Managing Discovered Products in ZENworks Asset Management

A Discussion of the Process, Best Practices,
and an Invitation to a Community Effort

November 11, 2015
Version 2.1

Contact:

Bruce McDowell
McDowell Consulting LLC
www.consultbruce.com
bruce@consultbruce.com
(603) 203-8118

Contents

Document Revision History

Date	Notes
03 June 2013	Version 1.0 – first draft of Master SW Exclusion List spreadsheet; 691 product-version variants. Report spec for BOE version of ZENworks Reporting Server.
24 September 2015	Version 2.0 – Master SW Exclusion List updated to 1,146 product-version variants. Added column to track version in which records were added. Added report spec for Jaspersoft version of ZENworks Reporting Server. Cleaned up some product naming, including removing duplicated manufacturer names. New categories added, some others rearranged along with associated products. Account for "unknown" manufacturer records added by 11.3 inventory. Marked records generated through Add-Remove-Programs as "(ARP)" when only recognized by ARP or "(+ARP)" when records are added by ARP in addition to traditional fingerprint recognition.
11 November 2015	Version 2.1 – Master SW Exclusion List updated to 2,806 Windows product-version variants. Added UNIX/Linux (2,953) and Macintosh (398) product lists. 12 new categories added and several others cleaned out or consolidated. Product naming – including repetitive manufacturer names and product versions – continues whenever I encounter them.

Overview

Discovered Products in ZENworks Asset Management represent the license consumption side of the compliance equation. Also known as the "license view" of the inventory, the Discovered Products list starts with the core software inventory and then filters out entries that have no implication on licensing – parts of the operating system, utilities, known free software such as Java, Firefox, iTunes, and so forth. Then lesser versions of applications that are licensed software – including service packs, minor releases (n.n.n and n.n.n.n updates), and language editions – are rolled up into a single entry for each product that represents an item which you would purchase and license.

Well, that's the theory. In practice, there is some manual cleanup to be performed at virtually any site working with ZENworks Asset Management Discovered Products. Not all applications that should be automatically excluded are hidden, so you need to take control. While not a difficult task, cleaning up a Discovered Products list may be somewhat tedious. It is also a process that requires maintenance; over time, new applications will work their way into the overall inventory and require evaluation.

Regardless of the software asset management tool, this type of cleanup will be a continuing part of a comprehensive software management process. This document presents a procedure and suggested best practices for performing this cleanup and for managing Discovered Products with ZENworks Asset Management. In addition, available with this document is a listing of applications that other ZENworks customers have designated for exclusion from the Discovered Products list. Utilize this list to jump-start your Discovered Products clean-up. Then share back any products that you investigate and add to your excluded product list. I'll add them to the master list and make that available for the next project.

Why are We Making This Effort?

There are two reasons for undertaking the work required for a Discovered Products cleanup project. First and foremost, to be able to properly manage software through reconciliation between purchasing data and inventory, you need to be able to sort out the licensed software from the applications that haven't been purchased. By narrowing down the list of applications listed as Discovered Products by ZENworks Asset Management to the actual licensed software titles, you gain a better feel for the scope of your software reconciliation work.

The second reason for the Discovered Products cleanup feeds into something I call "managing by the dashboard." The Asset Management dashboard in the ZENworks Control Center (below) is very useful for tracking the status of various asset management entities. But, if there are too many unreconciled
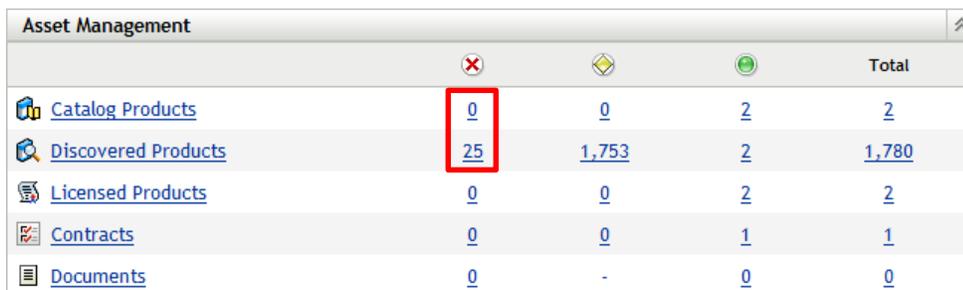
Asset Management	⊗	◇	●	Total
Catalog Products	0	0	2	2
Discovered Products	25	1,753	2	1,780
Licensed Products	0	0	2	2
Contracts	0	0	1	1
Documents	0	-	0	0

Figure 1 – Asset Management Dashboard

Catalog Products and/or Discovered Products – the cells in the red box – then it's hard to track things. In particular, with Discovered Products generated by inventory, it can be a challenge to note when new products have been added to the discovered list. If the unreconciled Discovered Products count is, for example, 1,938 today, and tomorrow after an inventory cycle it changes to 1,956, are you likely to remember the old number and note the change? But, if the unreconciled count today is zero, and tomorrow it pops up to 25, now that's a change that's easy to see.

By using the process in the next section to drive the unreconciled Discovered Products count down to zero, change is readily apparent. Then, if new products show up in the count, simply re-apply the process to manage the number back down to zero.

Cleaning Out the Discovered Products List

The genesis of this best practice was an auditor at a customer site who understood that there were some software applications for which licensing information was not important – free software, tools bundled with other applications and hardware, and so forth. The only thing the auditor wanted was a report that laid out why applications were not managed.

The report was easy, as you'll see in the last sections of this document. The upfront challenge was to add data to the Discovered Products that would allow the report to be generated. The solution turned out to be in the Software Categories feature that allows a label to be attached to a Discovered Product. Once labeled, a product can be excluded to remove it from the reconciliation process and a report can use the category label to present organized data to an auditor.

The first step is to assign a Standards Category to any product that doesn't require licensing. I've come up with over two dozen categories that I use on a regular basis. Here's the current list; as I process more data from customers, this list will continue to evolve.

- Bundled - Adobe
- Bundled - Adobe CC **
- Bundled - Adobe CS
- Bundled - Autodesk
- Bundled - Cisco **
- Bundled - Citrix XenApp
- Bundled - Citrix XenDesktop
- Bundled - Citrix XenServer
- Bundled - CorelDRAW
- Bundled - Device
- Bundled - ESRI **
- Bundled - Flexera **
- Bundled - Misc. Apps
- Bundled - MS Misc. **
- Bundled - MS Office
- Bundled - MS Operating System
- Bundled - MS SQL Server
- Bundled - MS Update
- Bundled - MS Visual Studio

- Bundled - Novell **
- Bundled - Oracle **
- Bundled - QAD-EAM
- Bundled - Service **
- Bundled - Shipping Tools **
- Bundled - SolidWorks
- Bundled - SUSE Linux
- Bundled - Symantec
- Bundled - Training
- Bundled - VMware
- Bundled – ZENworks

- Free - Beta/Demo **
- Free - Freeware
- Free - Limited Freeware
- Free - Open Source
- Free - Remote Tools
- Free – Shareware

- Licensed
- Licensed - Floating **

- Obsolete - Unsupported
- Unknown **

Items in this list tagged with ** are new to this version of the process.

The concept of "bundled" is that a recognized application is always shipped with another application that is licensed. For example, Adobe Bridge CS cannot be purchased as a standalone product; it is always provided as part of an Adobe Creative Suite. I create a category for a particular manufacturer or product once I've observed some number of like applications; there's no hard rule for when I decide to add a new bundled category – it sort of suggests itself.

It could be argued that there are too many "bundled" categories in the list, and there are certainly some that are quite specific to one customer or another with whom I've worked. As I work with new customers, I find that the bundled categories change over time – new items come into the list, and sometimes items in the list change or go away; it's an evolving process.

The "free" categories are pretty self-explanatory. "Limited Freeware" is a special case for software that is free under certain circumstances, but requires a license at some point defined in the EULA. The "obsolete" category is also easy to understand, though I can see situations were an obsolete piece of software might still be included in a licensing scenario involving downgrade rights. As always, read the 6-point type in the licensing agreement!

I tag any application that is licensed with the "Licensed" category. That makes it easy for me to exclude those items on a temporary basis and then come back later to work on reconciling them to purchasing data. That way I drive the "Unreconciled Discovered Products" count down to zero to make the home page asset management dashboard more useful as described above "Licensed – Floating" is a special case for applications where there are a limited number of concurrent licenses available in the environment but where the licensed application is installed on a larger number of devices. These applications require special consideration.

There may also be products that might fit into more than one category; look for a consistent labeling method within your organization. You don't have to use all of these, and when you encounter an application that doesn't fit the existing list, then it's time to add a new category.

Setting a category is easy. From the list of Discovered Products, check the box next to products you would like to categorize. Then select Action > Set Standards Category from the menu. Select an existing category from the drop-down list, or type in a new category to add one to the running list.
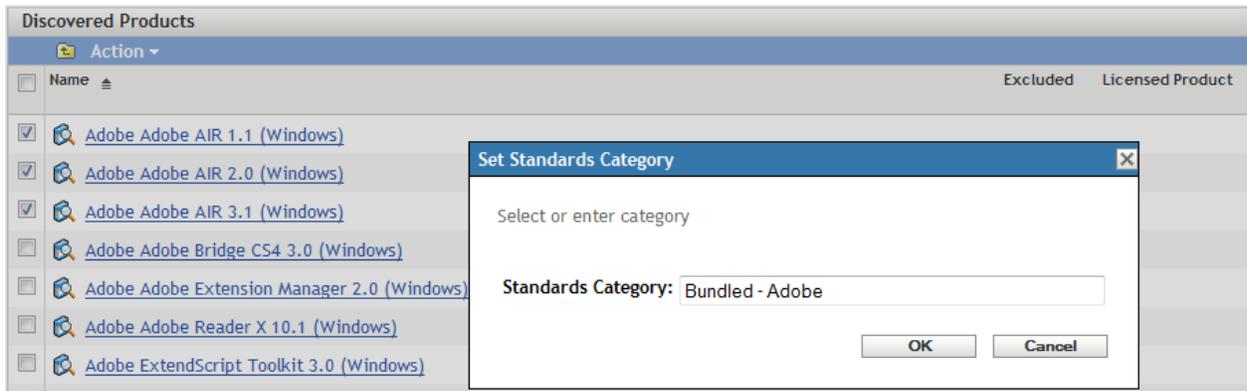

Figure 2 – Selecting a Standards Category

Note that the user interface often pops up with the category most recently used preselected; if you want to choose another category, you may have to delete the contents of the choice field before being allowed to choose another from the list.

I find it useful to use the filtering capabilities of the Discovered Product page to manage the list of records displayed. Depending on what I need, I may filter for a single manufacturer, or all products that begin with a particular letter sequence. I also change the number of records displayed on a page depending on how I need to work; sometimes I'll leave things at the default 25 records per page; other times I'll expand the page to 100-200 records. I won't usually go longer than 200 records because of the time penalty you pay to paint the screen on a refresh.

One other thing to remember about the user interface – when you're working on a page of Discovered Products, finish working on that page before moving on to the next page. If you have check-marks set on one page and then move to another, all your checks on the original page will be cleared.

Once you've applied categories to a set of Discovered Products, then it's time to exclude them. Once again, check the boxes next to the items to be excluded, and select Action > Exclude.

Figure 3 – Excluding Discovered Products

That's all there is to the mechanics of the process. All you have to do next is to identify the Discovered Products that you want to make disappear.

Later, when it's time to reconcile a set of Discovered Products to purchasing data, it's an easy matter to use the filtering panel on the Discovered Products page to search for unreconciled products by a particular software manufacturer that have a category set to "Licensed." Then you can "Included" those products – the opposite of Exclude – to return them to the active Discovered Products list. Then you can move forward with your reconciliation project.

The Master Software Exclusion List

Published with this procedure document is a spreadsheet – Master SW Exclusion List.xlsx. This is a compilation of applications identified by myself or other ZENworks Asset Management customers as **generally** not having licensing implications.

This list may be used as a starting point to quickly clean-up a substantial part of most Discovered Products lists. If you find an application on the Master Software Exclusion List and in your list of Discovered Products, then it's a good candidate to be excluded from your environment. I can usually process this list in a number of hours and reduce the size of an average Discovered Products list – if there is an "average" list – by at least 50%.

One quick note in regard to use of the Master Software Exclusion List. There are several entries for a particular manufacturer names, instead of Discovered Product names. In each case – such as "SUSE LINUX Products GmbH, Nuernberg" or "Novell, Inc." – there are a lot of Discovered Products returned, over 1,000 when SUSE Linux is installed on one or more servers and around 125 for this exact variant of the Novell name, injected by installing a ZENworks primary server on a Linux server. It's easy to filter the list based on the appropriate manufacturer name and then perform bulk categorization and exclusions to cleanup a lot of records very quickly

Anyone working with ZENworks Asset Management is welcome to download and use the Master Software Exclusion List. I ask two things in return:

1. Once you use the list to cleanup your Discovered Products, and then move on to the next step to research the remaining software in your inventory and identify other products that can be added to the Master Software Exclusion List, please create and run the ZENworks Reporting Server report described below and send me an XLXS file of the output. Then I'll merge your results into the master file and publish an update for others to use.
2. "Like" the McDowell Consulting LLC Facebook page. This is where I will announce updates to the Master Software Exclusion List and process document.

Disclaimer

Product Use Rights (PURs) are notoriously complex, and are becoming more so every year. What one customer determines to be an application that does not have to be licensed in their environment may very well have licensing implications for other sites.

I have not verified that all "free" products may be used in every business environment. I try to watch out for applications that are free for home use but require a license for business use, but companies change their licensing all the time and it's a full time job to keep up. If you find an application in the Master Software Exclusion List that you feel does not belong there, ***please let me know!***

Finally, I do not verify every item customers recommend for addition to the Master Software Exclusion List. We all have reason to get this right, so there is a certain amount of trust granted in this sharing process. If you use the Master Software Exclusion List, you agree to accept responsibility for the quality of the data in your environment and manage your software licenses appropriately.

The bottom line is "trust but verify."

Next Steps

Once you work through the entries in the Master Software Exclusion List, you'll need to research the remaining Discovered Products in your list to find products that should be excluded. That will require time with Google or any other search resource you prefer to learn about the licensing for those products. Sometimes it's easy to identify a licensed product – if you go to the product web site and there's a button that says "Buy Now!" then you've got a product that is licensed. If you don't find a nice, clear hint like that, you'll have to dig deeper. Dig until you get an unambiguous answer.

Beyond the clean-up, the remaining Discovered Products list may be examined to identify priority products to which license management should be applied earlier. Determining a priority order may be accomplished by looking at the overall value of your software applications, and differentiating that value by both installations and usage.

Building a ZRS Report for Excluded Software

As noted previously, the main reason behind tagging all the excluded software with a label was to fulfill the requirements of an internal auditor at a customer site. The next step was, of course, to build a report to present to the auditor. This is a simple exercise in either the Jaspersoft or BOE versions of ZENworks Reporting Server.

Note: this report cannot be built with the native ZENworks Control Center reporting tools. Also, I'm assuming basic knowledge of the reporting platforms.

Building a ZENworks Reporting 5 (Jaspersoft) Report

To create the exclusion report on the ZR5 Jaspersoft server, do the following:

1. Launch ZENworks Reporting and create a new Ad Hoc View. Select the Asset Management folder from the Select Field page. Then drag License Management > Discovered Products > Discovered Product into the Columns space and License Management > Discovered Products > Standards Category into the Groups space as shown below.

Figure 4 – Jaspersoft Ad Hoc View Setup

2. Next, drag the Standards Category element over to the Filters column. Select Show Menu from the menu next to "A. Standards Category" and select "contains" as the filter type. Then, enter a single hyphen in the data field. All categories from the list above include a hyphen with the exception of "Licensed" which we want to leave out of this report.
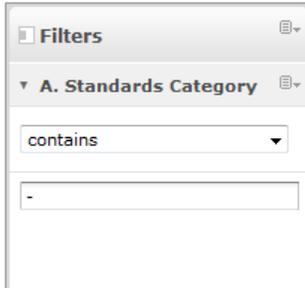

Figure 5 – Filtering the Report

3. The report contains the appropriate data; we just need to sort it. Click the sort button [A Z] in the tool bar and set the sort order to Standards Category followed by Discovered Product, both set to ascending.
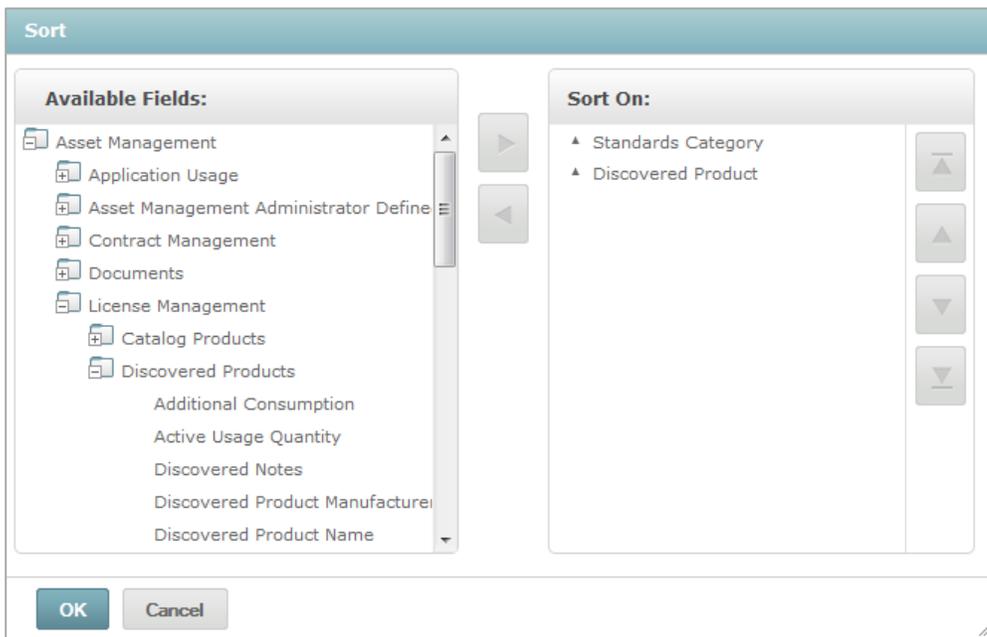

Figure 6 – Sorting the Report Data

4. Edit the report title to "Excluded Software Categorization."
5. From the Save button, select "Save Ad Hoc View and Create Report." Save the report as "Excluded Software Categorization" and the report as "Excluded Software Categorization Report."

When you run the report to share back to me, select the Export button and then the "As XLSX" option. Save the file and send it to bruce@consultbruce.com.
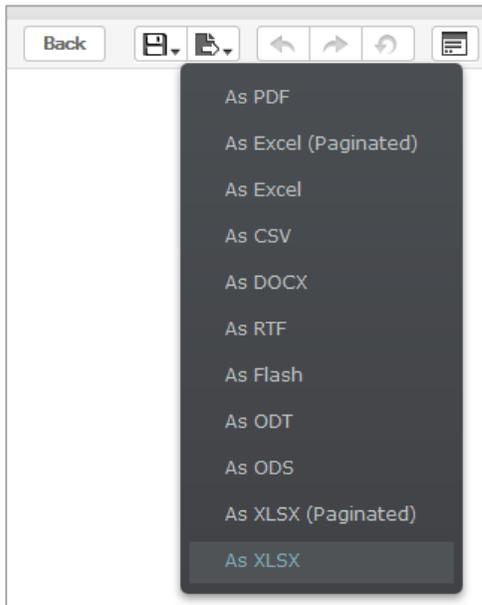

Figure 7 – Exporting the Report Data

Building a ZENworks Reporting Server (BOE) Report

To create the exclusion report on the ZRS BOE server, do the following:

1. Launch ZENworks Reporting Server Infoview from the ZENworks Control Center.

Figure 8 – Launching ZENworks Reporting Server

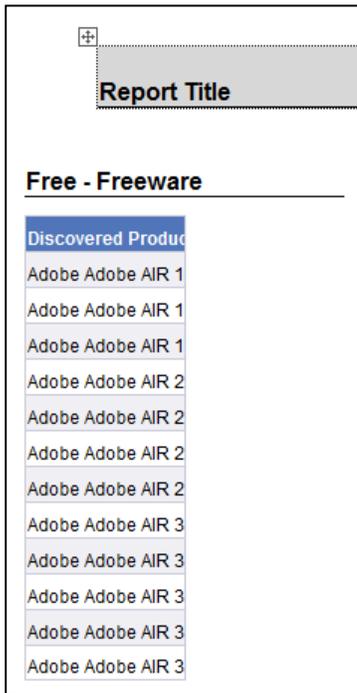2. Select New > Web Intelligence Document to begin creating a report.

3. Navigate to the Discovered Products area of the reporting Universe under the Asset Management class and the License Management subclass.

Figure 9 - Discovered Products in the ZRS Universe

4. Add the "Standards Category" and "Discovered Product" dimensions to the Results Objects list.
5. Add "Standards Category" to the Query Filters list. Then, change the type of filter to "is not null" as shown in the figure above.

6. Click "Run Query" to generate a set of data. This gives us a rough report.

Figure 10 - Unformatted Report

7. Right-click in a data cell of the Standards Category column and then select "Set as Section" from the menu displayed.

Figure 11 - Report by Category

8. Clean-up the report formatting to your satisfaction and enjoy! (Don't forget to save the report!)

Excluded Software Categorization

Free - Freeware

Discovered Product
Adobe Adobe AIR 1.0
Adobe Adobe AIR 1.1
Adobe Adobe AIR 1.5
Adobe Adobe AIR 2.0

Figure 12 - Final Formatted Report