Tivoli. *Software Usage Analysis*
Version 1.3

Catalog Editor's Guide

IBM®

Note: Before using this information and the product it supports, read the information in Notices.

© Copyright IBM Corporation 2003, 2011.
US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Part One _____ ***1***

The Catalog _____ **1**

Considerations _____ 2
New features _____ 2
Purpose and design _____ 2

Part Two _____ ***7***

How the catalog works _____ **7**

Catalog concepts _____ 7
Tree hierarchy _____ 7
Flow down _____ 7
Manipulating data _____ 8
Getting accurate software recognition _____ 9
Package data _____ 9
Catalog features _____ 12
Using filters _____ 12
View Audit Log _____ 13
Visualization Tool _____ 14

Part Three _____ ***15***

Using the Software Catalog _____ **15**

Add and delete catalog entries _____ 15
Modify existing catalog entries _____ 20
Manage Ambiguous software _____ 22
Using the Visualization Tool _____ 23

Part Four _____ ***25***

Help _____ **25**

Case examples _____ 25
Frequently asked questions _____ 26
Glossary _____ 26
Additional documentation _____ 27
Technical support _____ 27

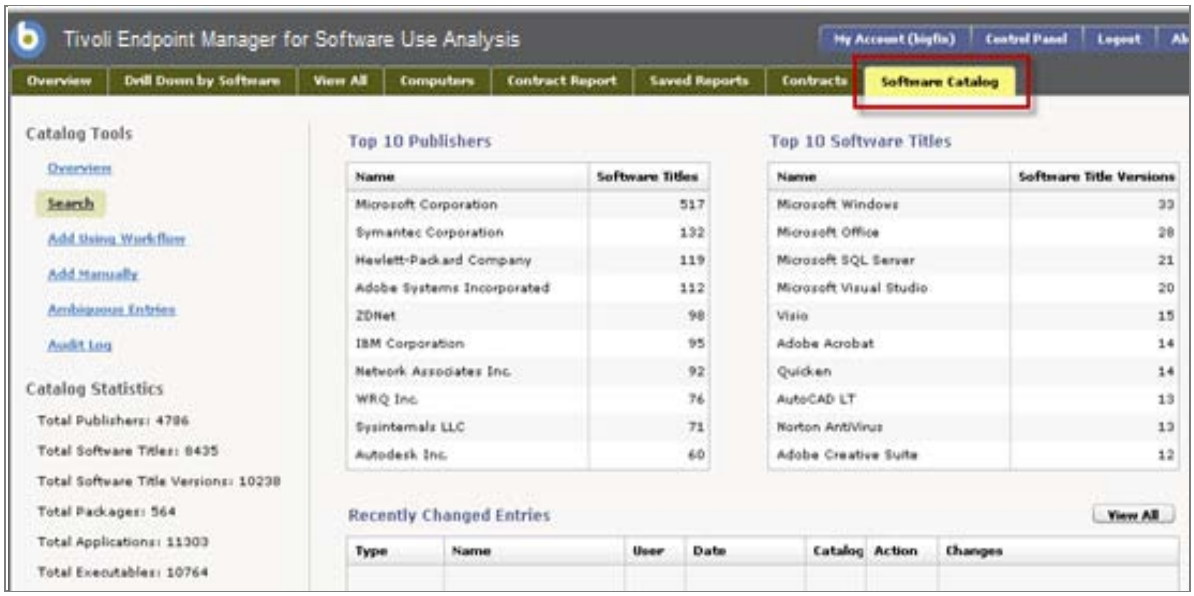
Part Five _____ ***29***

Notices _____ **29**

Part One

The Catalog

The Catalog *Editor's Guide* is intended to support SUA Catalog Editors in maintaining and modifying catalog content. Specifically, it includes detailed information about the Catalog's key concepts, as well as step-by-step instructions for using, updating, and managing existing Catalog contents. For questions about the Software Catalog not addressed in this guide, check the Global Support section at the end of this publication.



The Tivoli Endpoint Manager for Software Usage Analysis (SUA) Version 1.3 Software Catalog stores a database of software publishers, titles, versions, applications, packages, and executables that are all used throughout the Software Usage Analysis application. The primary function of the Catalog is to serve as an index used during the inventory reporting process to automatically identify software products installed on the computers in your environment.

The Software Catalog contains "signatures" or "fingerprints" of software products on the market, and can be augmented with information about custom or proprietary software products in your enterprise. When one of these signatures is found on one of the computers in your network, the information (such as publisher or software title) from the Catalog corresponding to that signature is displayed in your inventory reports. You can use the editing tools described in this guide to add, remove, and reorganize the Catalog content to suit your needs.

BigFix provides periodic updates to the Catalog, which you can merge into the Catalog that was initially installed as part of your SUA application.

Considerations

The inventory data from computers in your environment correlates to the entries in your Software Catalog. To get the most out of your Software Catalog, you should be familiar with the software inventory data that the Tivoli Endpoint Manager platform collects from computers.

After using the *Installation and Configuration Guide* to set up SUA in your environment, we recommend that you read the SUA *Implementation Guide*, which provides high level information about the function and role of a software catalog in your deployment.

New features

The Software Catalog in SUA Version 1.3 includes advanced features that provide you with even more tools for managing your software inventory:

- **Content Updates to Software Catalog**
  Includes thousands of new content entries to the Software Catalog. This additional content gives you a more comprehensive list of software inventory to match with your existing deployment.

- **Flexible Contract Types**
  Includes the ability to select the analysis property to be used for the unit for analysis for a contract. For example, you can now specify the number of CPUs that can be deployed and select the applicable Analysis Property for “CPU count” as the contract multiplier.

- **Flexible Application Usage Properties**
  Includes the ability to add analysis properties that carry application usage information. This release continues to include the default application usage for Windows, but you can now add additional sources for application usage statistics. For example, SUA now supports usage data for Windows, Mac, UNIX and Linux.

Purpose and design

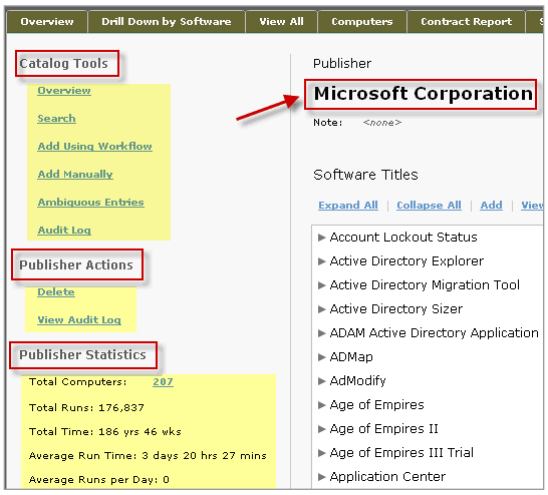
The function of the Software Catalog is to maintain an index of software publishers, titles, versions, and executable files to be used and referenced within the SUA application. The structure of the Catalog defines the relationships between the various types of Catalog content, and is used in various places within SUA. For example, the *Drill Down by Software* tab uses the structure of the Software Catalog to provide a simple, hierarchical drill down through your entire inventory. To reorganize the drill down function, use the Software Catalog editing interface described in this guide.

SUA version 1.3 includes additional functions to provide more convenient access to a wider range of software titles. This means that, out of the box, the system detects more software with no user action required. However, some titles require specific information about your own deployment to ensure accurate detection. These items are shown in the catalog Visualization Tool.

The Software Catalog is accessed from the top right tab of the main SUA application.

Your primary method of navigation through the Catalog is through the *Catalog Tools* menu shown in the left pane of your screen.

The *Catalog Tools* and *Catalog Statistics* menus are visible from any location in the Catalog on the left side of your screen, except when you've clicked on a specific Publisher. In this case, the left pane changes from Catalog Tools and Catalog Statistics to *Catalog Tools, Publisher Actions,* and *Publisher Statistics.*

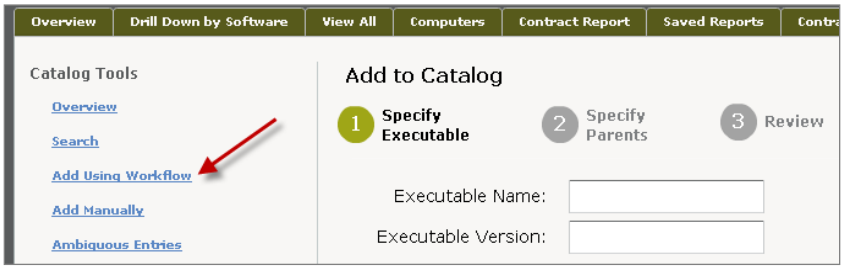


The following section gives a brief description of each of the Catalog Tools. See Part 3 of this publication for more detailed information about each feature.

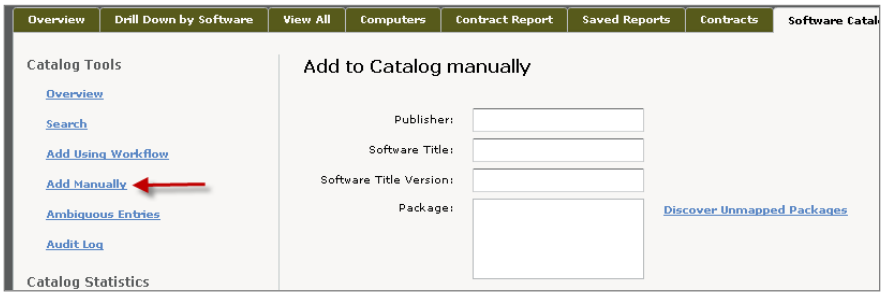
The Overview in the Software Catalog displays a summary of the *Top 10 Publishers*, *Top 10 Software Titles*, and *Recently Changed Entries* in your catalog.

The Search capability allows you to search the entire catalog of publishers and products. You can search for specific entry types, such as publisher name, application name, and executable name, or you can search for all types and then filter the results based on type.

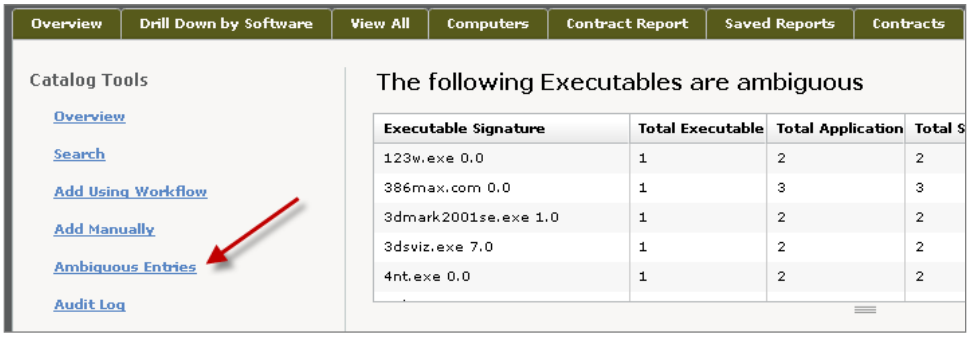
The Add Using Workflow feature allows you to add content to your Software Catalog using a series of screens in a workflow. This topic is covered in more detail in Part 3 of this Guide.



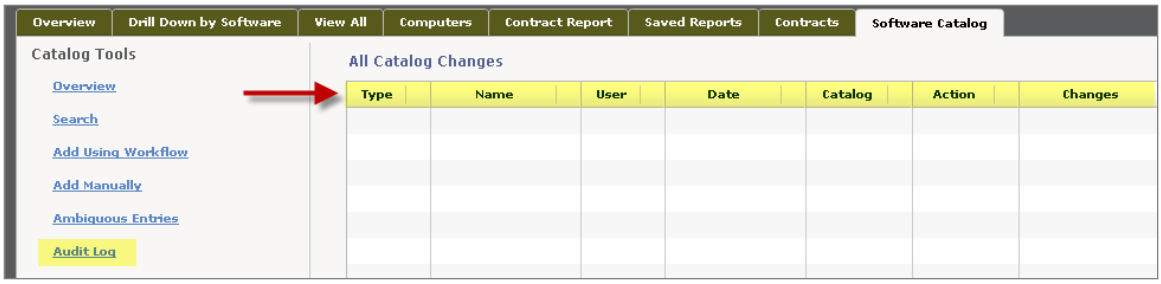
The Add Manually feature allows you to add all details to a Catalog entry using a single screen.



The Ambiguous Entries feature contains a Visualization Tool workflow that allows you to distinguish between two seemingly identical executables. You can read more about the Visualization Tool in Part 3 of this Guide.



The Audit Log feature displays a list of all Catalog changes according to the *Type* of change, *Name, User, Date, Catalog, Action*, and a description of *Changes*.



Parts 2 and 3 of this Guide provide specific details about how to manage and modify your Software Catalog content by using the Catalog Tools.

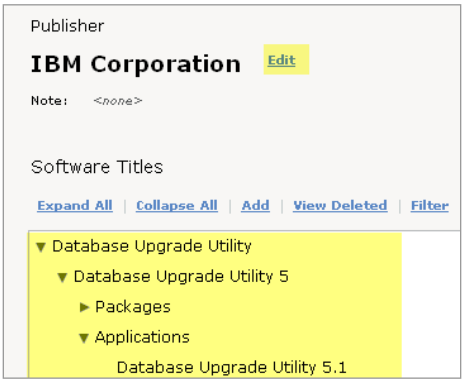
Part Two

How the catalog works

Catalog concepts

Tree hierarchy

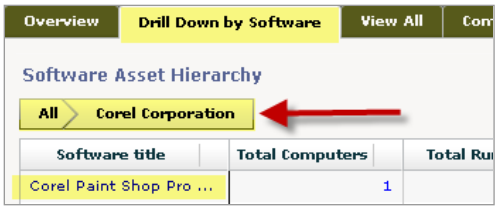
The Software Catalog organizes its content in an information “tree”, the highest level of which is the software publisher. The Catalog then sorts all information for a particular publisher under Software Title, Software Title Version, Package or Application, and Executable.



Flow down

The content of the Software Catalog affects SUA in two ways:

1. The hierarchy or structure of the Catalog defines the relationships between publishers, titles, versions, packages, applications, and executables. This hierarchy is visible on the *Drill Down by Software* tab in the SUA inventory reports.



2. The package information (under software title versions) and the executable information (under applications) constitute the “signatures” of software that might be installed on your computers. This information is used to identify the presence of software on your computers during the inventory reporting process.

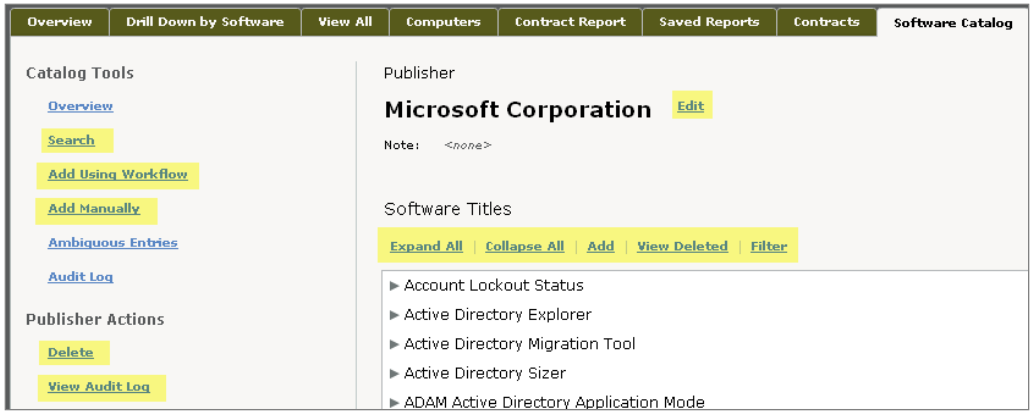
SUA 1.3 offers a new workflow, so that adding catalog entries is an ascending process, where you start from the executable and work your way up through the hierarchy to the package or application, software title version, software title, and then publisher.

Manipulating data

As an authorized Editor of the Software Catalog, you have permissions that will allow you to manipulate your content through the following actions:

- Add a record (publisher, software title, version, application, executable)
- Delete a record (publisher, software title, version, application, executable)
- Edit a record
- Copy content from one record to another
- Link two records within the Catalog
- Merge two existing records into one
- Demote a record to a lower part of the Catalog hierarchy
- Expand or Collapse items in a list (software titles)
- Search the Catalog for a publisher, software title, version, application, or executable
- Filter to narrow your search for an existing record
- View a record

You can access these actions from several places in the Catalog:



Part 3 of this guide describes how to perform these actions.

Getting accurate software recognition

SUA has two possible methods for software recognition. The system recognizes software from the presence of:

- An executable file
- Package Data from the computer, which includes
  - a definitive package or
  - a regular package with an executable

This means that to get software recognized on your system, you either need to know the name of the executable that you want to add or else know the computer where that executable exists to allow you to manually search for it.

The presence of the executable file is the primary factor and can be used exclusively to detect the presence of software. However, if the executable file is “ambiguous” and resembles another file in the system, then the second factor (package data) must be used. In some cases, the package data can be used as the primary factor and can be used exclusively to detect the presence of software. In this case, the package data is referred to as a “definitive package”.

The SUA Software Catalog is provided with pre-populated executables and packages that correspond to the package data in the tasks and analyses that you deploy using your Tivoli Endpoint Manager server. You may also add your own executables and packages and make these correspond to properties from analyses that you have on your Tivoli Endpoint Manager server.

When you add a "package property", the Tivoli Endpoint Manager property it is linked to becomes an additional source of package data.

Package data

Based on the new features and functions of SUA Version 1.3, you can use your Software Catalog to perform two primary tasks:

- Resolve ambiguities
- Add new catalog entries based on executables and other evidence of software installations found in your environment

What is a package?

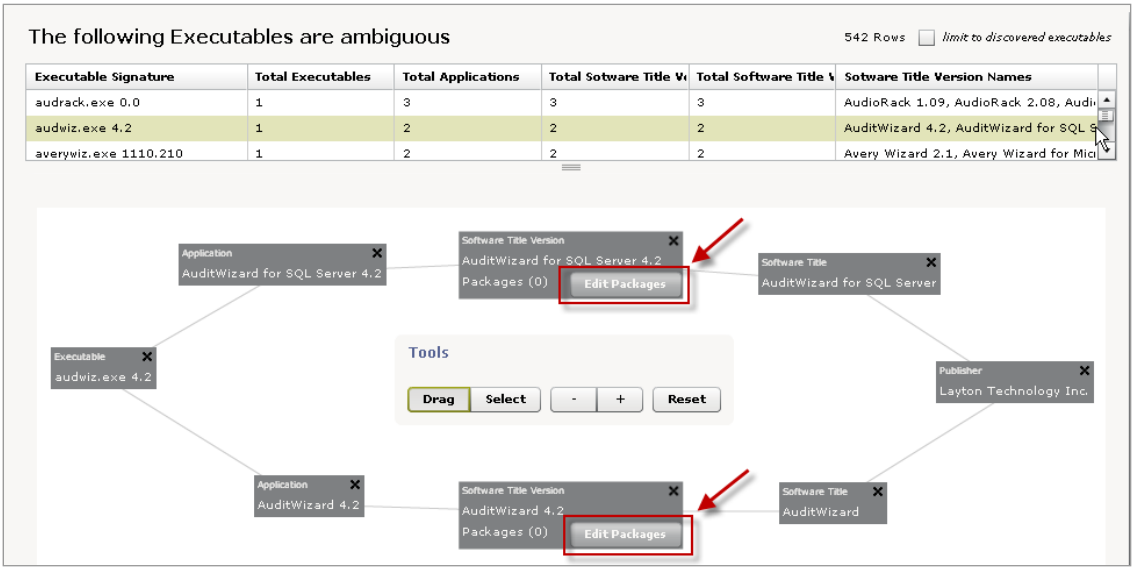
A Package is an artifact collected from computers, such as uninstall strings from the Windows registry. Package data can come from any Tivoli Endpoint Manager analysis.

There are two types of package data used in SUA – *regular* and *definitive*. A regular package helps the inventory process distinguish between two similar executables, where executables are the primary method of identifying the presence of software on a computer. A definitive package does not need an executable listed in the catalog – it is the primary method for identifying the presence of software on a computer.

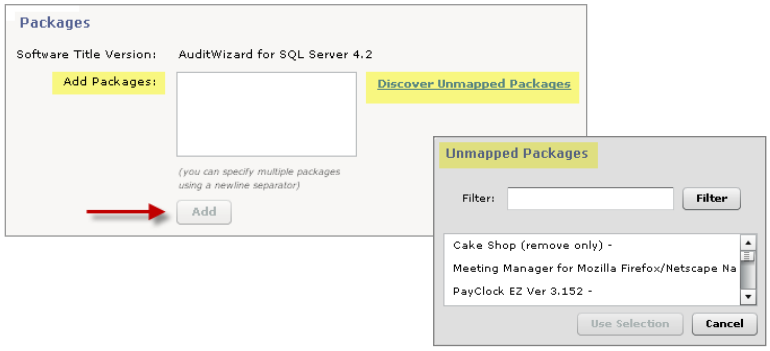
Adding Packages to Your Software Catalog

You can add packages using the new Visualization Tool by clicking the *Ambiguous Entries* link under Catalog Tools.

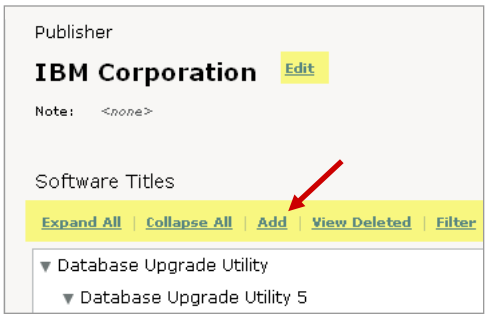
Start by locating an executable in the list. When you click an entry, the Visualization Tool displays a graphic view of the executable and its related hierarchy of data (application, software title version, title, and publisher) in the Software Catalog. To add package data, click the *Edit Packages* link in the Software Title Version box, as shown below.



The packages window opens. Enter your new package data, and click *Add.* To locate an unmapped package in your inventory, click *Discover Unmapped Packages* and search for the package in the available list.



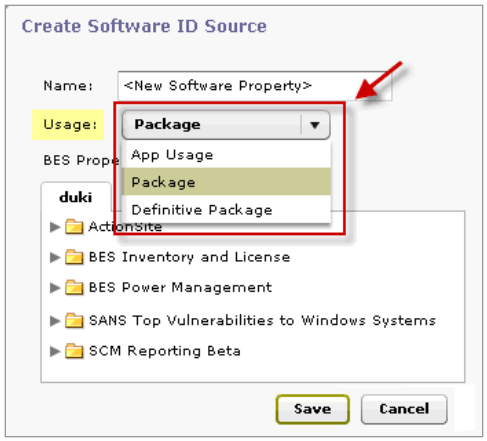
You can also add packages to your Software Catalog from within a Publisher by selecting *Add*.



You must add packages to ensure accurate software inventory recognition. When the software titles cannot be identified by executable data alone, they are referred to as “ambiguous executables”. The package string information can come from the SUA Installed Applications analysis that you activated on your BES server or from any other analysis property that enables SUA to detect the origin of the ambiguous executable.

Making a Definitive Package

If you cannot identify the software installation using an executable, you may be able to identify it using a definitive package, the data for which can come from any active Tivoli Endpoint Manager analysis on your BES server. To create a *definitive package* in SUA, click *Software ID Sources* in the Control Panel, and click the “+” sign. This allows you to add a BES Property to produce the data you need in SUA to identify the software product. In the *Create Software ID Source* window, click the Usage dropdown menu and select *Definitive Package* to make that package property a “definitive package”. Then click *Save.*



After you have added package properties, you must run an Import (Control Panel, Import Options, click *Import Now*). This causes the data reported in the BES analysis property you just selected to stream into the SUA database. This data stream contains the strings of data you will use to create packages in the Software Catalog. It also connects the data stream to a software product, enabling the SUA inventory process to identify software.

For example, if you add *BES Inventory and License > Application Information (Mac OS X) > Installed Applications – Versions – Mac OS X* as a definitive package property in SUA, you are

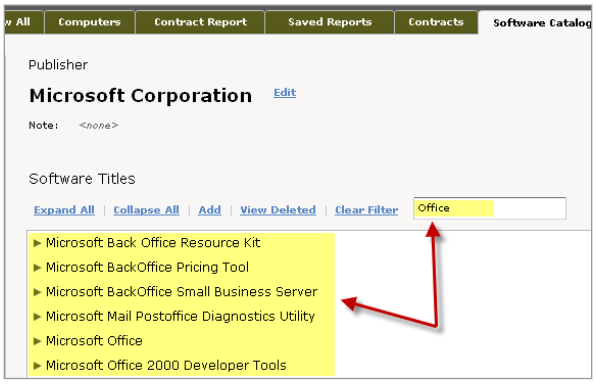
adding Mac OS X software inventory data to SUA. However, you still need a way to identify the items in this data stream as software products. For example, if one of the items in this data stream is *Adobe Photoshop CS3.app – 10.0.1*, add **Adobe Photoshop CS3.app – 10.*** to the Photoshop CS3 entry in the Software Catalog. You have now communicated to SUA that whenever data from a Package Property data stream contains Adobe Photoshop CS3.app – 10.*, the computer reporting that string to be shown as having Adobe > Photoshop > Photoshop CS3 installed.

Catalog features

Using filters

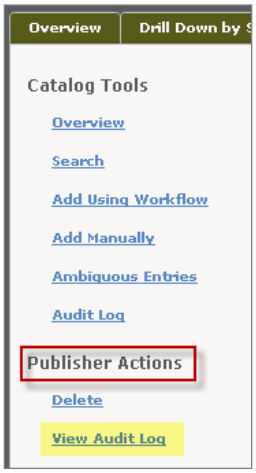
Filters are drill-downs that you use to specify a search and quickly locate software within your Catalog. Filters are available from a variety of locations in the Catalog. To locate an application within Microsoft Office, go to the *Top 10 Publishers* box on the Catalog Overview page and click Microsoft. This displays all Microsoft titles currently contained in your Catalog. Because this list is extensive, use the Filter feature to quickly find the exact title that you need.

Click the *Filter* link to open a dialog box in which to type your filter criteria. To find Microsoft Office, type the word *Office* in the filter dialog box. This displays only the Catalog entries containing the word *Office*.



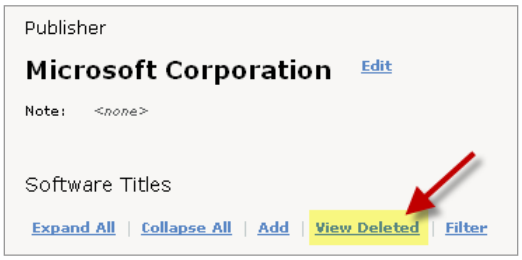
View Audit Log

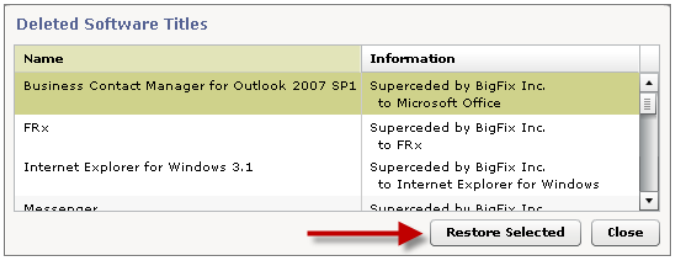
The *View Audit Log* link is available from within any Publisher menu.



This link opens a dialog box that populates the following fields: User, Date of the change, Catalog item, Action, and a description of the change that was made to a particular record.

If there is an edit shown in the audit log that you want to “undo”, click that item in the Audit Log to go to the location in the Catalog where the edit was made and change it back. If an item has been deleted and you want to undelete it, use the *View Deleted* link under any Publisher window to restore it.

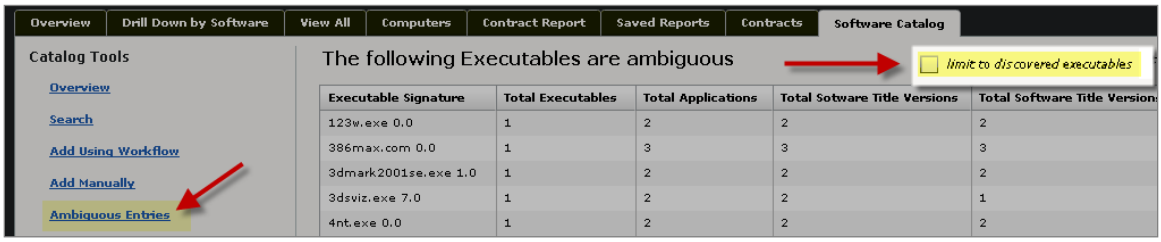




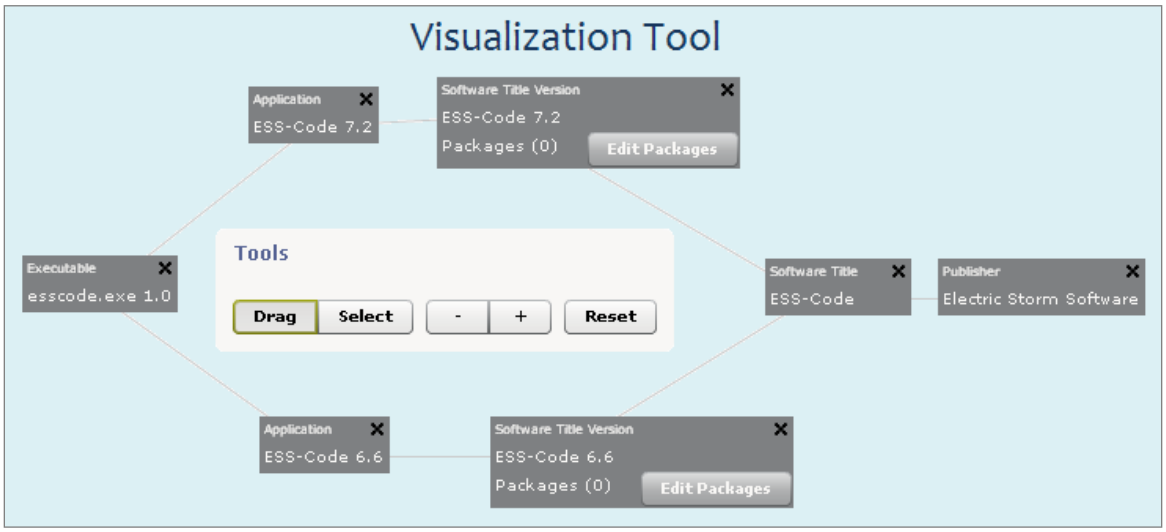
Visualization Tool

Access the Software Catalog Visualization Tool from the *Ambiguous Entries* link in the Software Catalog. It provides a visual workflow for modifying the contents of your Software Catalog.

Items are shown on this list when there are two or more similar executables associated with software titles in your Catalog with no package strings to differentiate the products. You can see the products that are affected, and you can use the "*limit to discovered executables*" checkbox to focus the list to only include *ambiguous* executables in your environment.



Click any line in the displayed list to open a visual display of that executable and its related hierarchy of data, such as Publisher, software title, version, and package information.



Part Three

Using the Software Catalog

This section addresses the various processes for manipulating the records in your Software Catalog.

After making *any* of these changes, you must run a full import to connect your existing inventory data to your new information. To do this, click *Import Options* in the Control Panel. Select the *Reset All Import Sequences* check box and click *Run*.

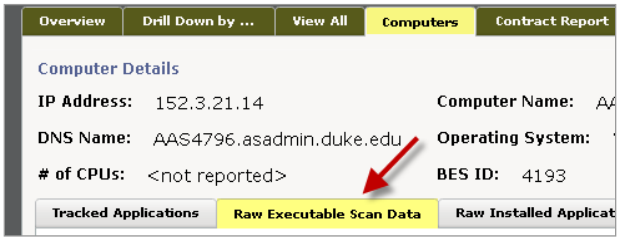
> ***Note:*** *To run a full import, you must have Administrator privileges in SUA.*

Add and delete catalog entries

There are two basic methods for adding software content to your catalog. A "top down" approach includes a methodology for starting at the top of the catalog content hierarchy. For example, start with the software publisher, then drill down through the applicable software title, version, package or application, and then add an executable. This is a manual method that requires you to have explicit knowledge about the software that you want to add.

You can also use the *Add* link in the left pane of the Catalog to take a "bottom up" approach to adding content. In this case, you begin with the executable, and then climb up the hierarchal ladder through the package data/application, software title version, software title, and then publisher. These approaches can be based on found data (meaning "unmapped" software installation information in your environment). The advantage to this approach is that it gives you tighter control over the contents of your Catalog, as well as better tools for distinguishing between similar or ambiguous entries. For this method, there are two ways to enter catalog data:

- From the Computers tab in the application, click a computer, click the *Raw Executable Scan Data* tab on the Computer Details screen, locate the item you want to add by browsing the contents of the computer, then click the *Add* button.



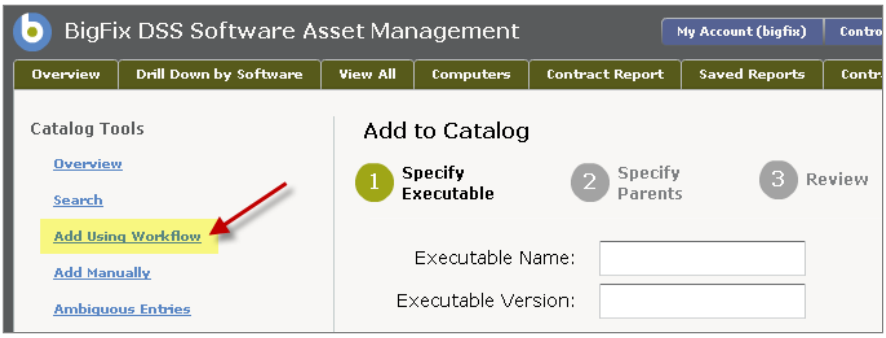
- From the Software Catalog tab, click *Add Using Workflow* under Catalog Tools, click *Use Discovered Executables*, locate the executable, and click *Next.*

The following sections describe the manual "top down" approach. The second method involves the Visualization Tool, which is referenced in more detail on page 25 of this Guide.

> ***Note:*** *When modifying Software Catalog entries, be aware that these changes will affect any related Contracts that are tied to these entries. For example, if you delete a software title from the catalog, the contracts associated with that title will be affected. You may then need to edit the related contracts to associate them with an alternate software title.*

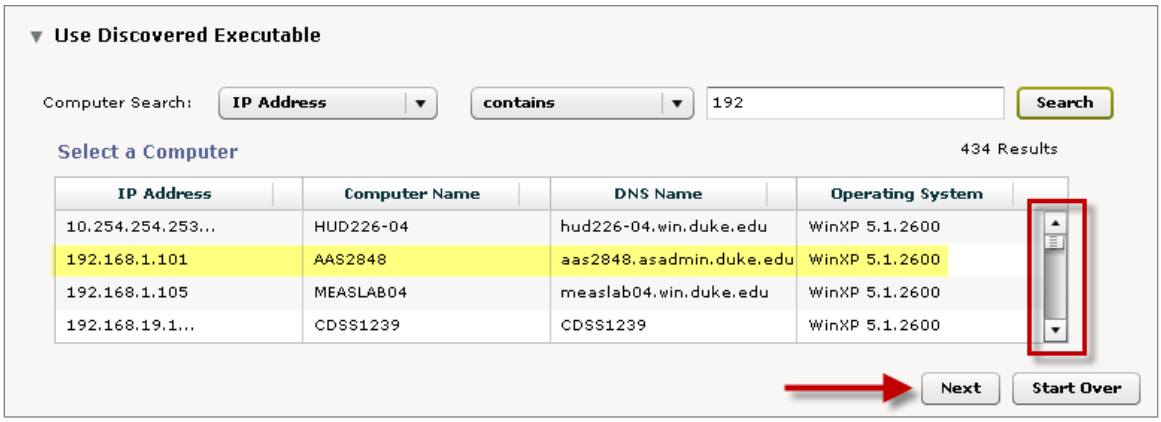
Add an Executable and its Parentage (with workflow)

From the Software Catalog tab, click *Add Using Workflow in* the left pane under Catalog Tools.



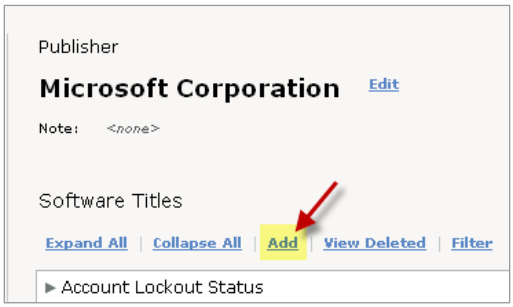
An Add to Catalog function opens, which organizes your process for adding content into three stages – *Specify Executable, Specify Parents* and *Review*. If you know the executable name or version, enter it in the appropriate field. Otherwise, click the *Use Discovered Executable* link to open additional fields that help you find a computer on which the software you want to add exists. Use the available pull down menus to specify the parameters of your search and then click *Search*.

An additional field containing the names of computers opens. Scroll through the list and click the applicable computer to display the directory listings showing the executables found on that computer. When you find the executable you want to add, select it and click *Next* on the bottom right corner of the page.

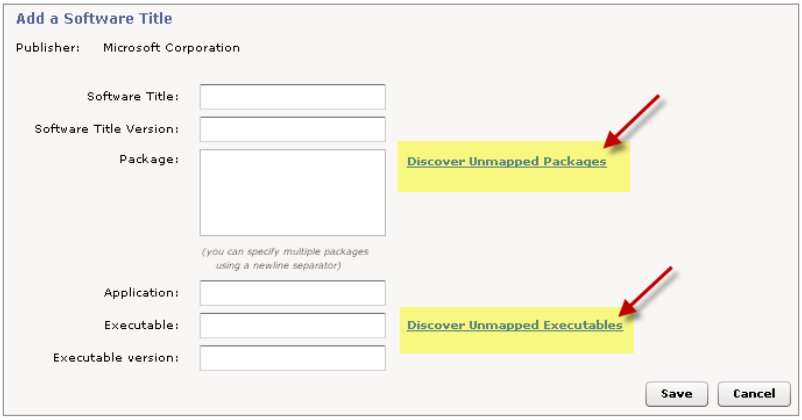


Add Catalog Items Directly to the Catalog (without workflow)

You will most often be adding software titles or details about software titles (such as package and executable signature information), rather than publishers. Click the publisher of the software you want to add and then scroll through the list to verify that the software title does not already exist in the Catalog.

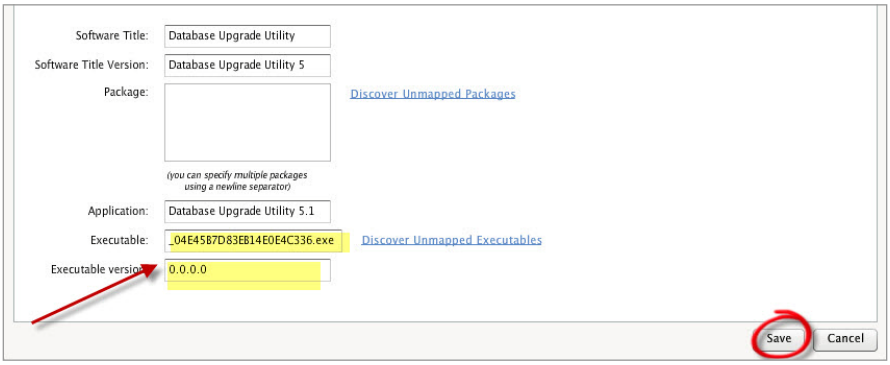


The *Discover Unmapped Packages* and *Discover Unmapped Executables* fields contain inventory data that was found on your computers by the Tivoli Endpoint Manager inventory process.



Use the Filter function or scroll through the list for anything that matches your title. If you already know the package or executable filename for the software title that you are adding or editing, locate it in the list and click *Use Selection*.

This populates either the Package or Executable box with your selection. Click *Save.*



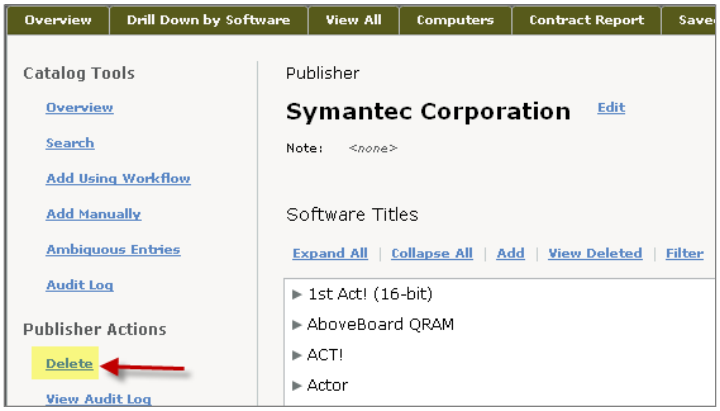
Your new software title is now shown in the software list under your Publisher.

Add a Software Version, Package, Application, or Executable

Follow the same steps as above to add a software title version, package, application, or executable to the Software Catalog. In each case, you drill down to the location in the Catalog hierarchy where you want to add the new artifact.

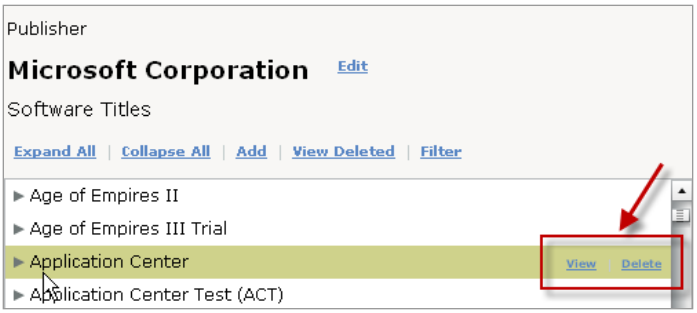
Delete a Publisher

To delete a publisher, click the applicable publisher in the list on the Overview page. Then click *Delete* under Publisher Actions in the left pane. A Delete Confirmation box opens. Click *Yes.*

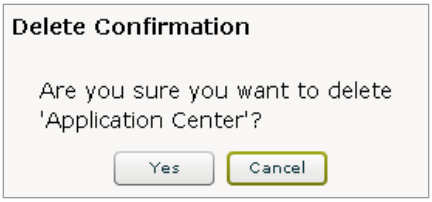


Delete a Software Title

To delete an existing software title, locate the publisher of the software and scroll through the list to find the exact title that you want to delete. When you click the title, the words *View* and *Delete* are shown on the right.



Click *Delete.* A Delete Confirmation box opens. Click *Yes.*



Delete a Software Version, Package, or Application

To delete a package or application, first locate the applicable publisher. Scroll through the list to find the applicable software title and click the arrow to the left to display the title versions. When you have identified the element that you want to delete, hover the text to highlight it. The words *View* and *Delete* are shown on the right. Click *Delete*. A Delete Confirmation box opens. Click *Yes.*

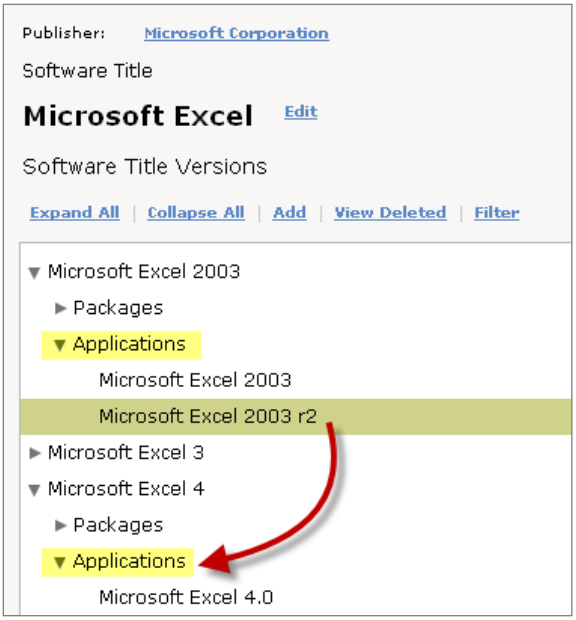
Modify existing catalog entries

Use Drag and Drop to copy, link, merge, or demote records from within the Software Catalog. When you locate the particular records you want to modify, click the first record and drag it to the location of the second record.

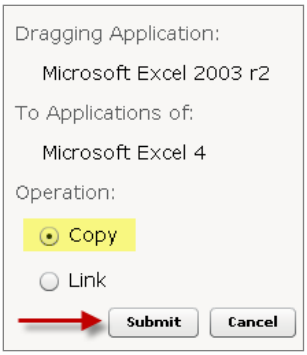
> **Note:** *You can only move or copy entries from one location to another if the new location is in the same hierarchal level as the old location.*

You can copy, link, and move software titles, versions, and applications to alter the Drill Down By Software reports to meet your own needs for custom reports. When you alter the hierarchy in the Catalog, you are altering the drill down views in the reports. By copying, linking, and moving entries, you can also create the application version groups that you need to have your SUA contracts match your vendor's license terms.

For example, if you own licenses for Microsoft Excel that entitle you to *Microsoft Excel 4* and *Microsoft Excel 2003 r2*, drag-and-drop to copy the *Microsoft Excel 2003 r2* application from software title version *Microsoft Excel 2003* to software title version *Microsoft Excel 4*.



When you have successfully dragged and moved the entry into its new location, a dialog box opens. Select *Copy* and then click *Submit.*



The entry that you just copied is now shown under the new Applications list:

If you create a contract for Microsoft Excel 4, you can see your license deltas for the aggregation of all applications under that software title version, including the *Microsoft Excel 2003 r2* that you just added.

> ***Note:*** *To select multiple entries, use Control-click to select specific entries or Shift-click to select a contiguous block of entries.*

Copy

The Copy function allows you to automatically duplicate the information in one record to another record without having to manually input your content. An example is if two records are mapped to the same executable file. This feature follows the same *drag and drop* method. In the dialog box, select *Copy*, then click *Submit.*

Link

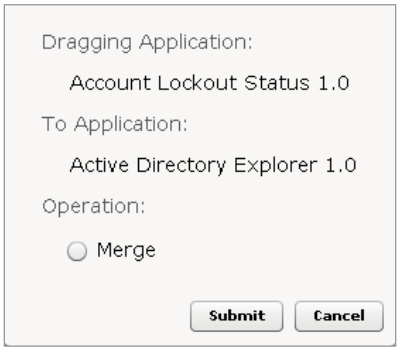
Use the Link feature when you want to connect two records that have the same executable file, even if they are shown in two places within the Catalog. An example is linking the executable file for a standalone version of Microsoft Excel to the executable Excel file within the “package” of Microsoft Office. The Excel application is available in the Microsoft Office *Standard, Home,* and *Professional* versions.

Note: *The SUA's inventory process differentiates between duplicate .exe files by using on the "package" information for these records.*

In the dialog box, select *Link* and then click *Submit.*

Merge

The Merge function allows you to combine two existing records that contain the same or similar files into one. Click the first record, then drag and drop it onto the second record. The dialog box shown below opens. Select *Merg*e and then click *Submit.*



Demote

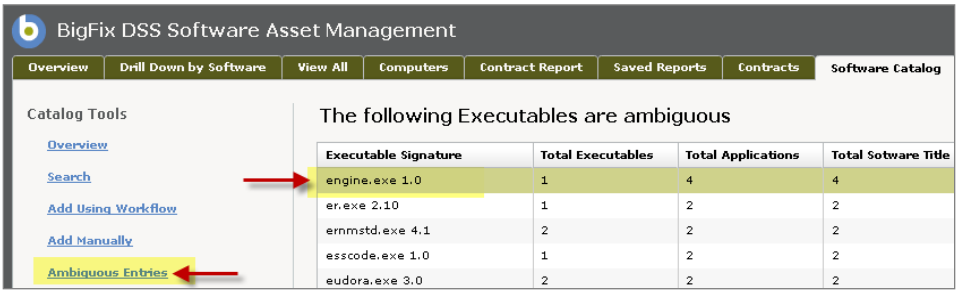
Use the Demote function when you want to change a software *title* into a software title *version*, thereby demoting the software title to a lower part of the Catalog hierarchy. First create a new Software Title Version for the selected Software Title. Then, take all applications and packages from the existing version and place them under the new software title version. You may also use the drag and drop method to move one title under another. The application will ask if you want to Merge or Demote. In the dialog box, select *Demote*, then click *Submit.*

Manage Ambiguous software

SUA Version 1.3 includes an Ambiguous Software tool, which takes the guesswork out of software redundancies. A redundant or "ambiguous" software product might be a standalone version of Microsoft Word that's also included in a Microsoft Office Professional product. It is common for there to be similar, or even identical, executables relating to the same software application. This duplication can occur for a number of reasons. The primary job of the Ambiguous Software tool is to search for the "package data" that relates to that executable – this might be found data from a Tivoli Endpoint Manager analysis property (for example, one that returns the contents of the Windows Registry). These package "strings" are the key to differentiating ambiguous software entries in your catalog.

Using the Visualization Tool

Open SUA and click the Software Catalog tab. Click *Ambiguous Entries* listed under Catalog Tools in the left pane. Select an executable from the list displayed in the top table



When you click an executable, the Visualization Tool will graphically display all of the elements of that catalog entry in a lateral view, starting with the executable you selected, together with its related application, software title version, software title, and publisher, as shown below.

> ***Note:*** *Click the Tools box within the Visualization Tool to drag and move it to another part of your screen.*

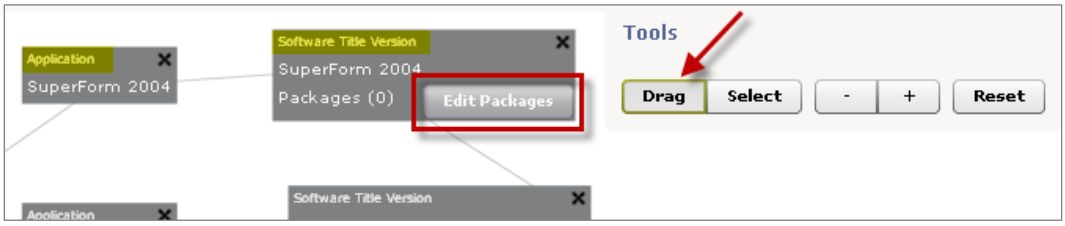
Use the Visualization Tool to merge the items from a Software Title Version "down," or to add packages to the affected Software Title Versions.

Drag and Select Buttons

Use the Select view to merge two entries into one. Use the Drag view to manipulate and reshape the items in the current view.

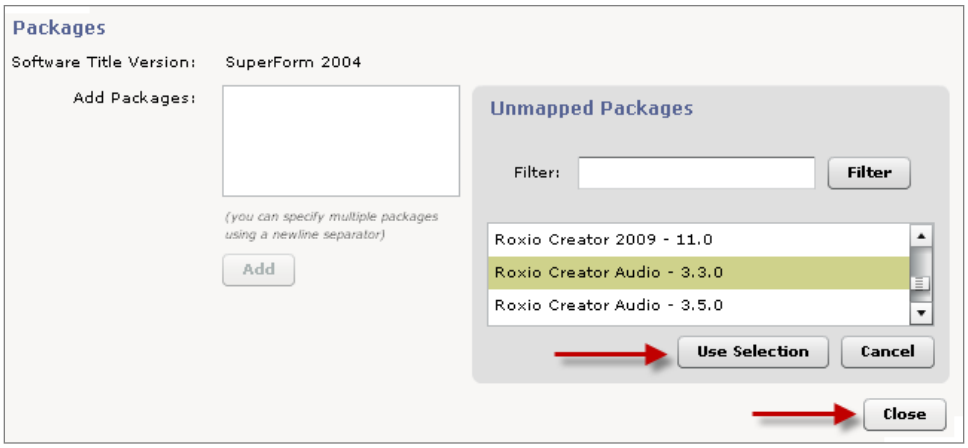
Add Packages

Open the Visualization Tool. Select the Drag mode and click *Edit Packages* under Software Title Version.



A dialog box opens where you can manually add package strings or select package strings from unmapped packages, for example, data found on your computers that is not yet used in the Catalog.

When you click Discover Unmapped Packages, the dialog allows you to use filters to find the catalog entry that you want. Make a selection, click *Use Selection,* and then click *Close.*



Merge Packages

From within the Visualization Tool, change from Drag to Select mode. Pull the top STV into the bottom STV, or vice versa. Follow the same process for applications.

Part Four

Help

Case examples

I want to add a custom software product found in my environment.

1. Add the software product and all applicable details.
2. Use the *Discover Unmapped Packages* or *Discover Unmapped Executables* functions to locate the strings in the actual inventory.

> **Tip:** You can review the raw inventory to discover products that are unique to your environment. Do this by clicking on the *Computers* tab in the main menu for DSS SAM, then click on one of the computers listed. From here, you can view raw data from any of the existing tabs.

I want to duplicate *Microsoft Office Standard 2003* and change the package information to reflect the custom packaging my IT group uses when installing this software product.

This process allows you to identify the origin of the software when it is identified on a computer (such as from your IT group or from some other source).

1. Click Microsoft under *Top Ten Publishers* on the Catalog main page.
2. Add title version "Office Standard 2003 – *Internal*" under Microsoft Office.
3. Drag and drop Office Standard 2003 into Office Standard 2003 – *Internal*.
4. Select *Copy*.
5. *View* Office Standard 2003 – *Internal*.
6. *Edit* the package information to reflect how your group packages the product during your custom packaging process (such as Microsoft Office 2003 Standard – KPI).

I want to add Mac OS X software titles to my Catalog.

1. Go to the Control Panel > Package Properties.
2. Click the [+] button to add a property.
3. Scroll through the list and click the Tivoli Endpoint Manager analysis property that contains the inventory data from Mac OS X computers. For example, the BigFix Asset and License site includes an analysis property called *BES Inventory and License > Application Information (Mac OS X) > Installed Applications – Versions – Mac OS X*
4. Click the Definitive checkbox to make it a definitive property (that is, no executable information is required to identify the software – the package data is the only information required).
5. Click *Save.*
6. Go to Control Panel, Import Option, and click Import Now.
7. Go to the Software Catalog and go the software title version (or create one) for the Mac OS X software that you want to inventory.

8. Add a Package. Use the Unmapped Packages link to see the package data found in your environment. (Note: Mac OS X applications usually have the .app extension, so you can use this to filter the items in the Unmapped Packages list.)
9. When you have added the package strings that correspond to the inventory data streamed from the new Package Property, each time you do an import, your Mac OS X software products are identified.

Frequently asked questions

How do I get non-Windows software recognition?

Non-windows support works in SUA Version 1.3 is by using "package properties". See page 34 of the *Installation and Configuration Guide* for more details. Because the Software Catalog does not include any non-windows software titles, users must enter their own entries and manually map them to the definitive package property data that they create.

How do I recognize or see a Definitive Package in my Catalog?

When you are adding package data to a software title version, use the "Note" field to indicate the package datasource (property) that this data comes from.

How do I un-delete a deleted software artifact?

You might see that items were deleted when you look at the Audit Log under Catalog Tools in the left pane of the Software Catalog tab. Each level in the Catalog hierarchy contains a View Deleted action. Click this link to view and then restore the deleted items.

How do I find a publisher that is not listed in the Top 10 Publishers?

Click the *Search* link under *Catalog Tools*.

Do I need to re-import every time I make a change to my Software Catalog?

Yes. Click Import Options under Datasource in the Control Panel, and click *Run Now*, or wait for the next scheduled import. Some changes to the catalog require that you Reset Import Sequences, accessible on the Import Options tab of the Control Panel.

Do I necessarily need to add everything shown in my Unmapped Executables list?

No. This list can be used as a reference. Only add the executables that are necessary to match your catalog to your deployment.

How do I add a publisher without adding an executable (if I am using a definitive package and have no executable)?

Add a temporary executable using the Add workflow initiated from the Software Catalog actions.

Glossary

Ambiguous Software – A software is considered "ambiguous" when it a) has an executable that looks like another executable, or b) when it exists in more than one place in the catalog (Microsoft Word as a standalone product or bundled with Microsoft Office).

Data Stream - A string of information that serves as a source of package data.

Definitive Package - A string of data that identifies the presence of software and serves as the primary method for identifying the presence of software on a computer.

Package - A secondary artifact collected from computers, which is an identification string pulled from the Windows registry.

Package Data – A type of data used in the Software Catalog to help distinguish between two similar executables – includes “regular” and “definitive” packages.

Additional documentation

Other documents offered in this product release include:

- Installation and Configuration Guide – A detailed guide on the installation and configuration of the SUA application.
- User’s Guide – A detailed guide focused on how to use the primary components, including Tips and FAQs.
- End User QuickStart – A brief overview to help you quickly get started using SUA.
- Implementation Guide – A general pre- or post-purchase guide on Software Asset Management concepts, best practices, strategies, and ROI metrics.
- Release Notes – A listing of the current Known Issues including descriptions and workarounds, as well as Resolved Issues, Software Catalog Content Updates, System Requirements and Support information.

Technical support

The Tivoli Endpoint Manager technical support site offers a number of specialized support options to help you learn, understand, and optimize your use of this product:

- Support Site
- Documentation
- Knowledge Base
- Forums and Communities

Part Five

Notices

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
2Z4A/101
11400 Burnet Road
Austin, TX 78758 U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

TRADEMARKS:

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at http://www.ibm.com/legal/copytrade.shtml.

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, and service names may be trademarks or service marks of others.