



▶ QUICK AND EASY WAY TO LOOK AT USER ACTIVITIES, INCLUDING AUDIT LOG AND INCORRECT PAGE FORMATS



▶ USING THE OPENTEXT APPLICATION XTENDER DOCUMENT DATABASE AND REPOSITORY WITHOUT ALTERING IT



▶ VALIDATE THAT DOCUMENTS HAVE ASSOCIATED PAGES AND NO ORPHAN PAGES ARE FOUND IN THE SYSTEM

# Automation

## Rx-Manager

ADDRESSING THE NEEDS TO ENSURE A HEALTHY OPENTEXT APPLICATION XTENDER INSTALLATION THAT IS WORKING PROPERLY EVERY DAY

*The NTS Rx-Manager is a productivity enhancement tool for the OpenText document management storage and retrieval applications, which provides quick and easy health inspection of the Application Xtender's database and repository.*

## Ensuring a healthy and productive day

Buddha stated: *To keep the body in good health is a duty; otherwise, we shall not be able to keep our mind strong and clear.*

for example BMP BIN files that should have been TIFF BIN files for better performance.



The new NTS Rx-Manager can help discover documents without pages, or locate orphan pages with no association to any documents.

The OpenText AX program provides an excellent Audit log events for AX activities. The NTS Rx-Manager program

A healthy system must be watched 24/7 for activities, and this is where the NTS Rx-Manager comes into the picture with its advanced tools, like Dashboard, to help the administrator monitor, and fix issues before they become a catastrophic disaster.

Locating and fixing incorrect scanned formats,

program provides Audit Event Queries that can be saved and run at anytime, including from the program command-line-interface. The NTS Rx-Manager program takes Audit to the next level with real-time Warnings and email Alarms when Audit Event Rules are activate by Audit log events.



### Benefits:

- Multiple Event Types in all Audit Queries
- Save and Run Audit Queries at anytime
- Real-time Warnings / Alarms from Audit Log
- Discovery of Documents without Pages
- Uncovering of Orphan Pages without Documents
- Detection and Conversion of large BMP to TIFF
- Real-time user Logins, Activities, Doc-Locks & PID

# Dashboard Overview

The *NTS Rx-Manager* Dashboard action panel gives a quick real time view of the AX status with regards to warnings/alarms, logins, apps, documents and pages.

The Dashboard action panel is comprised of four panels: Applications, PID, Active Documents, and Warnings/Alarms. Each panel can be enabled or disabled. When disabled, the query function of the panel information is also disabled. Each column can be sorted in ascending or descending order to give a more informative view of the active information. Note that the Dashboard does not require login to show Dashboard info.

The AX Application panel shows current applications in the system. Each application includes ID, Total Document / Page count and last used Doc ID / Object ID.

Document and page count may increase or decrease as documents and pages are either added to the application, or deleted from the application. Note: Last used Doc ID and Object ID will always increase as documents and pages are added to the application.

The screenshot shows the NTS Rx Manager Dashboard with the following data:

AX Applications (25)						
Name	ID	Doc Count	Last Doc ID	Page Count	Last Object ID	
AX-WFM-TEST	12	9	9	9	9	
BRE-AP	4	20	464	31	626	
BRE-APV2	13	29	32	29	32	
CONKEYREF	22	3	3	3	3	
CONTINUUM	28	2	2	2	2	

PID Info (6)				
Time Stamp	User Name	Workstation	App Name	Action
2016-08-27 12:39:25	ADMINISTRATOR	workflowsrv02.workflow.dev...	All Apps	Idle
2015-12-22 02:48:45	ADMINISTRATOR	workflowsrv02.workflow.dev...	All Apps	Idle
2016-04-25 17:36:10	PAUL	workflowsrv02.workflow.dev...	All Apps	AppGen
2016-09-14 5:26:04	RINGO	workflowsrv02.workflow.dev...	All Apps	Idle
2016-12-22 03:49:24	ADMINISTRATOR	workflowsrv02.workflow.dev...	NAPA-TEST_FILES	Display

Active Docs (1)				
Time Stamp	App Name	Doc ID	User Name	Workstation
2016-09-19 03:28:38	NAPA-TEST_FILES	16	RINGO	WORKFLOWSRV02.W...

Warning/Alarm (2)							
Title	Time Stamp	Workstation	User Name	App Name	Doc ID	Event Type	Desc
Query Alarm	2016-09-19 10:...	workflowsrv02...	Ringo Starr	NAPA-TEST_FI...	0	Execute Query	CRITERI...
Open Page On ...	2016-09-19 10:...	workflowsrv02...	Ringo Starr	NAPA-TEST_FI...	16	Open Page	STATUS...

With the new option to set Warnings, which are Event Notifications, the AX user can now create filters that will, in real time, show the events just after they occur in the *NTS Rx-Manager* dashboard panel.

The user defined Warnings can be elevated to Alarms. When the alarm is triggered by an event, the program will email or text-message an administrator or support group that a requested notification has just occurred, per a predefined email address.

With this feature the Audit logging is no longer a postmortem list of things that has occurred in the past.

The PID panel shows the current PID table. The PID table stores information relating to the currently active login sessions (User Name and Workstation) on the AX system and what state (App Name and Action) the user is in.

## Case Story

A health insurance company created a virtual workstation to run the *NTS Rx-Manager* for only viewing Warnings.

By disabling the tree top views and expanding the Warning Event Notifications they at anytime could see who is doing what, in what application and from what workstation.

The Active Document panel shows documents that are currently open and locked for edit. Each locked document is identified by App Name and Doc ID plus who (User Name) has locked the document, and from which Workstation.

AX and WX locks documents differently. In AX, the first user who opens a document and has editing rights, will lock the documents no matter if the user needs to edit the document or just view the document.

Under WX, a document is opened, but not locked, in display mode. If the user has editing rights and selects open to edit, then the document will be locked.

Note: If a document is locked by a user, then no other users can edit the same document. However, the document can still be viewed in read only mode with the current index values.

# AX Audit Filter



The NTS Rx-Manager AX Audit action panel is a filtering tool to extract specific information from the AX RAW audit table of recorded AX events.

The AX Audit Filter helps the administrator to filter out specific information from the extensive and very raw AX Audit Log table.

Without the use of the NTS Rx-Manager AX Audit Filter, administrators tend to record less information for easy viewing and sometimes, therefore, will miss important events. With the AX Audit filter, the administrators can record every event, and then at research time can the apply filter and view what is important.

The AX Audit Filter works on two levels: User, App, Time and Event Types.

With the User and App dropdown list box, all users in all applications can be viewed or only a specific user in a specific application can be viewed.

The Time Preset: Today, Yesterday, This Week, This Month or Any time range can narrow down a specific event in time.

The option, Include Event Type, provides an easy way to include or exclude what events should be displayed in the result grid.

Filter	AX Events
<b>Documents</b>	New Document, Delete Document, Modify Index, New Index, Delete Index, Open Page, Insert Page, Delete Page, Insert Version, Delete Version, Annotate Page, OCR Page
<b>Query</b>	Execute Query, Save Query, Delete Query, Modify Query
<b>Batch</b>	Create Batch, Delete Batch, Batch Import, Batch Index, Add Batch Page, Delete Batch Page, Attach Batch Page
<b>Application</b>	Create Application, Delete Application, Modify Application
<b>User</b>	Login, Logout, Create User, Delete User, Modify User
<b>Group</b>	Create Group, Delete Group, Modify Group, Create Anno Group, Delete Anno Group, Modify Anno Group
<b>Queue</b>	Create Queue, Delete Queue
<b>Tools</b>	ODMA, Import, Archive, Migration, Generic Import, License Server
<b>Reason Code</b>	Reason Code Required, Reason Code Display, Reason Code Print, Reason Code Export, Reason Code Email
<b>Retention</b>	RM Retention, RM Transfer, Retention Job

The screenshot shows the NTS Rx Manager AX Audit Filter interface. It includes a navigation menu with options like 'Welcome', 'Dashboard', 'AX Audit', 'AX Audit Reports', 'AX DB Validation', 'AX BIN Validation', 'AX BIN Locator', and 'AX Annotation'. The 'Filter' section has dropdowns for 'APP', 'User', and 'Workstation', along with a 'Doc ID' field. There are radio buttons for 'Preset' (Today, Yesterday, This Week, This Month, Any Day) and a date range selector. The 'Include Type' section has checkboxes for 'Document', 'Query', 'Batch', 'Application', 'User', 'Group', 'Queue', 'Tools', 'Reason Code', and 'Retention'. A 'Use Defined Filter' field contains the number '32'. Below the filters are buttons for 'Execute Audit Query', 'Send Done Email', and 'Save Audit Report Query'. The 'AX Audit Result' section shows '66807 records found' and a table with columns: '#', 'Time Stamp', 'Workstation', 'User Name', 'App Name', 'Doc ID', 'Event Type', and 'Desc'. The table contains several rows of data, including entries for 'Open Page' and 'Modify Index' events.

With the Save Result Set button, the displayed result set can be saved in a CSV formatted file, which can be interrogated in Excel or any other database, at a later time.

The Send Done Email option is only available if the program is configured to send emails. In some cases, the option is shown as disabled, which indicates that the action would be completed fairly quickly and, therefore no need to send an Email notifying the action is completed.

The user defined query can be saved with the NTS Rx-Manager program Save Audit Report Query button, so it can be executed at a later time. This function is ideally used with queries that are frequently needed like; daily altered documents, weekly created documents or even monthly deleted documents. Saved queries can be selected and run from the AX Audit Reports action panel.

# AX Audit Queries

The *NTS Rx-Manager* AX Audit Reports action panel provides to the user an easy way to run saved Query Reports. When an AX Audit Report is selected the program will switch to the AX Audit action panel and run the selected report.

Listed Query Reports in this action panel are created and saved using the AX Audit action panel.

The power of saved Query Reports is that they provide an easy way for the user to execute frequently used Audit Reports, like "End of Month Status" without having to remember the exact settings.

This panel is the user interface to run reports which can also be accomplished via the programs command-line interface.

Each Query Report is listed by the user defined Report Name and Report Version, plus the system Report Date (creation date of the report). Listing can be sorted by clicking the column heading.

Reports can be Run, Edit or Deleted using one of the three Action buttons on the right side of the panel. Both the Run and the Delete functions will prompt the user for execution of the action before it takes place.

The screenshot displays the 'AX Audit Reports' panel in the NTS Rx Manager application. The panel includes a navigation menu at the top with options like 'Welcome', 'Dashboard', 'AX Audit', and 'AX Audit Reports'. Below the menu is a table titled 'Audit Reports List' with the following data:

Report Name	Report Version	Report Date
Daily Report For TestApp on WorkflowSrv02	2016-08A	20160818
End of Month Status	2016-03B	20160820
Last Week Deleted Docs	2016-01	20160822

A dialog box titled 'Rx Audit Report Dialogbox' is overlaid on the table, asking 'Run Audit Report: "Last Week Deleted Docs?"' with 'Run' and 'Cancel' buttons. On the left side of the application, there is a 'Session History' panel showing a list of recent activities, including 'AX Audit' and 'AX Annotation' with their respective elapsed times. A 'Logout' button is also visible in the top left corner.

When logged in as either "User" or "Administrator" with access to Warnings/Alarms and Configuration panels the Session History under Login becomes active.

The Session History shows the current days activities, which are also found in the *NTS Rx-Manager* program log file.

The list is showing the current action performed on the top and the earlier actions below.

To see the full line of information, if not show, click on the line and the help tool tip will display the full line.

If Session History is blank then no action has take place on the current day.

## Case Story

A food distributor had issues with AX, users could not login and perform their duties.

At first, the issue was contributed to not enough AX Licenses. However, per the design of the system, the installed 25 user system should be sufficient, even with some margin of error.

Before acquiring more licenses, the company wanted to do a study of who and how the current AX system was used.

This was done by installing the *NTS Rx-Manager* program, and monitoring the PID table compared to the Active Document panel information. The food distributor discovered there were users who logged into AX in the morning, but did not really utilized the system.

After interviewing those users, they found that most of them did this to ensure that if they needed to use AX, they would be able to access the system with no issues due to limited license count.

The food distributor moved those users to WX and it resolved the login issue.

# AX Audit Warnings & Alarms

NTS

The *NTS Rx-Manager* AX Audit Warnings and Alarms function that are showing in the Dashboard action panel are created and managed by the Warnings/Alarms configuration action panel which requires Administrator login.

Warnings are Event Notifications triggered by rules, and are shown in the *NTS Rx-Manager* Dashboard panel.

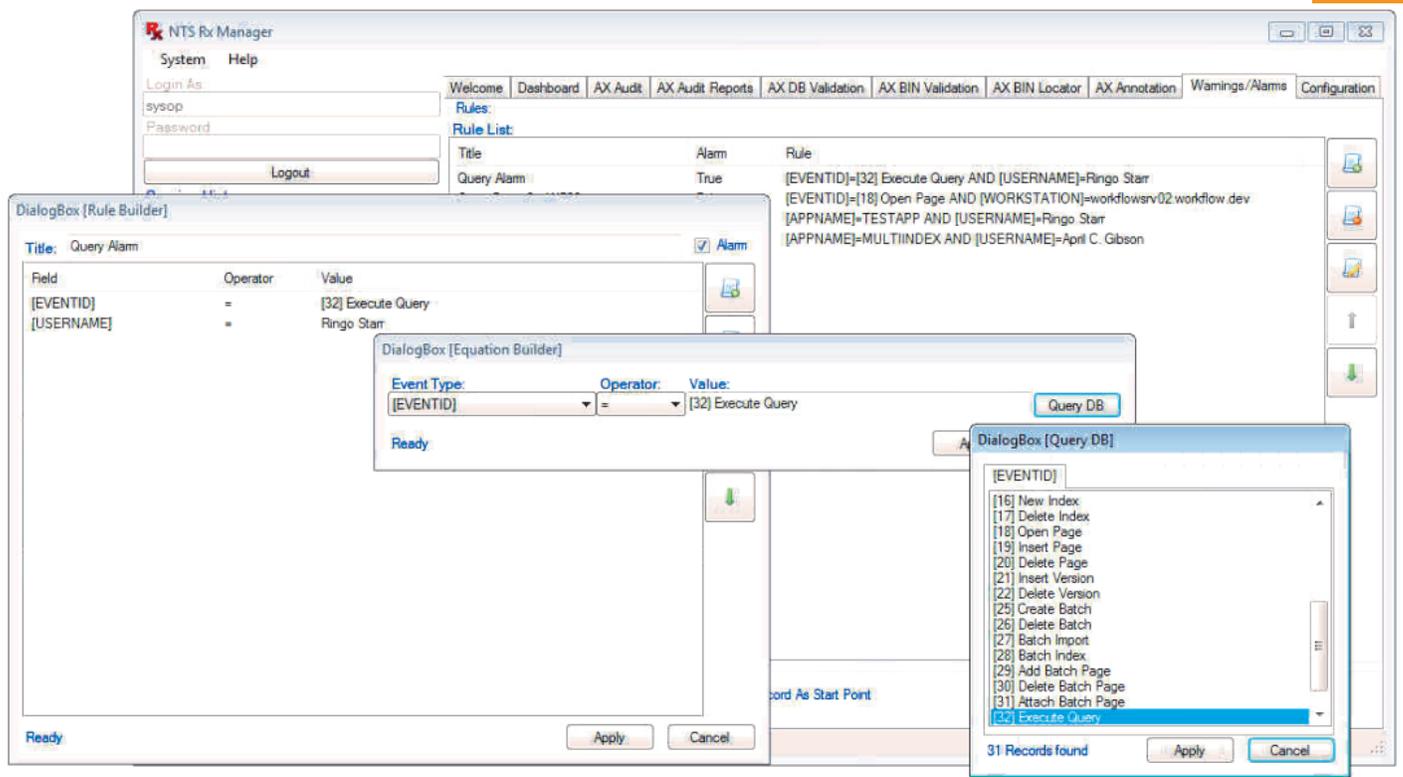
Alarms are Warnings that have been enabled to send emails or text-messages to the administrator, internal support group, or any pre specified email address.

Rules are comprised by one or more equations. If more than one equation, the equations are boolean AND connected; meaning all of the equations have to be true to fire off the warning or alarm.

Equations are an user selected Event Type tested against an Event Value, per a specified Operator, such as: equal, not equal, greater than, greater than or equal, less than, or less than or equal.

The Event Type can be one of the following types: Event ID, Application Name, Document ID, User Name, Workstation Name or Time Stamp.

The Event Value is either entered by the user as a value or selected from a database lookup performed by the *NTS Rx-Manager* program.



## Case Story

An international security company is tracking Work Orders and Accounts in AX.

Neither Work Orders nor Account Documents should be deleted, but it has happened from time to time and this was discovered by the AX administrator looking at the Audit data.

The AX administrator created an *NTS Rx-Manager* Alarm for the event when a document is deleted in the applications. Several weeks later, the AX administrator got the text-message that a Work Order was deleted.

Right away the AX administrator talked to the employee who deleted the Work Order. The reason for the deletion was that the order was canceled. What the employee did not know was the canceled Work Orders should not be deleted but have the document status altered from "active" to "canceled".

Correcting things when they happen are much better than days or weeks later.

## Case Story

A law office IT department had noticed, by reading the Audit log data, that from time to time a none-authorized workstation was logged on to the system with legit AX credentials.

One solution was to block the workstation, but that would not shine light on who and why the person was on the workstation and more importantly who had the legit AX credentials.

The law office IT department deployed the *NTS Rx-Manager* program. They created an alarm that would go off if someone logged on the specific workstation and opened an AX document.

The alarm did the job, and when the IT personnel walked up to the workstation they discovered that the user was the legit owner of the AX login credentials. This person just decided to work on this workstation from time to time.

Everything was fine, and IT incorporated the workstation into the system.

# AX DB Validation

The NTS Rx-Manager AX DB Validation action panel interrogates the AX Documents table and Page table, ensuring all documents have pages and the system has zero orphan pages with no association to any documents.

One of the more powerful parts of the AX system is the segregation between the Document table and the Page table. The Document table includes index information about the documents. Whereas, the Page table includes information about each page object in the document, plus information about the physical path to the page BIN file. Via the Doc ID, the Document table links to one or more records in the Page table. If this link is broken, then a document would not have any pages to display when retrieved. Seen from the Page table's viewpoint, if the Doc ID link is broken, then the page is an orphan page; it does not have an association to a parent document.

The screenshot shows the NTS Rx Manager interface with the AX DB Validation panel. The 'Validation Type' is set to 'Document Validation'. The 'AX Application' is 'TESTRXBAD | TEST FOR BAD RECORDS'. The 'Execute AX DB Validation' button is highlighted. The 'Session History' shows a successful validation. The 'Total Doc Record Counts' is 11 [Last DocID: 113]. The 'Total Page Record Counts' is 13 [Last ObjectID: 114]. The 'Validation Result' shows an error: 'Error Found: 1 Document of 11 is missing links to one or more Pages ( Total Page Count: 13 ) [Last Used DocID: 113]'. A table below shows the error details:

#	Name	Desc	Page Count	Doc ID	App Name [App ID]
1	FIFTH	BAD	1	113	TESTRXBAD [23]

After selecting the AX Application to interrogate, the administrator will select the Validation Type (Document or Page).

Documents that have a broken Doc ID link with no pages will be shown in the result grid.

The result grid will display all the index fields pertaining to the document, plus the three internal fields: Page Count, Doc ID and App Name / ID.

The screenshot shows the NTS Rx Manager interface with the AX DB Validation panel. The 'Validation Type' is set to 'Page Validation'. The 'AX Application' is 'TESTRXBAD | TEST FOR BAD RECORDS'. The 'Execute AX DB Validation' button is highlighted. The 'Session History' shows a successful validation. The 'Total Doc Record Counts' is 11 [Last DocID: 113]. The 'Total Page Record Counts' is 13 [Last ObjectID: 114]. The 'Validation Result' shows an error: 'Error Found: 2 Pages of 13 are missing links to Documents ( Total Document Count: 11 ) [Last Used DocID: 113]'. A table below shows the error details:

#	Doc ID	Object ID	BIN File	Page No	Path ID	App Name [App ID]
1	5	5	\\Workflow.Srv02...	1	1	TESTRX...
2	114	114	\\Workflow.Srv02...	1	1	TESTRX...

The page validation ensures that every record in the Page table has, via the Doc ID, a parent Document. If no document is found, the page information will be displayed in the result grid: Doc ID, Object ID, Physical BIN file Location, Page #, Path ID and App Name / ID.

One of the reasons a system can have orphan pages is if a document was deleted, but the page record was not removed when the document record was deleted. Orphan pages can be view, and interrogated, by double clicking on the record line in the result grid.

If a document is located without any pages, which can happen if a document is scanned, and the page or pages are deleted before rescan, then most likely no rescan was performed. Double clicking on the record line in the result grid, will not display the document, because there are no pages to display and the index information is already shown in the result grid.

With the Save Result Set button, the displayed result set can be saved in a CSV formatted file, which can be interrogated in Excel or any other database, at a later time.

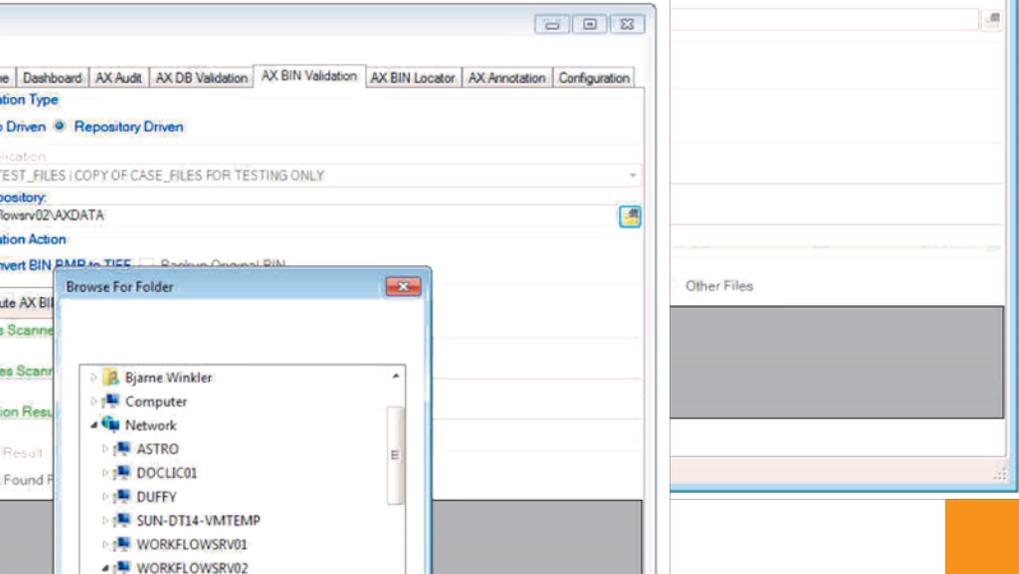
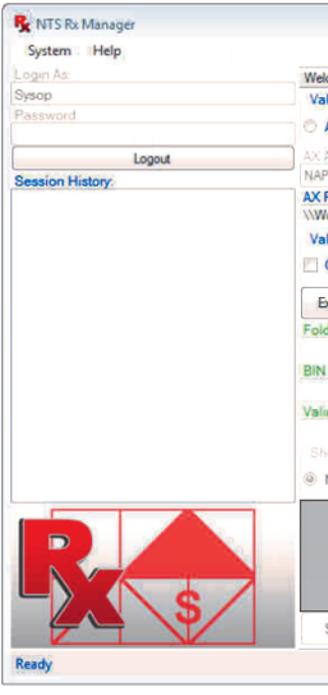
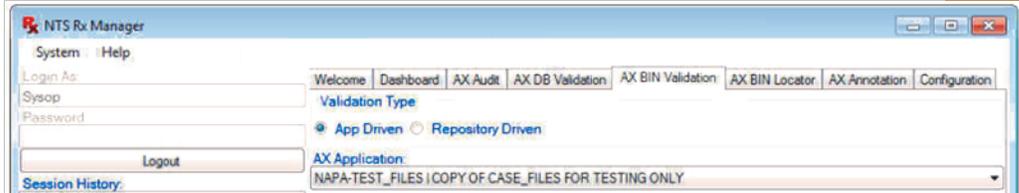
# AX BIN Validation



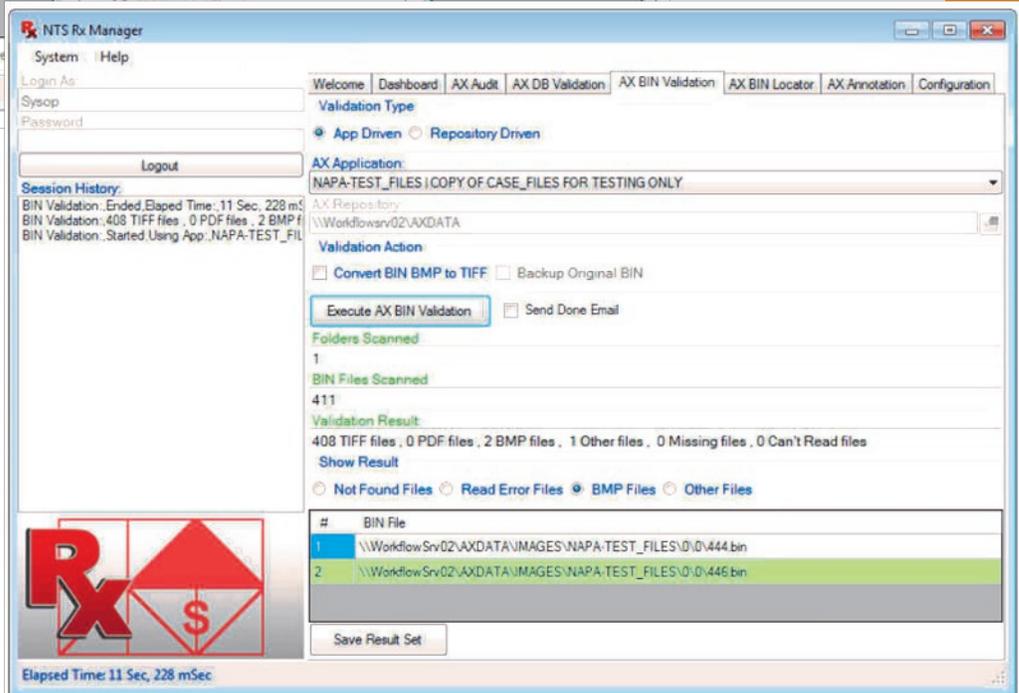
The NTS Rx-Manager AX BIN Validation action panel interrogates the page object BIN files to ensure that every page can not only be displayed upon user request, but that it also conforms to the file spec of the application.

The AX BIN Validation can be done from two different viewpoints: Application Driven or Repository Driven. If Application Driven validation is selected, the administrator will select an AX Application and the program will use the Page table to ensure that all the pages have an associated BIN file. Each file can be opened, read and the type of BIN is validated. If the Repository Driven validation is selected, the administrator will select a starting folder to interrogate. This means that the link between the Page table and BIN is not tested. However, all the BIN files in the starting folder and underlying sub-folders will be tested to ensure that they can be opened, read and the type of the BIN is validated.

Detected BMP BIN files can be, on the fly, converted to TIFF compressed BIN files. This will save disk space because the BMP uncompressed files are 100 larger than the TIFF files.

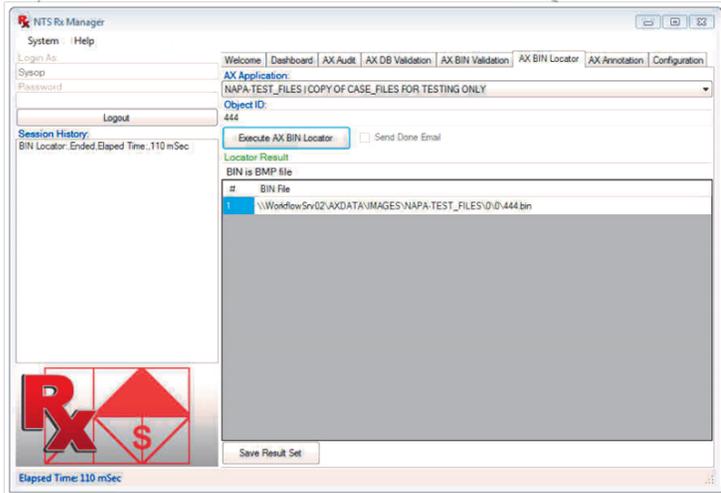


The result grid can display the results from several different filtered results: Not Found Files, Read Errors, BMP Files, Fixed BMP Files and Other Files. The Fixed BMP Files are only shown if the Validation Action to convert BMP BIN files to TIFF BIN files was selected. Other Files are files that are not TIFF, PDF or BMP files, for example: a MS Word Document. Double clicking on the displayed record will display the file, if found, and can be opened. With the Save Result Set button, the displayed result set can be saved in a CSV formatted file.



# BIN Locator

The **NTS Rx-Manager** AX BIN Locator action panel is a help tool to easily convert an Object ID from a selected application to a physical location of the BIN file.



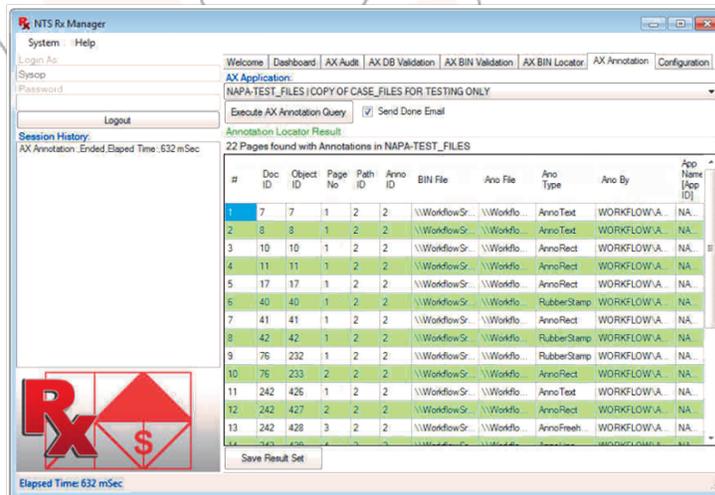
The Object ID found in the Page table is the link to that actual BIN file in the repository pointed to by the Page table's path information. If the repository is spanning several volumes / entries in the path table then this function will help locate the BIN file.

The Object ID value is hatched into a two layer sub-folder structure by AX, and can easily be found using the BIN Locator. By double clicking on the found the BIN record, the actual BIN file will be displayed.

# AX Annotation

The **NTS Rx-Manager** AX Annotation action panel is another help tool that will locate all document pages that have Annotation.

Annotation comes in different types like Text, Rubber Stamp or graphics shapes. An annotation is an internal AX overlay descriptive file. The annotation is associated with the user who created the annotation. Double clicking any row will open the computers defaulted web browser and connect to the OpenText WX application requesting the associated documents to be displayed. The user may be requested to login to the actual Web Xtender session.



## Case Story

An insurance company employs lots of temps for scanning the high volumes of insurance documents. One issue they have is to ensure the scanning personnel always scans in compressed TIFF mode. Clearly, it slips from time to time and the end result is large uncompressed BMP BIN files, which uses extra disk space.

Big BMP BIN files are around 100 times larger in file size than compressed TIFF BIN files. This means that if this is not controlled, the BIN file repository size will expand fast and, therefore, run out of allocated space, especially when the system has millions of documents and tens of millions of pages.

By installing the **NTS Rx-Manager** program and monitoring the BIN file types, the insurance company has an easy way to fix the issue, when needed.

An extra benefit of the **NTS Rx-Manager** program to the insurance company is the dashboard gives them a quick view of the system use.



## NEW: TEAM SOFTWARE An Intelligent Alternative

New: Team Software, Inc. is a privately held software house in Northern California USA that specializes in Document Management Automation.

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