐ Landscape

5 ☐ Disable this definition

- 1. Title:** Enter the title for this action. Something short, but reasonably descriptive is recommended.
- 2. Printer:** Choose a printer from the drop-down list.
- 3. Copies:** Choose the number of copies to be printed
- 4. Orientation:** Choose from the list of orientation options shown
- 5. Disable this definition:** By default, this is unchecked – and therefore enabled. Check this box if you wish to prevent this distribution action from being executed.

Distribution Actions: Database Action

Database Distribution actions allow you to build in 1 or more actions that will update or insert into the database of your choice. You supply the Database connection information, SQL, and mapping from the Documents Properties. Axis will then perform the SQL UPDATE or INSERT action as you define it here.

1

Sample Database Action

Database Distribution

Distribute to an external database.

Database URL

2

jdbc:sqlserver://WINSVR2019-TEST:1433;databaseName=MySampleDatabase; encrypt=false

User Name

3

sa

Password

.....

Assign properties as inputs to the database query.

Input Properties

5

1. Custname

Custname

2. CustCity

Shiptoname

Supply the sql query to run when processing this document.

4

```

INSERT INTO SampleTable
      (Name, City)
VALUES  ({{Custname}}, {{CustCity}})

```

6

☐ Disable this definition

1. **Title:** Enter the title for this action. Something short, but reasonably descriptive is recommended
2. **Database URL:** Enter the URL for the database you wish to access. You may need assistance from your system Admin or see the [Connect to a Database: Database URL Tips and Examples](#) in this manual.
3. **User Name & Password:** Enter the Username and password needed to access the database
4. **SQL Query:** Enter the SQL Query that will be used to retrieve the desired information from your database. The syntax for the query will vary depending on the database you are accessing.
 - a. **Variable Names:** you can create and use Variable Names within your SQL statement. These function as a named placeholder that will be replaced with a value at run-time based on the Input Properties settings (see step 8 below). These Variable Names are created by surrounding the name itself text in double brackets. Example: {{myVariableName}} ...or see

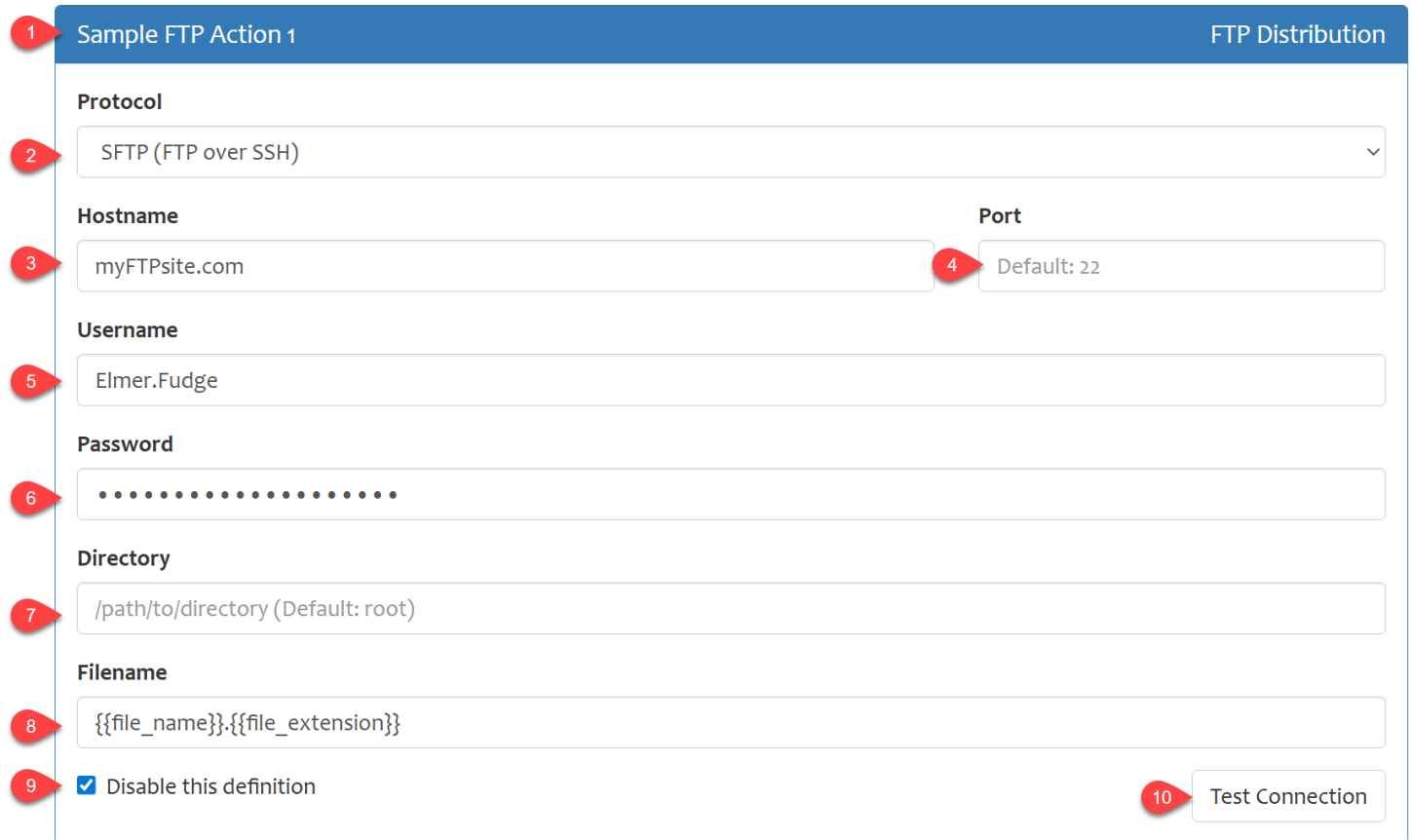
the sample SQL in the screen snapshot above where it references {{Custname}} as a variable.

- b. When you add a variable name to your SQL code, it will appear on the list of “Input Properties” (located above the SQL query section and on the left side of the panel for this list).
 - c. Within any given SQL statement it is highly recommended that you ensure your Variable Names are unique. This is recommended to avoid confusion.
5. **Input Properties:** Here you may assign one of your [Document Properties](#) to pair with your Variable Name(s) as you defined them in your SQL statement. Choose from the Properties on the drop-down list. In doing so, you are telling Axis to use the value of that Document Property to replace the Variable Name seen in your SQL code at the time the SQL code runs. This is a way of dynamically altering your SQL statement using Properties associated with the document currently being processed.
 - a. **Example:** In your SQL code, define your Variable Name in this way: {{X}}. You assign it to Document Property “Custname” (aka: Customer Name) on the Input Properties list. Then, if the Property contains a value of “Acme, Mfg”, then when the SQL statement runs, it will replace each occurrence of {{X}} with “Acme Mfg”.
 - b. **Tip:** It is not necessary to name your Variable the same as your Document Property – though it might make your SQL code more easily readable for you.
 - c. The drop-down list shows all properties on your system. It is not limited to those associated with the currently selected document type. It is therefore possible to choose a Document Property that has no value, or has no purpose being used on the Document Type you are processing. It is up to the Administrator to ensure proper assignment.
6. **Disable this definition:** By default, this is unchecked – and therefore enabled. Check this box if you wish to prevent this distribution action from being executed.
7. **Save your changes**

Distribution Actions: FTP Action

FTP Actions give you a means for configuring Axis to automatically upload a document to an FTP site as part of your Document Distribution.

It is common to use one or more Variables in several of the settings below. This provides the flexibility to name files and/or directories in a way that is both unique and meaningful.



1 Sample FTP Action 1 FTP Distribution

2 Protocol
SFTP (FTP over SSH)

3 Hostname myFTPsite.com 4 Port Default: 22

5 Username Elmer.Fudge

6 Password

7 Directory /path/to/directory (Default: root)

8 Filename {{file_name}}.{{file_extension}}

9 ☒ Disable this definition 10 Test Connection

1. **Title:** Enter the title for this action. Something short, but reasonably descriptive is recommended
2. **Protocol:** Choose from the options displayed the protocol that best suits your FTP destination.
Options include:
 - a. FTP
 - b. FRPS (FTP over TLS)
 - c. SFTP (FTP over SSH)
3. **Hostname:** Enter the hostname for your FTP site. No need to include the prefix FTP, FRPS, SFTP since those will be automatically added based on your choice of Protocol (above).
4. **Port:** (Default=22) Enter the port for your FTP site
5. **Username:** Enter the user name with which to authenticate

6. **Password:** Enter the password with which to authenticate
7. **Directory:** (Default=root directory) Enter the directory in which you wish to have your uploaded file(s) deposited.
8. **Filename:** Enter the file name to use when creating the new file on your FTP site. This is a common place to employ use of one or more variables to create a file name.
9. **Disable this definition:** By default, this is unchecked – and therefore enabled. Check this box if you wish to prevent this distribution action from being executed.
10. **Test Connection:** Always test your connection to make sure it works before you leave this screen. A message will be displayed indicating success or failure of your test.
11. **Save your changes**

Finishing Actions (Overlays)

Finishing actions allow you to add (or “Overlay”) additional graphics to your document. This determines how a document should look when it’s published. Those Overlays are specified here. This of an overlay as being much like a watermark or stamp. You could go as far as having an overlay contain all of the elements you’d normally see on a pre-printed form if you wish. Or it could be as simple as the word COPY placed at the top of a document.

Supported file types for overlays include png, gif, jpg, jpeg and pdf. While each Finishing Action is specific to 1 Document Definition, the library of graphics you may choose from is shared system wide. So as you add graphics to this list, know they will be available for other Document Definitions.

Add / Edit Finishing Actions

The screenshot displays the SMRTR Axis Administrator interface. In the top right, there is a user profile icon labeled 'A' and a dropdown menu showing 'Administration'. The left sidebar contains a 'Definitions' menu with several items: 'Documents', 'Acknowledgement', 'Marking', 'Recognition', 'Capture Rules', 'Extraction Actions', 'Separators', 'Distribution Actions', 'Finishing Actions' (highlighted with a red circle 3), 'Sample Overlay 1' (highlighted with a red circle 6), 'AP ACH Remittance Adv...', and 'AP Check'. The main content area is titled 'Finishing Actions' and contains the following text: 'Finishing Actions specify how a document should look when it is published. Finishing Actions are added to successfully captured documents automatically.' Below this text is a list of finishing actions. The first item is 'Sample Overlay 1' with a description 'Overlay with 1 image' (highlighted with a red circle 5). Below it is a button labeled 'Create overlay action' (highlighted with a red circle 4).

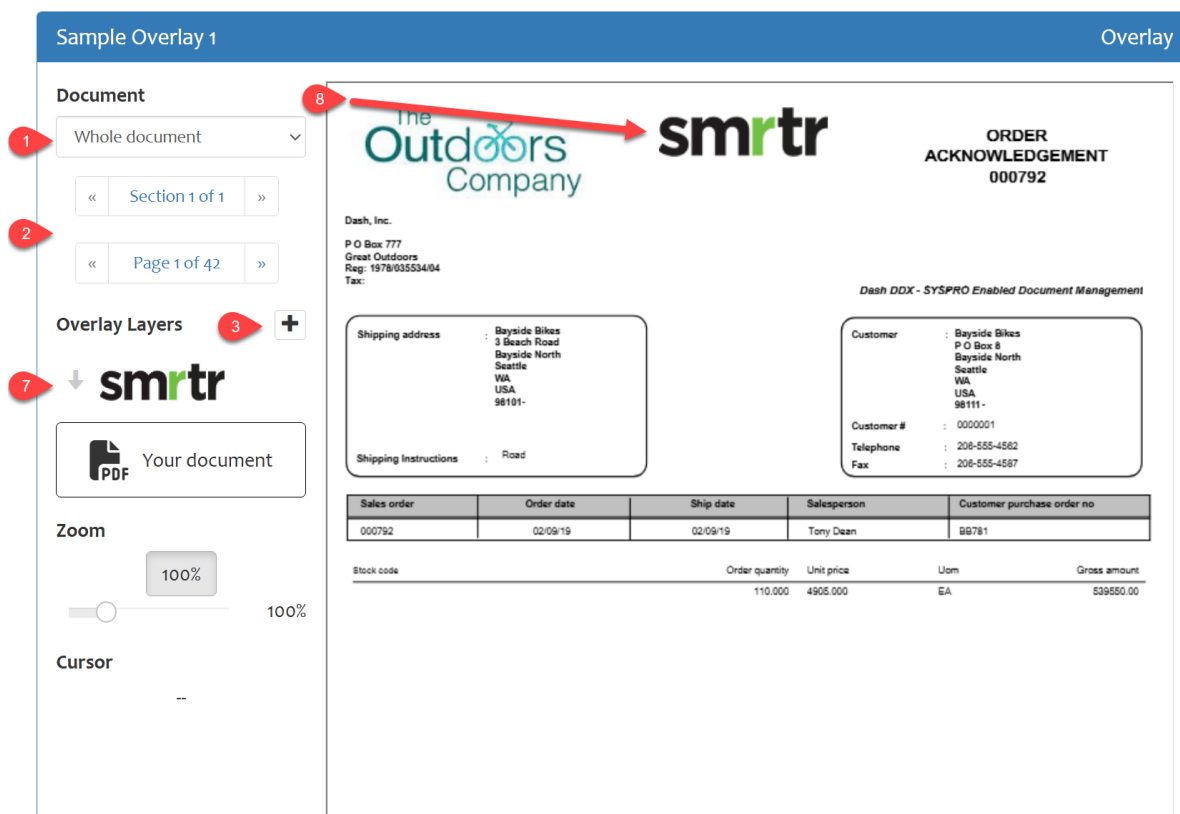
From the Administration section...

1. Select the Documents menu item (at left)
2. Choose the Document Definition to which you wish to add Separators (at left)
3. Choose “Finishing Actions” from the menu (at left)
4. To Add a new Finishing Action: Choose “Create overlay action” listed at the bottom of the Finishing Actions screen (to the right).
5. To edit existing Finishing Actions click on the Action name at the right, - or - expand the Finishing Actions menu at the left (3) and click on the specific Action name at the left (6)

Don't forget to Save your work when you are done making changes

Edit a Finishing Action Details

In creating the Finishing action, follow these steps:



1. **Document:** Select the sample document you wish to view while working on your Overlay. Choose from the list.
2. **Display Selection:** Choose the section or page you wish to view while working on your Overlay.
3. **Add Overlay Layer:** Click the + sign to choose from previously uploaded graphics or to add new ones

4. **Upload:** If what you want isn't already on the list, you can upload new graphics by clicking the "+Upload" button.

- a. Choose your graphic
 - b. It will be added to the list

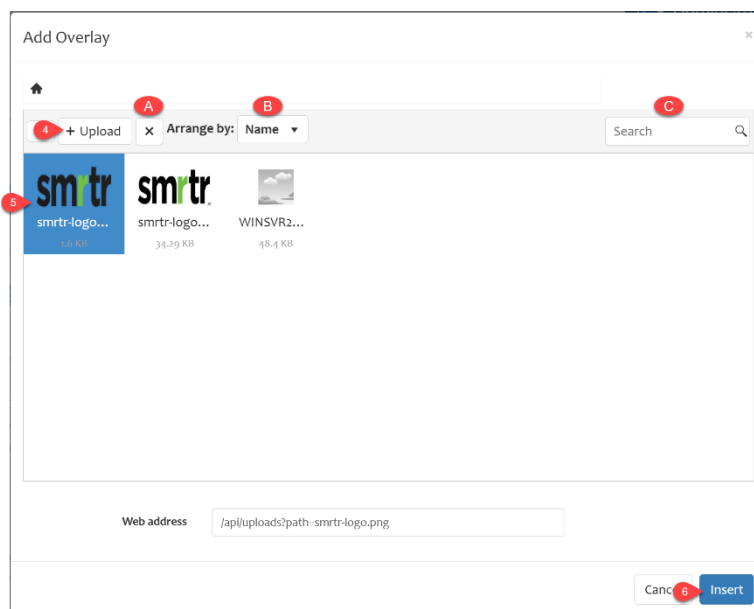
5. Choose the graphic you want from the list

6. **Insert:** Click the Insert button to add it to your Overlay

7. Your Graphic is now displayed on the list of Graphics assigned to the current Overlay.
 - a. To Edit an existing graphic click on it. It will be selected on the page preview to the right.

8. **Place your graphic:** When adding a new graphic, after step 6 above, the graphic will immediately display within the page preview at the right of the screen. A new graphic is always initially positioned at the top left of the page.
 - a. Move your graphic: click-and-hold then drag the graphic to your desired location on the page
 - b. Resize your graphic: click-and-hold on the resize handles on each corner or in the middle of each side. Drag to resize the graphic.
9. **Disable this definition:** By default, this is unchecked – and therefore enabled. Check this box if you wish to prevent this distribution action from being executed.

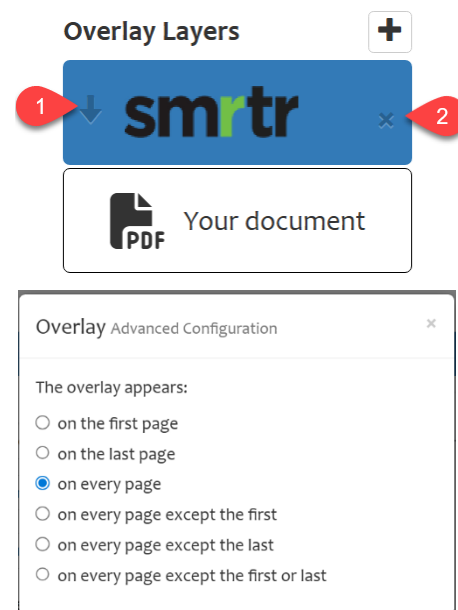
10. **Save** your work!



Manipulate your Overlay layers

In the Overlay Layers section of the screen, first click on a layer to select it. Then:

1. **Re-ordering layers:** Use the up/down arrows on each layer to move it relative to the other layers
2. **Delete a layer:** Click on the X on the right side of the Layer
3. **Advanced Configuration:** double click on it to open the Advanced Configuration menu. Choose from any of the options displayed there (shown here →)
4. **Move/Resize:** you can always resize or move the selected layer on the Preview display at the right.



Bundles (Bundle Definition)

Bundles provide to Axis instructions to gather together, into one PDF, multiple documents to both a) send to a recipient and b) make a searchable virtual document accessible in the Viewer. It starts with a primary document, then can retrieve other “related” documents from those that are already in Axis. It then merges them together, and sends the merged result. At a high level, Bundles produce a single document by grouping documents together, so that the Bundle of documents can be Viewed or distributed as though they were a single document.

Example: Bundling would apply if you are sending Invoices to your customers, but your customer also requires that the related Packing Slips and Bills of Lading are included with each invoice. If the Packing Slips and Bills of Lading are already in Axis, and there is sufficient data available from the Invoice’s metadata to locate them, these “extra” documents can be included in the delivered document.

Example: You want to produce 1 document that includes all of the Shipping Documents for each day to send with your truck driver. That could be a bundle timed to close daily.

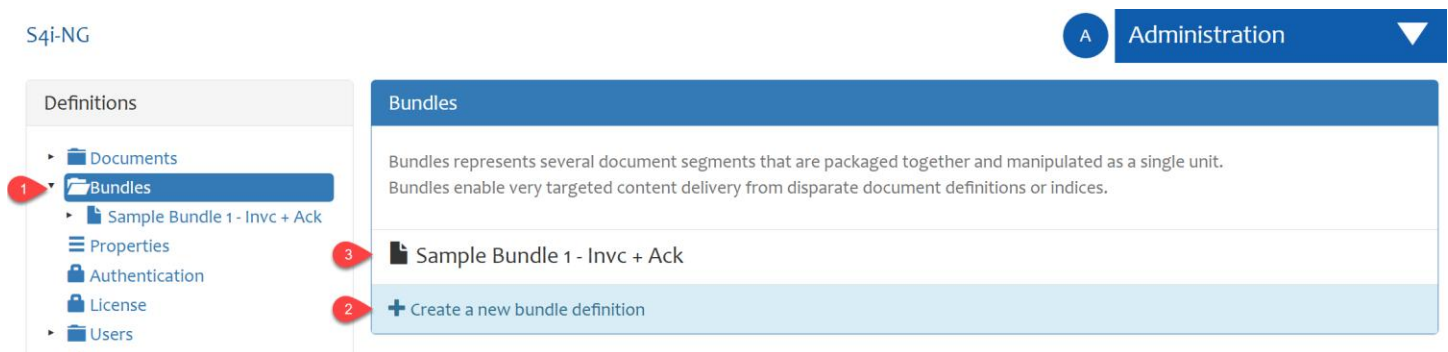
Bundles are defined and configured by:

1. **Criteria:** Establishing the criteria used in determining which documents will be chosen to be included in a specific bundle
 - a. What kinds of documents are included: Choosing specific [Document Definitions](#) – and/or Document Definition Separator actions to be included: Example: Customer Invoices
 - b. How often do we close the bundle: setting a time period after which you’d “close” a bundle and distribute it.
 - c. How do we group the Bundles? Using [Document Properties](#) to help separate one bundle from the next: Example: Grouping on Customer Number
 - d. Example: I want to distribute bundles of Invoices, to each Customer, once per day.
2. **Distribution:** Defining how these Bundles will be distributed (Email, save-to-disc, Print)
3. **Finishing Overlay(s):** Perform one or more Finishing actions to add overlays (graphic, etc) before the document is Published to Axis’s database.

 **PRO TIP:** The act of Bundling takes place AFTER the document has been recognized and distributed. Therefore any metadata gathered during that initial process is available during the process of Bundling.

PRO TIP: A Property exists that preserves the name of the Bundle Definition that was used to create a Bundle. It is called “Bundle Definition”. This can be seen in a Search results should you wish it. You may find it useful in tracking down logical document(s) that were created by a particular Bundle Definition.

Create or Edit a Bundle Definition



1. Navigate to the Bundles option on the menu at the left
2. To Add a new Bundle, click on the “+ Create new bundle definition” button at the bottom of the panel on the right.
3. To edit an existing Bundle, click on the desired Bundle title from the list shown in the panel on the right.

Bundle Detail

1

Sample Bundle 1 - Invc + Ack

Bundle

Sample Documents

+

7

document.pdf

x

2

Documents

Min Count

Max Count

+

...

Index Separator on Invoice # index from Invoice

...

1

a

No maximum

b

x

...

1. Index Separator by Cust Order Nbr index from Acknowledgement

...

0

No maximum

x

3

Auto-Close

☐ Never close

Close after:

5

minutes ▾

4

Grouping

+

Custnbr

x

Custordernbr

x

5

View Permissions

+

Administrator

User has been granted permission to view this definition.

x

6

☐ Disable this definition

- Title:** Click here to enter or edit the title of your bundle. This will appear on the Bundles main page in the list of Bundles.
- Documents:** Lists the [Document Definitions](#), and/or [Document Separators \(Logical Documents\)](#), that are included in the current Bundle. There may be multiples. The parameters for each Document listed are as follows:
 - Min Count:** specifies the minimum number of documents that must be included in a bundle before it can close
 - Max Count:** specifies the maximum number of documents that may be included in a bundle when it closes.

- c. **NOTE:** The order in which these are listed matters: The first will appear first in the bundle, the 2nd will appear second, etc. You can also drag and drop them to re-order the resulting bundle.
3. **Auto-Close:** Settings here determine when the bundling process is finalized for any given bundle. After closing, no new documents will be added to a given bundle.
 - a. **Never Close:** indicates that the bundle remains open indefinitely, and continues to collect new documents for inclusion.
 - b. **Close After:** sets a timer on when the bundle will close. The timer starts when a new Document Group (see “Grouping” below) is encountered , and ends at the specified duration. The duration may be specified – via the drop-down - in minutes, hours or days.
4. **Grouping:** Lists the Document Properties that – when identical and within the Closing time-frame defined above – constitute a Group within a Bundle. Example: When Grouping lists “Custnbr” (Customer Number) and “Custordernbr” (Customer Order Number) it means that the system will group together documents that share the same Custnbr and Custordernbr property values. In this sample, it would include all Invoices and Acknowledgements for customer 123 and order 789 as one Logical Document – AS LONG AS those documents both arrive in Axis within the specified Closing time frame.
5. **View Permissions:** Identifies users that are allow to view the Logical Documents that are created as a result of the current Bundle Definition.
6. **Disable This Definition:** Optionally you may Disable the current Bundle Definition. If this box is checked, this Bundle Definition will not be used.
7. **Sample Documents:** You may “attach” sample Bundles to this Definition so that they are available for use during the [Bundle’s Finishing Actions](#) maintenance (described below). **NOTE:** When adding samples to this list, you will be offered to include ONLY those [Logical Documents](#) that were created as a result of Bundling. Therefore, you must generate one or more Bundled Documents — most commonly this would be generated from your current Bundle Definition — before you can choose to include them as a sample.

Bundle Distribution Actions

A Bundle’s Distribution Actions act only on the Bundle. The mechanics of creating those Distribution actions, though, mirror the mechanics of Email Distribution, File Distribution and Print Distribution as seen in the [Document Definition](#) / [Distribution Actions](#) Section of this manual. For specific instructions that you can apply in the Bundle Distribution section, see the references here:

- [Distribution Actions: Email Action](#)
- [Distribution Actions: File Action](#)
- [Distribution Actions: Print Action](#)

Bundle Finishing Actions (Overlays)

A Bundle's Finishing Actions act only on the Bundle. The mechanics of creating those Finishing actions, though, mirror the mechanics of Finishing Actions described in the Document section Email Distribution, File Distribution and Print Distribution as seen in the [Document Definition / Finishing Actions \(Overlays\)](#) section of this manual.

Properties

This section lists all of the individual meta-data properties that form the index for each Document Type. From this section you can maintain the list of document properties – adding new ones, and modifying existing ones.

PRO TIP: Properties can be initially created in Axis from a variety of sources, including during Marking, from external sources, and elsewhere. They can also be manually created from this location on the menu.

Add a new property

The screenshot shows the 'Properties' section of the SMRTR Axis Administrator. On the left, the 'Definitions' menu has 'Properties' selected (1). The main area shows the 'User Properties' tab. The 'User Properties' table lists properties with columns ID (6), Name (7), Type (8), and Visible (9). A '+' button (2) is used to add new properties. A red arrow points from the '+' button to a 'Create property' pop-up window. The 'Create property' window has fields for 'Property Name' (3) and 'Property ID' (4), and 'Create' (5) and 'Cancel' buttons. A red callout 'System Properties' points to the 'System Properties' table below.

1. Select “Properties” from the menu at left
2. Click the “+” button to start adding a new Property. A pop-up window will appear
3. In the pop-up window, enter the **Property name**. It is best practice to make these unique. Spaces are allowed. This is the visible name of this Property. It is easily changed later by clicking on the Name in the User Properties List on the main Properties page (1).

4. The **Property ID** is automatically formatted for you based on the Property Name you typed. This is not changeable now, or later. Spaces in the Property Name are replaced with an underscore (_). The Property ID functions as a unique internal identifier for this property.
5. Click Create to create the new Property
6. The **Property ID** is displayed its own column. This is an internal unique ID. This is not changeable.
7. To change a **Property Name**, click on it in the “Name” column. This name is what is generally visible in most drop-down lists referring to a property that you will see elsewhere in the software.
 - a. NOTE: While you may rename the externally visible Property Name, you may not rename the internal Property ID (4)
8. To change the **Type** of Property, click on the text in the **Type column** of the User Properties List. You may choose from any type on the drop-down list: Text, Number or Date.
9. All Properties are **Visible** by default. You may change this by unchecking the “Visible” checkbox on the appropriate row in the User Properties List.

 **WARNING:** Be cautious when adding Properties. There is no mechanism for removing a Property once it has been created. Nor is there any ability to rename the Property ID later.

Authentication

This section controls how user authentication in Axis is controlled. Settings here are global.

Default Group: The default group is automatically assigned to new users when they are created automatically (see options below). Groups provides these new users with some initial permissions to get them started quickly. See the section on “[Groups](#)” in this manual for an explanation of what Groups are and how to set them up.

Authentication Type: (drop-down options)

Factory: This is the factory default. It is typically only used temporarily as the initial default as new systems are being installed. This setting is not intended for long term production use.

Windows: When using “Windows” as your Authentication type, it uses your Windows login (Active Directory). Note that you **MUST** be part of a Domain in order to use this method.

- Domain Name: populates automatically
- You may also elect to have Axis automatically create users in Axis when they first login.

LDAP: Authenticate with a generic Lightweight Directory Access Protocol (LDAP) server. For integration with Active Directory in a Windows environment, use Windows authentication instead.

When using this method, the System administrator must provide:

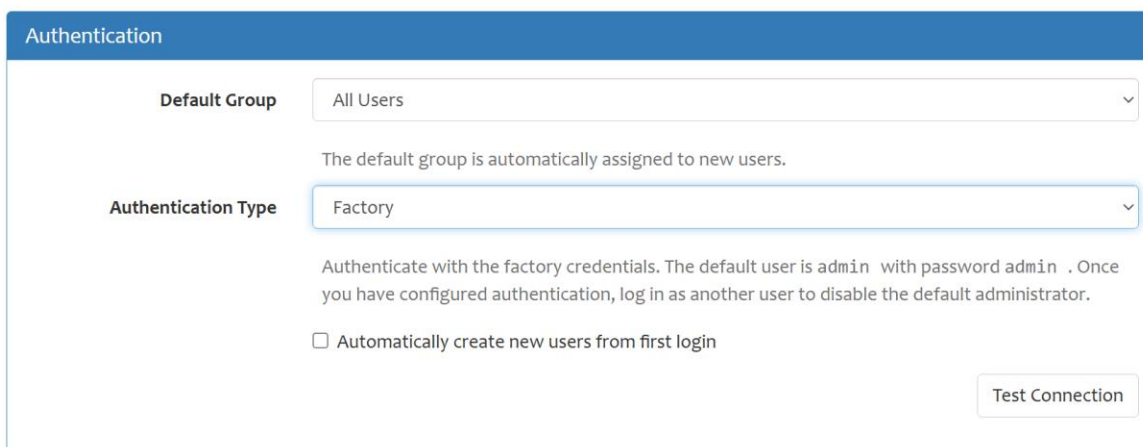
- DNS Domain
- IF using a custom connection string, must enter here (this is an advanced feature)
- You may also elect to have Axis automatically create users in Axis when they first login.

Open ID Connect: A common protocol that can allow many identity providers to be used for authentication purposes in Axis. This helps facilitate a single sign-on (SSO) across multiple applications – of which Axis may be one. Examples of identity providers that support this protocol are Microsoft (Entra ID); Google, Facebook and more.

PRO TIP: SMRTR also offers Keycloak as provider for those that don't already use one of these others, or companies that want to use it as an intermediary for one of more other Identity providers. Keycloak is not included in the basic Axis product, but can be made available upon request. Contact your SMRTR consultant for more information and for help in determining if Keycloak is right for you and your company.

Automatically Create new Users from first login: (checkbox on all Authentication methods) If checked, user records will be automatically created when they first log in. If this is done, the user is automatically assigned to the “Default Group” (as set here). This determines their initial set of permissions. The Administrator may add additional privileges or change the User's assigned Group(s) at a later time.

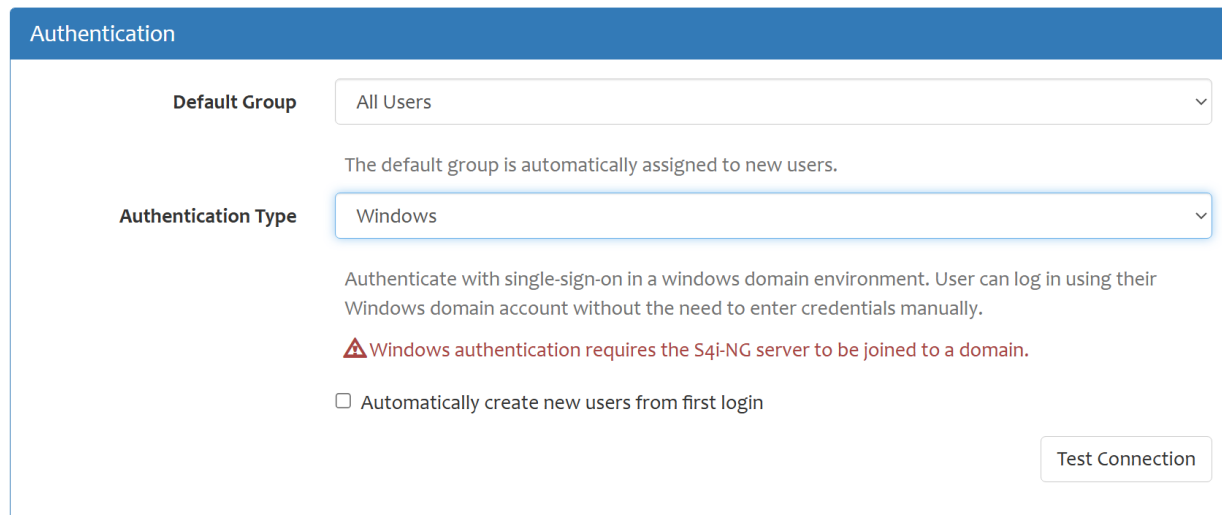
Factory Authentication Settings



The screenshot shows the 'Authentication' settings page. It features a blue header bar with the title 'Authentication'. Below the header, there are two main sections. The first section, 'Default Group', has a dropdown menu currently set to 'All Users'. Below this dropdown is a note: 'The default group is automatically assigned to new users.' The second section, 'Authentication Type', has a dropdown menu currently set to 'Factory'. Below this dropdown is a note: 'Authenticate with the factory credentials. The default user is admin with password admin. Once you have configured authentication, log in as another user to disable the default administrator.' At the bottom of the 'Authentication Type' section, there is a checkbox labeled 'Automatically create new users from first login' which is currently unchecked. In the bottom right corner of the settings area, there is a button labeled 'Test Connection'.

This setting is intended only for initial startup. Please don't use this as a permanent setting. Choose from one of the other alternatives.

Windows Authentication Settings



The screenshot shows the 'Authentication' settings panel. The 'Default Group' is set to 'All Users'. The 'Authentication Type' is set to 'Windows'. Below this, there is a warning message: 'Windows authentication requires the S4i-NG server to be joined to a domain.' and a checkbox for 'Automatically create new users from first login' which is unchecked. A 'Test Connection' button is located at the bottom right.

Authentication

Default Group All Users

The default group is automatically assigned to new users.

Authentication Type Windows

Authenticate with single-sign-on in a windows domain environment. User can log in using their Windows domain account without the need to enter credentials manually.

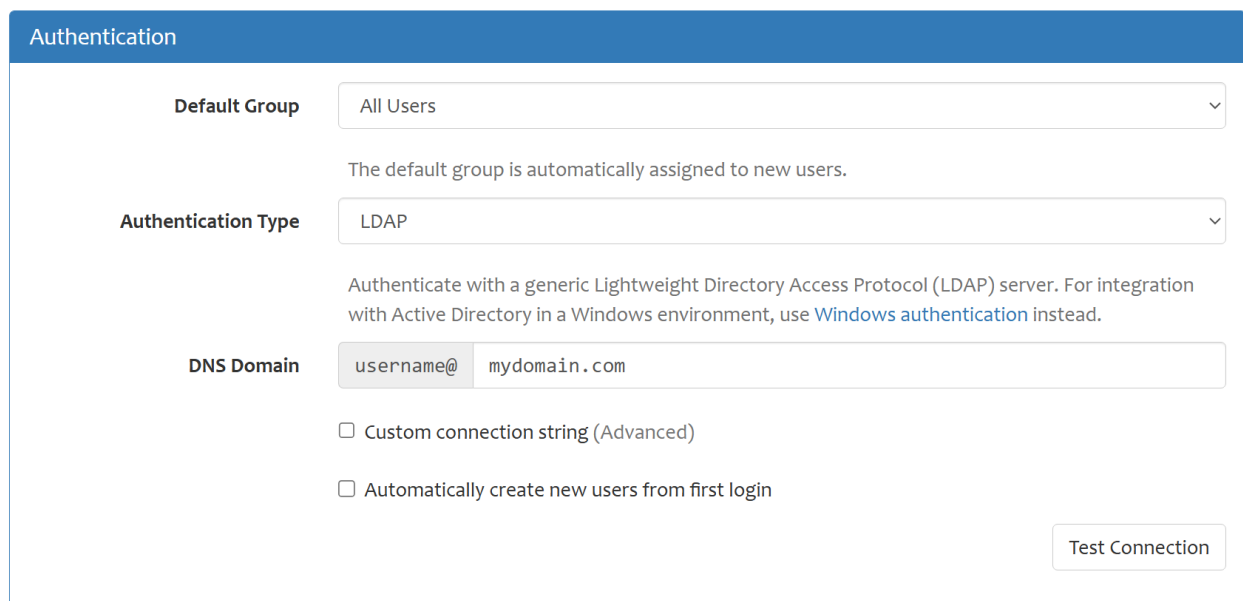
Warning: Windows authentication requires the S4i-NG server to be joined to a domain.

☐ Automatically create new users from first login

Test Connection

1. Once set your Authentication Type to Windows Authentication, Axis will detect the current domain and authenticate accordingly.

LDAP Authentication Settings



The screenshot shows the 'Authentication' settings panel. The 'Default Group' is set to 'All Users'. The 'Authentication Type' is set to 'LDAP'. Below this, there is a text field for 'DNS Domain' with the value 'username@ mydomain.com'. There are two checkboxes: 'Custom connection string (Advanced)' and 'Automatically create new users from first login', both of which are unchecked. A 'Test Connection' button is located at the bottom right.

Authentication

Default Group All Users

The default group is automatically assigned to new users.

Authentication Type LDAP

Authenticate with a generic Lightweight Directory Access Protocol (LDAP) server. For integration with Active Directory in a Windows environment, use [Windows authentication](#) instead.

DNS Domain username@ mydomain.com

☐ Custom connection string (Advanced)

☐ Automatically create new users from first login

Test Connection

1. Choose Authentication Type: LDAP
2. Enter your DNS Domain
3. If you have a custom connection string, place a checkmark in that option

- a. The “Connection String” prompt will be displayed. Consult your System Administrator for the proper connection information here. Example connection string:
ldap://example.com:389/DC=example,DC=com

OpenID Connect Authentication Settings



Authentication	
Default Group	All Users The default group is automatically assigned to new users.
Authentication Type	OpenID Connect Authenticate with an OpenID Connect identity provider.
Client ID	31883804615846tkicav6n3175udbve63l51d9ud4gtp.apps.googleusercontent.com
Secret	*****
Discovery URI	https://accounts.google.com/.../openid-configuration
Claim name	sub
☒ Automatically create new users from first login	

*Before you start down this path, you will need to obtain most of the information needed for these settings from your System Administrator or your SMRTR Consultant.

1. Choose Authentication Type: OpenID Connect
2. Enter your Client ID* (Example: z932bcdd-60ce-dda1-999e-1234abcd5678)
3. Enter your Secret* (Example: some_secret12345)
4. Enter your Discovery URI* (Example: https://yourdomain.com/adfs/openid_configuration)
5. Claim Name (Example: sub)

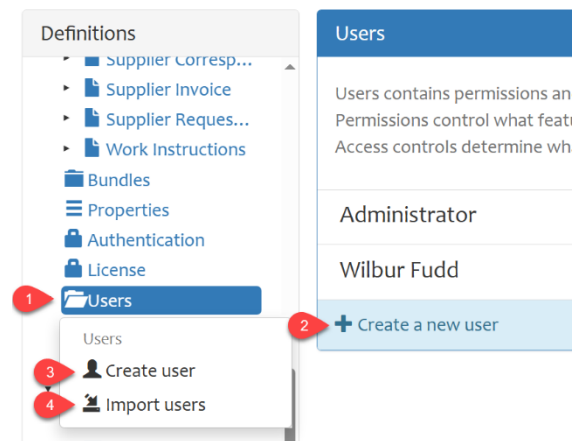
Users

In this section you will maintain Users and their permissions. Users may be added in this section, and/or they may be added automatically when they first log in depending on [Authentication](#) settings.

Add User

While on the Users Menu (1)

- Select (2) “+Create a new User” option, or
- Right-click and select (3) “Create User”, or
- Right-click and select (4) “Import Users” to import the user list from LDAP (normally this is only used during initial setup). For more information on this option, please check with your SMRTR consultant.



User Settings

A

Administration ▼

Definitions

- ▶ Documents
- ▶ Bundles
- ▶ Properties
- ▶ Authentication
- ▶ License
- ▶ Users
 - Administrator
 - Wilbur Fudd
- ▶ Groups

Wilbur Fudd
User

LDAP distinguished name

CN=user,OU=users,DC=example,DC=com

*This user will not be able to log in unless authentication credentials are provided above.

Email address

Wilbur.Fudd@Ltoons.com

Feature	Read	Write
Search	☒	☒
Operations	☒	☐
Admin	☐	☐

Notes

☐ Disable this user

View Permissions +

AP Check	User is a member of the Staff-Accounts Payable group
Supplier Correspondence	User is a member of the Staff-Accounts Payable group
Supplier Invoice	User is a member of the Staff-Accounts Payable group
Supplier Request for Quote	×

Groups +

Staff-Accounts Payable	×
------------------------	---

Title: Add the User's Name to the top blue bar. This will appear in the folder View at the left.

UserName: enter the User Name that will be used as their login to Axis. This format will vary depending on Authentication methods that have been chose.

Email address: enter the User's email address. This will be used for notifications and when others email documents from Axis's Viewer (see the drop-down list of recipients).

Feature permissions: You may grant this User permissions to Searches, Operations Menu and/or the Administration menu. Within each, you may allow them to Read its contents, or Write (add/update). Note these may also be controlled by the User's membership in one or more Group(s). Settings here are additive to the Group settings.

Search: these apply to Searches that either this User creates, or that others have shared with this User.

Read means the User can use those searches.

When **Write** permissions are granted here AND “Can edit” permission on the specific Search (as granted by its Author), then this User can make changes to any of the properties of the Search – and those changes will be saved. The properties in question include the selection of which columns are displayed in the results, and the order in which the result is sorted.

Operations and Admin: The Read permission lets this User view anything on these menus. The Write permission additionally allows this user to make changes to the items on those menus.

Notes: Free form notes may be added as a part of this user’s record. Use this to preserve whatever user information you wish.

Disable this user: If checked, this User is disabled and unable to login under this account.
Default=unchecked (user is enabled)

View Permissions: Lists the Views that this user has permissions to use. These may be directly assigned to the current User, or may be indirectly allowed due to membership in one or more [Groups](#).

Direct View permissions: When the View is directly assigned to the User (rather than through a Group), the section to the right of the View name is blank.

Add View directly: Click the + button (in the heading of this section) to add this user to a new Group.

Remove a Direct-access View: Click the x button to the right of the View name to remove the View from the User’s list of allowed Views.

Permissions via Groups: [Groups](#) can contain a list the Views to which their members have access. When this list displays a View that is accessible as a result of Group membership, that Group name is listed to the right of the View name to allow you to trace the lineage of the access.

Groups: Lists the [Groups](#) in which this User is a member. Being a member of a Group means the user inherits the permissions applied to that Group. A User’s membership in a Group can be maintained on this screen, or in the Group maintenance section.

Add Group Membership: Click the + button (in the heading of this section) to add this User to a new Group.

Remove Group Membership: Click the x button to the right of the Group name to remove the User as a member of that Group.

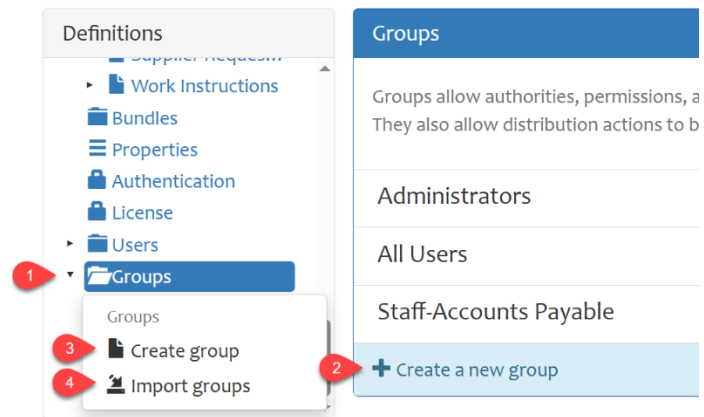
Groups

Groups give you a way to manage permissions and privileges for one or more users from 1 central location. Users need not belong any Groups, or may belong to one or more. Permissions are then additive (those set on the User added to those found in their Groups).

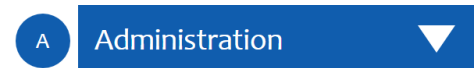
Add a Group

While on the Groups Menu (1)

- Select (2) “+Create a new Group” option, or
- Right-click and select (3) “Create Group”, or
- Right-click and select (4) “Import Groups” to import the Group list from LDAP (normally this is only used during initial setup). For more information on this option, please check with your SMRTR consultant.



Group Settings



Definitions

- Receiver
- RMA
- Statement
- Supplier Corresp...
- Supplier Invoice
- Supplier Reques...
- Work Instructions
- Bundles
- Properties
- Authentication
- License
- Users
 - Administrator
 - Wilbur Fudd
- Groups
 - Administrators
 - All Users
 - Staff-Accounts P...

Staff-Accounts Payable

Group

Feature	Read	Write
Search	☒	☐
Operations	☐	☐
Admin	☐	☐
☐ Disable this group		
View Permissions		+
AP Check		x
Supplier Correspondence		x
Supplier Invoice		x
Members		+
Wilbur Fudd		x

Feature permissions: You may grant the members of this Group permissions to Searches, Operations Menu and/or the Administration menu. Within each, you may allow them to Read its contents, or Write (add/update). Note these may also be controlled by the individual [User](#)'s settings. Settings here are additive to the User's settings.

Search: these apply to Searches that either a User creates, or that others have shared with this User.

Read means the User can use those searches.

When **Write** permissions are granted here AND "Can edit" permission on the specific Search (as granted by its Author), then this User can make changes to any of the properties of the Search – and those changes will be saved. The properties in question include the selection of which columns are displayed in the results, and the order in which the result is sorted.

Operations and Admin: The Read permission lets this user view anything on these menus. The Write permission additionally allows this user to make changes to the items on those menus.

Disable this Group: If checked, this Group is disabled. It is then unused by Axis. Default=unchecked (Group is enabled)

View Permissions: Lists the Views that this user has permissions to use. These are directly assigned to the current Group. Users who are members of this Group will inherit permissions to the listed Views.

Add a View: Click the + button (in the heading of this section) to add a View to the current Group.

Remove a View: Click the x button to the right of the View name to remove it from this Group.

Members: Lists the Users who are members of the current Group. Members can be added here, or through the [Users](#) maintenance.

Add a Member: Click the + button (in the heading of this section) to add a User to the current Group.

Remove a Member: Click the x button to the right of the User name to remove it from this Group.

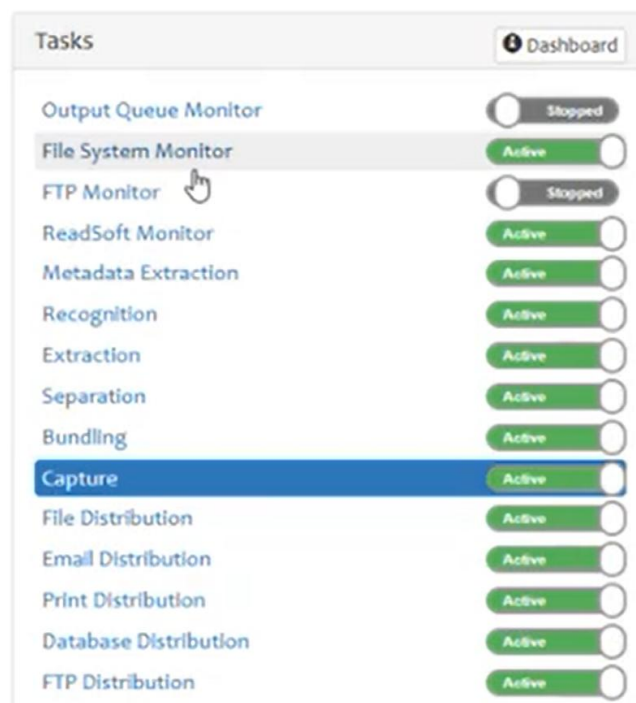
Operations Menu

The Operations Menu is your place to see the status of those Tasks that make Axis work. That's useful because Axis functions because a series of tasks perform all of the actions necessary for the software to do the things it does.

From The Operations Menu you can easily check on the health of your system; see the status of each task; and start or stop each of the Tasks that make Axis work. You will have access to some settings, as well as queue's of documents at many stages, and logs for each tasks.

There are 3 main categories of Task that comprise Axis Operations:

1. **Monitoring Tasks** – those Tasks that look for new files on which to act. Tasks of this type include File System monitor, FTP monitor, output queue monitor, Readsoft Monitor.
2. **Document Processing Tasks** – those tasks that recognize, classify and extract information related to each document. Tasks of this type include: Metadata Extractions, Recognition, Extraction, Separation, Bundling and Capture.
 - a. Note that the Capture Task is the point at which a document becomes visible in Axis's viewer.
3. **Distribution Tasks** – those tasks that deliver the document (or extracted data) to other places and systems. Tasks of this type include: File Distribution, Email Distribution, Print Distribution, Database Distribution and FTP Distribution.



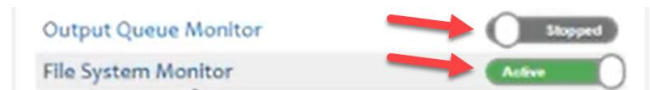
Note that all of the Document Processing and Distribution tasks are driven by a [Document Definition](#). The Document Definitions provide the instructions about how to a) identify a particular document type, and b) the rules and actions for processing each unique document type.

Tabs – more detail

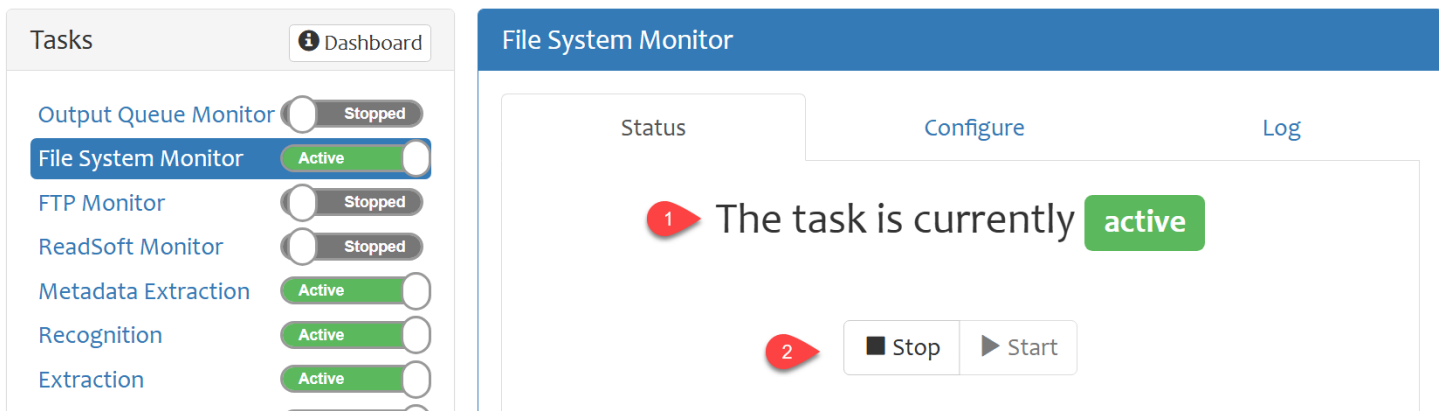
When you select a Task, there are several tabs that will appear at the right. Some are unique to that particular type of task. Other tabs (like Status or Logs) are common and will appear on every Task.

Task Status Tab (all Tasks)

Status: indicates whether the Task is running. You can toggle any service from Stopped to Active using the green slider to the right of the task.



For each Task there is also a Status tab in the right panel that can be seen after you select a specific task. From this tab you will also see an indicator about whether the Task is currently active/running (1), and you have an ability to start or stop (2) that Task.

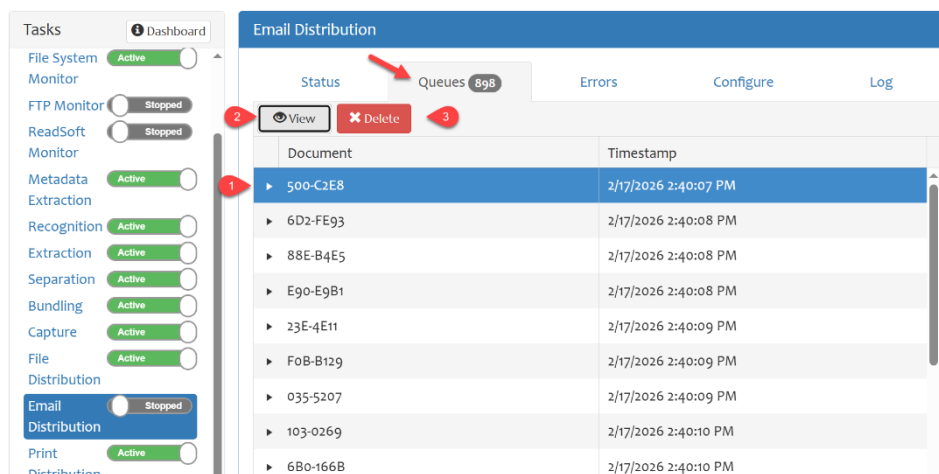


Configure Tasks Tab (some Tasks)

Some – but not all - Tasks also have a Configure tab. This is where you may enter the various properties necessary to configure that type of Task. The specific details on these tabs will vary depending on the type of Task. Those details in the appropriate sections below (where applicable).

Queues Tab (some tasks)

Some – but not all – Tasks also have a “Queues” tab. This tab is devoted to showing the list of documents that are pending: queued up and awaiting processing in this task. The tab at the top indicates how many documents are in the queue awaiting processing by that Task. You can see the detailed list of documents in the bottom right panel.



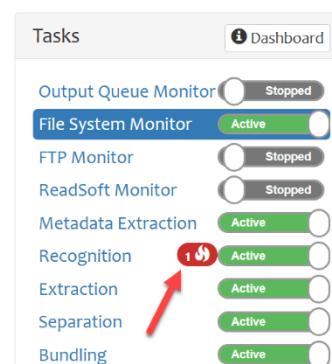
The operator also has the option to (1) Select one or more documents, the (2) View or (3) Delete them using the buttons at the top of the screen.

Errors Tab (some Tasks)

Some – but not all – Tasks also offer an “Errors” tab. This tab allows the operator to identify documents that have failed processing in this particular task. The intent is to allow the operator to identify those documents that have failed processing and take appropriate action.

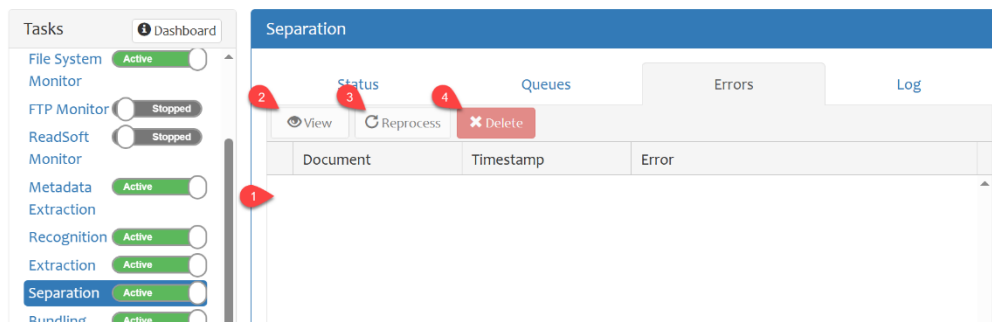
The quick way to see if errors exist is by simply looking at the Tasks menu. There is an indicator icon there when an unresolved error exists. The icon also shows a number that indicates the quantity of documents that have unresolved errors at present.

Best Practice: Your administrator should be checking this display frequently to ensure that problems do not remain unresolved for long.



Like the Queue's Tab, the operator has the option to (1) select 1 or more documents, then (2) View them, or (3) Reprocess them, or (4) Delete them from the queue entirely without demanding that they be processed by the Task.

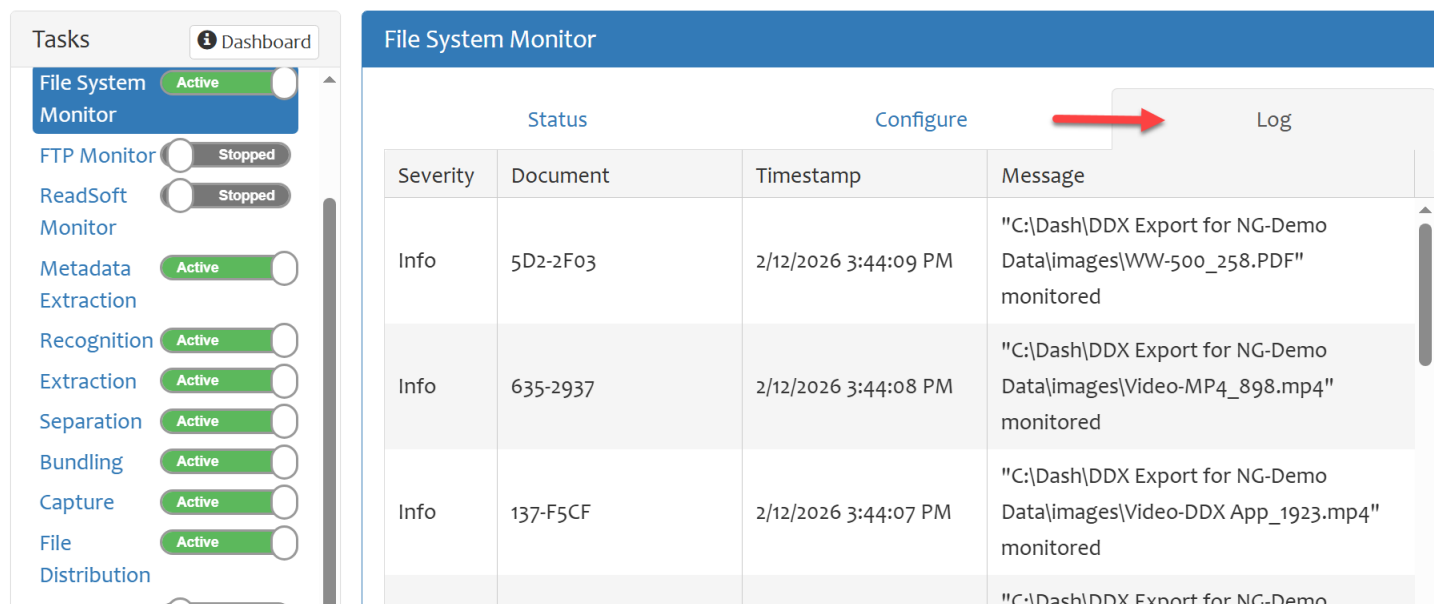
The specific options available on any given errors tab may differ depending on the Tasks. This manual will address those unique differences the appropriate Tasks sections.



1. Select 1 or more documents from the list of documents shown
2. **View (or double click):** Opens the selected document in a new tab in your browser and attempts to display it. This helps you to know specifically which document you are dealing with.
3. **Reprocess:** Note that the "Reprocess" option will run the document back through all of the Document Definition's rules. This can be useful if the rules have changed since the error occurred. Reprocess also gives you the option to re-process with or without distribution to ensure you are in control, and don't inadvertently distribute a second copy to your audience.
4. **Delete:** Removes the document from the error list and from Axis without completing the process. Note that there is no undo available when you choose this option.

Task Log Tab (all Tasks)

The Log tab allows you to display any log information about the selected Task. The content of these logs vary depending on the type of Task. They can be useful in diagnosing problems when and if they occur. The content of any individual log will vary and focus on information relevant to that particular kind of Task.



Monitoring Tasks

The following options exist so that you can configure the software to monitor various sources for new documents to process in Axis. When clicking on each Monitoring option you will see tabs displayed for Status, Configuration, and for its Log.

Output Queue Monitor

This option is used when you wish to obtain new documents on an IBM i Series system by monitoring one or more of its Output Queue(s). It is used only on the IBM I Series systems.

Add IBM i Queue to monitor

The screenshot shows the 'Output Queue Monitor' configuration page. The sidebar on the left lists various monitoring tasks, with 'Output Queue Monitor' selected. The main area has three tabs: 'Status', 'Configure', and 'Log'. The 'Configure' tab is active, showing fields for 'IBM i Host', 'IBM i Login', 'Password', and a checkbox for 'Use SSL'. Below these is a section for 'Output Queue Qualified Names' with a list of entries and a '+' button to add new ones. Red callout numbers 1 through 6 highlight specific UI elements: 1 points to the 'Output Queue Monitor' task in the sidebar; 2 points to the '+' button to add a new host; 3 points to the '+' button to add a new queue; 4 points to the 'IBM i Host' label; 5 points to the 'IBM i Login' label; 6 points to the 'x' button to remove a host entry.

1. Select the “Output Queue Monitor” task
2. Click the + button to the right of the page to add a new Host
 - o **IBM i Host:** Enter the host name
 - o **IBM i Login:** Enter a valid login ID
 - o **Password:** Enter the password associated with the Login
 - o **Use SSL:** Toggle this on or off depending on whether your system requires SSL encryption
3. For each host, you will define it’s list of Output Queue Qualified Names. Add a new Queue by clicking the + button.

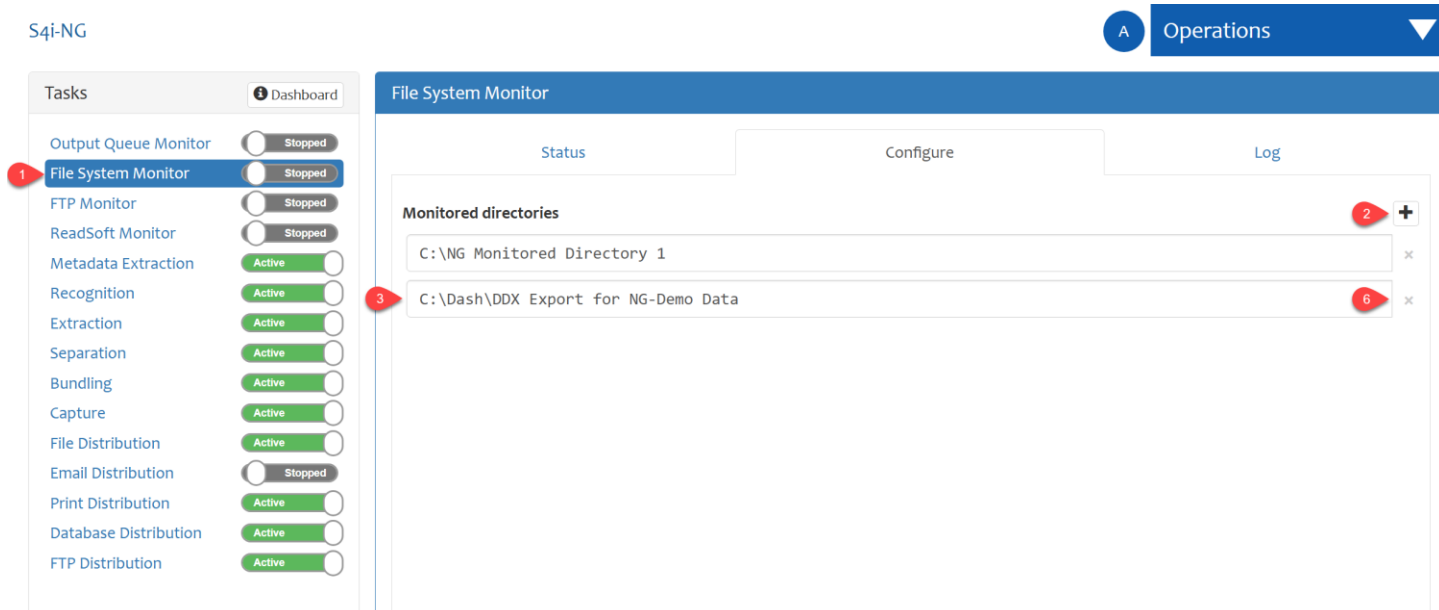
4. **Output Queue Qualified Names:** Create your list of Queue's to be monitored. Each Queue you add should be expressed as the Library/QueueName.
5. Repeat steps 2 through 8 for each new host you wish to add
6. To delete a Host, click on the X button to the right of the host's name

File System Monitor

This mechanism allow you to define one or more directory paths to be monitored. This is the most commonly used option. It may be used with any number of directories identified as sources. When you are using SMRTR's Desktop Capture (DTC) product, it can be used to grab documents from the output directory of DTC so they can be imported into Axis.

Add File System directories to monitor

1. Select the File System Monitor Task
2. Click the Plus button
3. Enter the full directory path of the directory to monitor. Note that this directory must have full read/write permissions available to the Axis processes.
4. Repeat steps 2 and 3 for each directory you wish to monitor.
5. Save your work
6. To Delete a directory from the list, click the "X" button to the right of the directory name.



The screenshot displays the SMRTR Axis Administrator interface. On the left, a sidebar lists various tasks, with 'File System Monitor' selected and highlighted in blue. A red circle with the number '1' is placed next to this task. The main panel is titled 'File System Monitor' and has three tabs: 'Status', 'Configure', and 'Log'. The 'Configure' tab is active. Within the 'Configure' tab, there is a section titled 'Monitored directories'. This section contains a list of two directories: 'C:\NG Monitored Directory 1' and 'C:\Dash\DDX Export for NG-Demo Data'. A red circle with the number '2' is placed next to a plus sign button at the top right of the 'Monitored directories' list. A red circle with the number '3' is placed next to the first directory entry. A red circle with the number '6' is placed next to an 'X' button at the end of the second directory entry.

FTP Monitor

This monitor is used when you wish to obtain new documents from a single FTP site. It provides a singular place for Axis *input*. This is not a common occurrence. FTP *input* is possible too, but is handled via the [FTP Distribution](#) task.

The screenshot displays the SMRTR Axis Administrator interface. At the top right, there is a blue navigation bar with the text 'Operations' and a dropdown arrow. On the left side, there is a 'Tasks' sidebar with a list of tasks and their status. The 'FTP Monitor' task is selected and highlighted with a red circle '1'. The main panel shows the 'FTP Monitor' configuration with three tabs: 'Status', 'Configure', and 'Log'. The 'Configure' tab is active, showing fields for Protocol (FTP), Hostname (myftp.com), Port (21), Username (wilbur), Password (masked), and Directory (/path/to/directory). A 'Test Connection' button is at the bottom right, highlighted with a red circle '4'. Red callout circles '2', '3', and '6' point to the 'Configure' tab, the 'Protocol' field, and the 'FTP Monitor' task status respectively.

Add an FTP Site to monitor

1. Select the FTP Monitor task
2. Select the “Configure” tab
3. Enter the parameters for your FTP Site:
 - a. **Protocol:** Choose from the drop-down of available FTP protocols
 - b. **Hostname:** Enter the host name (URL) for the FTP site
 - c. **Port:** Enter the port number on which FRP communication will occur. Default=21
 - d. **Username & Password:** Enter the user name and password needed to log into the FTP site.
 - e. **Directory:** Enter the path to the directory within the FTP site that you wish to monitor.
4. Test the connection to ensure it successfully connects to the source

5. Save
6. Start the FTP Task

Readsoft Monitor

This is only used when Axis is used conjunction with Readsoft. This is relatively rare. If you believe this to be of use, please contact your SMRTR consultant to discuss specifics.

Document Processing Tasks

These tasks are devoted to the processing of new documents. What happens for any given document is defined in the Document Definitions. The Tasks shown here are executing these functions per the instructions found in Document Definitions.

Metadata Extraction

The Metadata Extraction task determines the file type and extracts some useful metadata from the file itself:

- file size in bytes
- page count
- internal document metadata for file types which support it (e.g. extracting Keywords from the PDF Info metadata)

This metadata can be useful later in the processing stream.

Recognition

This task's job is one of the first: It is to look at a document, and match it with the appropriate [Document Definition](#). This is done by using the Document Definition's [Recognition Action](#) and comparing its specifications to the document's properties. Once that match has been made, then the rules for processing the document are known (as defined in the Document Definition) and the process may continue.

Extraction

This task performs all of the [Extraction Actions](#) that are called for by the Document Definitions invoked by any given document that is being processed. This includes the actions defined in the [Marking](#) section as well as [Database Extraction Actions](#).

Separation

This task's job is to separate a larger file (like a PDF) into individual documents. Example: 1 PDF may contain 10 different Invoices. This Task identifies each of the 10 invoices and provides the mechanism for separating them into individual invoices. That is necessary for subsequent processing as well as searching later. The rules executed by this Task defined on the Document Definition's [Separators Actions](#).

Bundling

Bundling is the process where by, when processing a primary document, the system follows instructions in the Document Definition to retrieve other related documents to create a "bundle" – or a packet of related documents. For example: If the primary document being processed is an Invoice, it may be desirable to bundle it with Packing Lists, Bills of Ladings and other proof-of-delivery documents before it is sent to your customer. The act of gathering these together is called Bundling. The "[Bundles](#)" section of the Administration menu contains the rules that govern how this process works. This task executes those rules.

Capture

This is significant: the Capture Task is the point at which a document becomes visible in Axis's viewer. Up until this point, documents are merely in process and not visible to others.

Distribution Tasks

This is a group of tasks (shown below) that are responsible for distributing the documents. Which task is performed, and its parameters, are defined within the [Distribution Actions](#) that belong to the Document Definition that invoked by the specific documents being processed.

File Distribution

This File Distribution task is responsible for saving copies of the separated documents into the local file locations (on disc) as specified by the Document Definition's [File Action](#).

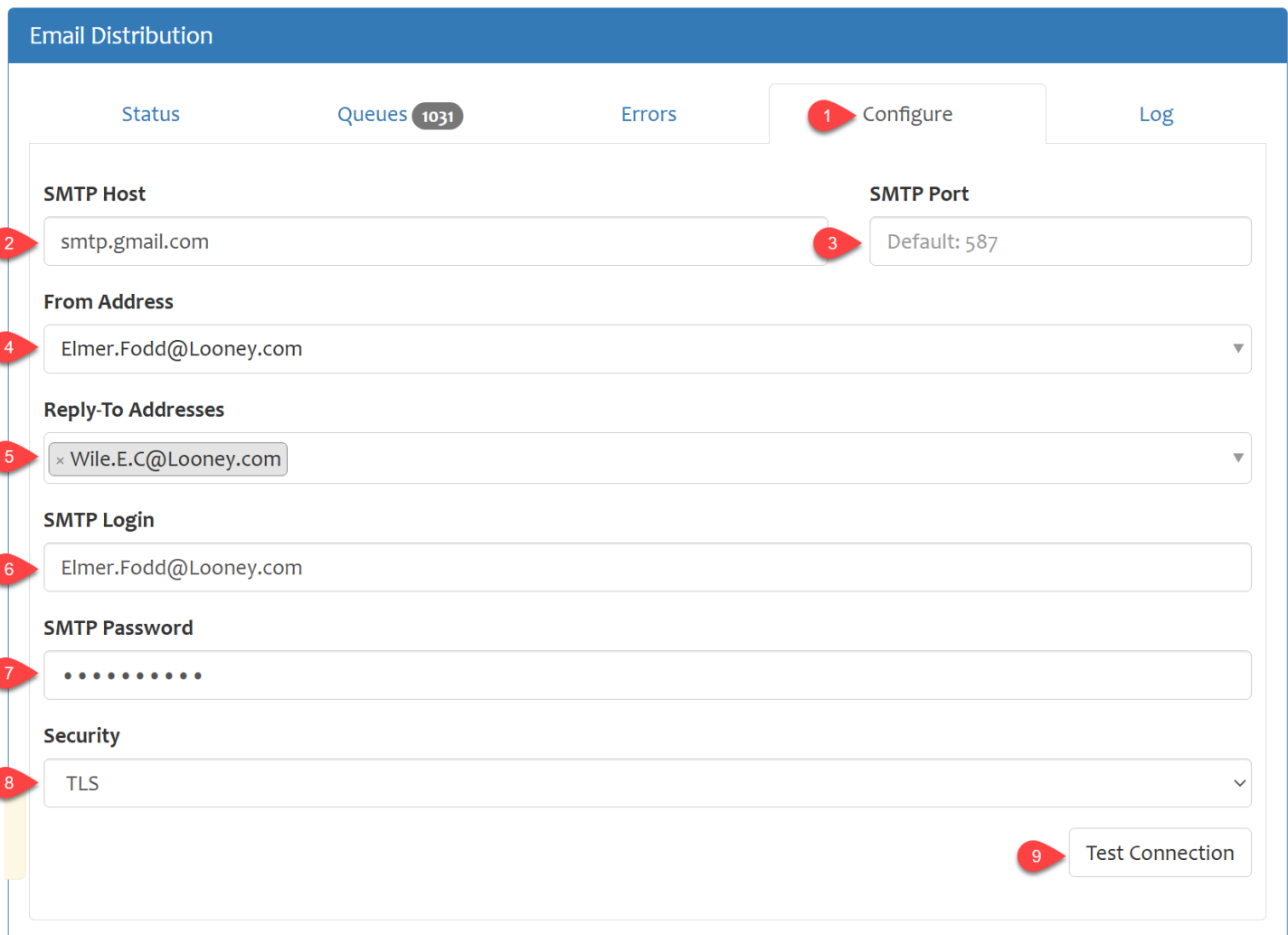
Continued on next page...

Email Distribution

The Email Distribution Task is responsible for delivery via emails copies of the separated documents as specified by the Document Definition's [EMail Action](#). This function applies only to Emails *automatically* distributed via Axis. Documents can also be sent manually from the Viewer. That employs a different mechanism more dependent on the client than Axis's distribution functions.

Configure Tab (Email / SMTP)

This task's section includes the settings to connect to your SMTP server. It is your SMTP server which is ACTUALLY responsible for sending the email. Axis communicates with it to send your SMTP server the instructions necessary for the SMTP server to deliver outbound email.

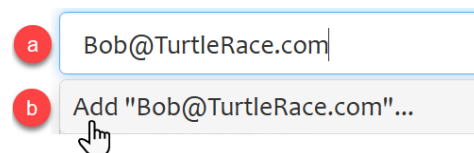


The screenshot shows the 'Email Distribution' configuration panel. At the top, there are tabs: 'Status', 'Queues' (with a badge showing '1031'), 'Errors', 'Configure' (highlighted with a red callout 1), and 'Log'. Below the tabs, the configuration fields are as follows:

- SMTP Host:** A text input field containing 'smtp.gmail.com' (callout 2).
- SMTP Port:** A text input field containing 'Default: 587' (callout 3).
- From Address:** A dropdown menu showing 'Elmer.Fodd@Looney.com' (callout 4).
- Reply-To Addresses:** A dropdown menu showing '× Wile.E.C@Looney.com' (callout 5).
- SMTP Login:** A text input field containing 'Elmer.Fodd@Looney.com' (callout 6).
- SMTP Password:** A text input field with masked characters (callout 7).
- Security:** A dropdown menu showing 'TLS' (callout 8).
- Test Connection:** A button located at the bottom right (callout 9).

1. Choose the Configure tab in the panel to the left side of the page
2. **SMTP Host:** Enter the SMTP Host server address. Default=smtp.gmail.com
3. **SMTP Port:** Enter the port number for your SMTP server. Default = 587

4. **From Address:** Enter the From email address. This will display as the From address when the recipient looks at an email *automatically* distributed via Axis. To enter an email address here (and in the Reply-To field):
 - a. start typing your address. Once you have entered something that looks like a full email address, including the domain,
 - b. a drop-down menu will appear with that email address displayed. To the left of that address is the word “Add”. Click on that word to add the address to your list of destinations.
5. **Reply-To Address:** Enter the address(es) that will be the default reply-to address(es) when the recipient replies to an email that was *automatically* distributed via Axis.
6. **SMTP Login:** Enter the login name for the SMRTP server. This login will be used for all email *automatically* distributed via Axis.
7. **SMTP Password:** Enter the password that will be used with the SMTP Login to gain access to the SMTP server.
8. **Security:** Choose the appropriate security mechanism for your SMTP server from the options shown on the drop-down list.
9. **Test Connection:** This lets you test your settings before relying on them to automatically send emails. Since that operation is unattended, you may not immediately recognize problems with your settings here. Therefore, it is ALWAYS recommended that you run a test every time to make any changes to these settings.
10. Remember to **Save** your work!



Best Practice: Your Email administrator knows far more about your specific Email servers than we at SMRTR do. We can provide the general direction that you see above, but we are not experts in configuring email servers. Therefore we do not do so. Nor do we provide support for issues involving Email servers. So we strongly recommend involving your Email Administrator when configuring Axis for email distribution.

Print Distribution

The Print Distribution Task is responsible for directing separated documents to one or more printers on your network, as specified by the Document Definition's [Print Action](#).

Database Distribution

The Database Distribution Task is responsible for executing the SQL commands for separated documents as specified by the Database Definition's [Database Action](#).

FTP Distribution

The FTP Distribution Task is responsible for uploading separated documents to the FTP site(s) as specified by the Database Definition's [FTP Action](#).

Creating/Editing a Search

For more information on this topic, please see the SMRTR Axis User Guide. Refer to the section entitled "Creating/Editing a Search"

Axis for Programmers (API)

Axis features a robust set of Application Programming Interfaces that make Axis's features, and documents housed within Axis accessible to programmers and those that have custom needs. These API's are included with the product. Full documentation for them is not within the scope of this manual, but may be accessed as follows:

You can access the API Documentation from your Axis server using this URL: <http://localhost:9000/api>

This documentation provides a high level description of many API objects, along with rudimentary samples for the programmer to review. Note that there may be additional objects that do not yet appear in this documentation.

If you need assistance with the API, consultation is available on a billable basis from your SMRTR Consultant.

Axis System Properties List

Below is a list of Axis's System Properties, and provide an explanation for each. System Properties are those that come standard with every Axis implementation. They are maintained and populated by Axis itself, without an overt need for the user to assign values to them.

This is as opposed to User Properties which are created to deal with the unique needs of every Axis customer. User Properties are not discussed in this section.

System Properties can be very useful in classifying, segregating and searching for documents if you know what they mean. This list is also visible from the Administrator section, [Properties](#) option in Axis.

Some properties are optional, or they may be supplied to Axis from the software that originated the document in the first place. In the later case, this info may or may not be available due to that originating software (outside of Axis's control).

Property Name	Property ID	Type	Description
Buddy Path	metadata.buddy_path	Text	Path to the documents "Buddy" file – which contains various meta data passed to Axis from external system. Not always used.
Bundle Definition	metadata.bundle_definition	Definition	Identifies which Bundle definition was used to generate the current document.
Capture Date	metadata.capture_date	Date	Date the document was first captured
Capture Path	metadata.capture_path	Text	Source location from which the document was originally captured
Content Type	metadata.content_type	Text	Internet Media type (MIME type) of the document
Creator	metadata.creator	Text	Software that created this document
Date Created	metadata.date_created	Date	Date the document was initially created
Date Modified	metadata.date_modified	Date	Date the document itself was last modified
Description	metadata.description	Text	Document Description if available from creator

Property Name	Property ID	Type	Description
Document Definition	metadata.document_definition	Definition	The name of the Document Definition that was used to process this document in Axis
File Extension	metadata.file_extension	Text	The File extension name (from the original document)
File Name	metadata.file_name	Text	The File name (from the original document)
File Size	metadata.file_size	Text	The document's file size in bytes
Index	metadata.index	Definition	Contains the name (title) of the Separator that produced any given Logical Document . For the original (unseparated) document it will contain the words "Whole Document".
Keywords	metadata.keywords	Text	Keywords that were embedded in the source PDF
Kofax Batch Class	metadata.kofax_batch_classes	Text	Kofax Capture batch class name from buddy file
Kofax Document Class	metadata.kofax_document_class	Text	Kofax Capture document class name from buddy file
Native Document	metadata.native_express.native_document	Text	Express XP migrated report definition name
Native Index	metadata.native_express.native_index	Text	Express XP migrated index path name
Native Segment	metadata.native_express.native_segment	Text	Express XP migrated segment name
Pages	metadata.pages	Number	Number of pages in the document
Producer	metadata.producer	Text	The name of the software that originally produced this document
Publisher	metadata.publisher	Text	The entity responsible for making the resource available
Spool Accounting Code	metadata.spool.spool_accounting_code	Text	The accounting code that is used when logging the resources used to write this file
Spool Device File	metadata.spool.spool_device_file	Text	The name of the device file which was used to create the spooled file

Property Name	Property ID	Type	Description
Spool Device Library	metadata.spool.spool_device_library	Text	The name of the library that contains the device file
Spool Device Type	metadata.spool.spool_device_type	Text	The device type for which the file was intended
Spool File Name	metadata.spool.spool_file_name	Text	The spooled file name
Spool File Number	metadata.spool.spool_file_number	Number	The spooled file number
Spool File Status	metadata.spool.spool_file_status	Text	The spooled file status
Spool Form Type	metadata.spool.spool_form_type	Text	The type of form loaded in the printer to print the spooled file
Spool Job Ccsid	metadata.spool.spool_job_ccsid	Number	The coded character set identifier (CCSID) of the job when the spooled file was created
Spool Job Name	metadata.spool.spool_job_name	Text	The name of the job that owns the spooled file
Spool Job Number	metadata.spool.spool_job_number	Text	The number of the job that owns the spooled file
Spool Output Priority	metadata.spool.spool_output_priority	Number	The priority of the spooled file from 1 (highest) to 9 (lowest).
Spool Output Queue	metadata.spool.spool_output_queue	Text	The name of the output queue on which the spooled file is located
Spool Output Queue Library	metadata.spool.spool_output_queue_library	Text	The name of the library that contains the output queue
Spool Print Text	metadata.spool.spool_print_text	Text	The text that is printed on separator pages
Spool Program	metadata.spool.spool_program	Text	The name of the program that opened the spooled file
Spool Program Library	metadata.spool.spool_program_library	Text	The name of the library that contains the program that opened the file
Spool System	metadata.spool.spool_system	Text	The name of the system where the spooled file data originated
Spool Total Copies	metadata.spool.spool_total_copies	Number	Total copies to be produced for this spooled file
Spool User	metadata.spool.spool_user	Text	The name of the user who produced the spooled file

Property Name	Property ID	Type	Description
Spool User Data	metadata.spool.spool_user_data	Text	The 10 characters of user-specified data that describe the file
Spool User Defined Data	metadata.spool.spool_user_defined_data	Text	The data defined by the user to be used by user applications or user-specified programs that process spooled files
Spool User Defined Option	metadata.spool.spool_user_defined_option	Text	The option(s) defined by the user to be used by user applications or user-specified programs that process spooled files
Title	metadata.title	Text	The title metadata from the original document
Version	metadata.native_express.version	Number	The version of this document – generally the PDF version (which is part of standard PDF metadata stamped in the PDF by the software that produced it)

Trouble Shooting

Symptom	Cause	Solution
Documents not being captured	Service Tasks not running	Check the Operations menu and ensure that all relevant Tasks are set to Active. Example; See the “Capture” task.
Documents not being captured	An error has occurred in in one or more Service Tasks	Check the Operations Menu, for each Service Task. Look for an “Errors” tab. If your document appears there, take appropriate action to resolve the specific error.

Common Topics

The following topics apply to various sections within the software. We'll refer you to this section when these topics arise.

Connect to a Database: Database URL Tips and Examples

The following are examples of Database URL's that you might require when attempting to connect to a Database. Typical uses might be found in the Document Definition's [Distribution Database Action](#) or [Extraction Actions](#).

Microsoft SQL Server, using SQL Server Authentication:

```
jdbc:sqlserver://MyWindowsSQLServerName;databaseName=YourDatabase;user=YourUs  
ername;password=YourPassword;encrypt=true;trustServerCertificate=true;
```

```
jdbc:sqlserver:// MyWindowsSQLServerName
```

```
jdbc:sqlserver:// MyWindowsSQLServerName:port;databaseName=YourDatabase
```

Microsoft SQL Server, using Windows Authentication (Integrated security):

```
jdbc:sqlserver://MyWindowsSQLServerName;databaseName=YourDatabase;integratedSe  
curity=true;encrypt=true;trustServerCertificate=true;
```

IBM DB2 on AS400 (using an IP address)

```
jdbc:as400://192.168.1.2
```

PostgreSQL

```
jdbc:postgresql:database
```

```
jdbc:postgresql://host/database
```

i Pro Tip: We have found that it can be super useful to have a tool that lets you connect to your database(s) to try things out; formulate connection URL's; test and create your SQL code, etc. Several of our internal Pro's use a tool called DBVisualizer for this purpose. Its generic nature lets us use the single user interface to connect to a variety of databases, from Microsoft SQL Server, MySQL, DB2, Oracle and many more. Its not the only tool of its kind, and *we neither support it nor make any money from its use.* We only offer the info here because you may find it useful too. See <https://www.dbvis.com/> ...a free (but still useful) version is available.

Even if you don't choose this specific tool, it may be useful to have such capability.

An alternative for creating the JDBC Connection URL is to use AI to suggest its format for you. In the query specify JDBC, the model of Database Server, etc. You may have to tweak the result, but AI can get very close to the URL format you need for your database and servers.

Using Document Property values as variable information

It is possible to use the value contained within [Document Properties](#) to populate almost any setting in a [Document Definition](#) with variable information. For example, you could include the Customer Order Number property to help construct the Subject and/or body of an email that is sent by Axis.

Syntax: Properties are always `{{lower_case_with_underscore}}` and the syntax is case-sensitive, so `"#{{indices.Ordernum}}"` is guaranteed to print `"#"` (the character preceding the property in our example). Best practice is to always use lowercase in our docs to avoid any confusion. `{{id}}` will print the document ID (UUID).

An expression takes the form of `{{property_ID}}` — the double curly brackets before and after the property name tell the software that this is a situation where Axis will replace *that* text with the value contained in the Document Property.

Syntax for System Properties: `{{property_ID}}`

Syntax for User Properties: `{{indices.property_ID}}` ...note that the property name for User Properties must be preceded with the text "indices."

In this context, you must use the INTERNAL [Property ID](#) of the Property, rather than the externally visible [Property Name](#). Both are visible on the [Properties](#) display. They are typically the same, but with any spaces in the external name replaced by an underscore. Example: The internal name for the Property "Order Number" becomes "Order_Number".

Finding the right Property ID: The [Properties](#) screen displays the full text if the ID something like this: metadata.indices.property_ID. You can include or exclude the “metadata.” portion of this and Axis will adjust. It doesn’t require the “metadata.” prefix to choose the correct Property.

⚠ WARNING: Internal property names are never changed after they are first created, while the external name may be changed on the [Properties](#) screen. This could lead to some confusion if the external names are changed. Then it is no longer any obvious translation between internal and external name.

Concatenation of Property values and Literal values

You can concatenate more than one Document Property to arrive at the value you want placed in a specific parameter.

Example: {{indices.name_last}}, {{indices.name_first}}

...could result in a value of “Fudd, Elmer”. This scenario actually strings together 2 Properties and literal text (the comma): Last name + a comma + first name.

You can also include literal text in cases where you desire to string together fixed text with variable info.

Example: Order #{{indices.Ordernum}}

...if the Property Ordernum=123456, then the above results in a value of “Order #123456”

The effect of Empty Properties

When you specify using a Document Property to fill a setting, and that property is either empty or has not yet been filled for this document, it has no effect on the Action itself: The value is blank or null. That value is passed into the setting.

There are limited exceptions to this: If the information that is intended to be used in a setting applies to a critical setting, the Action may not be executed. Example: If an email’s To, CC and BCC contain no email addresses, it simply will not be sent. This doesn’t result in an error. That Action is simply omitted. The same may be true if dealing with other output mechanisms like FTP addresses, Directory names, File names, etc.

Helpers

When you are using Document Properties as variable information you also have at your disposal something called a “Helper”. Helpers are functions used to perform logic on values within one of these variables. In this situation, the expression must specify the helper name followed by its parameters. A Helper expression takes the form of {{helper_name property_name}}.

Several built-in helpers are available for use. The commonly used helpers are listed here:

Helper	Description
lower	Converts value to lower case
upper	Convert value to upper case
capitalize	Capitalize each word in a sentence

Note that the Helpers shown above are all typed in lower case. You should do this too, since these are processed in a case-sensitive environment. Lower <> lower

Example: {{capitalize indices.customer_name}}

Cool Technique: Use SQL Functions to manipulate Axis Document Properties

There are times when you want to manipulate something in a Document Property, but might be having a hard time finding a way to do that. But SQL often provides useful functions – that if you could just use them might solve a problem. Sometimes you can: In this example we will use a SQL Substring function against an already-captured Document Property to populate a new property. Its only an example, but it illustrates a creative way of harnessing the power of SQL functions to get what you need. And the Substring function is only one of many that are available to you. Imagine the possibilities!

Scenario: We’ve captured a file who’s initial file name was **X123456.pdf**. All such documents have a similarly formatted file name: A letter, followed by 6 characters. We want to be able to look them up by the number contained within the file name - ex **123456** — without the first character in the file name. This information is not on the document so we can’t use Marking to obtain it. BUT – we CAN do this using an Extraction Action, and a SQL function to grab just the info we want.

Below is a screen snapshot of the [Extraction Action](#) (within a Document Definition):

Separate file name Database

Fetch additional metadata from an external database.

Database URL

1 jdbc:postgresql://127.0.0.1/postgres

User Name **Password**

2 postgres

Assign properties as inputs and outputs of the database query.

Input Properties **Output Properties**

1. file_name → 4 File Name

1. lgroup → 6 LGroup

Supply the sql query to run when processing this document.

3 select Substr({{file_name}},2,6) as lgroup 5

☐ Disable this definition

1. **Database URL:** jdbc:postgresql://127.0.0.1/postgres
 - a. This is Axis’s database where Documents and their Properties are stored
2. **User & Password:** enter the user name and password for your database. This will be unique to your site. Consult your System Administrator.
3. Note the SQL: “file_name” is a variable created in the SQL statement, then...
4. ...that variable is assigned to the System Property “File Name”. This property contains the original name of the file before it was consumed by Axis. So that name is passed INTO the SQL statement.
5. lgroup a variable created in the SQL statement to contain the output, then,
6. ...that variable is assigned to the User Property “LGroup”

The example SQL — `select Substr('{{file_name}},2,6) as lgroup` — uses

- the SQL `SELECT` statement to obtain the File Name, then
- uses the SQL `Substring function (Substr)` to extract the characters from the file name starting at position 2, and for a length of 6 characters
- The statement then `assigns the result of that function to the lgroup` variable

You can learn more about the functions available on PostgreSQL by searching the web for something like “sql function reference postgresql”. There many of them that you may find useful.

h/t to Gail for this imaginative solution!

Concepts: The role of Axis in Document Control

For many businesses, the issue of Document Control is driven by process, procedure, and/or outside regulation. The term Document Control can mean many different things to different audiences. Here we attempt here to identify the features and functions in Axis that are aimed at facilitating Document Control. Axis is not intended to address every conceivable permutation of Document Control. But it does contain many aspects that play a crucial role in in this process.

At root, Axis is all about Documents and the control thereof: It is software that helps you create and maintain a library of your documents that is highly configurable; tightly secured and controlled as you see fit. With that in mind, lets example what Document Control is, and its various activities. In that context we'll reference some of the Axis features that can help you in your Document Control efforts...

Definition: Document Control is the process of managing documents throughout their lifecycle to ensure that the correct, current, and approved versions are created, reviewed, distributed, used, stored, and archived.

Key Objectives of Document Control

- Ensure users have access to the latest approved documents.
- Prevent the use of obsolete or unauthorized documents.
- Maintain document accuracy, consistency, and traceability.
- Meet regulatory, legal, quality, and business requirements.
- Protect sensitive and confidential information.

Typical Document Control Activities – With reference to Axis features

1. **Document Creation** – Developing documents using approved formats and templates.
 1. **With Axis:** The primary role of Axis is not the creation of documents. Having said that, Axis has features that can help you merge existing documents to create a new one. You can create rules that define how and when to bundle/merge together multiple documents into a new document. This makes the resulting merged document both searchable, and to deliver those bundles to various stake holders. All while simultaneously also retaining the original un-merged documents in their original form. Reference section “[Bundles \(Bundle Definition\)](#)”.
2. **Review and Approval** – Verifying content accuracy before release.
 1. **With Axis:** Axis does not currently supply a Review and Approval function, so this should be handled prior to document capture.

3. **Version Control** – Tracking revisions and changes.

1. **With Axis:**

1. Version or Revision numbers (or dates) can be included as custom [Document Properties](#) on any document in Axis. Your system administrator can create these custom properties as needed. The metadata to populate your Version or Revision property can be obtained from a variety of sources, including from the text on the document itself, from a database query, and/or by prompting the user. Reference sections:
 1. “[Documents \(Document Definition\)](#)” which outlines how Document Types are defined and structured.
 2. “[Properties](#)” for a discussion of the global list of properties.
 3. User prompts are facilitated via the Desktop Capture tool. This is a product separate from Axis, but is built as a complementary tool allowing users to capture and classify documents themselves.
2. Other properties that may be useful in version control: Axis automatically captures several properties of the document at the time it is captured. These are called “System Properties”. The System Properties include common file attributes like Capture Date, Creator, Date Created, Date Modified, etc.). Those attributes are also searchable. Reference Section “[Axis System Properties List](#)”

4. **Distribution** – Making documents available to authorized users.

1. **With Axis:**

1. **Search & View:** a core mission of Axis is to provide a repository of your documents that is searchable and secure. To learn more about searchability, please consult the Axis User Guide, which discusses this feature in depth. Reference the separate *SMRTR Axis User Guide*.
2. **Authorized Users:** Axis includes security features tied to users (or groups of users) that will permit or deny specific functions, actions and access. A variety of authentication methods are available. Reference Sections: “[Authentication](#)”, “[Users](#)” and “[Groups](#)”.
 1. Also, critical to security the way a “Search” is secured by referencing Users and/or Groups. See the separate *SMRTR Axis User Guide*, section “*Creating/Editing a Search*”. This discusses how privileges to perform a

specific search are granted or denied. The Users and Groups discussed in this manual are referenced in the Search.

3. **Automated Distribution:** A “[Document Definition](#)” for any specific [Document Type](#) contains, amongst other things, the document type’s

1. Separation Rules: rules for separating a larger document into its constituent unique components (ex: Split a batch of invoices into individual invoices). Reference Section “[Separators](#)”
2. Distribution Rules: determines how the individual documents should be distributed. Distribution options include sending via email; saving as a file somewhere; uploading via FTP; printing to one or more printers; and/or triggering an update to a database. Reference section “[Distribution Actions](#)”

5. **Storage and Retrieval** – Organizing documents for easy access.

1. **With Axis:** A core function of Axis is the storage of your documents in a secure manner, that is searchable enabling fast, easy access for authorized individuals. The documents themselves are stored in a manner that prevents changes to the original document itself, ensuring that the document you see is the same as the document that was originally captured. Though with the appropriate privileges, changes may be made to the custom [Document Properties](#) associated with any individual document after its initial capture.
 1. Organization comes from how you have structured your Document types, using the various properties and attributes (metadata) of each. That structure is created and maintained in Axis by your Administrator. Reference section “[Documents \(Document Definition\)](#)”
 2. Authorized users have the ability to search for, view, email, print and/or extract the document for which they are authorized. For more information, please refer to the discussion above regarding “Authorized Users” (4.1.2).

6. **Change Management** – Controlling updates and documenting revision history.

1. **With Axis:**

1. See discussion regarding Version control above (Section 3 in this chapter)
2. The documents themselves are stored in a manner that prevents changes to the original document itself (ie: Read Only), ensuring that the document you see is the same as the document that was originally captured. Though with the appropriate

privileges, changes may be made to the custom [Document Properties](#) associated with any individual document after its initial capture.

3. Changes to the document content itself require that the document be 1) exported from Axis and 2) edited using what ever software is appropriate for editing that particular type of document, then 3) capturing the new version of the document in Axis. This approach preserves each version of the document throughout its lifespan. Best practice when taking this approach, would be to include a Document Version (or Revision) Property to allow users to distinguish between different versions.

7. **Retention and Archiving** – Keeping records for required periods and disposing of them appropriately.

1. **With Axis:** Documents in Axis are preserved indefinitely. There is no mechanism for individuals to accidentally remove documents, so the are preserved and protected in your Archive.

1. Please consult with SMRTR if you require automation of your retention policies.

8. **Audit Trails** – Keeping various records of activities perform on the documents that are to be controlled.

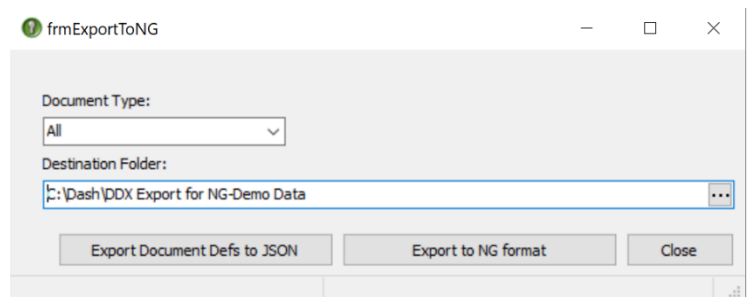
1. **With Axis:** The software performs a number of automated tasks in service of capturing documents, populating related metadata, creating bundles of documents, and general distribution. Each of these automated tasks is accompanied by a log that tracks these activities and highlights exceptions or problems (while allowing for correction). These audit trails are accessible to anyone with the proper security to view them. Reference Section “[Operations Menu](#)” for more detail.

Converting from Dash DDX™ to Axis

If you are converting from Dash DDX™ Document Management software to SMRTR Axis, Dash DDX offers a utility to export the documents that currently reside there.

 Please check available disc space ***before*** beginning this process. You must ensure that you have sufficient available space to accept the documents you are about to export. Depending on the quantity of documents being exported you may require significant space in the Destination folder.

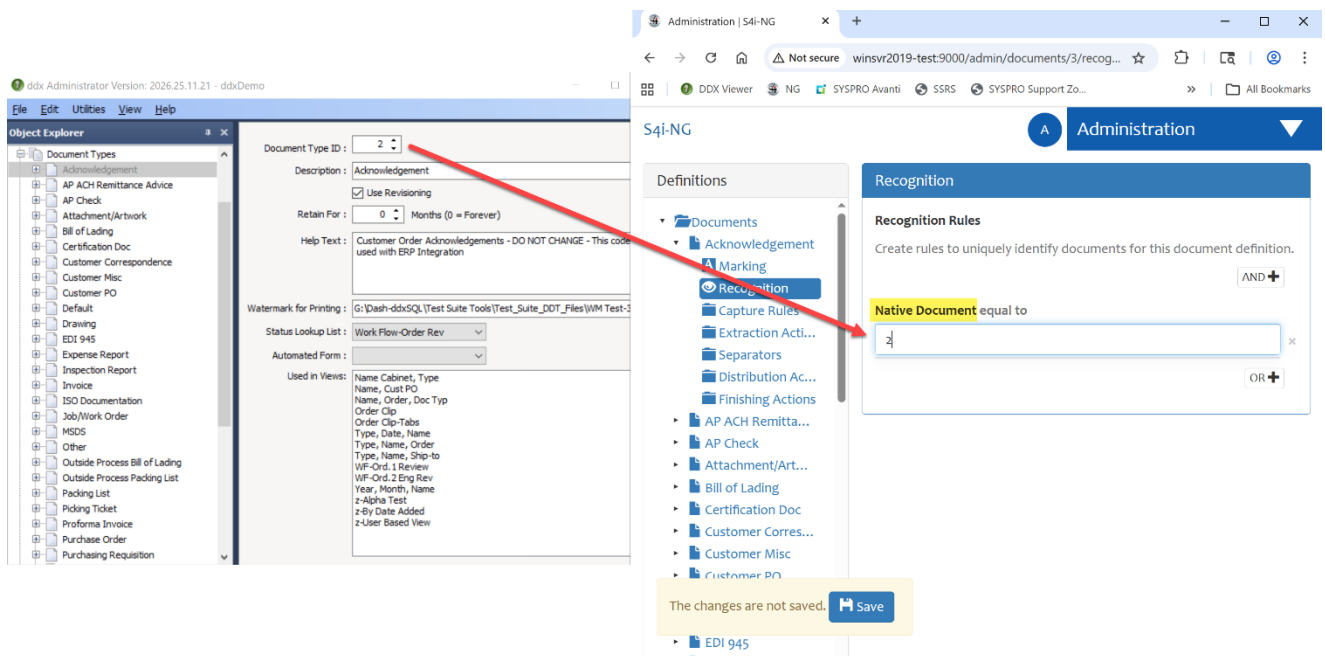
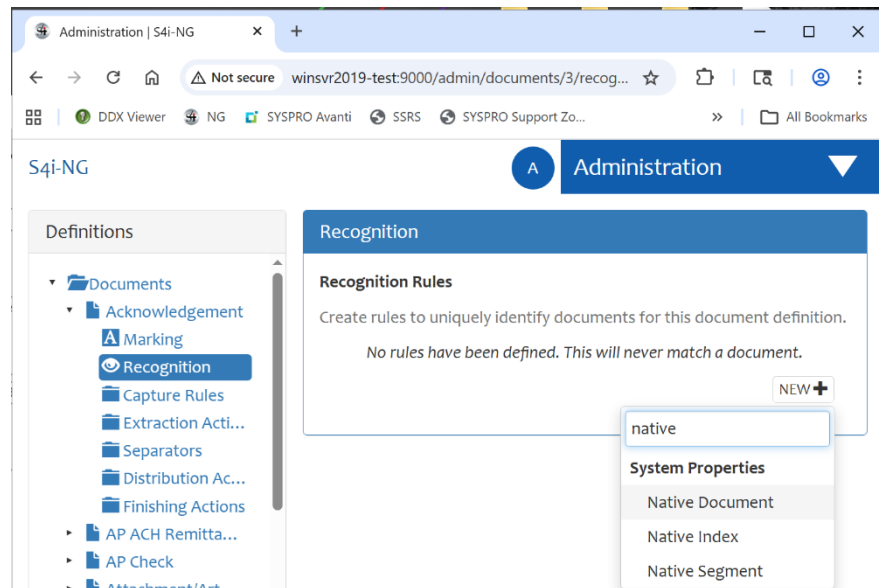
1. Run the DDX Administrator from your DDX Server
2. Select the Utilities menu
3. Choose “Export to Axis Format”
4. Document Type: Select a single document type or All to export.
5. Destination Folder: Choose a folder where the output will be deposited.
6. Click “Export to Axis Format”. Please be patient. This may take some time especially if your DDX database is larger.

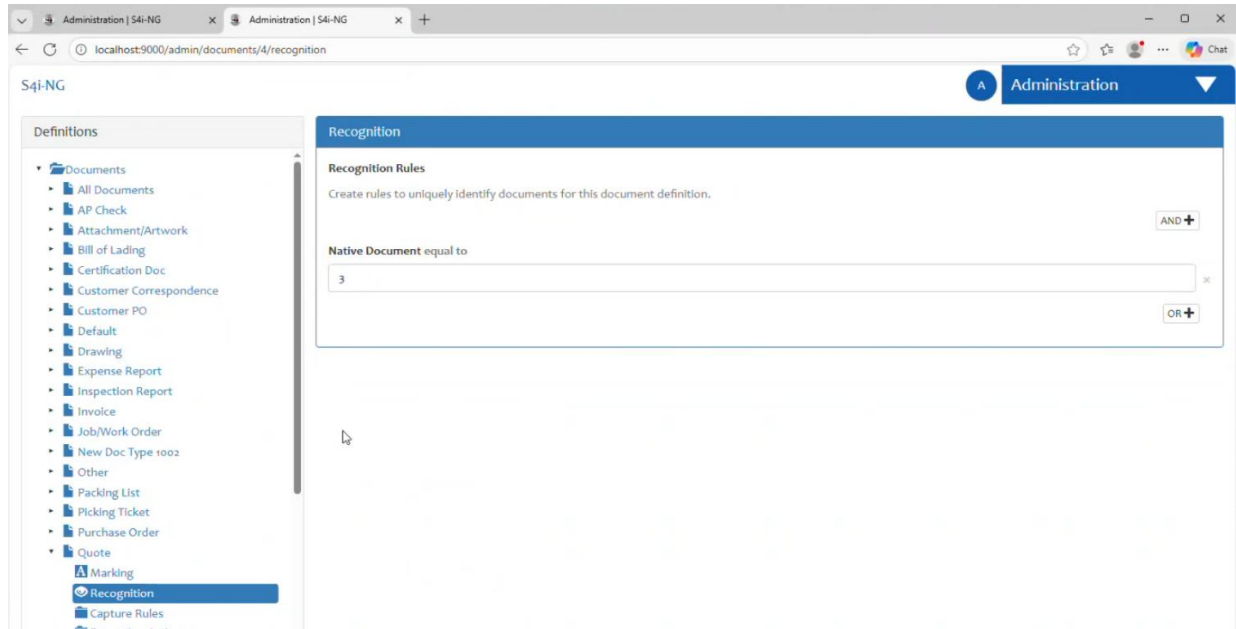


Now that you have exported the data from DDX you will need to...

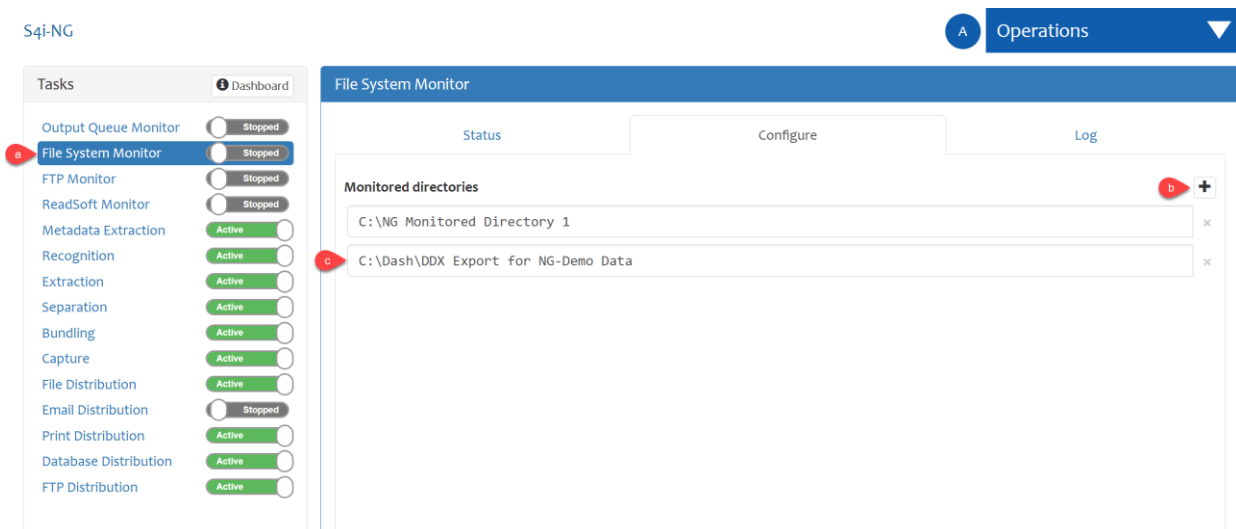
7. Create Document Definitions and Recognition rules for each DDX Document Type

- Create the Document Definition for each Document Type
- Select the “Recognition” node to set the rules to recognize the document type
- Click + to add a new Rule
- Select “Native Document” property
- Set the rule so that the Native Document property must be equal to DDX’s Doc Type ID (the later is seen in the DDX Administrator when viewing the document type in question).
- Save your work.





8. Tell Axis where to look for your output. From that directory it will then ingest the documents you'd exported from DDX in the steps above.
 - a. Select "File System Monitor"
 - b. Click the Plus button to add a new entry
 - c. Enter the path to the destination directory you used during the export step above (Step #6)
 - d. If your File System Monitor service not already started, start it now by clicking on the slider button to the right.



9. Once the File System Monitor is started, Axis will begin to ingest the exported documents. Please be patient. The length of time this takes will be determined by the volume of documents.

10. Check the Operations Menu, Recognition node for errors. You may need to adjust your document definitions, then select error'ed documents to reprocess. Ideally, you want this list to contain no errors.

If you neglected to create your Document Definitions before your import started (step 8), your documents will have produced an error during recognition. To correct this, see step 10.

Your import should now be complete.

Terms and Definitions

BUDDY/COMPANION FILE — a text file created by a 3rd Party solution (not Axis) that accompanies a document. Internally the Buddy File contains various Document Properties that a) reference the document itself, and b) describe the contents of the document. Document Properties provided via a Buddy/Companion file directly supply Axis with some, or all of the properties needed to do its job.

Note that the format and syntax used when creating a Buddy File is strictly controlled by SMRTR. For more information on the content, syntax and format for Buddy Files, please contact your SMRTR consultant.

DOCUMENT DEFINITION — this represents a collection of rules that govern how the software will a) Identify the specific [Document Type](#) to which the current set of rules apply (its target), and b) the rules and settings that will be used to process that Document Type. this represents the collected settings, properties, rules and specifications for a specific - Example: The group of settings and specifications related to the Document Type: Customer Invoice or AP Check. Best practice is to name each Document Definition after for the Document Type they represent (though this not a requirement). Also see “[Document Type](#)” definition below.

Commonly, each Document Definition is specific to single [Document Type](#) (Example: Invoice, Purchase Order, Vendor Correspondence). Though it is unusual, it is possible for a specific Document Type to be referenced by more than one Document Definition.

DOCUMENT PROPERTIES — each document is associated with multiple Properties (**Synonyms:** Keyword, Tag, Metadata). These Properties are used to help classify, group, uniquely distinguish and facilitate the search for these documents. Every Document Property becomes searchable. You will locate a specific document by performing a search of the contents of specific Document Properties.

Properties may be externally assigned or assigned by the Axis software itself. A Document Property is analogous to a Keyword, Index or Meta-data. Typically, Properties are assigned to a document...

- a. By grabbing information from the document itself
- b. By retrieving information related to the document from an external database.
- c. By using Property information from the [Buddy/companion](#) file that is associated with the specific document (see discussion below regarding [3rd Party/Custom Integration](#))

Many, if not most, Document Properties are unique to your own collection of documents. We call them “User Properties”. These are created by your System Administrator and/or 3rd party software that communicates with Axis. Some Properties are pre-defined and maintained by the software itself – we

refer to those as “System Properties” (for a complete listing, see the section “[Axis System Properties List](#)” in this document).

Example of properties: 1) A Customer Invoice number; 2) Invoice Date, 3) the original file name; 4) the Document Definition associated with this specific document, etc.

DOCUMENT TYPE — A distinct type of a document, as in “Customer Invoice” or “Bill of Lading”. Generally referenced by its colloquial name in business. An individual document type, its properties and actions are typically described in Axis via a “Document Definition” (see the definition of that term above).

Note that Document Types are pre-defined by your System Administrator when they create a “[Document Definition](#)” in Axis. Each Document Definition may contain various attributes and actions that are associated with that specific Document Type.

LOGICAL DOCUMENT — All documents arrive in Axis as a physical file. That file may contain more than one document. Physical file example: 1 PDF contains 5 Invoices. This one PDF is what is *physically stored* in Axis.

However, what if you want to distributed or view only 1 specific invoice (not the entire physical file)?

Axis gives you this ability by being able to reference those individual Invoices by splitting a single physical file into multiple, smaller pieces called “Logical Documents”. – ie: those individual documents that are contained within a single physical file. Plus, when a Logical Document is created via the Bundling feature, the result could contain documents originating from more than 1 physical file. The Logical Document appears to the Viewer or Recipient as though it is its own, separate thing: It will show only 1 invoice (assuming that’s your desire, and properly expressed in the Document Definition or Bundle Definition).

Both the Physical Document (Physical File) and the Logical Document may be viewable and distributable from Axis. They “exist” simultaneously.

How and under what conditions the Physical Files / Documents are separated into Logical Documents Is determined by either the [Document Definition’s Separators](#) action, and/or the [Bundle Definition](#).

After initial processing, it is also possible to re-process the original physical document(s) using the now-current changes that may have been made to the Document or Bundle Definition after the original file was captured and process. Depending on the changes made to those definitions, this could result in a different set of Logical Documents.

METADATA — Metadata is associated with each document. Metadata is stored in a hierarchical data structure of property values.

Most file format types, such as PDF and TIFF, include a mechanism for embedding metadata inside a document. By default, when Axis encounters a new document, built-in metadata property values are extracted. The built-in metadata properties are based on the Dublin Core Metadata Element Set and the Adobe PDF Schema.

The metadata is then carried along with the document as it moves through the system. In general, as a document is processed, related information is added to it as metadata property values. Other tasks may then use these values to perform operations.

PROPERTY ID — A Property ID is an internal unique ID for a property. Once assigned, it is never changed. It defaults to the Property Name but replaces any spaces embedded in the Property Name with an underscore. So if you create a Property Name of “Customer Name”, the Property ID will default to “Customer_Name”.

PROPERTY NAME — This is the generally visible name for a property. Think of it as the “friendly” name for these things. After a property is created you can make changes to the Property Name if you wish. It will not effect its association with any other thing that’s been defined as using this particular Property. Those relationships are all based not on the Property Name, but on the Property ID.

Revision History

Date	Description	Author
4/8/2026	Initial review release	JVH
4/14/2026	Interim release – internal only	JVH
4/15/2026	Interim release – internal only	JVH
4/16/2026	Interim release – internal only	JVH
4/29/2026	Release for QA – Internal only – For Axis v3.0.4649 or greater	JVH
5/8/2026	Product name change – NG to Axis	JVH
5/18/2026	Edits suggested from R&D are incorporated	JVH
5/21/2026	Added Axis (NG) version to the Revision History. This manual written for v 3.0.4649 or greater	JVH
6/9/2026	Minor updates to manual, spelling	JVH
6/16/2026	Updated for V3.0.4676: User Notes; Property ID's now displayed; More flexible format when referring to Property ID's (fully name, or abbreviated); Re-branding from SMRTR Express NG to SMRTR Axis; plus additional fixes and additions. See release notes.	JVH
7/28/2026	Final document released (Draft was approved)	JVH
7/30/2026	Add new section outlining the concepts involved in Document Control as it relates to Axis. Section: Concepts: The role of Axis in Document Control	JVH

--- End of Document –

If you got this far, congratulations. Thanks for reading, and for choosing SMRTR!