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CIRESON ASSET MANAGEMENT USER GUIDE

USER GUIDE FOR HARDWARE & SOFTWARE ASSET CONFIGURATION
ITEMS

1 Document History

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3 Objective

The “User Guide for Cireson Asset Management” is the second in a set of three documents designed to provide end-to-end guidance for the Cireson Asset Management solution. This guide is designed for organizations who have completed the following steps:

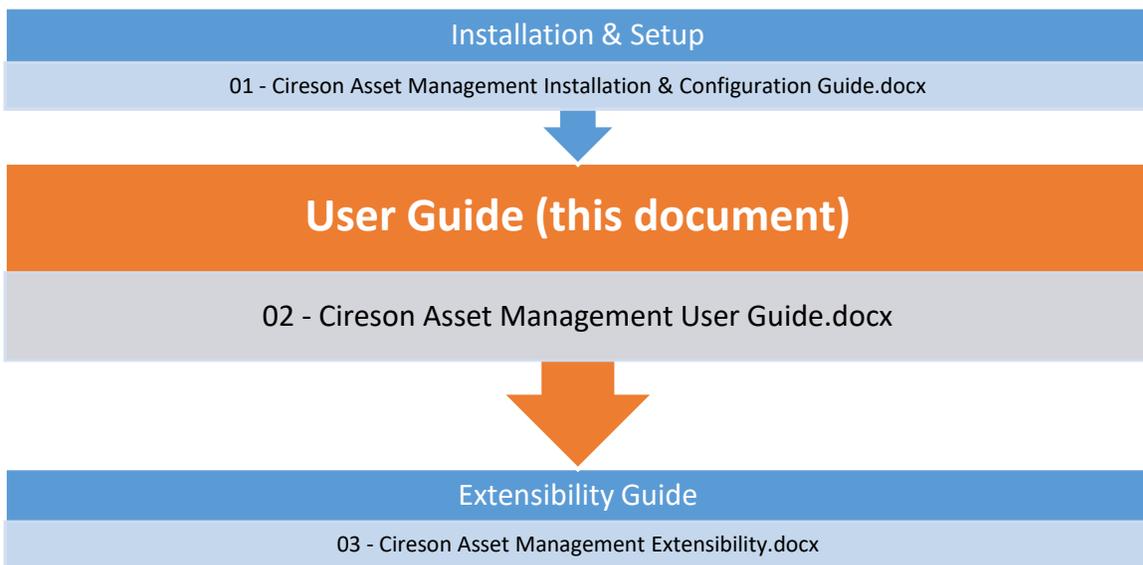
- System Center Service Manager (SCSM) installation
- Imported the Cireson Asset Management Solution (CAM)
- Configured connectors in SCSM to import configuration item and asset data



IMPORTANT NOTE:

If you have not completed these steps, refer to the “Installation and Setup Guide” and other online documentation at <https://support.cireson.com>.

Additional assistance for the Cireson Asset Management product can be found on the Support.Cireson.com support portal in Knowledge Base articles.



This document is intended to be a living document, updated as necessary based on changes and new features in Cireson Asset Management products. Please send feedback on the contents of this document to PACE@Cireson.com.

4 Audience

This document is written for Asset Manager and ITAM stakeholders with responsibility for various aspects for the asset management process. Readers should also be familiar with the System Center Service Manager (SCSM) product and its functionality.

Any readers of this document should have a solid understanding of:

- ITIL and the associated ITIL practices and naming conventions
- Installing of the Cireson Business Management Solution and all its associated products
- Industry standard business practices and procedures in regards to asset management and associated finance

Throughout this document there are many items that deserve special attention and have been identified as important or critical to the success of Asset Management. These are denoted in the following ways:



NOTE:

Notes are used to draw attention to an important piece of information for the reader. Any detail contained within should be carefully read and understood.



Cireson Best Practice:

Best Practice guidance will be shown where ever there is potential for implementation choices to impact on the outcome in a large way. Each organization should consider this advice as it may not be right for every circumstance but instead should be taken as a general advice.



Code Example:

Any script or code example given will be enclosed to ensure simple copy and paste functionality if required.

5 Product Description

The Cireson Asset Management stream consists of four individual products that combine to provide customers with the tools required to assist in creating an outstanding asset management solution.

- **Cireson Asset Management** is the core product for the Cireson Asset Management solution is the Asset Management classes that are added to the SCSM product. To assist in updating asset classes, the other three applications allow asset administrators to update the configuration items easily and quickly.
- **Asset Excel** allows asset administrators to bulk enter and edit asset records within the common and well known interface of Microsoft Excel.
- **Asset Import** allows for the creation of connectors within SCSM that can import, on a schedule, or on demand, data from known data sources.
- **Asset Barcode** gives asset administrators access to barcode scanning and updating of assets via mobile devices (iOS and Android). Barcodes can be scanned using a range of Bluetooth barcode scanners. Specifically, the [Socket Mobile 7Ci](#) scanner is the only supported model at this stage. Additional details of supported barcode scanners can be found within the installation instructions of the Asset Scanner App.
(<https://support.cireson.com/KnowledgeBase/View/1171#/>)

6 Installation

The Asset Management Solution components do not need to be installed in order. However, as the Asset Management classes are used to store the data that is imported it is recommended to install the Asset Management classes first before attempting to install or configure any of the apps capable of importing data, such as Asset Import or Asset Excel.

Detailed installation instructions are available in “**01 – Cireson Asset Management Installation & Setup Guide.docx**” listed in section 3 of this document. This document can be obtained by contacting your Cireson account manager.

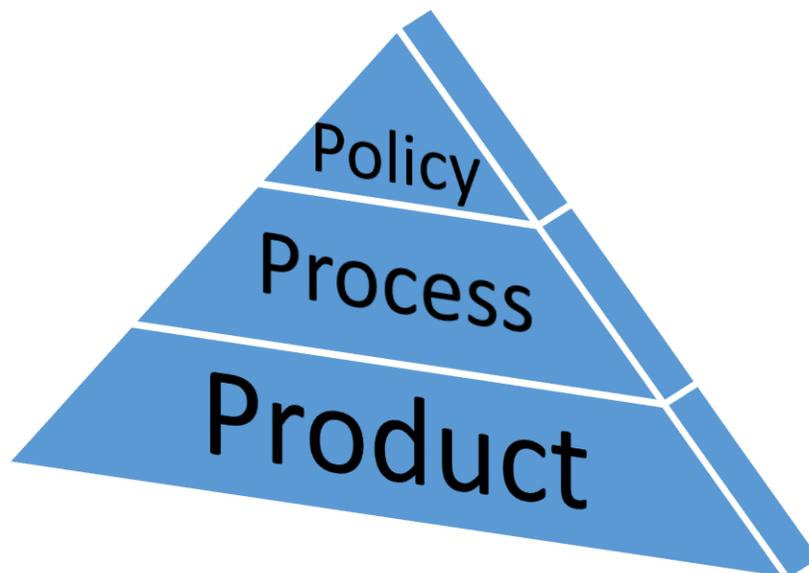
7 Planning Asset Management

A common question from IT departments and Asset managers alike is where to start when planning IT Asset Management. This is a very important question as there can often be just as a compelling reason NOT to do something than there is to actually do it.

Cutting out unnecessary process and data can help immensely when considering the day-to-day operation and maintenance of an Asset Management system as well as its ability to be easily integrated in to business processes.

7.1 A Step-By-Step Approach to Asset Management

A simple approach to start thinking of Asset Management is the following three step process.



These three basic topics can drive the conversation between Asset Managers, the IT department and the business in general to make sure that critical components are not missed, but also, unimportant areas can be removed or ignored.

7.1.1 Policy

Most businesses will have corporate policies that has been mandated for use throughout the company or have industry policies that they must comply with. (SOX, HIPPA, ITAR etc.) Many times these policies have specific reporting, recording and audit requirements that must be adhered to. Starting with these policies it is quick and easy to determine those items that are critical to the business in regards to Asset Management.

Review all policy documents, both internal and industry based, and document any specific requirements that attain to Asset Management. These will be used in the following sections to determine the correct process and product.

For companies without formal governance or requirements around asset recording, audits or reporting this can be an excellent time to have these types of discussions as a business and potentially even generate new policy to drive future decisions and to have a common goal for all IT systems to adhere to. Lack of formal governance can also free up the Asset Manager to focus on what is important to the business outcomes they require as well as those of the IT department.

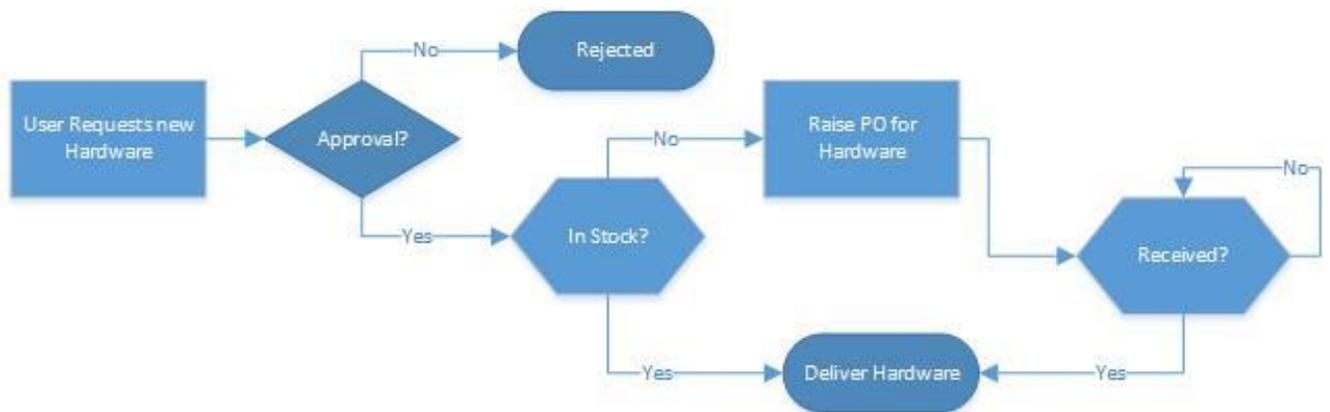
7.1.2 Process

Once all data “Must Haves” have been determined from a policy review it is then possible to describe the process that is required to record the specific data and report in a way that generates useful business focused information.

Process description can be as simple as a list of tasks that people must undertake and the events that trigger the action or it can be detailed flowcharts that show not only process stakeholders but also systems such as E-Mail, ConfigMgr collection etc.

To reduce complication and to make it easier for these processes to be read by anyone, attempt to reduce each large process down in to smaller processes. This has an added benefit of being re-usable across other processes if they utilize a similar approach or if a processes triggers the same event more than once in the end-to-end process.

An example for a process would be the following:



7.1.3 Product

Once the processes have been mapped out and clearly understood by everyone (to reduce rework and missed steps) the processes can then be mapped to the product.

In the case of this document, the product in question is the Cireson Asset Management solution however, a similar approach would work regardless of the chosen product the will be included in the business processes.

Many fields that make up the information that is required by Asset Managers and IT Organizations alike are actually stored as relationships between CI's. For example, instead of recording a Cost Center value against each hardware asset, a Cost Center CI can be related to a hardware asset. This allows for reuse of the Cost Center value across multiple assets and adding more detail to the cost center CI. These relationships allow for more detailed automation or reporting opportunities in the future.

While some specific fields may not be available "Out-of-the-box" in the data schema for Configuration Items (CI's) it is often possible to use other fields that are close to the required field. An example is Product Owner. If an Asset Manager was wanting to record this information, then this could be mapped to the Custodian field.

Other fields that might be required can be added to the schema by extending the CI class using the authoring toolkit. Extending the schema of a CI is covered in the third document in this series.

7.2 Project Plan

With a step-by-step approach it is important to make sure each of the steps are clearly defined and planned out ahead of time to make sure the required pieces of the puzzle are there when required and there is no need to "Back Track" to create the core pieces before moving forward.

8 Building Asset Management

This section describes some different approaches to asset management that are dependent on the requirements of the business that is implementing it. Many asset management systems are instigated and maintained to comply with industry requirements or fulfill a given legal requirement etc. (See [Policy](#) section for a clearer definition).

With compliance to any required policy in mind it is a simple task to then map out what information is and isn't important to record against hardware and software assets as most times these are stipulated in the policy itself. However, there is often much more functionality and business value that can be derived from asset management that goes beyond any policy requirements.

There are many areas that should be considered as part of the planning phase of an Asset Management project. (Far too many to cover in this document). This section discusses several of the main points that may be overlooked when planning an Asset Management project and making the most of any investment made.

8.1 Hardware Assets

8.1.1 Security \ Legal

Ask any IT Professional what they think of when you talk about computer security and the majority of time they will respond with software of some description. Operating Systems, Plugins, Bugs, vulnerabilities.... The list is endless. However, hardware security is just as important and even more so in a mobile world that we live in. Therefore, tracking BIOS version information or makes of TPM chips may be of a concern to the company and therefore would need to be tracked somewhere for easy retrieval if required.

Tracking the physical location of hardware that is often taken out of the office (Laptop, phone, tablet etc.) may be required to ensure safe recovery of hardware in the case of a lost device. The location information can often be tracked using management software such as MDM tools for phones and tablets or System Center Configuration Manager for Windows devices. Having the ability to quickly retrieve this information can be crucial to a successful recovery or security wipe of the device.

When hardware is stolen, time is often a factor in securing, wiping or recovering hardware and any delay in having to retrieve disjointed information from secondary systems can be the difference between success and failure.

8.1.2 Budget Planning

The ability to know what hardware the company current owns or leases allows for easy reporting by managers at all levels to know what is currently, deployed, available and under or even over supplied. Tracking of warranty information and purchase dates allows asset managers to plan the routine replacement of hardware before they fail or become unsupported.

Maintenance tasks may also need to be identified and tracked against hardware devices for things such as filter cleaning, dust removal or backup\disaster recovery procedures. Knowing what hardware requires this maintenance and when these are due can often be tracked in yet another disjointed location causing possible errors that could lead to failure to perform critical maintenance.

8.1.3 Resource Planning

Being able to track hardware purchases over time and their status (Deployed or in stock) can allow asset managers to redeploy unused hardware rather than purchasing new hardware. This can be a large cost saving to the company in hardware purchase costs. Conversely, ensuring enough standby hardware is available for critical or important hardware can be planned well ahead of any business-critical outage. Easy and simple reporting on stock levels and hardware statuses can assist an asset manager to ensure these business issues can be prevented.

8.1.4 Auditing

Any good asset management system should be able to provide reports that allow asset managers to complete a physical audit from time to time; however, a physical audit can be costly and time consuming for not much return on investment for the business. Cutting down the number of hardware devices that need to be audited can be a great way to save on time, effort and money. Consider only auditing hardware that the internal systems have not "Seen" for a given length of time. This data can be provided by Configuration Manager and Active Directory and recorded against hardware assets to allow audit reports to ignore hardware that has had a successful ConfigMgr inventory within a certain date range.

8.1.5 Support

Support are often called upon to assist with potential hardware warranty claims or repairs. Warranty information may be stored in a different location than the main ITSM tool therefore taking more time and effort and can also be less accurate. Recording accurate warranty detail against hardware assets can assist in support calls to know who to route support calls to or even if the hardware can be supported due to being outside of a valid warranty.

Tracking of lease information can often be held within a separate purchasing system. Again, this can lead to confusion and disparity of information as to the contact, lease contract and current support status of the device. Recording lease information within the asset management system and having it linked to the companies ITSM tool allows support to retrieve this type of information accurately and quickly.

8.2 Software Assets

8.2.1 Licenses

Ensuring that the correct level of licensing for an organization can save large sums of money from over purchasing licenses to costly audits by the software manufacturers. By tracking accurate license data against software assets it is possible to report on numbers of installation instances against number of licenses purchased quickly and accurately

8.2.2 Usage

By combining asset management with the system center platform, it is possible to track not only the installation count of a software asset but the frequency of use of those installations allowing asset managers to make decisions on recovering license from installation that no longer require the software. This can potentially save tens of thousands of dollars in licensing costs.

8.2.3 Ownership

While tracking seat count of a software asset is common, it may also be required to allocate certain software assets to only one department, cost center or location within a business. Depending on the software asset it may even need to be assigned to a particular PC or user.

Tracking who or what is authorized to install and use the particular software asset can assist to ensure licenses are not over used, or are in breach of end user license agreements.

8.2.4 Security (Versioning)

When software security vulnerabilities are announced it is often a difficult task to track down what machines have the particular version of the affected software installed so remediation actions can be taken. By tracking the file specific version numbers against software assets, rather than just recording them as the product name, allows asset administrators to respond quickly and accurately the number of vulnerable machines that are within the business.

8.2.5 Cost Recovery

Often businesses may have internal funding processes that make each department responsible for the purchase and support costs of software and hardware. Tracking organization and cost center information accurately against software and hardware assets allows asset managers to report on accurate use and purchase counts when looking to recharge use or ownership of assets.

9 Adding Additional Asset Management Fields

Once a plan has been formulated to know what information must be stored and related to each other it is possible to start to create the individual records required to for the asset management system.

If possible, ensure any additional fields that do not exist in the out-of-the-box database schema are extended or added to the asset management classes before proceeding with creating the asset items. This is not a critical step as the extension can be placed in to the schema later, but addressing this issue now can assist in reducing rework for such tasks as importing data at a later stage.

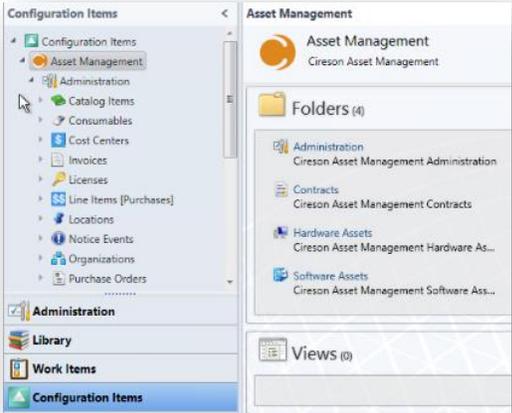
For available fields for each of the Cireson Asset Management classes, please see section 11 in this document.

To learn how to extend the SCSM and Cireson Asset Management database schema to allow for additional custom fields please refer to the 3rd document in this series titled, Cireson Asset Management Extensibility, that is described in section 3 of this document.

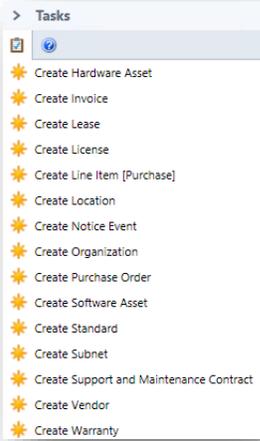
It may be necessary to briefly read the rest of this document and returning to this section before commencing any creation of database class extensions or importing asset data.

10 Creating and Editing Configuration Items

There are a range of configuration items that are added to the System Center Service Manager product when the Cireson Asset Management Solution is installed. These are all listed in the Configuration Items workspace within the SCSM console.



Once the Asset Management node is selected it is possible to create any of the configuration items covered in this section by selecting the corresponding task from the tasks pane shown below.



While the configuration items are grouped in to four nodes and all sub items listed alphabetically in the console it is better to break down the configuration items, and how to create and edit them, by grouping them in to logical types of CI's. By doing this, CI's that have a function in common with each other are explained and dealt with together and helps in understanding their over-all function.

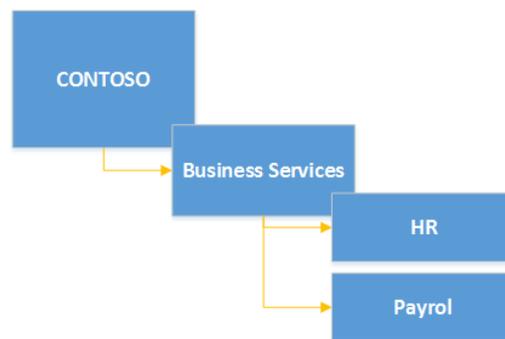
10.1 Organizational Cl's

Organizations, Locations and Subnets are used to describe the physical location of assets that are to be managed with the Cireson Asset Management solution. In this section, we will discuss the function of each of these organizational Cls in tracking the location and ownership of assets.

10.1.1 Organizations

Organizations are a way to break up companies based on a logical structure of the business. This can be businesses, departments or groups within a parent company.

For example: An organization like Contoso may be the parent organization. The Contoso organization might have a sub organization like Corporate Services and further still, this organization may have several child organizations. This allows organizations to build granular data that can be used to associate to any required Cl.



For a description of each of the fields that make up the Organization configuration item, please see section 13.1 13.1 in this document.

Cireson Best Practice:

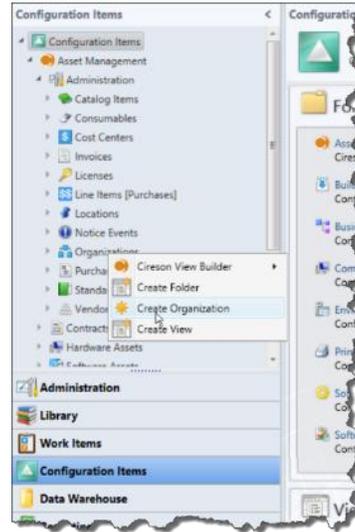


It is important to ensure only organization levels that are useful for the business to track are recorded. It may not be useful to track each asset to a specific project group but it may be important to track it to a department.

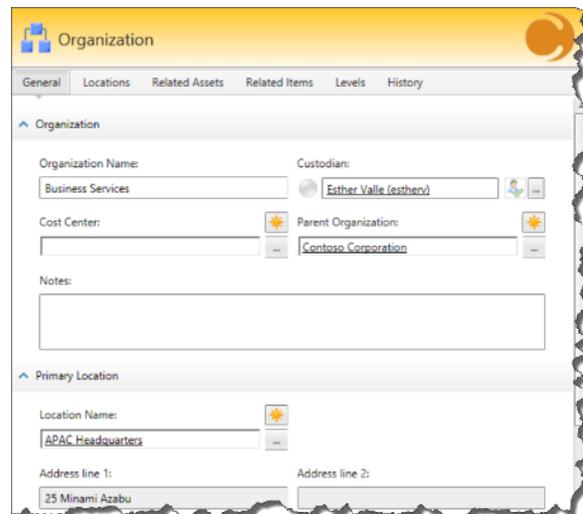
More complex structures can often be hard to visualize or keep track of, so it is recommended to keep the organizational structure as flat as possible with as few child items as is functional.

To create an Organization CI:

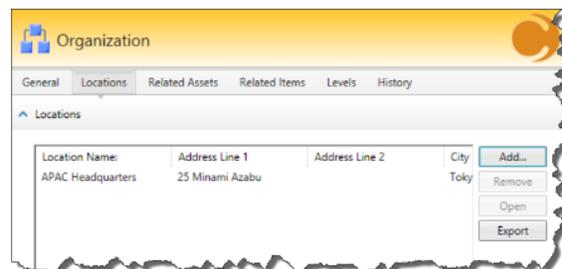
1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node
3. Expand the **Administration** node.
4. Right click the **Organizations** node and select **Create Organization** from the drop down menu.



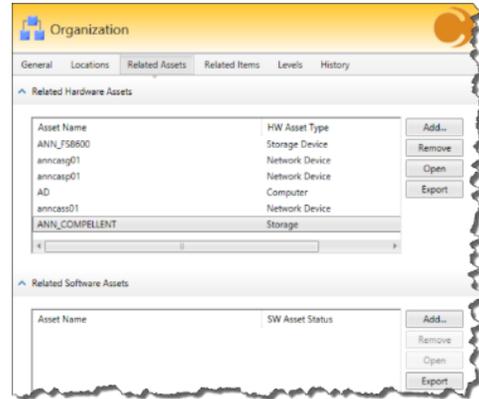
5. Enter the Organization details in the general tab of the form that appears.
6. If the Organization that is being created is the parent organization of others, the **Parent Organization** field should remain empty.
7. If the Organization that is being created is a child Organization of another, the parent organization will be able to be selected via the Parent Organization field.
8. Fields such as Cost Center (Section 10.4.1) and Location Name (Section 10.1.2) must be created first before the can be related to an organization.



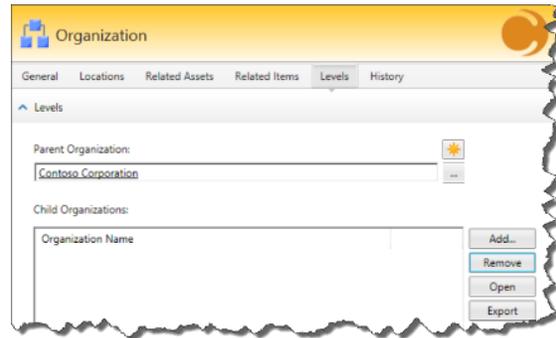
9. Select the Locations tab to view any additional locations, other than the primary location, that are related to this organization.



-
10. The **Related Assets** tab shows lists of all hardware and software assets that are related to the organization. A list of related assets can be exported as a comma delimited file.



-
11. The **Levels** tab provides a simple way to add child organizations or to edit the primary organization. A list of child organizations can be exported as a comma delimited file.

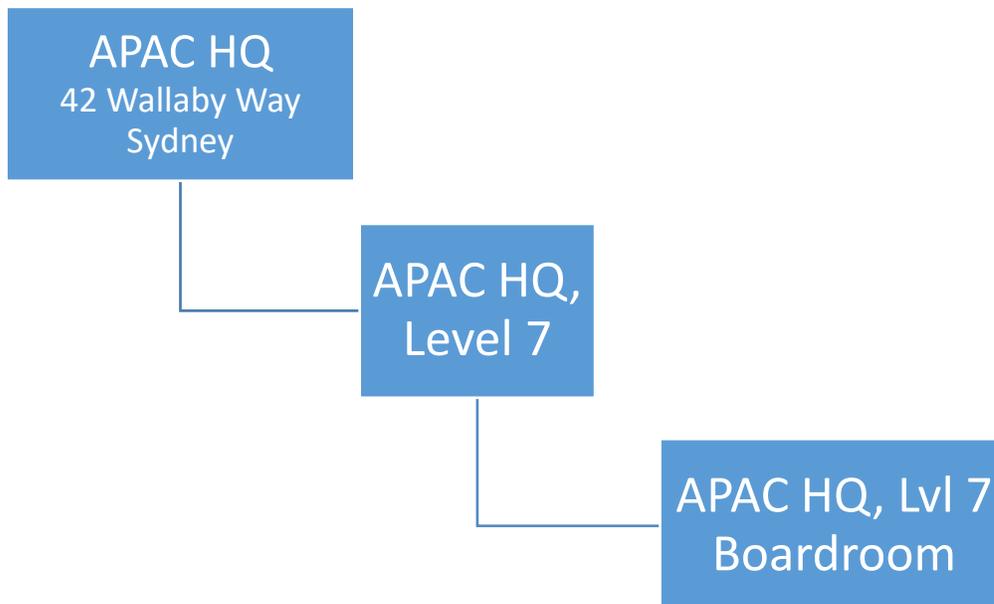


10.1.2 Locations

Locations are used to track specific locations that an organization may require to associate an asset to. Location CI's can be split over different levels to allow more granular location data if required.

For example: A Location of Asia Pacific Head Quarters might be based in 42 Wallaby way, Sydney Australia.

A location of Level 7, 42 Wallaby way may be created as a child of the Head Quarters location. Further still, a location of Board Room, Level 7, 42 Wallaby Way Sydney may be a child of the previous location. This allows organizations to build granular location data that can be used to associate to any required CI.



Cireson Best Practice:



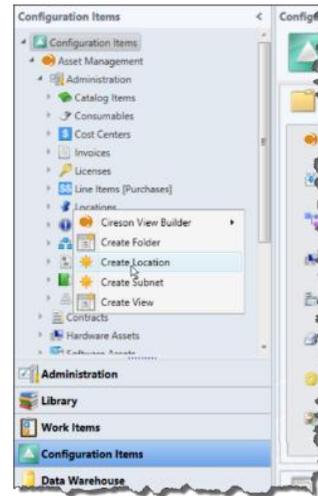
It is important to ensure only location levels that are useful for the business to track are recorded. It may not be useful to track each asset to a specific table but it may be required to track an asset to a floor or building.

As parent locations are not displayed in a simple way on child items it is recommended to include the Parent name within the Child Items names also.

For a description of each of the fields that make up the Location configuration item, please see section 13.2 in this document.

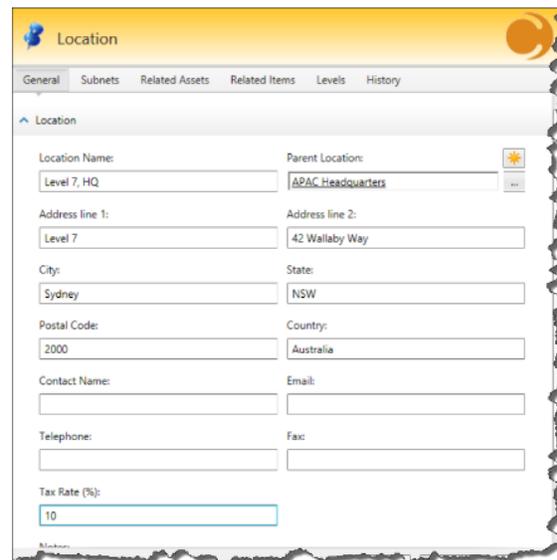
To create a Location CI:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Location** node and select **Create Location** from the drop down menu.

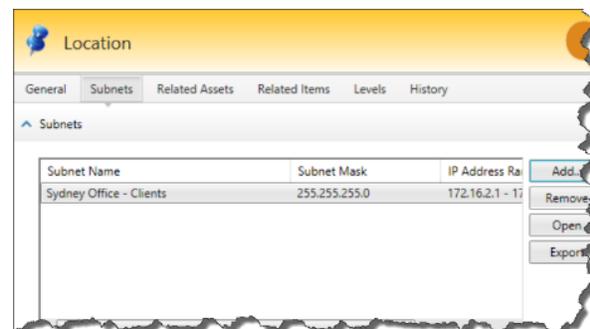


5. Enter the Location details in the general tab of the form that appears.
6. If the Location that is being created is the parent location of others, the **Parent Location** field should remain empty.
7. If the location that is being created is a child location of another, the parent location will be able to be selected via the Parent location field.

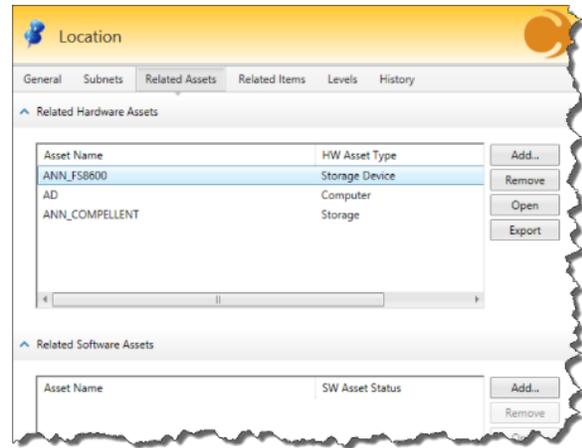
For a description of each of the fields that make up the Organization configuration item, please see section 13.1 in the document.



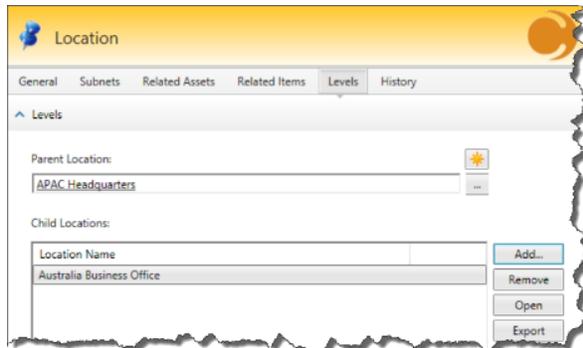
8. The Subnets tab shows lists of all subnets that are related to the location. When a computer CI reports its IP address via the ConfigMgr or Operations manager connector it can be automatically associated to the related location if enabled in the Cireson Asset Management Settings.
9. A list of related subnets can be exported as a comma delimited file.



10. The **Related Assets** tab shows lists of all hardware and software assets that are related to the location. A list of related assets can be exported as a comma delimited file.



11. The **Levels** tab provides a simple way to add child locations or to edit the primary location. A list of child locations can be exported as a comma delimited file.



10.1.3 Subnets

The Subnets configuration item is used to identify a network subnet within an organization that is used by computers. The subnet CI can be associated to a location CI therefore allowing the system to identify the location associated with a computer based in the IP Address that is reported for the computer via Configuration Manager.

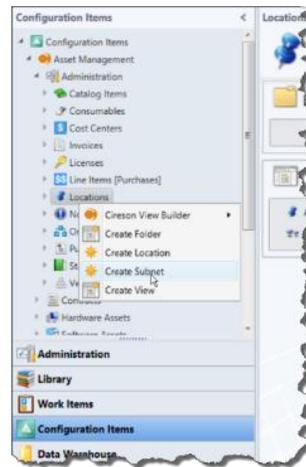
Cireson Best Practice:



For Subnets to be useful in this solution the IP Ranges of subnets must be configured and maintained in such a way as to identify a specific subnet with a specific physical location. This does require a strict maintenance processes to ensure accurate data.

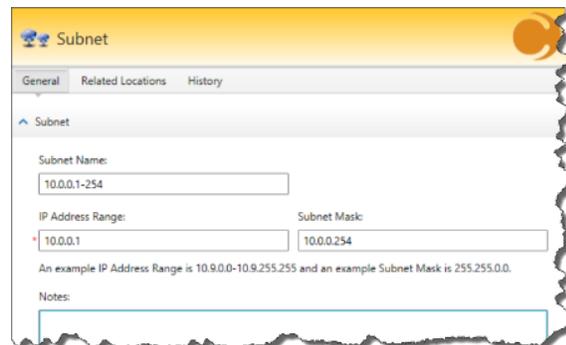
To create a Subnet CI:

1. Within the SCSM console, select the **Configuration Items** workspace
2. Expand the **Asset Management** Node
3. Expand the **Administration** node
4. Right click the **Location** node and select **Create Subnet** from the drop down menu



5. Enter the Subnet details in the general tab of the form that appears.

For a description of each of the fields that make up the Subnet configuration item, please see section 13.1 in this document.

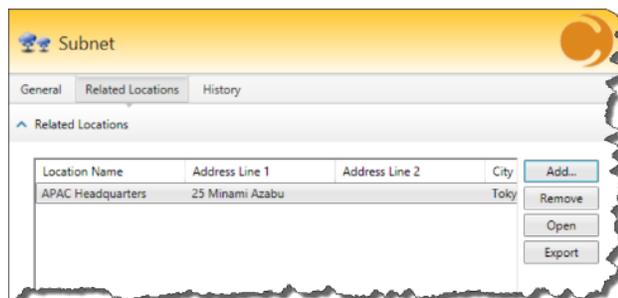




Cireson Best Practice:

Subnet names should remain consistent with AD Sites and Services to ensure minimal confusion between IT support groups.

6. The **Related Locations** tab shows lists of all locations that are related to the subnet. A list of related locations can be exported as a comma delimited file.



Cireson Best Practice:

A subnet can have multiple locations associated to it, but to ensure accurate location data associated to computer CI's it is best to associate a single location with a subnet

10.2 Vendors

The Vendor CI is for tracking key contact information for sales or support supply companies. This is a central place to keep track of these critical contact details to ensure the correct information is available when required by anyone who may require it.

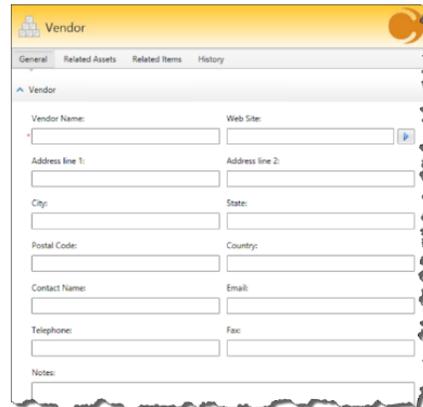
To create a Vendor CI:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management Node**
3. Expand the **Administration** node.
4. Right click the **Vendors** node and select **Create Vendor** from the drop down menu.



5. Enter the Vendor details in the general tab of the form that appears.

For a description of each of the fields that make up the Organization configuration item, please see section 13.1 in the document.



6. Once the **Vendor** record is created it can be associated with Hardware and Software Assets as well as work items.

Cireson Best Practice:



Naming vendors the same as their official trading name can assist when reconciling invoices and associating hardware items at a later date. The Notes field is a great place to store vendor logon information as only Asset Managers can see this view.

10.3 Contracts

The Cireson Asset Management Solution supports the following contract types:

- Lease
- Warranty
- Support and Maintenance

10.3.1 Master Contracts V's Standard Contracts

Contracts may be created as a standard contract, or as a master contract. These types of contracts are described in detail in this section.

10.3.1.1 Master Contracts

Master contracts allow asset administrators to reduce the need to track individual contracts across multiple assets that have the same property values, and are covered by the same blanket agreement with the original equipment manufacturer (OEM). This is common in warranty coverage of desktop computers and server hardware. Creating master contracts is a way of being able to create contracts, of any sort, that do not have a specific start and end date, but rather rely on the received date of the asset to calculate the life of the contract in relation to that asset.

Example: If an organization purchased 100 laptops all with a 3 year warranty a single master contract would track a single 3-year warranty with the manufacturer. The start and end date of the warranty would depend on when the individual laptop in question was received.

Cireson Best Practice:



While it is possible to create and track individual contracts for each device, it is recommended by Cireson to create master contracts where possible to reduce administrative overhead.

It is also recommended to only create specific contracts when there is a given need or potential financial or support impact.

10.3.1.2 Standard Contracts

Standard contracts track an individual lease, warranty or support and maintenance contract. This can be useful for Asset Managers to track:

- High value leases and their reoccurring payment or renewal cycle.
- Warranty status of business critical components as part of a DR or Risk mitigation plan.
- Support and Maintenance contracts are useful for forecasting operation expenditure, life time of a system and validity of DR or Risk mitigation plans that may include vendor interaction and support.

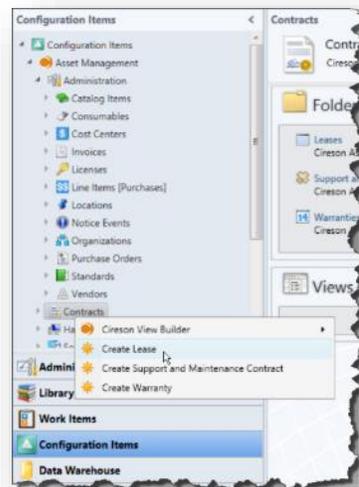
10.3.2 Creating Leases

The Lease CI's contain details about any lease relating to a hardware or software asset. Quite often within organizations, applicable leases are difficult to find or to extract details from let alone relate back to specified tracked assets. This CI allows for the tracking of leases in a single location for an organization.

For a description of each of the fields that make up the Lease configuration item, please see section 13.5 in this document.

To create a Lease CI:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Right click the **Contracts** node and select **Create Lease** from the drop down menu.



4. Enter the Lease details in the general tab of the form that appears.
5. A lease **Start** and **End** date for the contract must be entered unless the contract is set as a Master Contract. In the case of a Master Contract, a **Master Contract Span** and **Contract Unit** must be entered. This will be used to calculate the end date of the lease, based on received date of the Hardware Assets it is associated with.

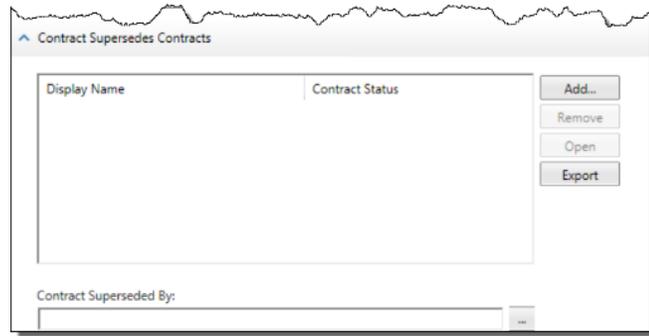


Important Note:

The contract **Master Contract Unit** is the unit value of the Contract span in either Days, Months or years.

6. Optionally, click the **Finance** tab and associate any other classes to record the **Cost Center** and **Custodian** that are responsible for this Lease and a purchase order and Invoice that the lease was purchased on.
7. Contract Cost should also be recorded here to give accurate reporting at a later date. **Currency Types** (such as USD or GBP) can be added within **Lists** on the Library workspace.

-
8. Recording which leases this record replaces allows historical tracking of the leases as they may be renewed, merged or just outdated by a superseding contract.



Important Note:



A lease contract can supersede many contracts but can be superseded by only a single contract.

9. Once the **Lease** record is created it can be associated with Hardware and Software Assets as well as work items.
-

Naming Best Practices for Leases

Expiration date is not strictly necessary in the lease name, as that info will be entered in the start and end date fields. The naming convention used depends on the existing naming convention a company may already be using, and the need to make it unique. For a **Master Lease**, avoid using the date within the name.



It is best to avoid names with dates, dollar values or specific related assets, locations, cost centers or organizations in the name as these may change over the life of the lease.

Standard Lease Example: "Juniper Networks Equipment Lease – US"

Master Contract Lease Example: "Dell Laptop 3 Year Lease"

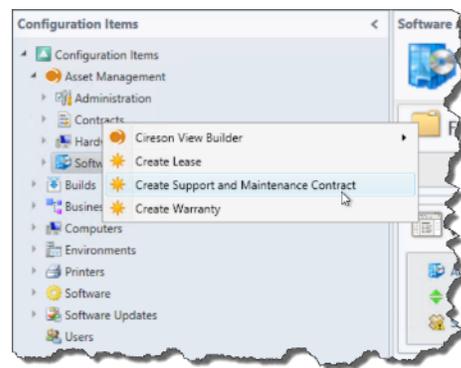
10.3.3 Creating Support and Maintenance Contracts

Like the Leases CI, the Support and Maintenance Agreements CI is a central storage location for all Support and Maintenance agreements that may exist to support a hardware or software asset. By tracking all Support and Maintenance Agreements in these CI's it is then possible to provide workflows that alert when contracts are about to expire. Thereby reducing risk to the organization of having a business critical asset not covered for support and maintenance.

For a description of each of the fields that make up the Support and Maintenance configuration item, please see section 13.6 in this document.

To create a Support and Maintenance Agreement Contract CI:

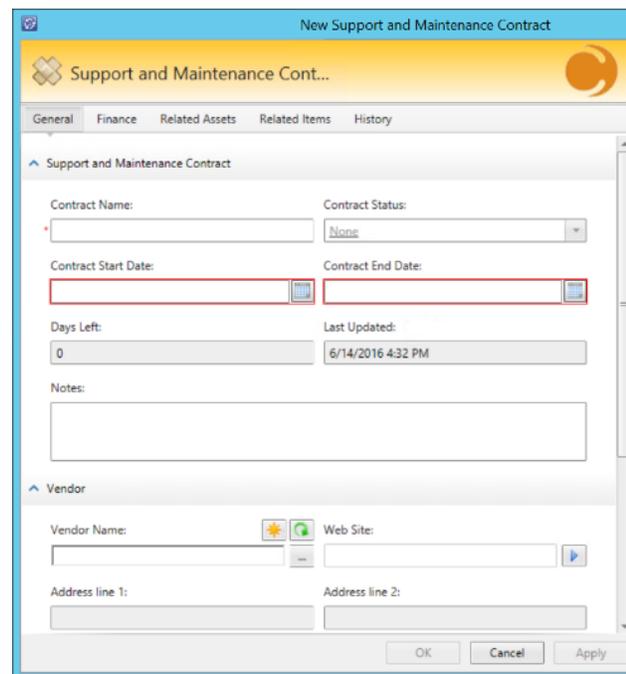
1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Right click the **Contracts** node and select **Create Support and Maintenance** from the drop down menu.



4. Enter the Support and Maintenance Contract details on the General tab.
5. A **Contract Name** as well as the **Start** and **End** dates are required fields.
6. Select an existing **Vendor** or create a new one to relate as the supplier of this contract.

For information on creating a Vendor record, please see section 10.2 in this document.

For a description of each of the fields that make up the Support and Maintenance configuration item, please see section 13.6 in this document.

A screenshot of the 'New Support and Maintenance Contract' form. The form has a title bar 'New Support and Maintenance Contract' and a header 'Support and Maintenance Cont...'. Below the header are tabs: 'General', 'Finance', 'Related Assets', 'Related Items', and 'History'. The 'General' tab is active. The form contains several fields: 'Contract Name' (text box), 'Contract Status' (dropdown menu with 'None' selected), 'Contract Start Date' (calendar icon), 'Contract End Date' (calendar icon), 'Days Left' (text box with '0'), and 'Last Updated' (text box with '6/14/2016 4:32 PM'). There is a 'Notes' text area. Below these is a 'Vendor' section with fields for 'Vendor Name' (with a search icon), 'Web Site' (with a search icon), 'Address line 1', and 'Address line 2'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

Naming Best Practices for Support and Maintenance Contracts

Naming conventions that are currently in place for existing support and maintenance contracts are best to maintain consistency with existing processes. However, it is important to ensure that any name is unique, as there is no master contract for support and maintenance.

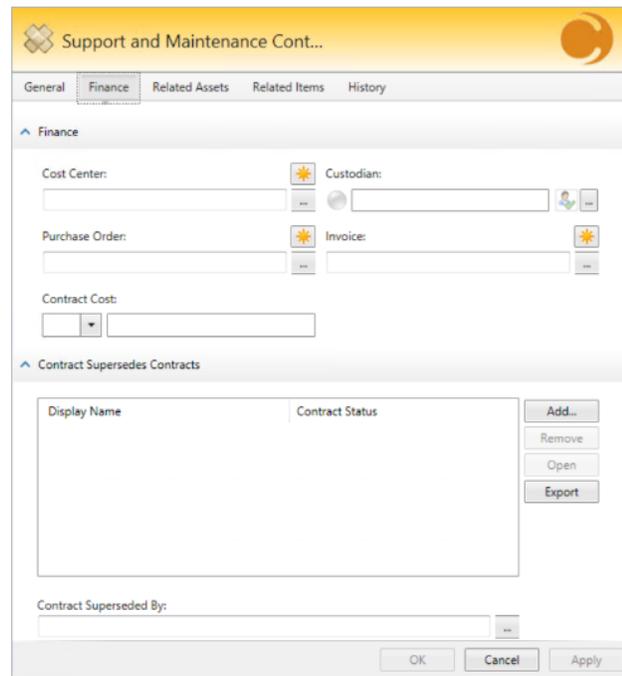
Best practice is to avoid names with dates, dollar values or specific related assets in the name as these may change over the life of the contract.

Example: "**Dell Workstation Hardware Support EXP 03-2017 - EU**".

7. Select the **Finance** tab.



8. Select an existing or create a new CI for:
 - a. **Cost Center**
(Section Cost Centers 10.4.1)
 - b. **Purchase Order**
(Section 10.4.2)
 - c. **Invoice** (Section 10.4.3)
9. Enter a **Custodian** User CI for the person who is responsible for the contract.
10. Select a **Currency** and enter a **Contract Cost** amount as a record of the costs involved with this particular contract.
11. If this new contract supersedes an older contract or contracts, select each Contract CI that is superseded. The system will automatically supersede the contracts selected and update the relationships within them.

A screenshot of the 'Support and Maintenance Contract' window with the 'Finance' tab selected. The window has a yellow header with a gear icon and the title 'Support and Maintenance Cont...'. Below the header are five tabs: 'General', 'Finance', 'Related Assets', 'Related Items', and 'History'. The 'Finance' tab is selected. Below the tabs is a sub-header 'Support and Maintenance Contract' with a small upward arrow. The main area contains several fields: 'Cost Center:' with a dropdown menu and a search icon; 'Custodian:' with a dropdown menu and a search icon; 'Purchase Order:' with a dropdown menu and a search icon; 'Invoice:' with a dropdown menu and a search icon; 'Contract Cost:' with a dropdown menu and a text input field. Below these fields is a section titled 'Contract Supersedes Contracts' with a table with columns 'Display Name' and 'Contract Status'. To the right of the table are buttons: 'Add...', 'Remove', 'Open', and 'Export'. At the bottom of the window is a 'Contract Superseded By:' field with a dropdown menu and a search icon. At the very bottom are 'OK', 'Cancel', and 'Apply' buttons.



Important Note:

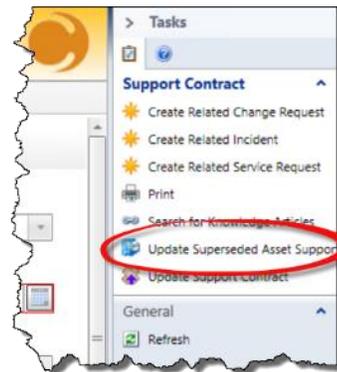
A Support and Maintenance contract can supersede many contracts but can be superseded by only a single contract.

12. Once the **Support and Maintenance** record is created it can be associated with Hardware and Software Assets as well as work items.

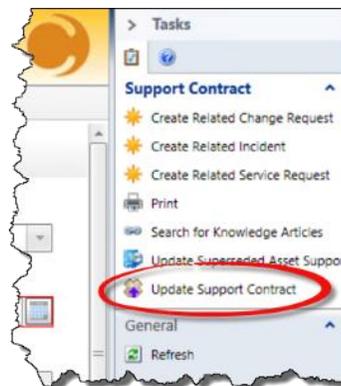
13. The Cireson Asset management workflow will run on its schedule and will update the Support Contract details including, Days Left, Last Updated and Superseding contracts.

Workflow configuration instructions are available in "**01 – Cireson Asset Management Installation & Setup Guide.docx**" listed in section 3 of this document. This document can be obtained by contacting your Cireson account manager.

14. To trigger a manual update of the Superseding contracts, click the **Update Superseded Asset Support Contracts** task at the right of the console screen.



15. To trigger a manual update of the contract details such as, Days Left and Last Updated click the **Update Support Contract** task at the right of the console screen.



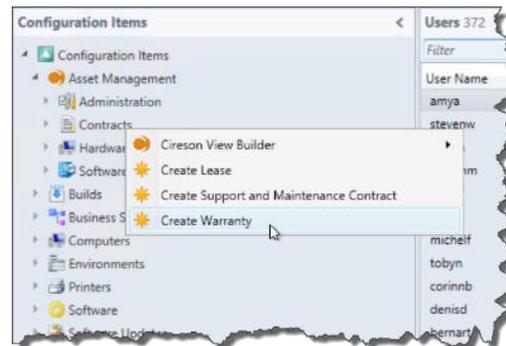
10.3.4 Creating Warranties

While Warranties are usually not as mission critical as support and maintenance agreements are they still do provide a level of protection to organizations assets. Again, by being able to store all of these warranties in a single location it is possible to provide workflows that alert when assets are reaching the end of their warranty period. This allows organizations to plan potential replacements of assets to ensure business continuity in the event of functional failure of the asset.

Tracking Warranties also allows for asset managers and cost center owners to identify hardware, and cost of that hardware, that is potentially due for replacement within a given period of time. This can greatly improve that accuracy of budgeting for standard lifecycle replacement of hardware.

To create a Warranty contract:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Right click the **Contracts** node and select **Create Warranty** from the drop down menu.



4. Enter the Warranty details on the General tab.
5. A **Warranty Name** as well as the **Start** and **End** dates are required fields.
6. Choose if this Warranty is to be a **Master Contract**.
(For more details on the difference between Standard and Master contracts please see section 10.3.1 earlier in this document.)
7. Select an existing **Vendor** or create a new one to relate as the supplier of this contract.

For information on creating a Vendor record, please see section 10.2 earlier in this document.

For a description of each of the fields that make up the Warranty configuration item, please see section 10.3.4 in this document.

Master contracts allow asset administrators to reduce the need to track individual contracts across multiple assets that have the same property values, and are covered by the same blanket agreement with the original equipment manufacturer (OEM).

To create a master contract:

1. Select the **Master Contract** check box
2. Enter a **Contract Span** and a **Unit** of time for the Contract Span.

(For Example: 3 Years)

Naming Best Practices for Warranty Contracts

Best practice is to avoid names with dates or dollar values in the name as these may change over the life of the contract.

Standard contracts should have additional specific information regarding the hardware that the warranty applies to.

Standard Warranty Example: "**Lenovo W541** – *<Serial Number or Asset Tag>*"

Master contracts should be generic yet contain information about duration and what the warranty applies to.

Master Contract Example: "**3 Year Dell Laptop Warranty**"

3. Select the **Finance** tab



4. Select an existing or create a new CI for:
 - a. **Cost Center**
(Section Cost Centers 10.4.1)
 - b. **Purchase Order** (Section 10.4.2)
 - c. **Invoice** (Section 10.4.3)
5. Enter a **Custodian** User CI for the person who is responsible for the contract.
6. Select a **Currency** and enter a **Contract Cost** amount as a record of the costs involved with this particular contract.
7. If this new contract supersedes an older contract or contracts, select each Contract CI that is superseded. The system will automatically supersede the contracts selected and update the relationships within them.

A screenshot of the 'Warranty' application window, showing the 'Finance' tab. The window has a title bar with '14 Warranty' and a logo. Below the title bar are tabs for 'General', 'Finance', 'Related Assets', 'Related Items', and 'History'. The 'Finance' tab is active. The main content area is titled 'Finance' and contains several fields: 'Cost Center' with a dropdown arrow, 'Custodian' with a search icon and a text box, 'Purchase Order' with a search icon and a text box, 'Invoice' with a search icon and a text box, and 'Contract Cost' with a dropdown arrow and a text box. Below these fields is a section titled 'Contract Supersedes Contracts' which contains a table with columns 'Display Name' and 'Contract Status'. To the right of the table are buttons for 'Add..', 'Remove', 'Open', and 'Export'. At the bottom of the window are 'OK', 'Cancel', and 'Apply' buttons.



Important Note:

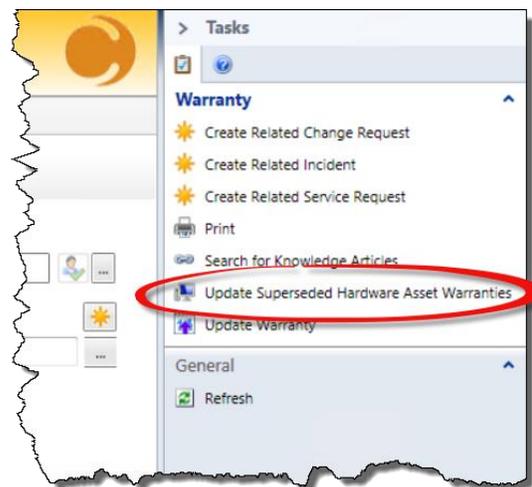
A Warranty contract can supersede many contracts but can be superseded by only a single contract.

8. Once the **Warranty** record is created it can be associated with Hardware and Software Assets as well as work items.

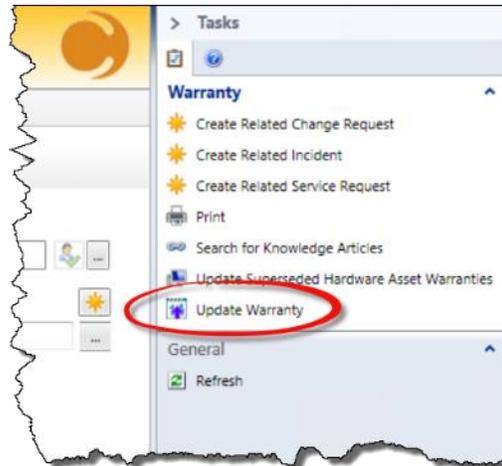
9. The Cireson Asset management workflow will run on its schedule and will update the Warranty Contract details including, Days Left, Last Updated and Superseding contracts.

Workflow configuration instructions are available in "**01 – Cireson Asset Management Installation & Setup Guide.docx**" listed in section 3 of this document. This document can be obtained by contacting your Cireson account manager.

10. To trigger a manual update of the Superseding contracts, click the **Update Superseded Hardware Asset Warranties** task at the right of the console screen.



11. To trigger a manual update of the contract details such as, Days Left and Last Updated click the **Update Warranty** task at the right of the console screen.



10.4 Financial CI's

10.4.1 Cost Centers

Cost Centers are used to track spend of budget to specific projects, groups, departments etc. Many organizations have a multi-tier structure to their cost centers that consist of multiple numbers that represent a hierarchy of the organization.

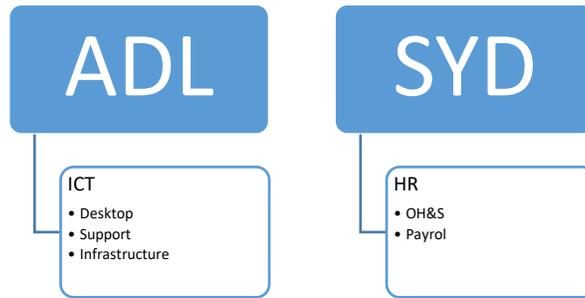
In most cases, organizations already have cost centers within their existing financial system and the Cost Center CI is just a reflection of the cost centers that already exist within the organization. In this situation, cost centers should be created with the same name and structure as those within the financial system.

When an environment does not have existing cost centers and new Cost Centers are to be created a multi-tier naming convention is recommended.

For example: A Cost Center for Asia Pacific might have a Cost Center for Adelaide, South Australia.

Within the Adelaide branch the ICT department might have a Cost Center, and under the ICT department the Desktop team may have a Cost Center.

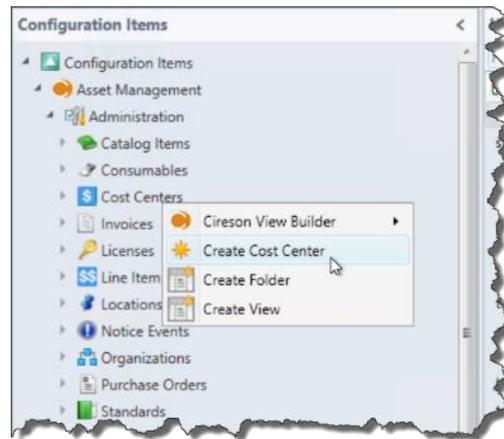
This may be represented as APAC-ADL-ICT-Desktop.



By structuring these Cost Centers this way, it is possible to report on the spend or financial responsibility at any level of the organization.

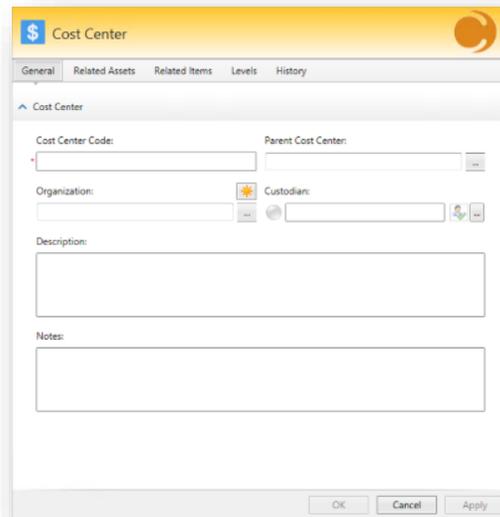
To create a Cost Center:

1. Within the SCSM console, select the **Configuration Items** workspace
2. Expand the **Asset Management** Node
3. Expand the **Administration** node
4. Right click the **Cost Centers** node and select **Create Cost Center** from the drop down menu



5. Enter the Cost Center details on the General tab.
6. The **Cost Center Code** is the only required field.
7. Add a Parent Cost Center if this Cost Center is a child of another within the organization.
8. The description and notes fields can be used to describe the purpose of the Cost Center or if there are any limits or procedures that are required for approval etc.

For a description of each of the fields that make up the Cost Center configuration item, please see section 10.4.1 in this document.



The screenshot shows the 'Cost Center' configuration window with the 'General' tab selected. The window has a yellow header with a dollar sign icon and the title 'Cost Center'. Below the header are tabs for 'General', 'Related Assets', 'Related Items', 'Levels', and 'History'. The 'General' tab contains the following fields: 'Cost Center Code' (a text input field), 'Parent Cost Center' (a dropdown menu), 'Organization' (a dropdown menu), and 'Custodian' (a dropdown menu with a search icon). Below these are two large text areas for 'Description' and 'Notes'. At the bottom right are 'OK', 'Cancel', and 'Apply' buttons.

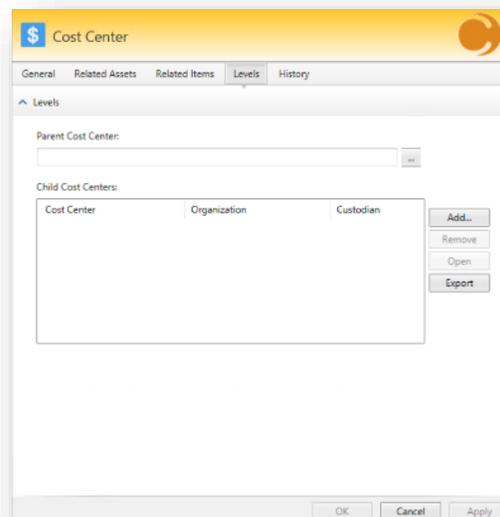
9. Once the **Cost Center** record is created it can be associated with Hardware and Software Assets as well as other Cireson Asset Management CI's.

10. The **Levels** tab is used to show, in a simple view, the parent child structure of the currently selected Cost Center.

The Cireson Asset management workflow will run on its schedule and will update the Cost Center hierarchy.

Workflow configuration instructions are available in "**01 – Cireson Asset Management Installation & Setup Guide.docx**" listed in section 3 of this document.

This document can be obtained by contacting your Cireson account manager.



The screenshot shows the 'Cost Center' configuration window with the 'Levels' tab selected. The window has a yellow header with a dollar sign icon and the title 'Cost Center'. Below the header are tabs for 'General', 'Related Assets', 'Related Items', 'Levels', and 'History'. The 'Levels' tab contains the following fields: 'Parent Cost Center' (a dropdown menu) and 'Child Cost Centers' (a table). The table has columns for 'Cost Center', 'Organization', and 'Custodian'. To the right of the table are buttons for 'Add...', 'Remove', 'Open', and 'Export'. At the bottom right are 'OK', 'Cancel', and 'Apply' buttons.

Naming Best Practices for Cost Centers



Usually Cost Centers are already established, and you will not change the numbers or create new ones just for use in asset management. Also, many companies have changes with the cost centers, so even though we would suggest creating a new cost center, they may just want to change the organization that is associated to the Cost Center rather than creating a new one.

Location should always be thought of as physical location and that is associated to the HW Asset, not the Cost Center.

Example: "**CO10705-100-519**"

10.4.2 Purchase Orders

Most companies already have a financial system or process that generates purchase orders for a range of items included, but not limited to, IT hardware and software assets.

The Purchase Order CI is simply a reflection of purchase orders that already exist or are generated within a company's financial process.

For companies that do not have an existing purchasing order or financial system, the Purchase Orders with the Cireson Asset management system can perform this role quite well.

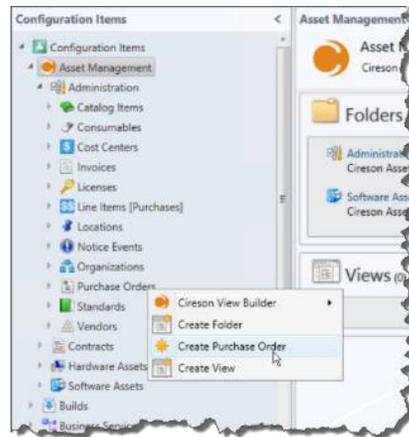
NOTE:



It is important to note that Purchase Orders that are imported in to the Cireson Asset Management Solution should be limited to purchase orders that are related to assets that will be managed in the system as importing all purchase orders, regardless of their relevance can put unwanted strain on the database and create administrative issues.

To create a Purchase Order:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Purchase Orders** node and select **Create Purchase Order** from the drop down menu.



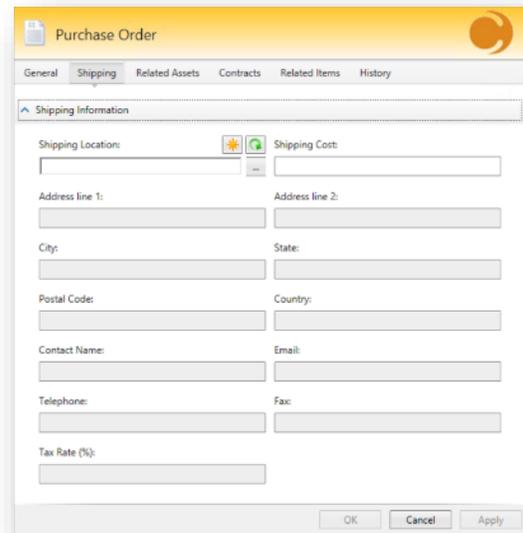
5. Enter the Purchase Order details on the **General** tab.
6. The Purchase **Order Number and Order Date** are the only required fields.
7. If this Purchase Order is a child of another Purchase Order, associate the parent Purchase Order to show its relationship.
8. The description and notes fields can be used to describe the purpose of the Cost Center or if there are any limits or procedures that are required for approval etc.

For a description of each of the fields that make up the Purchase Order configuration item, please see section 10.4.2 in this document.

9. The **Auto-Calculate** check box enables the **Total Cost** to be automatically calculated based on the associated Line Items (Purchases). Once selected, the Total Cost field will become disabled from user input.
10. The currency values can be added or edited from within the **Currency** list located within the Library workspace of the SCSM console.

11. The **Shipping** tab allows for a related **Location** CI to be added to the Purchase Order as the address and associated Tax Rate etc.
12. The **Shipping Cost** can be manually entered here. Not entering a value for the shipping cost assumes a \$0.00 cost for shipping.

For information on how to create a Location CI please see section 10.1.2 of this document.



Naming Best Practices for Purchase Orders

A naming convention is rarely created, as we would just import the existing name from the purchasing system PO Numbers that were imported.



If assets are being moved from a previous system and only the Purchase Order Date has been provided for an asset, create a naming convention for those purchase orders that is simple and can be sequential. It is advised to get the people dealing with the finance side involved to assist in developing a naming convention.

A good option for a new naming convention is a date sortable friendly format such as: **"PO_2016.05.18_00001"**

This allows for quick sorting and visual searching of PO's.

10.4.3 Invoices

Like Purchase Orders, Invoices usually already exist within an organizations financial system or process. Again, only Invoices that are related to IT hardware and software assets should be imported or maintained within the Cireson Asset Management Solution.

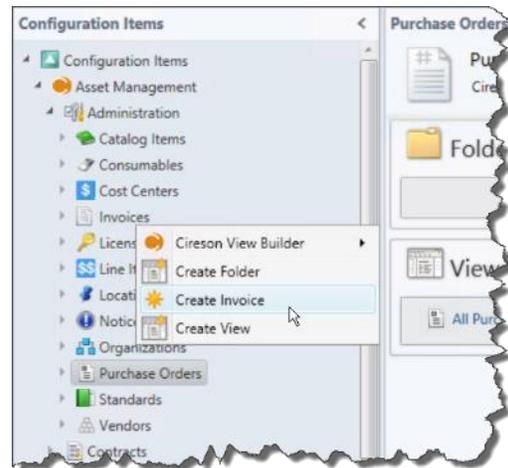
NOTE:



It is important to note that Invoices that are imported in to the Cireson Asset Management Solution should be limited to Invoices that are related to assets that will be managed in the system as importing all Invoices, regardless of their relevance can put unwanted strain on the database and create administrative issues.

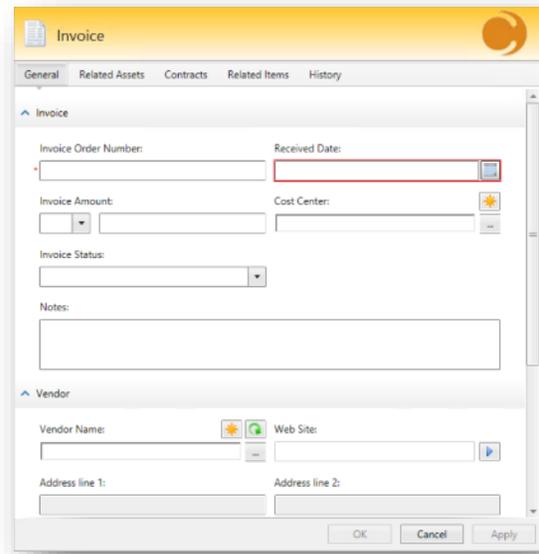
To create an Invoice:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Invoices** node and select **Create Invoice** from the drop down menu.



5. Enter the Invoice details on the **General** tab.
6. The **Invoice Order Number** and **Received Date** are the only required fields.
7. The description and notes fields can be used to describe the purpose of the Invoice or if there are any limits or procedures that are required for approval etc.

For a description of each of the fields that make up the **Invoice** configuration item, please see section 10.4.3 in this document.



The screenshot shows a software window titled "Invoice" with a yellow header bar. Below the header is a navigation menu with tabs: "General", "Related Assets", "Contracts", "Related Items", and "History". The "General" tab is active. The main area is divided into sections: "Invoice" and "Vendor". The "Invoice" section contains fields for "Invoice Order Number" (with a red border), "Received Date" (with a calendar icon), "Invoice Amount" (with a dropdown arrow), "Cost Center" (with a dropdown arrow and a sun icon), "Invoice Status" (with a dropdown arrow), and "Notes" (a large text area). The "Vendor" section contains fields for "Vendor Name" (with a sun icon and a dropdown arrow), "Web Site" (with a globe icon and a dropdown arrow), "Address line 1", and "Address line 2". At the bottom right are "OK", "Cancel", and "Apply" buttons.

Naming Best Practices for Invoices

A naming convention is rarely created, as we would just import the existing name from the purchasing system Invoice Numbers that were imported.



If assets are being moved from a previous system and only the Invoice Date has been provided for an asset, create a naming convention for those invoices that is simple and can be sequential. It is advised to get the people dealing with the finance side involved to assist in developing a naming convention.

Example: **"INV223410"**

10.4.4 Line Items (Purchases)

The difference between a Purchase (or Line Item) and a Purchase Order is a Purchase is a single item that is ordered on a Purchase Order. It is possible to associate individual purchases to a hardware or software asset to show its true value or investment made on the asset.

An example of this would be a Purchase order for:

- 5 x Computers
- 5 x Monitors
- 5 x Keyboards
- 5 x Mice

Each of these items would be a Purchase, or Line Item, on a Purchase order.

There could be many Line Items associated with a Purchase Order or an Invoice but a Line Item can only belong to one Purchase Order and one Invoice.

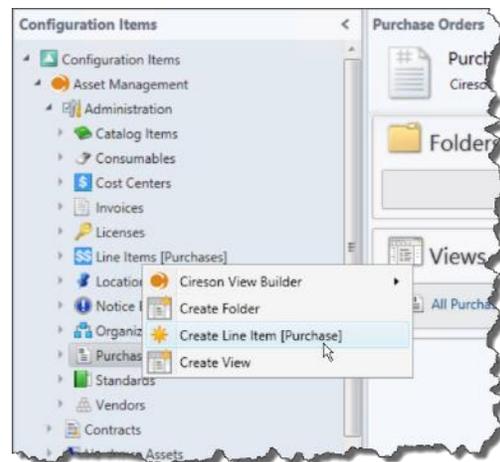
Cireson Best Practices for Line Items (Purchases)



It is best to create a Line Item for an item, or multiples of an item, that are purchased and associate it to both the Purchase Order, on which it was ordered, and the Invoice, one which it was paid for. This prevents duplication and effort.

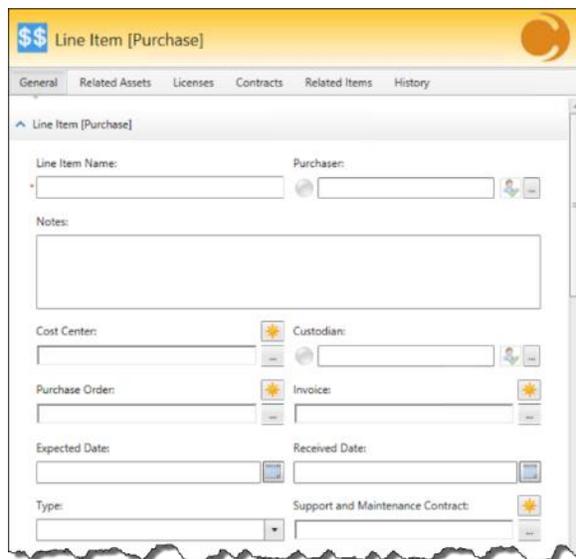
To create a Line Item:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Line Items** node and select **Create Line Item (Purchase)** from the drop down menu.



The Line Item form is longer than most so will be shown here over two sections to try and make it clearer.

5. Enter the Line Item details on the **General** tab.
6. The **Line Item Name** is the only required field.
7. The notes fields can be used to describe the conditions of the Line Item, who has negotiated the price and any other information about the item being purchased.
8. The Expected and Received dates can be used to track when the provider informed that they would arrive and when they actually arrived.

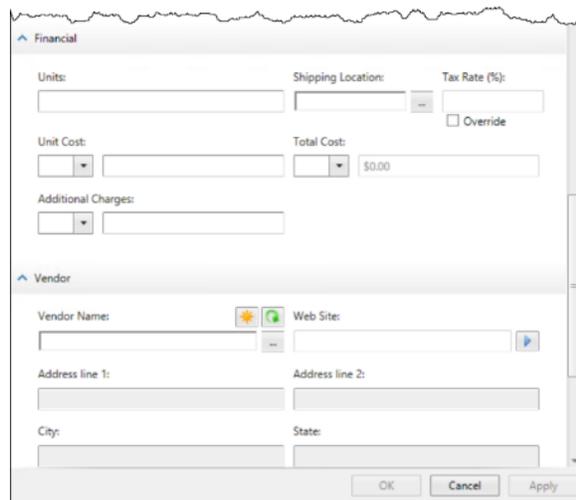


The screenshot shows the 'Line Item [Purchase]' form with the 'General' tab selected. The form includes fields for 'Line Item Name', 'Purchaser', 'Notes', 'Cost Center', 'Custodian', 'Purchase Order', 'Invoice', 'Expected Date', 'Received Date', and 'Type'. There are also icons for adding and deleting items.

For a description of each of the fields that make up the **Line Item** configuration item, please see section 10.4.4 in this document

Scroll down the form to show more of the fields.

9. Enter the number of the items that are to be purchased in the Units field.
10. By entering a Location CI as the **Shipping Location**, the applicable Tax rate for the location will automatically be assigned to the line item. If the Line Item is Tax Exempt or requires a different Tax rate to be applied, select the **Override** check box and manually enter the Tax Rate as a percentage.
11. Additional handling, duty or other charges may also apply to this line item and this can be entered as an **Additional Charge**.



The screenshot shows the 'Line Item [Purchase]' form with the 'Financial' and 'Vendor' tabs selected. The 'Financial' tab includes fields for 'Units', 'Shipping Location', 'Tax Rate (%)', 'Unit Cost', 'Total Cost', and 'Additional Charges'. The 'Vendor' tab includes fields for 'Vendor Name', 'Web Site', 'Address line 1', 'Address line 2', 'City', and 'State'. There are also 'OK', 'Cancel', and 'Apply' buttons at the bottom.

Naming Best Practices for Line Items (Purchases)

Include the PO number with an iterator and a different prefix as well.

If the PO number is "PO_2015.05.18_0001", then make the Purchase name
"P_2015.05.18_0001-01"



(larger organizations can have dozens of line items on a purchase order, so I also suggest including the 0 or 00 spacer in the iterator)

Example: **"PO_2015.05.18_0001"**, **"PO_2015.05.18_0002"**, **"PO_2015.05.18_0003"**, etc.

10.5 Other Administration CI's

10.5.1 Consumables

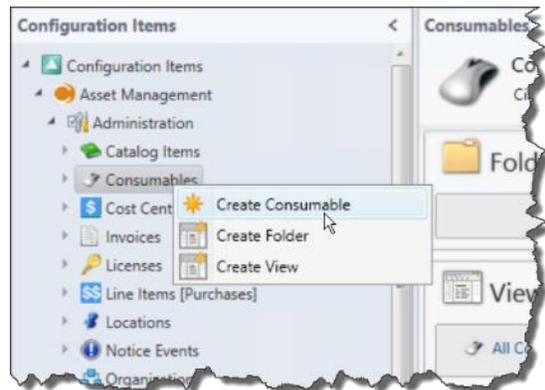
Consumables can best be described as assets that do not have some intrinsic value but are not worth tracking individually. They can also be described as "Non-serialized assets" as it either does not have a serial number or the serial number is not needed to be tracked.

Consumables can be general items that an organization wants to keep track of stock levels for, such as printer toners or UPS batteries. It may also be required to assign a consumable item to an individual user.

An example for the use of an assigned consumable might be an item such as a telephone headset. While an individual headset may not be worth tracking for financial data or specific support, an organization may want to track if one has been assigned to a specific user. This way if replacements are purchased it is possible to track who should receive a new one, or if a user moves department or leaves the organization it is possible to know what they should return before they leave.

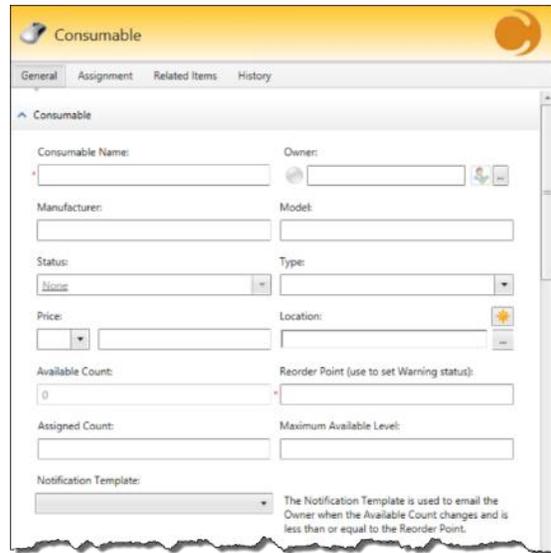
To create a Consumable:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Consumable** node and select **Create Consumable** from the drop down menu.



The Consumable form is longer than most so will be shown here over two sections to try and make it clearer.

5. Enter the Consumable details on the **General** tab.
6. The **Consumable Name** and its **Reorder Point** number are the only required fields.
7. The **Maximum Available Level** should be used as advice for a restock level for the item when it needs to be reordered.



The screenshot shows the 'Consumable' form with the 'General' tab selected. The form contains the following fields and controls:

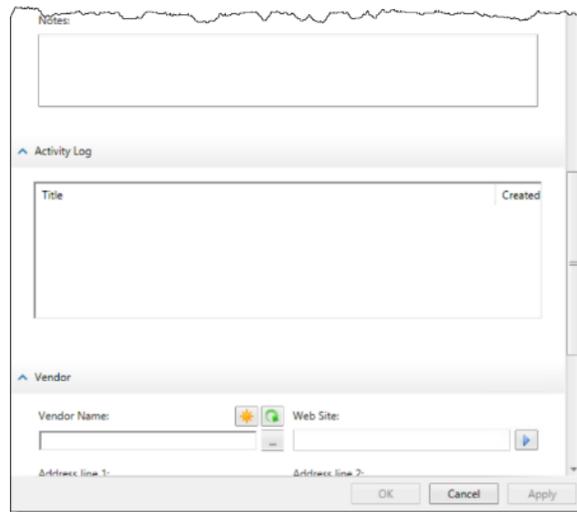
- Consumable Name:** A text input field with an asterisk indicating it is required.
- Owner:** A dropdown menu with a search icon.
- Manufacturer:** A text input field.
- Model:** A text input field.
- Status:** A dropdown menu with 'None' selected.
- Type:** A dropdown menu.
- Price:** A dropdown menu and a text input field.
- Location:** A dropdown menu with a search icon.
- Available Count:** A text input field with '0' entered.
- Reorder Point (use to set Warning status):** A text input field.
- Assigned Count:** A text input field.
- Maximum Available Level:** A text input field.
- Notification Template:** A dropdown menu.

A note at the bottom right states: "The Notification Template is used to email the Owner when the Available Count changes and is less than or equal to the Reorder Point."

8. The **Notification Template** is an e-mail template that will be sent to the Owner when the Available Count changes and is less or equal to the Reorder Point.

For a description of each of the fields that make up the **Consumable** configuration item, please see section 13.120 in this document

9. The **Notes** field can be used to contain Consumable specific details and instructions for business process if required.
10. The **Action Log** contains comments made when Consumables are assigned to users or computers or at any time the CI is updated.



The screenshot shows the 'Consumable' form with the 'Activity Log' and 'Vendor' tabs visible. The 'Notes' field is at the top. The 'Activity Log' section has a table with columns 'Title' and 'Created'. The 'Vendor' section contains the following fields:

- Vendor Name:** A text input field with a search icon.
- Web Site:** A text input field with a search icon.
- Address line 1:** A text input field.
- Address line 2:** A text input field.

Buttons for 'OK', 'Cancel', and 'Apply' are at the bottom right.

Naming Best Practices for Consumables

A naming convention for Consumables should make it easy to identify the item that is being allocated. Cireson Best Practice is to incorporate the Manufacturer, Make, Model and even type of the item in to the name of the Consumable and where possible mirror those of the Catalog Item CI type.



Example:

"Microsoft Arc Touch Mouse Surface Edition"

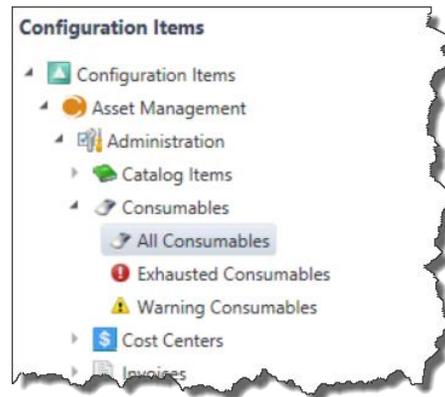
or

"Plantronics Voyager Pro Headset"

Once a consumable is created they are used to track **Stock** or **Inventory** of the item that is available for allocation within an organization. From time to time new items will be purchased to replenish the stock and at this time the available number needs to increase. To do this there is some administrative tasks to undertake.

To increment or decrement available count for a Consumable configuration item:

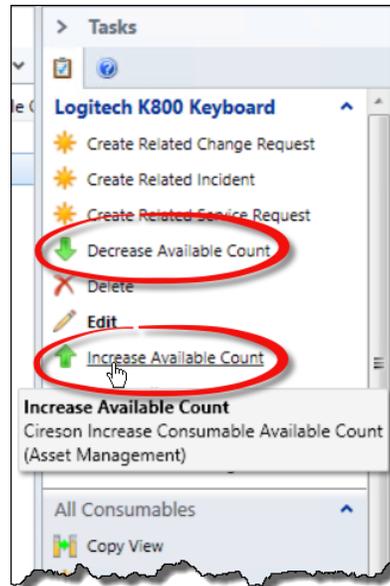
1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Expand the **Consumable** node and select the **All Consumables** node.



5. Filter or search for the Consumable that requires modification and select the item in question.

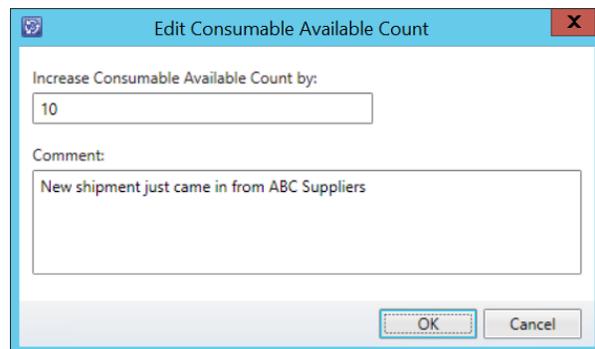
Consumable Name	Status	Custodian
Logitech K800 Keyboard	None	Esther
Plantronics Voyager Pro Headsets	OK	Esther
Plantronics Blackwire C720	OK	Esther
Logitech Performance MX Mouse	OK	Esther

6. Click **Decrease Available Count** or **Increase Available Count** in the Tasks pane.



7. Enter the number of units that is to be added to or removed from the available count of the Consumable.
8. In addition, enter a comment for the increase to track why the change was made.

This could be someone returning a device or allocating a device to a user or computer.



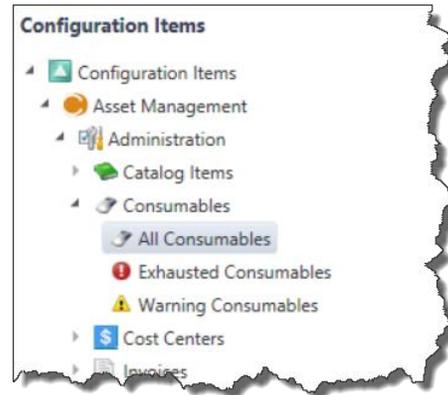
9. The task will then automatically increase the available count that can be used for allocating a consumable to a user.

Allocation of Consumables to users and assets can automatically reduce the available count based on the number of allocations that are recorded. This way, when a consumable gets allocated to a user or an asset the system will not only keep track of who has one of the items, but how many are available in stock. This allows Notification Events to contact the owner when the available count reaches the Reorder Point.

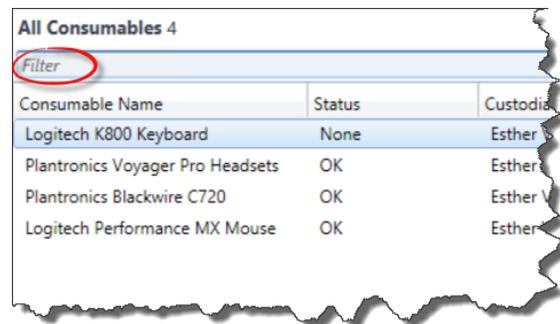
It is also possible to manually decrement the available count in cases where recording allocation of Consumables is not required. For example, use of a printer cartridge does not need to be allocated to a user as they are not needing to return the item at any stage.

To allocate a Consumable to a user or asset:

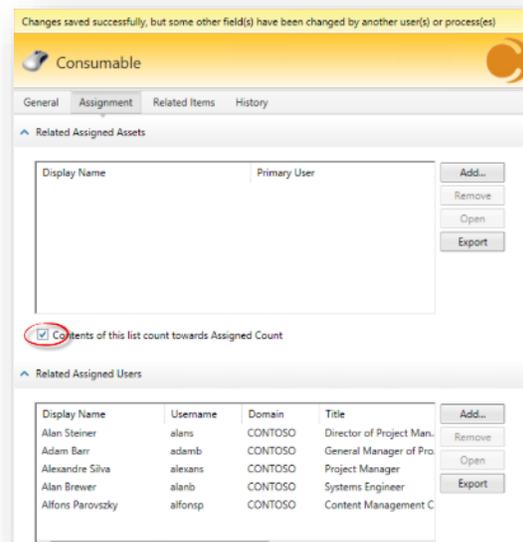
1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Expand the **Consumable** node and select the **All Consumables** node.



5. Filter or search for the Consumable that requires modification.
6. Double Click the Consumable to be edited or click **Edit** in the tasks menu on the right of screen.

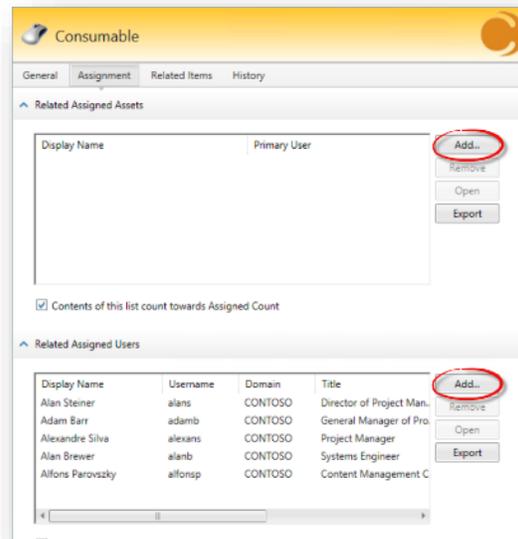


7. Select the Assignment tab on the Consumable form.
8. If this Consumables available count is to be automatically calculated, select the check box marked Contents of this list count towards Assigned Count.
This will have to be done for both the Assigned Assets and Assigned Users lists.
9. If this Consumable is to be manually decremented but still tracked who is allocated, this check box can remain disabled.



10. Click the Add button next to either Assigned Assets or Assigned Users to assign to either.

With the auto count check boxes enabled, each record within these lists will be added to the assigned count, therefore ensure when allocating that one item is allocated to either a user or asset but not both.

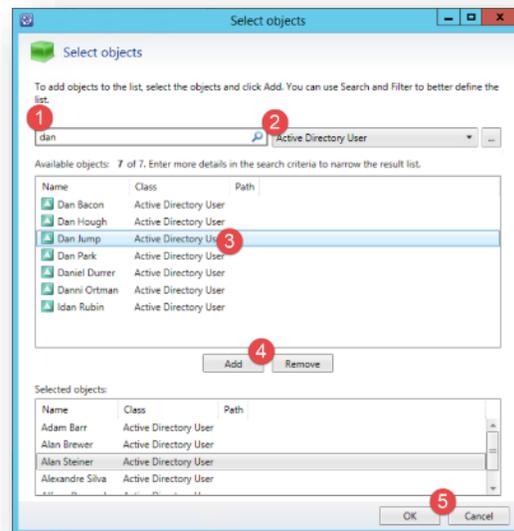


11. Within the select objects screen:

1. Enter a name to search for
2. Click the magnifying glass icon
3. Select the User(s) or Asset(s) that are to be allocated
4. Click Add

Repeat steps 1-4 for each item to be allocated

5. When all items are added, click **OK**.

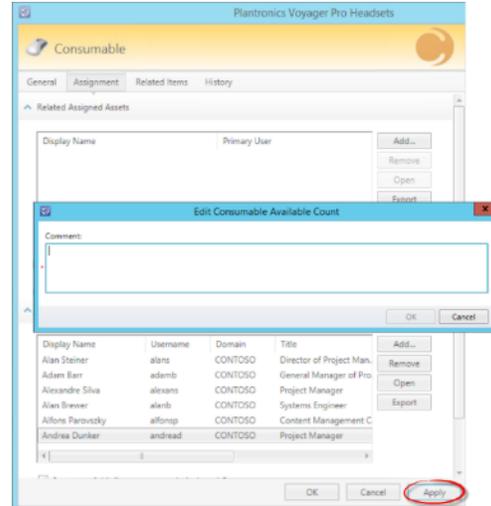


12. With all the new Assets and User added to the allocation of the Consumable, click **OK** or **Apply** on the Consumable form.

13. A required comment field will appear to add a comment to the allocation.

This comment, including the date, the analyst and the effect on the assigned count will be recorded and displayed on the **Activity Log** on the General tab.

Enter a comment and click **OK**.



10.5.2 Notice Events

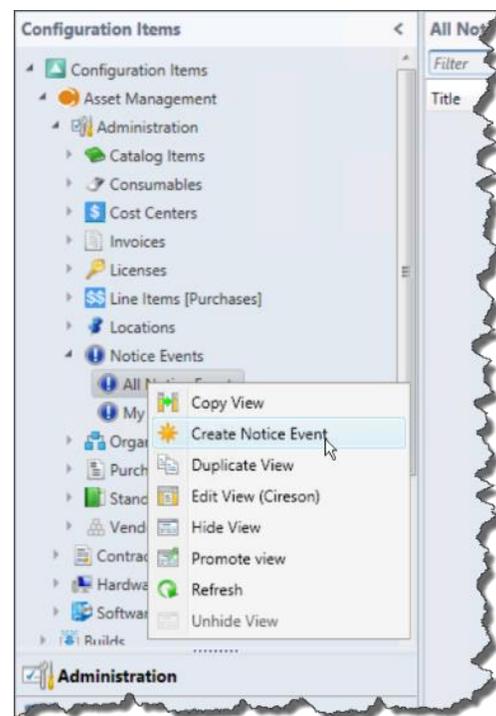
A Notice Event is a way to provide notifications on workflow events within the Cireson Asset Management solution for any class with a notice event as well as being able to trigger on a manually configured date.

This includes notification for workflows such as the impending end to a warranty, support contract or lease.

Notice events are not used to create notifications for stock levels of consumable devices. These are created and sent from within the Consumable CI configuration.

To create a Notice Event:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Notice Events** node and select the **Create Notice Event** from the drop down menu.



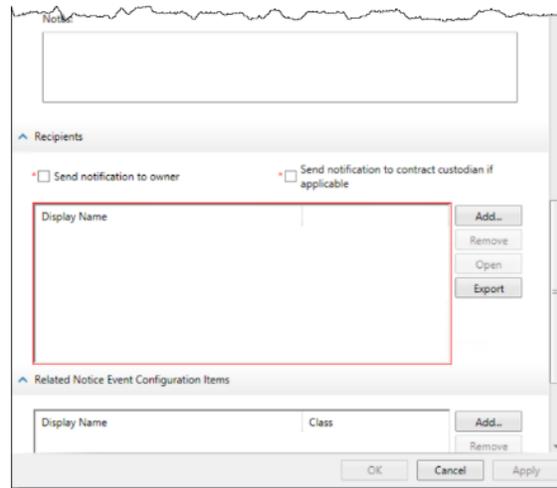
The Notice Event form is longer than most so will be shown here over two sections to try and make it clearer.

5. Enter the Notice Event details on the **General** tab.
6. The **Title**, **Due Date**, **Target Class**, **Notification Template**, and **Recipients** are all required fields.
7. The **Due Date** is a fixed date that the notification event will trigger. This can be tied to the contract by selecting the **Use Contract End Date** option.
8. The **Notice Span** and **Notice Period** control how far in advance a notice event is triggered. An example might be to a Notice Span of **90** and a notice Period of **Days**. This would send the notification 90 days before the contract would expire.
9. The **Target Class** is the class type that this Notification Event is to be triggered on and what will limit the **Notification Template** list.
10. **Notification Templates** can be created for the target class and when a matching class is selected they will appear in this list.
11. If the **Use Contract End Date instead of Due Date** option is selected, the **Hardware Asset Notification Template** is used when a Lease or Warranty contract triggers an event and the contract is a Master Contract.

This option is used when the contract is a Master Contract as they can be assigned to multiple Hardware Assets. If this option is not selected for Master Contracts, the notification will be sent out for ALL associated assets, when only one of the CI's is within the notification time.

This allows for a more targeted notification template to be used.

12. The **Notes** field can be used for documenting the settings, requirements and process associated with this Notification Event.
13. Add Recipients to the list to ensure all people who are required to be notified receive the message. Dynamic recipients of the Notification Owner and the Contract Custodian can be added by selecting the appropriate check box.
14. Related Notice Event Configuration Items are any configurations items that will trigger this notice event. Add all that will use this notice event for notifications.



For a description of each of the fields that make up the **Notification Event** configuration item, please see section 13.130 in this document.

Naming Best Practices for Notice Events

A naming convention for a Notification event should make it easy to identify the item that is triggering the event and when the event that will occur or the time span for when the event will occur. Cireson Best Practice is to incorporate these two elements in to a single name.

For example:



“90-day Lease Contract Expiration Warning”

and

“30-day Lease Contract Expiration Warning”

The 30-day notification event may have more urgent wording or be sent to a larger distribution list of people. If the lease is renewed after the 90-day expiration notification event, then the 30-day notification event will not trigger.

10.5.3 Catalog Items

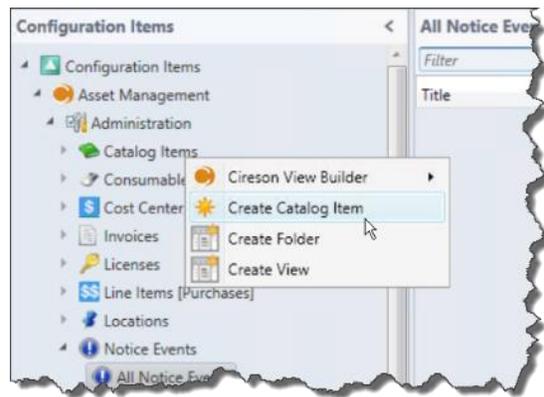
Catalog items are templates for any items that could be ordered by end users within an organization. Many organizations call these catalog items “Standard Equipment”, “Approved Hardware List” or “SOE Hardware”.

Each organization, department, team or Standard (See section 10.5.4) may have a different requirement for hardware and the Catalog is where these hardware standards are defined.

Catalog Items are also used to link to Assets as identified Make and Models to allow Asset Managers complete the loop from ordering, through deployment and then to retirement of hardware at the end of its supported lifespan. This relationship is also useful for things like factory recalls etc.

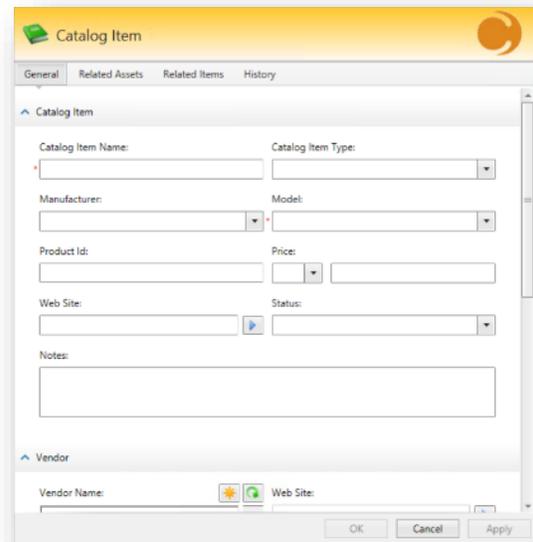
To create a Catalog Item:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Catalog Items** node and select the **Create Catalog Item** from the drop down menu.



5. Enter the Catalog Item details on the **General** tab.
6. The **Catalog Item Name** and **Model** are the only required fields.
Model types can be added within **Lists** on the Library workspace.

For a description of each of the fields that make up the **Catalog Item** configuration item, please see section 13.140 in this document.



-
7. By scrolling to the very bottom of the Catalog Item form it is also possible to load a Catalog Image for the Catalog Item that can assist users in making purchasing decisions.
-



Naming Best Practices for Catalog Items

A naming convention for Catalog Items should make it easy to identify the item that is being allocated. Cireson Best Practice is to incorporate the Manufacturer, Make, Model and even type of the item in to the name of the Consumable and where possible mirror those of the Consumable CI type.



Example:

"Microsoft Arc Touch Mouse Surface Edition"

or

"Plantronics Voyager Pro Headset"

10.5.4 Standards

A standard is a way to track the typical setup for types of users or computers including things such as AD groups, file access, software, hardware etc. This assists in creation of new user or computer devices to ensure they are operational or “Fit for purpose” as rapidly as possible.

Each standard can be owned by a manager or team leader of the particular group that the standard applies to. This ensures that the standards are maintained and are as accurate as possible.

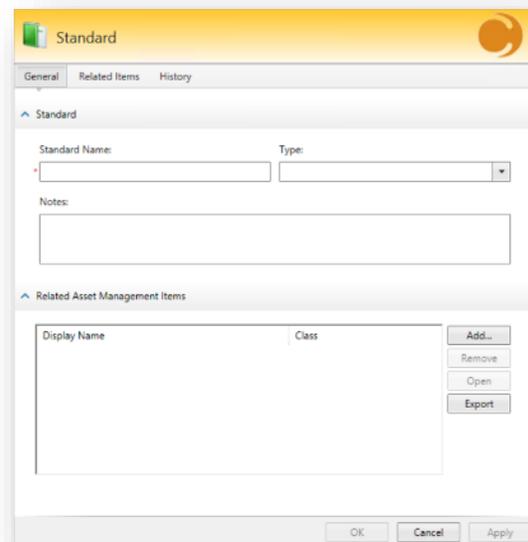
To create a Standard:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Expand the **Administration** node.
4. Right click the **Standards** node and select the **Create Standard** from the drop down menu.



5. Enter the Catalog Item details on the **General** tab.
6. The **Standard Name** is the only required field.
Model types can be added within **Lists** on the Library workspace.
7. Asset Management CI's can then be related to the Standard to represent what a system or user would receive if this Standard applied to them.

For a description of each of the fields that make up the **Standard** configuration item, please see section 13.14 in this document.



Naming Best Practices for Standard

A naming convention for Standards should make it easy to identify the item that is being allocated. Cireson Best Practice is to incorporate the name of the department or Role in to the name of the Standard.



Example:

"ITC - Desktop Support Technician"

or

"HR – Payroll Manager"

10.6 Hardware Assets

Hardware Assets are physical assets that are required to be tracked by the Organization for reporting and business process. Definition of what a Hardware Asset is and what qualifies for inclusion in the Asset Management system is at the discretion of the organization and the Asset Manager responsible for the system.

Cireson Best Practice:



Best Practice for creation of Hardware Assets is to only track those hardware items that the organization requires for reporting or to support a business process.

For example: An organization may want to track all PC's over \$500 in value but any PC's or tablets under \$500 could be treated as disposable consumables.

Planning for what items are in scope of the Asset Management system should be carried out and signed off before starting any Asset Management project.

Having a clear definition of what items will be included and which will be excluded from the Asset Management system is important but not critical at the initial implementation of an Asset Management system. Components and classes can always be added or removed at a later date, however, this can mean that data has not been collected or will be lost if removed.

Cireson's Consulting Services team can assist an organization in planning and implementation if required. For more information, contact your Cireson approved partner or your Cireson account representative.

Creating Hardware Assets manually is not designed for bulk uploading of new assets as the process is time consuming and repetitive using the SCSM console forms.

However, from time to time it may be required to manually create an individual item or to edit an existing item. This section will show the required steps and decision points required to manually create a Hardware Asset CI.

To Manually create a Hardware Asset CI:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Right click the **Hardware Assets** node and select the **Create Hardware Asset** from the drop down menu.

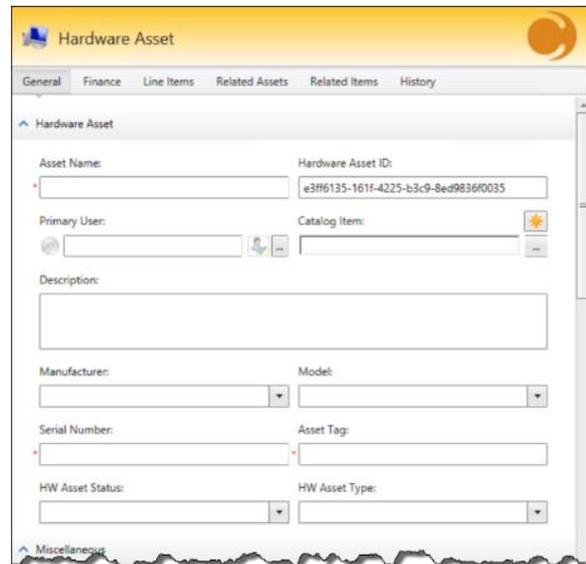


The Hardware Asset form is longer than most so will be shown here over two sections to try and make it clearer.

4. Enter the Hardware Asset Item details on the **General** tab.
5. The **Asset Name** and either a **Serial Number** or **Asset Tag** are the only required fields.

If either a Serial Number or Asset Tag are entered the other is no longer required.

For a description of each of the fields that make up the **Hardware Asset** configuration item, please see section 13.14013.16 in this document.



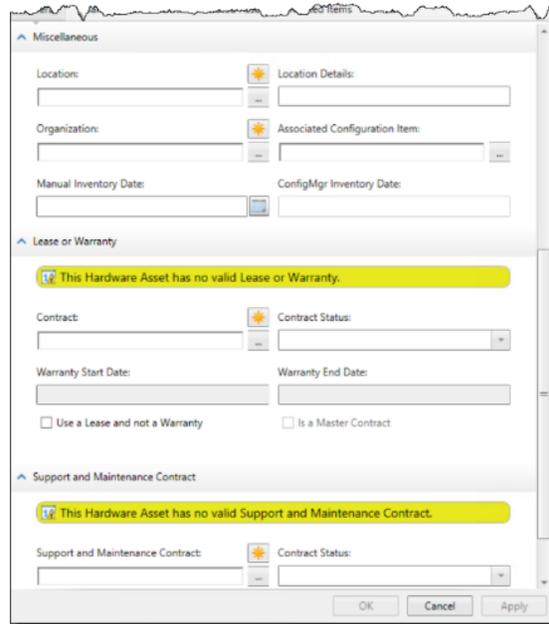
Cireson Best Practice:



Best Practice for Hardware Asset ID is to use an ID that is unique to the hardware in question. It is best to use randomly generated GUID's. (See image above) Random GUIDs are the default for the system and if a Hardware Asset ID is not edited when first created it will remain for the life of the asset.

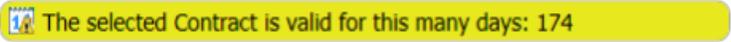
Serial number or Asset Tag (If available) are also a good option for organizations.

6. Relationships with many of the other Configuration Items that have been created can now be associated with the Asset including:
 - Location
 - Organization
 - Lease or Warranty
 - Support and Maintenance Contract
7. The **Manual Inventory Date** field is used to record a date when the Hardware Asset was last physically audited. This is in comparison to the **ConfigMgr Inventory Date** that is generated by the ConfigMgr client.



8. The **Lease or Warranty** and **Support and Maintenance Contract** sections will show a colored status bar to provide an easy way to view the current status of the contract.

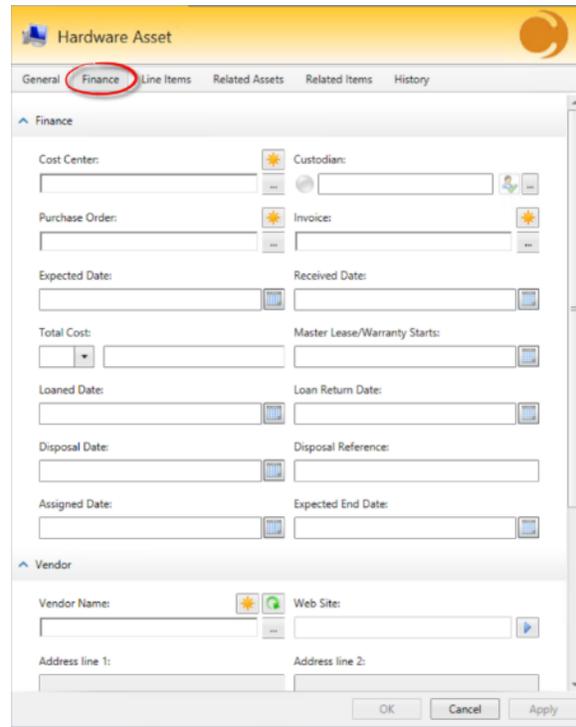
These status bars will appear as follows:

No contract Selected	 
Valid Contract	
Warning Status	
Expired Status	

6. Click the **Finance** tab.
7. Relationships with many of the Financial Configuration Items that have been created can now be associated with the Asset including:

- Cost Center
- Purchase Order
- Invoice
- Vendor

8. Enter additional details required for the status of the asset including disposal references if the asset is no longer active.
9. If using a Warranty Master Contract, ensure the **Received Date** is accurate as this will be used to calculate the Warranty end date. If the **Master Lease\Warranty Starts** field is also used, the Received Date is then ignored for Master Contract calculations.

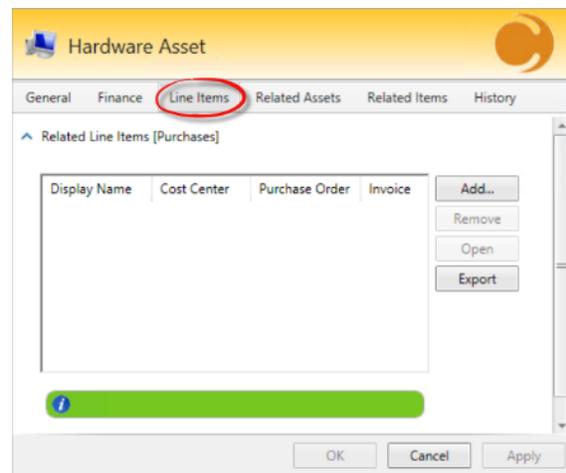


Not all organizations will use finance related CI's and as such these are not required in these instances.

10. Click the **Line Items** tab.
11. Add relationships to Line Items that directly relate to this Hardware Asset.

Not all organizations will use Purchase Orders or Line Items and as such these are not required in these instances.

12. Click **OK** to save the record.



Once the **Hardware Asset** record is created it can be associated with Software Assets as well as other Cireson Asset Management CI's.

10.7 Licenses

Licenses allow organizations to record and track an individual purchase or acquisitions of individual licenses for an application. Often organizations may purchase a license, or set of licenses for a product but later either purchase more licenses, different license (Pro versions etc.) or acquire license through business acquisition. Recording each license purchase not only helps track how many licenses are currently owned, but what was paid for them, when their Support and Maintenance or subscription might be due and what Purchase Order or Cost Center it was purchased against.

The Licenses CI allows organizations to not only track the purchase, but also the associated key information for the license including the product key. Product keys can often get lost or worse, made public. By keeping all license information within a single location, such as the Licenses CI it is possible to protect the product key and to ensure it is always retrievable when required. Visibility of these product keys can be further restricted or hidden from end users or even advanced administrators to further secure the valuable product key from accidental or deliberate release.

Cireson Best Practice:

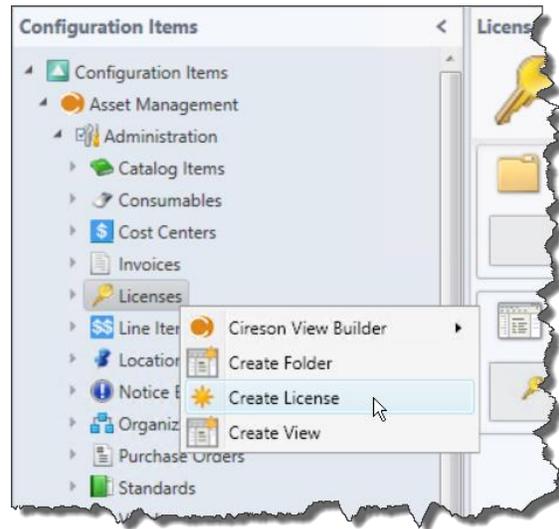


Cireson recommends limiting the visibility of the product keys to the smallest number of users possible. This is usually a minimum of 3 to account for people being away, sick or left the organization to ensure someone is available if the key is needed urgently.

The AD Group that visibility of the product keys is limited to is set within the Asset Management settings in the Administration workspace of the SCSM Console.

To create a License CI:

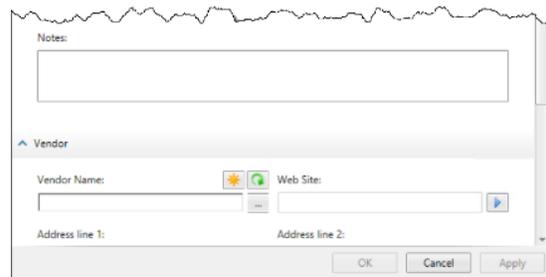
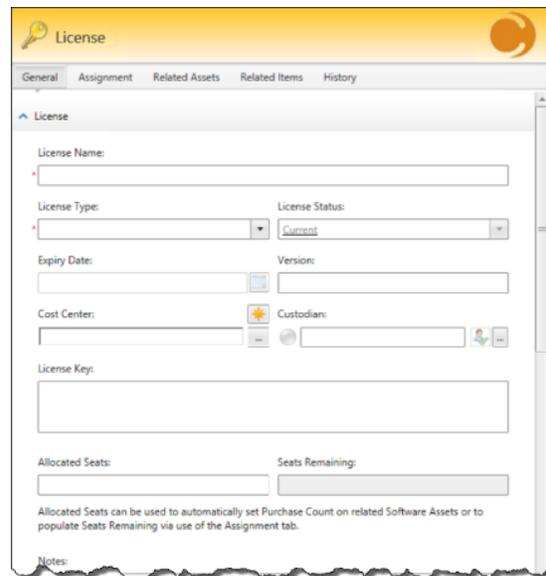
6. Within the SCSM console, select the **Configuration Items** workspace.
7. Expand the **Asset Management** Node.
8. Right click the **Licenses** node and select the **Create License** from the drop down menu.



9. Enter the License details on the **General** tab.
10. The **License Name** and **Type** are the only required fields. Unless the License Type is Temporary and then the **Expiration Date** is also required.
11. The **Allocated Seats** field is used to indicate the number of licenses that have been purchased for allocation to users or computers.

This number can be used to automatically set the Purchase Count within associated Software Assets.
12. The **Notes** field can be used to contain any details about the purchase or history of the license.

For a description of each of the fields that make up the **License** configuration item, please see section 13.14013.17 in this document.



Naming Best Practices for Licenses

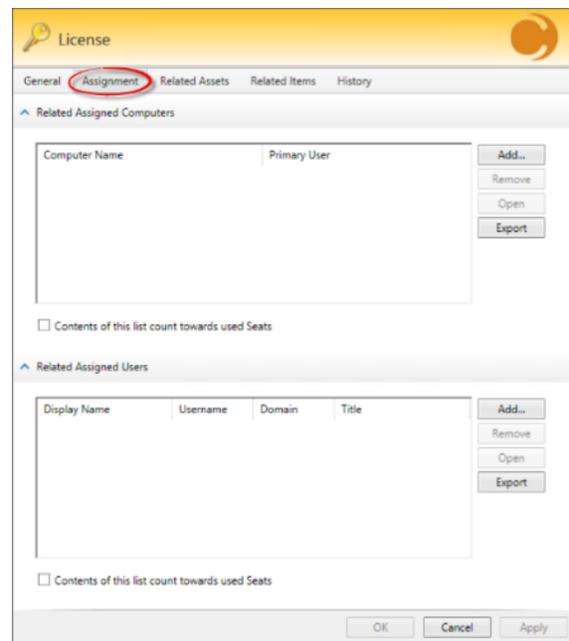
A naming convention for Licenses should make it easy to identify the item that is being created and what authorization limitation, if any, apply to the license. PO Numbers or partial key numbers can also be used if there are multiple licenses for the same product.

Examples:

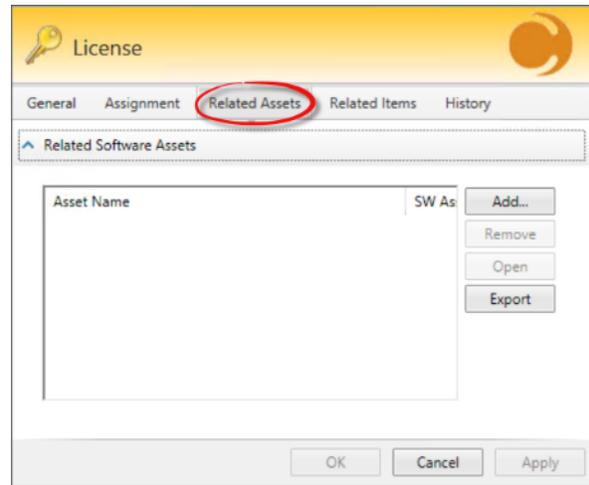
"MS Office Pro Plus – HR – <Cost Center>"

"MS Office Pro Plus – <PONumber>"

13. Click the **Assignment** tab.
14. If a license is a named license and therefore must be assigned to specific users or computers, the corresponding configuration item can be added as a relationship on this tab by clicking the **Add** button.
15. The checkbox labelled **Contents of this list count toward used seats** will enable to automatic calculation of the available seat count on the General tab.



16. Click the **Related Assets** tab
17. Add Software assets to associate this license to by clicking the **Add** button.
These assets will also show the license associated to it and, if configured, will add to the automatic calculation of seats or allocations of the asset.
18. Click **OK** to save the record.



10.8 Software Assets

Software Assets are instances of software that are or may be installed within the organization that are associated with a dollar value or limiting license agreement that are required to be tracked by the Organization for reporting and business process.

For example: Free software that is available for organizations to use without limiting license terms may not be required to be tracked as a software asset as the number of installations is irrelevant to license tracking processes.

Cireson Best Practice:



Best Practice for creation of Software Assets is to only track those software items that the organization requires for reporting or to support a business process.

For example: An organization may want to track all software that has been purchased or is licensed for a strictly limited number of computers or users.

NOTE:

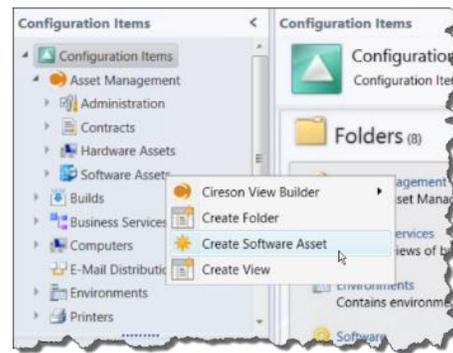


A single software asset may have many licenses associated with it as licenses may be purchased individually, with hardware or on different orders over time as the organization requires more licenses.

For details on creating licenses please see section 10.7 in this document.

Manually create a Software Asset CI:

1. Within the SCSM console, select the **Configuration Items** workspace.
2. Expand the **Asset Management** Node.
3. Right click the **Software Assets** node and select the **Create Software Asset** from the drop down menu.

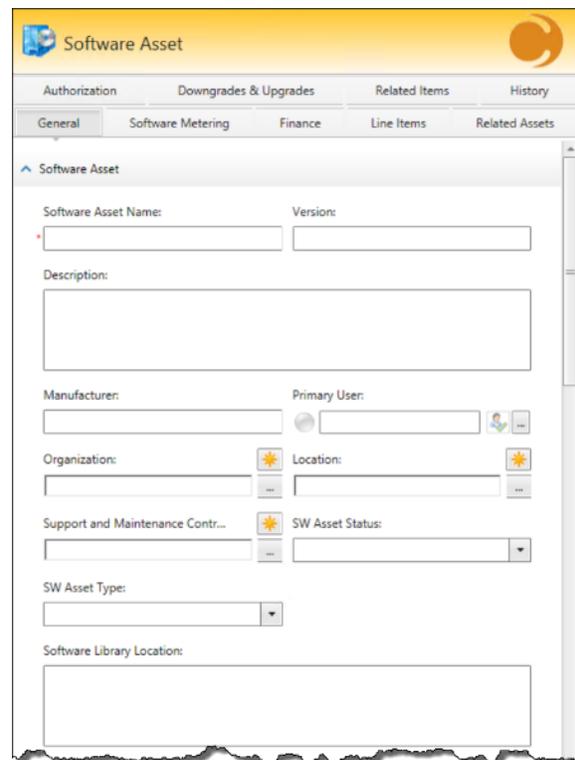


The Software Asset form is the longest and most complicated of the CI. To make it clearer, the sections of each screen are split throughout this section.

4. Enter the Software Asset Item details on the **General** tab.
5. The following fields are all required:
 - **Asset Name**
 - **Software Pattern**
 - **Warning Threshold**
 - **Purchase Count**

Some of these fields appear further down the screen and will be covered in the following steps.

For a description of each of the fields that make up the **Software Asset** configuration item, please see section 13.14013.17 in this document.



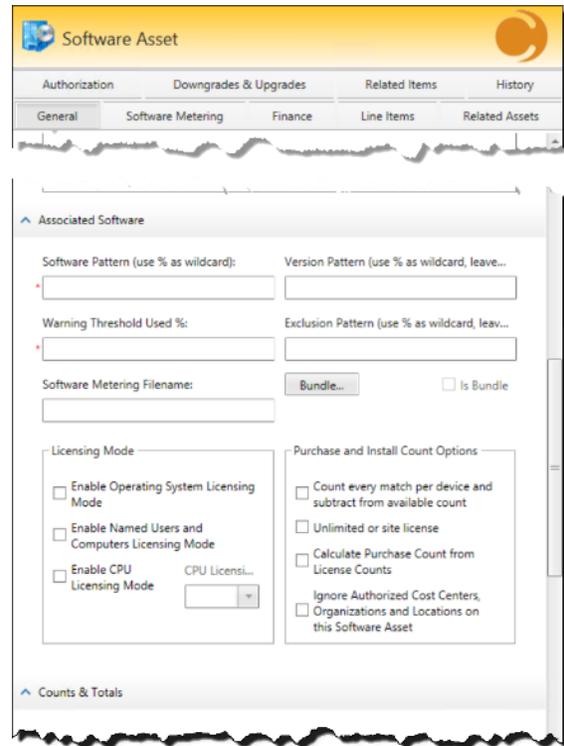
Cireson Best Practice:



Best Practice for Software Asset Name is to use an ID that is unique to the software being tracked such as the name, SKU and version of the software product.

Example: **Microsoft Office Pro Plus 2016**

6. Enter details within the **Associated Software** section.
7. **Software Pattern** and **Version Pattern** are used to identify Software titles that have been gathered by ConfigMgr. These patterns should be as specific as possible for the Software being tracked. However, if a software asset being targeted is ALL versions, leave the version pattern blank.
8. **Exclusion Pattern** can be used to exclude items that fit the pattern but are not wanted to be tracked. Example: %Patch%, or %Hotfix%.
9. **Software Metering Filename** is only used if the Software Metering connector is installed and configured. This filename in this value must be an EXACT MATCH for the software metering rule created in ConfigMgr.
10. To track a Software Asset that consists of more than one software title or multiple software title patterns, click **Bundle...**

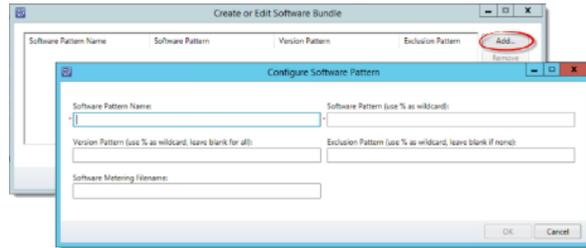


Cireson Best Practice:



Best Practice for Software Asset Pattern formats is to not use exclusions patterns if possible. Exclusions patterns can cause additional confusion to the collection of data when attempting to investigate accuracy of counts.

11. Within the Create and Edit Software Bundle window, click **Add** to add a new software title.
12. Enter the Software Pattern information for one of the applications that is a part of the bundle and click **OK**.
13. Repeat steps 11 and 12 for all of the Software Applications that are a part of this bundle.



NOTE:

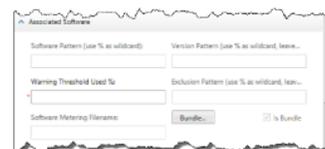
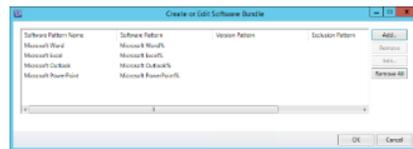
An example of a bundle might be Microsoft Office Pro Plus. The patterns for this might be something like:



- Microsoft Word%
- Microsoft Excel%
- Microsoft Outlook%, etc.

If a computer has one of these applications installed it will the installed count of this Software Asset increment.

14. Once all the application that exist within the Software Asset Bundle, click **OK** to return to the software Asset Screen.
15. When a Software Asset is changed to a bundle the Software Pattern, Version Pattern and Exclusion Patter fields are disabled in favor of the items listed in the Bundle screen. The **Is Bundle** check box will also be ticked to indicate that it is a bundle.



16. Licensing Mode allows Asset Administrators to determine how the license consumption for assets will be calculated.

Operating System Licensing Mode:

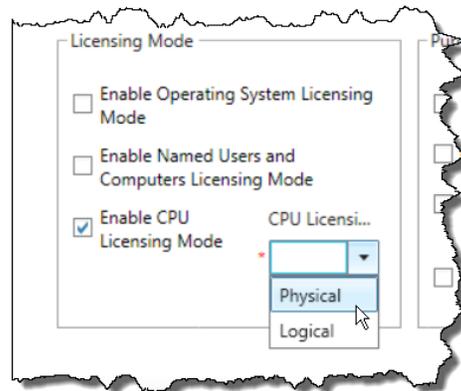
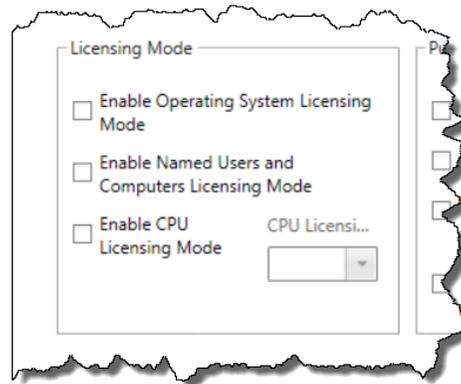
Used for OS Software Assets. Calculations are made one per computer and all user counts are discounted.

Named Users and Computers:

This licensing method ignores ConfigMgr data and will use associated user and computer CI's to calculate usage.

CPU Licensing:

When Enabled, select Physical or Logical CPU's from the dropdown list. This licensing method will count the Physical or Logical CPU's on a Computer with the software installed and count each CPU as a license consumption.



17. Select Purchasing and Install Count Options as they apply to the environment.

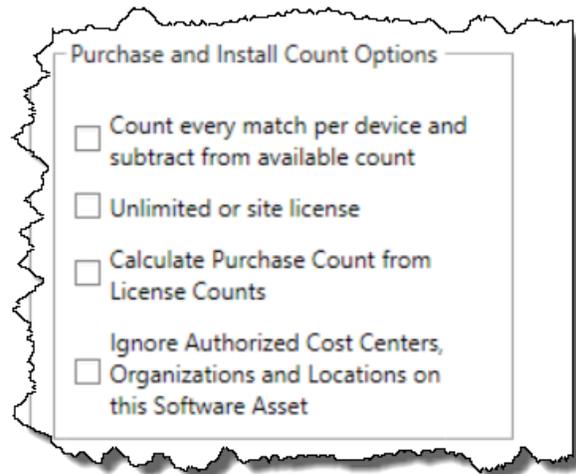
By default, every Computer that is detected with an application installed that matches the pattern will be counted against the available count.

If an application may be installed more than once on a computer, the first option will allow for every instance of the application to be tracked.

Unlimited or Site License assumes all computers are licensed and therefore does not calculate purchase counts.

Enabling **Calculate Purchase Count from License Counts** will disable the ability to manually enter a Purchase Count and automatically tally's the count based on associated license CI's. (See section 10.7)

The **Ignore Authorized Cost Centers, Organizations and Locations** option disables the use of the information located on the Authorization tab.



NOTE:

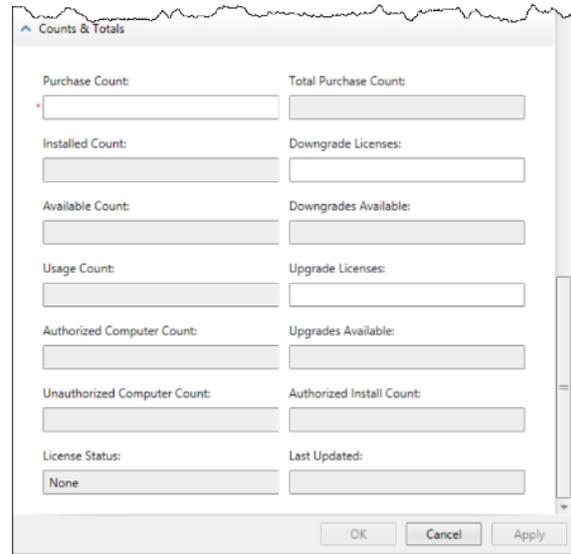


License entitlement calculation and auditing may be required to accurately reflect an organizations rights and entitlements. This process may be carried out internally or, if assistance is required, with any Cireson Certified Partner.

18. If this Software asset is not an Unlimited or Site license or if the Calculate Purchase Count option have NOT been selected, the **Purchase Count** is required to be entered for each Software Asset.

19. **Downgrade** and **Upgrade** licenses are license counts that are consumed from other Software Assets that allow users to install older or newer versions. This is usually based on Software Assurance and must be verified before adding to the count as this may cause an error in license calculation if incorrect.

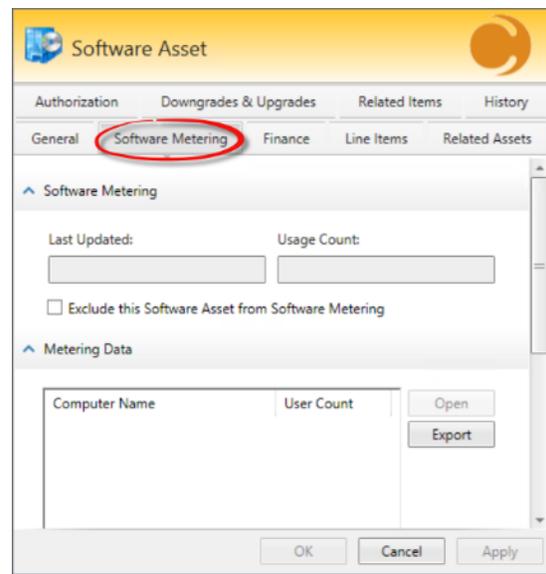
20. All other fields are automatically calculated based on the settings chosen and data returned for the Computer and User CI's.



21. Click the **Software Metering** tab.

22. The Software Metering tab shows all computers that contain a software Metering filename match that of the filename listed on this Software Asset.

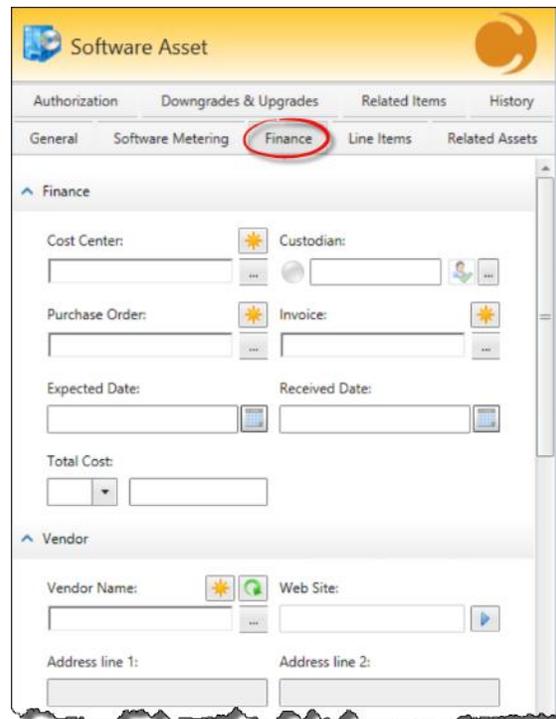
23. If the asset does not require metering data calculated for it then the option to Exclude this Software Asset from Software Metering can be selected.



24. Click the **Finance** tab.
25. Relationships with many of the Financial Configuration Items that have been created can now be associated with the Asset including:
 - Cost Center
 - Purchase Order
 - Invoice
 - Vendor

Not all organizations will use finance related CI's and as such these are not required in these instances.

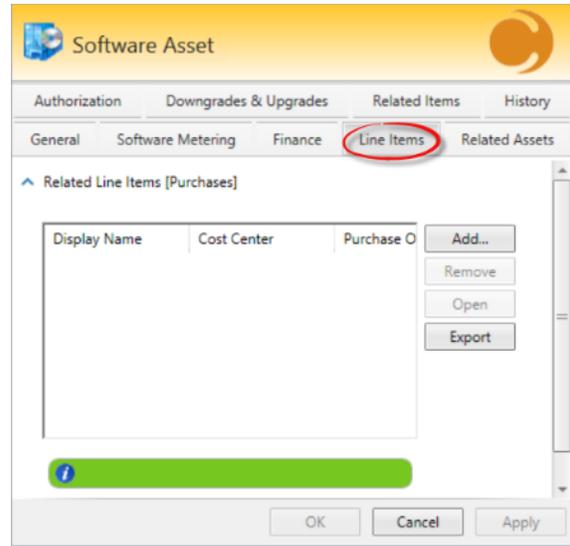
26. Within the Finance tab, scroll down to show the Licensing relationships.
27. Manually add License CI's that may relate to this Software Asset.
28. For more information on Licensing CI's see section 10.7 in this document.



29. Click the **Line Items** tab.

30. Add relationships to Line Items that directly relate to this Software Asset.

Not all organizations will use Purchase Orders or Line Items and as such these are not required in these instances.



31. Click the **Authorization** tab.

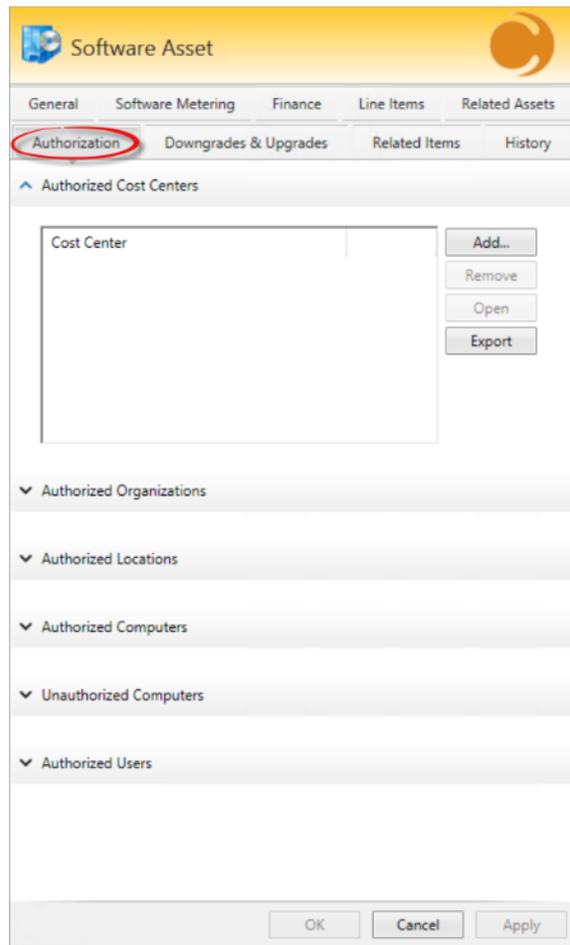
32. Authorized configuration items can be added to the Software Asset to restrict what computer or users are counted against this Software asset.

Limiting Configuration items are:

- **Cost Center**
- **Organization**
- **Location**
- **Computers**
- **Users**

33. Click the **Add** button to select the limiting CI's to add to the authorization.

Authorization works by evaluating only computer or users that exist within these authorized lists. Computers and Users still must have an application associated that matches the Software Pattern before it is counted.



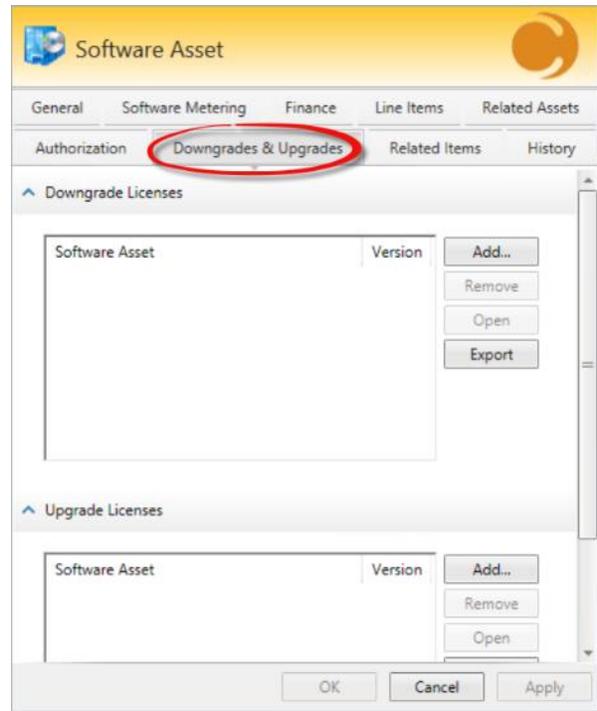
An example of when authorization would be used is when a software asset is purchased for a specific group or department and other computers and users within the organization are not permitted to consume that pool of licenses.

In this case, the Asset Administrator can limit who can consume the licenses associated with that software asset by limiting it to Organization, Location, Cost Center or even specific user and computers.

34. Click **Downloads & Upgrades** tab.
35. Click the **Add** button to select the Software Assets within the system that contain the Licenses for the associated Upgrade and Downgrade licenses that can be consumed for this Software Asset.

This feature allows Asset Managers to keep track of the relationship between what applications can be deployed without having a specific version license due to Software Assurance or relevant EULA rights.

36. Click **OK** to save the record.



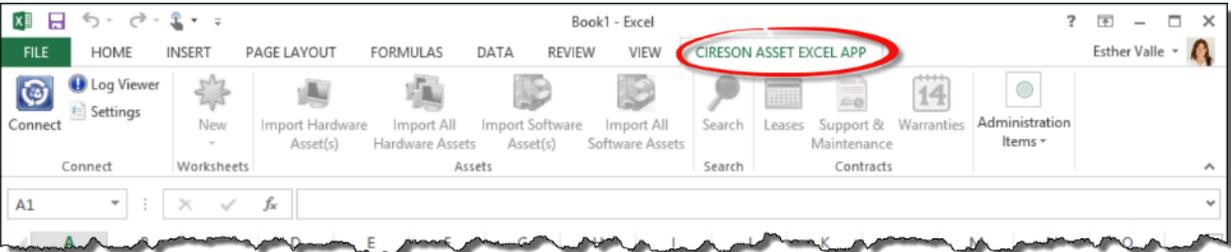
Once the **Software Asset** record is created it can be associated with Hardware Assets as well as other Cireson Asset Management CI's.

11 Asset Excel

The Cireson Asset Excel app is designed to interface with the Cireson Asset Management application in order to streamline the way data is managed. Asset Excel is used for bulk import of assets, as well as bulk modifications of administration items and warranties/contracts at the click of a button and all within the user friendly experience of Microsoft Excel®.

Search capabilities of this app assist users in displaying current software and hardware assets and making the required modifications. This app is an Add-in that is installed within Microsoft Excel® and exposes its functionality within the Ribbon in a way that is familiar to all Microsoft Office® users.

Once installed, Asset Excel will appear as a Ribbon on the far right of the existing Ribbons within Excel.



11.1 Connecting Asset Excel

For Asset Excel to function it first must be aware of the SCSM instance and have user authentication to be able to access the required Asset Management classes within the SCSM database.

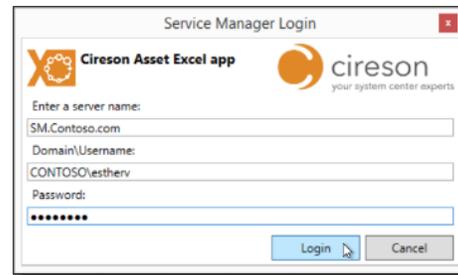
To connect Asset Excel to an SCSM instance:

1. Within the Excel, click the Ribbon titled **CIRESON ASSET EXCEL APP** at the top of the screen.
2. Click the **Connect** button.



3. Within the Service Manager Login window enter the server name and login credentials for the SCSM management server and click **Login**.

The user account logging on will require Asset Management rights within SCSM to access the records necessary.

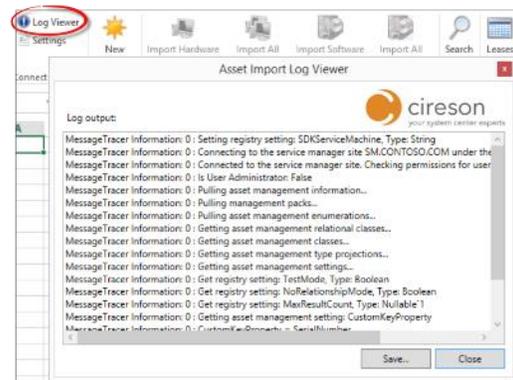


4. Once the app is connected the required icons will be enabled.



5. For more detailed information for the logon, or any process that is attempted by Asset Excel, click the Log Viewer button to view a verbose log.

This log is the first place to go for fault finding or to check the validity of importing or updating asset CI's.

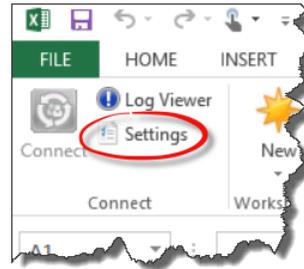


11.2 Configuring Asset Excel Settings

There are many options within Asset Excel that can affect the performance, Function and Data within the app.

To connect Asset Excel to an SCSM instance:

1. Within the Excel, click the Ribbon titled **CIRESON ASSET EXCEL APP** at the top of the screen.
2. Click the **Settings** button.



The Service Manager site will be set to the SCSM management server that was entered at the login screen.

A screenshot of the 'Service Manager Settings' dialog box. It contains a text input field with the value 'SM.Contoso.com' and a 'Set a Service Manager site to connect to:' label above it.

The first three options change the Model and Manufacturer cells across the app to use enumeration lists from the Catalog Item class.

The second two options remove the required fields for the items listed. This will allow administrators to enter the details they do have and revisit the record at a later date.

A screenshot of the 'Asset Management Settings' dialog box. It contains five checkboxes: 'On the Hardware Asset sheet use the Model and Manufacturer dropdown lists.' (checked), 'On the Software Asset sheet use the Manufacturer dropdown list.' (unchecked), 'On the Consumables sheet use the Manufacturer and Model dropdown lists.' (unchecked), 'Remove requirement for Serial Number or Asset Tag on Hardware Asset worksheet.' (unchecked), and 'Remove requirement for Model on the Catalog Item worksheet.' (unchecked).

Don't process relationships during import will not record any of the class relationships with each other during the import. These would have to be added in at a later date.

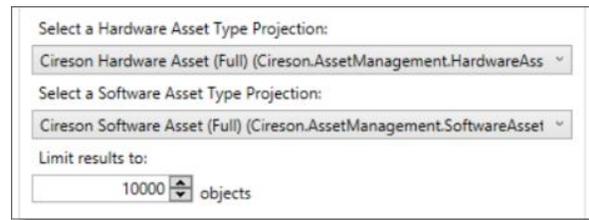
Ignoring Excel validation errors allows administrators to have more control of the import depending on errors that are detected.

A screenshot of the 'Asset Excel Settings' dialog box. It contains three checkboxes: 'Don't process relationships during import.' (unchecked), 'Ignore Excel validation errors on relationship columns.' (checked), and 'Run imports in test mode.' (unchecked).

Run Import in Test Mode will process the import and evaluate the rules etc. but will not commit the records to the database. Results are show in the Log file discussed earlier in this section.

The ability to change the type projection allows Asset Managers to control the data that is returned and available from the SCSM database.

Limiting the results returned from the database will also improve performance of the app, however, it will limit the results. This number should be set to a number high enough to retrieve the records required, but not any higher. Or, a different search term should be used.



NOTE:

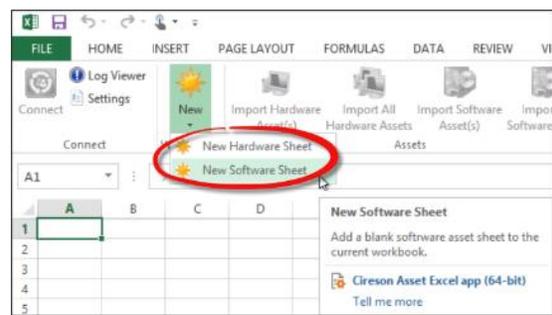
 If some settings are greyed out, this is due to the logged-on user not having administration rights over the SCSM CMDB to make appropriate changes.

11.3 Bulk Import Assets via Asset Excel

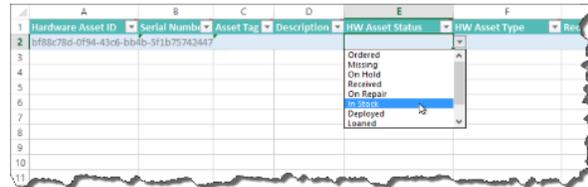
One of the key benefits of Asset Excel is the ability to import bulk Hardware and Software Asset records in an easy to enter and manipulate manner.

To import bulk Assets using Asset Excel:

1. Within the Excel, click the Ribbon titled **CIRESON ASSET EXCEL APP** at the top of the screen.
2. Click the **New** button and select **New Hardware** or **Software Sheet**.
3. A new worksheet will be created with the fields available for that type of asset.

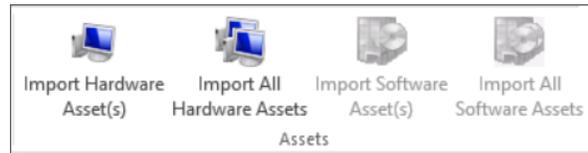


4. Enter data by cutting or pasting or manually entering data in to the spreadsheet as required.
5. Some fields must have specific values entered to match enumeration lists or existing classes in the database. These fields will have a drop down list of the values that can be selected.
6. With Hardware Asset ID, if an entry is not overwritten a random GUID will be generated and entered in the cell.
7. Once one value is selected the value can be cut and pasted to other cells in the column to make bulk entry easier.



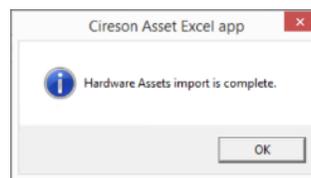
8. Once all data has been entered for the assets to be imported select one of the Import Asset(s) buttons within the Asset Excel Ribbon.

Only those buttons that are relevant to the active worksheet will be active.



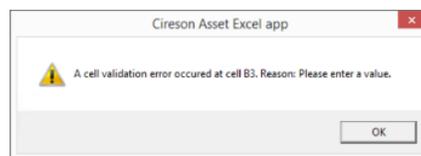
9. Import Hardware Asset(s) will only import those rows that are selected within the worksheet, whereas the Import All option will import all the assets within the active worksheet.

10. Once the import has taken place, or test run completed, a notification will be shown that the import is complete.



11. If there is a data validation error an error message will show the first cell with the validation error.

12. The log will also provide detailed information regarding the reason.



11.4 Bulk Edit Admin Items and Contracts via Asset Excel

Asset Excel can be used for more than just entering Assets on a large scale. It can also be used to enter or edit Administration items, such as Cost Center, Organizations, Consumables etc. and Contracts.

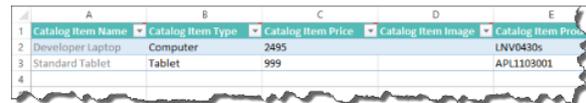
To Edit or Add New Administration Items or Contracts using Asset Excel:

1. Within the Excel, click the Ribbon titled **CIRESON ASSET EXCEL APP** at the top of the screen.
2. Click the button with the label of the administration item that is to be added or edited.



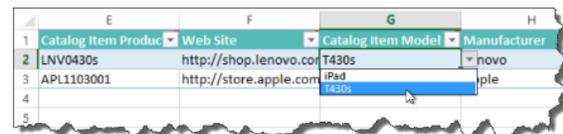
In this example Catalog Items will be used but the principle applies to all Administration items and contracts.

3. A new worksheet will be loaded containing all the existing administration items within the database.



1	Catalog Item Name	Catalog Item Type	Catalog Item Price	Catalog Item Image	Catalog Item Product
2	Developer Laptop	Computer	2495		LNVO430s
3	Standard Tablet	Tablet	999		APL1103001
4					

4. These can be edited or new rows added as required.
5. Like with Hardware and Software assets, some fields will have a drop down list of the values that can be selected.

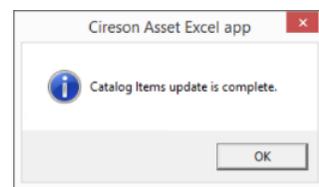


1	Catalog Item Product	Web Site	Catalog Item Model	Manufacturer
2	LNVO430s	http://shop.lenovo.com	T430s	lenovo
3	APL1103001	http://store.apple.com	iPad	apple
4			T430s	
5				

6. When all edits are complete, click the Update button located at the far right of the columns for the item.



7. Once the import has taken place, or test run completed, a notification will be shown that the import is complete.



12 Asset Import Connector

The Asset Import Connector is a way for Asset Administrators to take the guesswork out of importing external data into System Center Service Manager. This app allows any out-of-the-box CMDB data, or any information in the Cireson Asset Management app, to be imported from external CSV, SQL or LDAP sources of truth, exposing an intuitive interface that provides the ability to map columns and schedule imports when required.

With the introduction of this app to a Service Manager environment, importing data becomes seamless. One-time imports and configuring XML files become a thing of the past. The straightforward app provides the organization with the ability to build an asset repository of information that is relevant and accurate when working with requests in Service Manager.

12.1 Asset Import Order

The order of importing class information only applies if Relationships intend to be mapped. Data cannot be imported in to a class with a relationship, if that relationship data is not already imported or created.

When a class has the same relationship, the order is not important. The relationship for Users are not shown below since it only depends on having the User (Domain and Username) information. The 1-to-Many relationships have also been left out of this document.

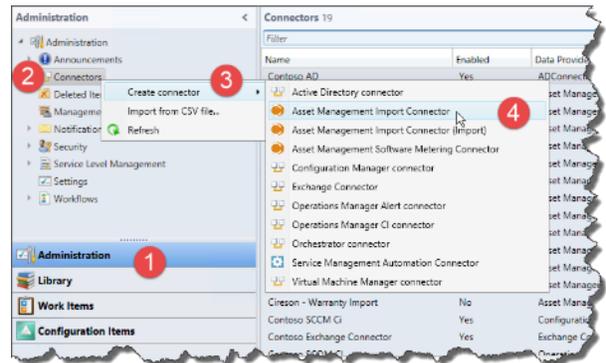
If multiple .csv files are to be used that have relationships mapped to each other, ensure that all data is imported without mapping any relationships. Once all the data is imported, the connector can then be edited to incorporate the relationships and resync the connector. This way, the import of the class properties can be done in any order, and then the updating of the relationships can be done in any order.

Follow the import order below to import the properties and relationships at the same time:

Order	Class	Relationship(s)
1	Vendor	-None-
2	Subnet	-None-
3	Standard	-None-
4	Location	Location (Parent)
5	Catalog Item	Vendor
6	Consumable	Vendor, Location
7	Cost Center	Organization
8	Organization	Cost Center, Location (Primary), Organization (Parent)
9	Purchase Order	Vendor, Cost Center
10	Invoice	Vendor, Cost Center
11	License	Vendor, Cost Center
12	Contract	Vendor, Purchase Order, Cost Center, Invoice
13	Lease	Vendor, Purchase Order, Cost Center, Invoice
14	Warranty	Vendor, Purchase Order, Cost Center, Invoice
15	Purchase (Line Item)	Vendor, Purchase Order, Cost Center, Invoice, Support Contract
16	Software Asset	Vendor, Purchase Order, Cost Center, Invoice, Location, Organization, Support Contract
17	Hardware Asset	Vendor, Purchase Order, Cost Center, Invoice, Location, Organization, Support Contract, Warranty, Lease, Catalog Item

12.2 Creating a new Asset Import Connector

1. Within the SCSM console, select the **Administration** workspace.
2. Right click the **Connectors** Node.
3. Select **Create Connector** from the drop down menu.
4. Select **Asset Management Import Connector** from the sub menu.



NOTE:



The sub menu option for Asset Management Import Connector (Import) is for creating pre-created or backed up Import Connectors. This feature is covered in section 12.4 of the document.

5. Enter a name for the connector that will make sense to other administrators for future maintenance tasks.
6. Select a Management Pack (or create a new one) that will be used to contain the workflow information required for the workflow of the connector.



Cireson Best Practice:



Best practice for creation of Management Packs is to create these Management Packs via the SCSM authoring tool and giving it an internal and full name in the format of "<Company Name> – Asset management Import Connectors".

This then assists to identify the Management Pack when exported or backed up at a later date.

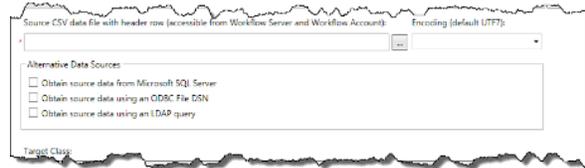
7. The next step will be different depending on the input data source. Select and use one of the following sections below before continuing with section 12.2.5.

12.2.1 Using a CSV Source

1. After completing the steps in the section below, browse to the location of the **.CSV file** that contains the asset data to import and select the **Encoding Format** of the file.

The selected path can be either a local path (on the SCSM workflow server) or a network share that has read permissions by the Workflow account.

The first line of the CSV file must contain the header row information for the data contained within.



Cireson Best Practice:



It is Cireson best practice to create a single folder that contains all the CSV import files for any connector that is being used. It is also best to configure the connectors to use a UNC path as the location path of the file selected as this allows the connector to be edited successfully from other computers.

Continue the property mapping in section 12.2.5 **Error! Reference source not found.**

12.2.2 Using a SQL Source

For **Microsoft SQL Server** data source:

1. Enter the SQL Connection string by clicking the ellipse button and entering the required connection information.

NOTE:



If Windows Authentication is to be used, the SCSM Workflow account must have read access to the source database.

2. Enter the SQL query that will be used to extract the data required for this connector.
3. Click **Execute Query** to test the query and gather field name requirements for class property mapping.

The **SQL Query Results** field will show the number of row returned if the query was successful.

The screenshot shows a configuration window for a SQL source. It contains the following elements:

- SQL Connection string:** A text input field with a red asterisk on the left and an ellipse button on the right.
- SQL Query (must start with SELECT):** A larger text area with a red asterisk on the left.
- Execute Query:** A button located below the query text area.
- SQL Query Result:** A grey rectangular area intended for displaying the results of the query.
- Target Class:** A label at the bottom of the window.

Continue the property mapping in section 12.2.5.

12.2.3 Using a ODBC Source

For **ODBC Server** data source:

1. Create a File Data Source Name (DSN) that contains the Server, Database and username for the data source.
2. Browse the file system and select the File DSN.

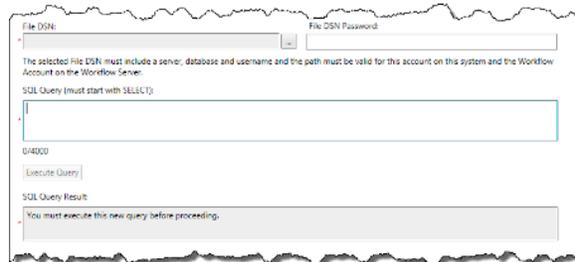
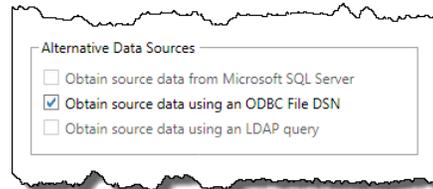


NOTE:

The SCSM Workflow account must have read access to the File DSN.

3. Enter the File DSN Password for the username within the File DSN.
4. Enter the SQL query that will be used to extract the data required for this connector.
5. Click **Execute Query** to test the query and gather field name requirements for class property mapping.

The **SQL Query Results** field will show the number of row returned if the query was successful.



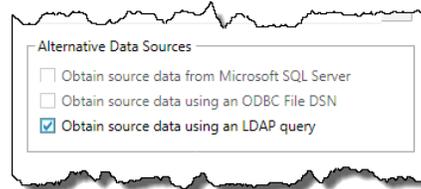
Continue the property mapping in section 12.2.5.

12.2.4 Using an LDAP Source

For an **LDAP** data source:

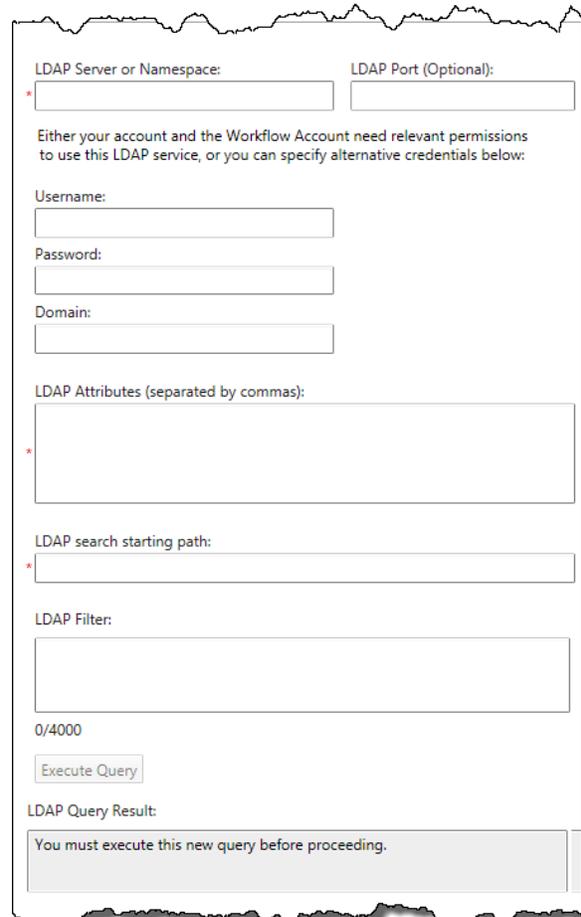
1. Enter the LDAP Server or Namespace and the LDAP Port (If required).
2. If the SCSM Workflow account does not have read access to the LDAP source, enter alternative credentials with the required rights.
3. Enter the LDAP Attributes that are required to be returned separated by commas.
4. Enter an **LDAP search starting path** to reduce the search scope as required.
5. Enter any **LDAP Filter** needed to refine the results to the specific required data.
6. Click **Execute Query** to test the query and gather field name requirements for class property mapping.

The LDAP Query Result field will show the number of row returned if the query was successful.



Alternative Data Sources

- Obtain source data from Microsoft SQL Server
- Obtain source data using an ODBC File DSN
- Obtain source data using an LDAP query



LDAP Server or Namespace: * LDAP Port (Optional):

Either your account and the Workflow Account need relevant permissions to use this LDAP service, or you can specify alternative credentials below:

Username:

Password:

Domain:

LDAP Attributes (separated by commas): *

LDAP search starting path: *

LDAP Filter:

0/4000

LDAP Query Result:

Continue the property mapping in section 12.2.5.

12.2.5 Connector Settings

1. Select the target class that the records will be imported in to. This might be one of the base classes (Such as Hardware Asset) or, if other relationships are required, selecting a combination class (Type Projection) that contains the relationships required for the import.
2. Enter a Workflow log path to track import results and reporting on success/failure.

Target Class: [dropdown]

If you wish to use relationships, select a Combination Class: [dropdown]

Workflow log folder path (accessible from Workflow Server and Workflow Account): c:\logs [text field]

3. Set the required options for the instance of the Asset Import connector. See below for more details on these options.
4. Once all options are selected, click **Next**.

Options

- Test mode - Connector will run and create logs for inspection but will not commit any changes
- This connector can create new items
- This connector can update existing items
- This connector will DELETE ALL matching items only
- This connector will update multiple existing items matching specified custom keys
- Do not replace \n with a linefeed

Asset Import Connector Options:

Test Mode	The connector will run and create log file for inspection without committing any changes to the SCSM database.
This connector can create new items	When enabled, this option will allow the connector to create new records within the database. This is used to allow the import of new records.
This connector can update existing items	When enabled, this option will allow the connector to update existing records that match the key fields the selected class.
This connector will DELETE ALL matching items only	This option changes the behaviour from creation to deleting of records. Any record matched from the import data to an instance of the class will be removed from the SCSM database. WARNING! If data is deleted it can not be recovered.
This connector will update multiple existing items matching specific custom keys	When enabled, this option allows for admins to specify a different primary key to update CIs with, besides that class CI. For example, you can update existing hardware assets via Serial number, instead of hardware asset ID.
Do not replace \n with a linefeed	By default, the import connector will interpret any \n text as representing a new line and therefore will replace it with a linefeed character within SQL.

12.2.6 Mapping Fields

Data Mappings allow the mapping of the specified input data to the properties of the selected target class within SCSM.

1. On the Data Mapping screen, if the option for “This connector will update multiple existing items matching a specific custom keys” is selected on the previous screen the first option that will show is for **Custom Keys**. Custom Keys are used to find all existing matching items and update them as normal via the mappings below. At least one custom key is required.

The Custom Key can be any of the properties for the class that was selected for this connector.

2. Add the custom keys as required and map these to the data from the import source.

Property	Data Type	Mapped To
Asset Name	string	Title

Use OR instead of AND for all keys

NOTE:



All Key Properties for the selected class as well as any Custom Keys are required fields and must be mapped to continue.

The property displayed in the left column will show all properties of the selected class, along with any extended properties that have been added for the class.

The Data Type in the middle column will show what input data type the property will expect. String (Key) identifies the primary key for the selected class.

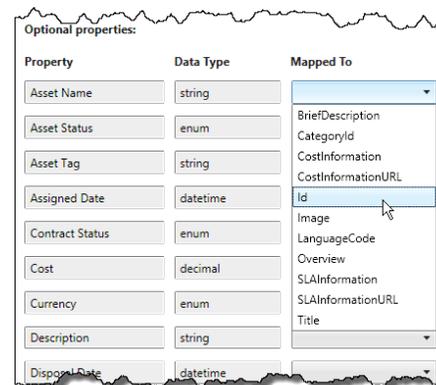
The Mapped To value displayed in the right column will show drop-down values for each available column header from the specified source

The Hardware Asset ID should be mapped to the primary key selection you chose in the Asset Management Settings. (Serial Number, Asset Tag, GUID, etc.)

3. Map all additional properties to the input data that is defined from the Input source.

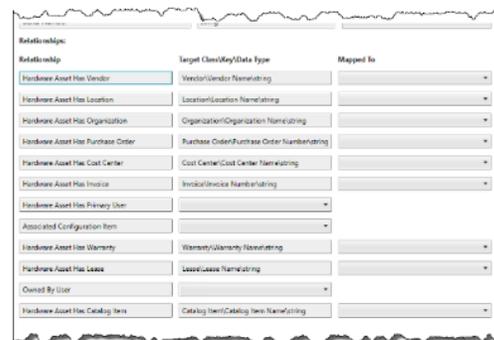
Any properties that are mapped will be updated or entered as defined.

Any properties that are not mapped will not be updated.



4. If a **Combination Class** is selected for the connector there will be additional mapping fields under the **Relationship** heading.

These can be used to map data from multiple classes together as relationships as required.



5. Once all mappings are complete, click **Next**.
-

12.2.7 Connector Workflow Schedule

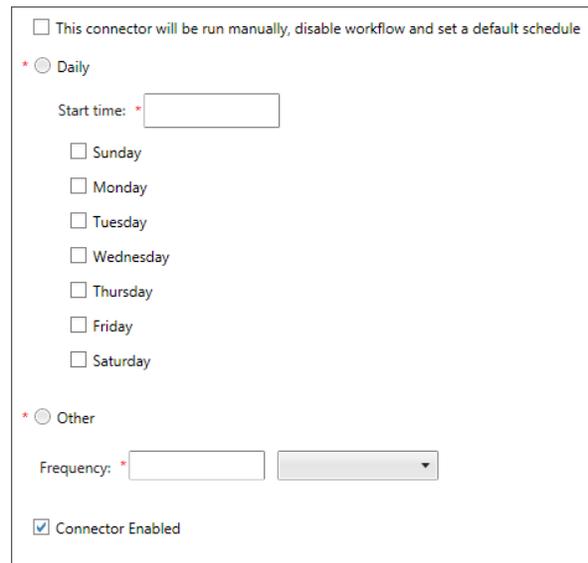
Some connectors will be run as a once off to import bulk data in to the SCSM database, whereas others might be run on a schedule to keep other data sources up-to-date within the database.

An example of a scheduled data source might be a connector in to a Mobile Device Management (MDM) solution or an accounting or purchase system (for invoices and Purchase Orders).

1. For connectors that will be only run once, select the option marked **This connector will be run manually**.

When using this option, a warning message will be displayed to remind administrators that the connector will only run when using the **Synchronize Now** task within the console.

2. For a reoccurring schedule, enter the frequency as either daily or as a regular reoccurrence with a set frequency.
3. Ensure the **Connector Enabled** option is enabled to allow the connector to run. This option may help with the administration of the connector at a later date if it needs to be turned off for a period of time for maintenance or fault finding.



The screenshot shows a configuration dialog box for a connector workflow schedule. At the top, there is a checkbox labeled "This connector will be run manually, disable workflow and set a default schedule". Below this, there are two radio button options: "Daily" (selected) and "Other". Under the "Daily" option, there is a "Start time:" label followed by an empty text input field. Below that are seven checkboxes for the days of the week: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. Under the "Other" option, there is a "Frequency:" label followed by an empty text input field and a dropdown menu. At the bottom of the dialog, there is a checked checkbox labeled "Connector Enabled".

4. When the scheduling information has been entered, click **Create**.

Create

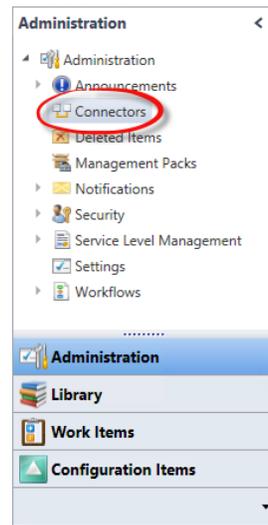
12.3 Manually Running a Connector

Once a connector has been created it will show within the Connectors node in the Administration workspace of the SCSM console. Within this node, administrators are able to see the current status of all connectors, when they were last started and finished and their percentage complete.

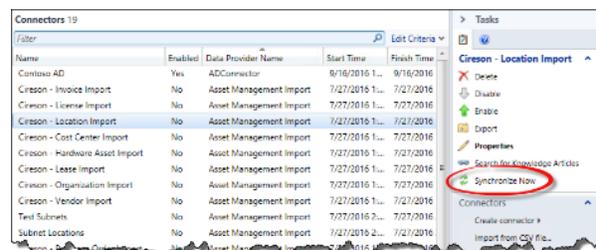
Administrators are also able to manually run a connector to either force the synchronization regardless of workflow schedule or to trigger a non-repeating connector.

To manually run a connector:

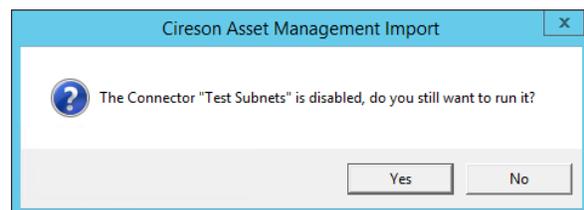
1. Within the SCSM console, select the **Administration** workspace.
2. Select the **Connectors** node.



3. Select the **Connector** to be run and click the **Synchronize Now** task within the tasks pane.



4. If the connector does not have a schedule set (is disabled) then a message will appear informing that the connector is disabled and asking if it should still be run.
5. Click Yes to run the Synchronization.



The connector workflow will then be scheduled to start at the next opportunity for the workflow engine.

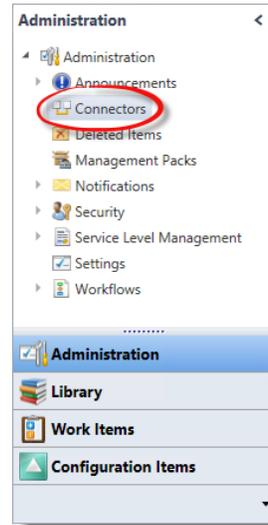
12.4 Exporting and Importing a Connector

Once a connector has been configured the settings can be exported to allow administrators to copy the connector to a different environment (dev to prod).

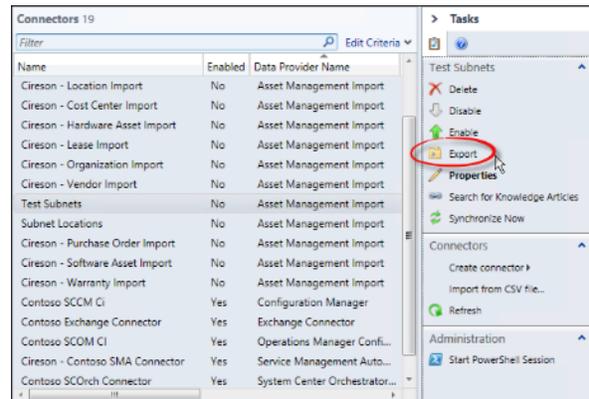
To export and import a connector:

Within the environment to export from:

1. Within the SCSM console, select the **Administration** workspace.
2. Select the **Connectors** node.

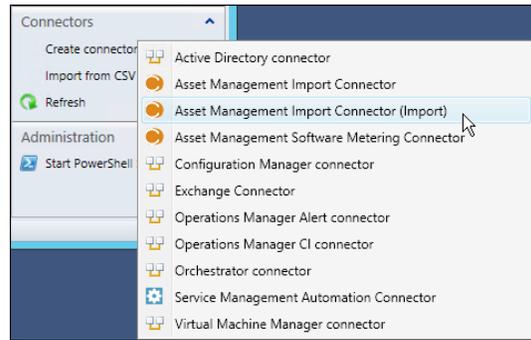


3. Select the **Connector** to be run and click the **Export** task within the tasks pane.
4. Save the connector XML file to a path and click **Save**.

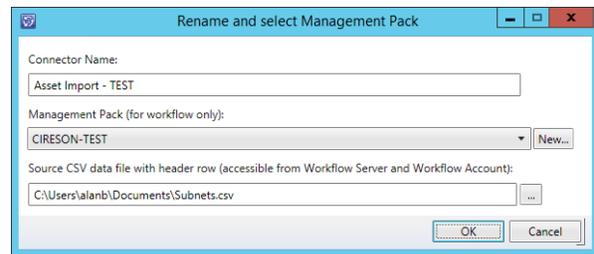


Within the environment to import in to:

5. On the Connectors node, select **Create Connector** from the drop down menu.
6. Select **Asset Management Import Connector (Import)** from the sub menu.
7. Browse to the folder containing the exported XML file, select the xml file to import and click **OK**.



8. A window will appear to rename the Connector from its original name if required and change the Management Pack that holds the information.
9. If the connector is importing from a CSV file, an additional field will appear that is used to provide the source location of the CSV file required.
10. Enter the values needed and click **OK**.



The connector will be imported and will now appear in the connectors node.

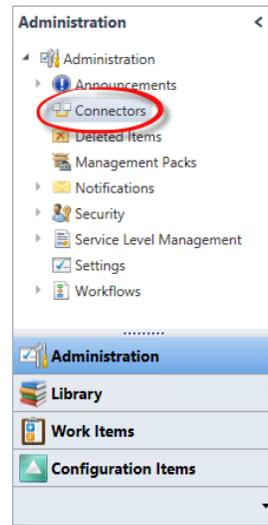
12.5 Deleting a Connector

If a connector is no longer needed, then it can be removed from the SCSM environment by deleting the connector from the console.

To delete a connector:

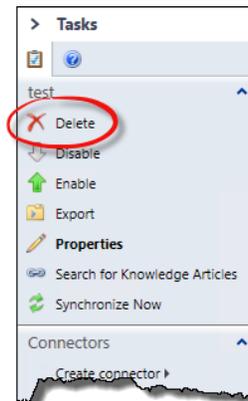
Within the environment to export from:

1. Within the SCSM console, select the **Administration** workspace.
2. Select the **Connectors** node.



3. Click the **Delete** task from the tasks pane on the right of the screen.
4. Click **OK** on the message that appears to confirm the connector to be deleted.

The connector has previously imported data a second message will appear asking if the data that was imported from the connector should be deleted.



13 Appendix 1: Configuration Item Data Fields and Descriptions

13.1 Organizations

Organizations are a way to break up companies based on a logical structure of the business. This can be businesses, departments or groups within a parent company.

Organizations Property	Description
General Tab	
Organization Name	A unique Name used to identify the Organization CI
Custodian	Related User who is primarily responsible for the Organization
Cost Center	Related Cost Center CI that the Organization is to be associated with. (See section 10.4.1)
Parent Organization	Related Purchase Order CI that is considered a parent of the current Purchase Order CI
Notes	Text field for additional notes associated with the Organization
Primary Location	Related Location CI that is considered the primary location for this organization (See section 10.1.2)
Locations Tab	
Locations	All related Location CI's for this organization
Related Assets Tab	
Related Hardware Assets	Related Hardware Assets to the current Organization
Related Software Assets	Related Software Assets to the current Organization
Levels	
Parent Organization	Related Organization CI that is considered a parent of the current Organization CI. This reflects the Ci that is chosen on the General tab.
Child Organizations	Related Organization CI's that are considered a child of the current Organization CI.

13.2 Locations

Locations are used to track specific locations that an organization may require to associate an asset to.

Locations Property	Description
General	
Location Name	A unique Name used to identify the Location CI
Parent Location	Related Location CI that is considered a parent of the current Location CI
Address Line 1	Street Address for the Location
Address Line 2	Street Address for the Location
City	City that the Location is in
State	State that the Location is in
Postal Code	Postal Code or ZIP code of the state and city of the Location
Country	Country that the Location is in
Contact Name	Name of person responsible for primary contact at this location
Email	E-mail of primary contact at this location
Telephone	Phone number of primary contact at this location
Fax	Fax Number of primary contact at this location
Tax Rate (%)	A percentage rate that should be applied to purchases that are made from the location
Notes	Text field for additional notes associated with the Location
Subnets	
Subnets	All related Subnet CI's for this Location. (See section 10.1.3)
Related Assets	
Related Hardware Assets	Related Hardware Assets to the current Location
Related Software Assets	Related Software Assets to the current Location
Levels	
Parent Location	Related Location CI that is considered a parent of the current Location CI.
Child Location	Related Location CI's that are considered a child of the current Location CI.

13.3 Subnets

The Subnets configuration item is used to identify a network subnet within an organization that is used by computers.

Subnets Property	Description
General	
Subnet Name	A unique Name used to identify the Subnet CI
IP Address Range	The range of IP Addresses that make up the current Subnet. Example: 10.10.1.1-10.10.1.254
Subnet Mask	A valid subnet mask for the current Subnet Example: 255.255.0.0
Notes	Text field for additional notes associated with the Subnet
Related Locations	
Related Locations	Related Locations to the current Subnet

13.4 Vendors

The Vendor CI is for tracking key contact information for sales or support supply companies. This is a central place to keep track of these critical contact details to ensure the correct information is available when required by anyone who may require it.

Vendor Property	Description
General	
Vendor Name	A unique Name used to identify the Vendor CI
Web Site	Website that is related to the Vendor
Address Line 1	Street Address for the Vendor
Address Line 2	Street Address for the Vendor
City	City that the Vendor is in
State	State that the Vendor is in
Postal Code	Postal Code or ZIP code of the state and city of the Vendor
Country	Country that the Vendor is in
Contact Name	Name of person responsible for primary contact at this Vendor
Email	E-mail of primary contact at this Vendor
Telephone	Phone number of primary contact at this Vendor
Fax	Fax Number of primary contact at this Vendor
Notes	Text field for additional notes associated with the Vendor
Related Assets	
Related Hardware Assets	Related Hardware Assets to the current Vendor
Related Software Assets	Related Software Assets to the current Vendor

13.5 Leases

The Lease CI's contain details about any lease relating to a hardware or software asset

Leases Property	Description
General	
Lease Name	A unique name used to identify the lease CI
Contract Status	A calculated field that shows the current status of the contract based on the start and end date as well as settings set in the Contract Status Warning Threshold setting. (See section 10.3)
Lease Start Date (Required)	Date when the lease will or has commenced. (Only enabled if lease is NOT a master contract)
Lease End Date (Required)	Date when the lease will or has ended. (Only enabled if lease is NOT a master contract)
Master Contract	Identifies this lease as a master contract.
Master Contract Span	Time span of the master contract. (Only enabled if lease is identified as a master contract)
Master Contract Unit	Time span unit of the master contract. Specified in Days, Months or Years. (Only enabled if lease is identified as a master contract)
Notes	Text field for additional notes associated with the contract
Vendor	Related Vendor CI (See section 10.2)
Finance	
Cost Center	Related Cost Center CI (See section 10.4.1)
Custodian	Related User who is primarily responsible for the lease
Purchase Order	Related Purchase Order CI (See section 10.4.2)
Invoice	Related Invoice CI (See section 10.4.3)
Contract Cost	Dollar value and currency of the contract
Contract Supersedes Contracts	Related contracts that the current CI Supersedes
Contract Superseded by	Related contract that supersedes current CI
Related Hardware Assets	Related hardware assets to the current contract. Leases are associated from the Hardware or Software asset and are displayed here for reference. Assets cannot be assigned to the lease from this screen.

13.6 Support and Maintenance Agreement

Support & Maintenance Agreement Property	Description
General	
Contract Name	A unique name used to identify the contract CI
Contract Status	A calculated field that shows the status of the contract based on the start and end date as well as settings set in the Contract Status Warning Threshold setting. (See section 10.3)
Contract Start Date	Date when the lease will or has commenced.
Contract End Date	Date when the lease will or has ended.
Notes	Text field for additional notes associated with the contract
Vendor	Related Vendor CI (See section 10.2)
Finance	
Cost Center	Related Cost Center CI (See section 10.4.1)
Custodian	Related User who is primarily responsible for the contract
Purchase Order	Related Purchase Order CI (See section 10.4.2)
Invoice	Related Invoice CI (See section 10.4.3)
Contract Cost	Dollar value and currency of the contract
Contract Supersedes Contracts	Related contracts that the current CI Supersedes
Contract Superseded by	Related contract that supersedes current CI
Related Assets	
Related Hardware Assets	Related hardware assets to the current contract.

13.7 Warranties

Warranty Property	Description
General	
Warranty Name	A unique name used to identify the warranty CI
Contract Status	A calculated field that shows the status of the contract based on the start and end date as well as settings set in the Contract Status Warning Threshold setting. (See section 10.3 Error! Reference source not found.)
Warranty Start Date	Date when the lease will or has commenced. (Only enabled if lease is NOT a master contract)
Warranty End Date	Date when the lease will or has ended. (Only enabled if lease is NOT a master contract)
Master Contract	Identifies this lease as a master contract.
Master Contract Span	Time span of the master contract. (Only enabled if lease is identified as a master contract)
Master Contract Unit	Time span unit of the master contract. Specified in Days, Months or Years. (Only enabled if lease is identified as a master contract)
Notes	Text field for additional notes associated with the contract
Vendor	Related Vendor CI (See section 10.2)
Finance	
Cost Center	Related Cost Center CI (See section 10.4.1)
Custodian	Related User who is primarily responsible for the warranty
Purchase Order	Related Purchase Order CI (See section 10.4.2)
Invoice	Related Invoice CI (See section 10.4.3)
Contract Cost	Dollar value and currency of the contract
Contract Supersedes Contracts	Related contracts that the current CI Supersedes
Contract Superseded by	Related contract that supersedes current CI
Related Assets	
Related Hardware Assets	Related hardware assets to the current contract.

13.8 Cost Center

Cost Center Property	Description
General	
Cost Center Code	A unique code used to identify the Cost Center CI
Parent Cost Center	Related Cost Center CI that is considered a parent of the current Cost Center CI
Warranty Start Date	Date when the lease will or has commenced. (Only enabled if lease is NOT a master contract)
Warranty End Date	Date when the lease will or has ended. (Only enabled if lease is NOT a master contract)
Master Contract	Identifies this lease as a master contract.
Master Contract Span	Time span of the master contract. (Only enabled if lease is identified as a master contract)
Master Contract Unit	Time span unit of the master contract. Specified in Days, Months or Years. (Only enabled if lease is identified as a master contract)
Notes	Text field for additional notes associated with the contract
Vendor	Related Vendor CI (See section 10.2)
Finance	
Cost Center	Related Cost Center CI (See section 10.4.1)
Custodian	Related User who is primarily responsible for the warranty
Purchase Order	Related Purchase Order CI (See section 10.4.2)
Invoice	Related Invoice CI (See section 10.4.3)
Contract Cost	Dollar value and currency of the contract
Contract Supersedes Contracts	Related contracts that the current CI Supersedes
Contract Superseded by	Related contract that supersedes current CI
Related Assets	
Related Hardware Assets	Related hardware assets to the current contract.

13.9 Purchase Orders

Purchase Order Property	Description
General	
Purchase Order Number	A unique code used to identify the Purchase Order CI
Purchaser	Related User who is primarily responsible for the purchase order
Total Cost	Dollar value and currency of the Purchase Order
Cost Center	Related Cost Center CI that the Purchase Order is to be associated with. (See section 10.4.1)
Purchase Order Date	Date that the Purchase Order was created
Purchase Order Status	Current status of the Purchase Order
Type	Type of Purchase Order that has been created
Parent Purchase Order	Related Purchase Order CI that is considered a parent of the current Purchase Order CI
Notes	Text field for additional notes associated with the Purchase Order
Vendor	Related Vendor CI (See section 10.2)
Related Assets	
Related Hardware Assets	Related Hardware Assets to the current Purchase Order
Related Software Assets	Related Software Assets to the current Purchase Order
Contracts	
Support & Maintenance	Related Support and Maintenance contracts to the current Purchase Order. (See section 10.3.3)
Warranties	Related Warranties contracts to the current Purchase Order. (See section 10.3.4)
Leases	Related Lease contracts to the current Purchase Order. (See section 10.3.2)

13.10 Invoices

Invoice Property	Description
General	
Invoice Order Number	A unique code used to identify the Invoice CI
Received Date	Date when the Invoice item was received by the organization
Invoice Amount	Dollar value and currency of the Invoice
Cost Center	Related Cost Center CI that the Invoice is to be associated with. (See section 10.4.1)
Invoice Status	Current status of the Invoice
Notes	Text field for additional notes associated with the Invoice
Vendor	Related Vendor CI (See section 10.2)
Related Assets	
Related Hardware Assets	Related Hardware Assets to the current Invoice
Related Software Assets	Related Software Assets to the current Invoice
Related Purchase Orders	Related Purchase Orders to the current Invoice
Related Purchases	Related Purchases to the current Invoice
Contracts	
Support & Maintenance	Related Support and Maintenance contracts to the current Invoice. (See section 10.3.3)
Warranties	Related Warranties contracts to the current Invoice. (See section 10.3.4)
Leases	Related Lease contracts to the current Invoice. (See section 10.3.2)

13.11 Line Items

Line Item Property	Description
General	
Purchase Name	A unique name given for the individual item being purchased
Purchaser	Related User who is primarily responsible for the Purchase process
Notes	Text field for additional notes associated with the Purchase
Cost Center	Related Cost Center CI that the Purchase item is to be associated with. (See section 10.4.1)
Custodian	Related User who is primarily responsible for the Purchased item
Purchase Order	Related Purchase Order to the current Purchase item
Invoice	Related Invoice to the current Purchase item
Expected Date	Date when the Purchase item is expected to be received by the organization
Received Date	Date when the Purchased item was actually received by the organization
Asset Cost	Dollar value and currency of the Purchase
Support and Maintenance Contract	Related Support and Maintenance contracts to the current Purchase item. (See section 10.3.3)
Type	A list value for the type of Purchase being made
Vendor	Related Vendor CI (See section 10.2)
Related Assets	
Related Hardware Assets	Related Hardware Assets to the current Invoice
Related Software Assets	Related Software Assets to the current Invoice
Licenses	
Licensing	Related License to the Purchase (See section 11)
Contracts	
Support & Maintenance	Related Support and Maintenance contracts to the current Purchase item. (See section 10.3.3)
Warranties	Related Warranties contracts to the current Purchase item. (See section 10.3.4)
Leases	Related Lease contracts to the current Purchase item. (See section 10.3.2)

13.12 Consumables

Consumable Property	Description
General	
Consumable Name	A unique name given for the individual Consumable
Owner	Related User who is primarily responsible for the Consumable
Manufacturer	Text field to record the maker of the Consumable
Model	Text field to record the model name or number of the Consumable
Status	A calculated field based on the Available count and the Reorder Point. If the Available count drops below the Reorder point or reaches zero, the status will change. Values for the status are None, Exhausted, Warning or OK.
Type	Customized list of styles of Consumables
Cost	Cost value for the Consumable
Location	Related Location CI to the current Consumable
Available Count	A calculated field based on current stock levels
Reorder Point	A minimum number of the Consumable items that will trigger a warning to re-order
Assigned Count	Number of Consumables that are currently assigned to CI's
Maximum Available Level	The number of the item that should be order when restocking the Consumable
Notification Template	Notification template used to notify the Consumable owner when the Available Count is triggered
Notes	Text field for additional notes associated with the Consumable
Activity Log	A log of increases and decreases in the number of the Consumable
Vendor	Related Vendor CI (See section 13.4)
Assignment	
Related Assigned Assets	Related Asset CI's to the current Consumable
Contents of this list counts towards Assigned Count	The number of CI's that are listed in the Related Assigned Assets can be added to the assigned count on the General tab.
Related Assigned Users	Related User CI's to the current Consumable
Contents of this list counts towards Assigned Count	The number of CI's that are listed in the Related Assigned Users can be added to the assigned count on the General tab.

13.13 Notice Events

Notice Event Property	Description
General	
Title	A unique name used to identify the Notice Event CI
Owner	Related User who is primarily responsible for the Notice Event
Type	Customized list of styles of Notice Event (See Section 10.5.2 Error! Reference source not found.)
Enabled	Check box to indicate if the Notification Event is enabled
Due Date	Specific date for the notification event to occur. Only applicable when "If Applicable use Contract End Date instead" is unchecked
If Applicable use Contract End Date instead	When enabled, the Notification Event will attempt to use the Contract End Date of the associated Contract CI
Notice Span	Number of units that determines the time span
Notice Period	Period of time for the Notice Span value
Target Class	The type of Configuration Item Class that the notification will be targeted to
Notification Template	The notification template that will be sent with this notification event
Hardware Asset Notification Template	The notification template that will be sent with this notification event if this notice event is targeting a master contract.
Auto Renew	Check box indicating if the notification should trigger an Auto Renew event. This check box has no actual affect but can be used for processes and or workflows built by an organization
Notes	Text field for additional notes associated with the Notice Event
Recipients	All user who will receive a copy of the notification. This can be the notification owner, CI instance Custodian or a manually selected list of users.
Related Notice Event Configuration Items	All Configuration Items that should be considered related to this Notice Event

13.14 Catalog Items

Catalog Item Property	Description
General	
Catalog Item Name	A unique name given for the individual Catalog Item
Catalog Item Type	Customized list of styles of Catalog Item
Manufacturer	Text field to record the maker of the Catalog Item
Model	Text field to record the model name or number of the Catalog Item
Product ID	Text field to record the Manufacturer or Vendors Product ID or number for the Catalog Item
Price	Purchase cost value for the Catalog Item
Website	Website associated with the particular Make and Model of hardware described in this Catalog Item
Status	A status of either Active or Inactive indicates if the Catalog Item is current or not
Notes	Text field for additional notes associated with the Consumable
Vendor	Related Vendor CI (See section 10.2)
Catalog Image	An image file to show when users browse the catalog
Related Assets	
Related Hardware Assets	Related Hardware Asset CI's to the current Catalog Item

13.15 Standards

Standard Property	Description
General	
Standard Name	A unique name given for the individual standard
Standard Type	Customized list of styles of standards that exist for the organization
Notes	Text field for additional notes associated with the Standard
Related Asset Management Item	Related CI's that combine to make the Standard

13.16 Hardware Assets

Hardware Asset Property	Description
General	
Asset Name	A unique name given for the individual Hardware Asset
Hardware Asset ID	A unique identification number for the individual Hardware Asset. Note: if no provided the system will generate a unique ID.
Primary User	Related User who has been identified manually or via SCCM User Device Affinity process as being the person who primarily uses this Hardware Asset
Description	Text field for detailed description notes associated with the Hardware Asset
Manufacturer	List item to select the Hardware manufacturer of this Hardware Asset. This is populated from the Catalog Item Manufacturer list. (See section 0)
Model	List item to select the hardware model of this Hardware Asset. This is populated from the Catalog Item Model list. (See section 0 Error! Reference source not found.)
Serial Number	Text field for hardware serial number. Computers imported via the SCCM connector will populate this field from SCCM data if the number is available.
Asset Tag	Text field for hardware asset tag number. Computers imported via the SCCM connector will populate this field from SCCM data if the number is available.

Hardware Asset Property	Description
HW Asset Status	List item to select the status of this Hardware Asset. This is populated from the Hardware Asset Status list.
HW Asset Type	List item to select the type of the Hardware Asset. This is populated from the Hardware Asset Type list.
Location	Related Location CI to the current Hardware Asset
Location Details	Text field for item specific location details. This field allows asset administrators to add item specific location details per item. Example: In blue cupboard.
Organization	Related Organization CI to the current Hardware Asset
Associated Configuration Item	Related Configuration Item to the current Hardware Asset. This field can be any type of Configuration Item required by the organization
Contract	Related Contract CI to the Current Hardware Asset
Contract Status	Calculated field based on the current Hardware Asset details and the related Contract.
Warranty Start Date	Warranty start date populated by the related Contract. If the Contract type is a master contract this field is a calculated field based on the Received Date of the Hardware Asset.
Warranty End Date	Warranty end date populated by the related Contract. If the Contract type is a master contract this field is a calculated field based on the Received Date of the Hardware Asset.
Use a Lease and not a Warranty	By default, the related contract for a Hardware Asset is a Warranty. This check box allows the contract to be set as a Lease contract rather than a Warranty contract.
Support and Maintenance Contract	Related Support and Maintenance Contract CI to the Current Hardware Asset.
Contract Status	Calculated field based on the current Hardware Asset details and the related Support and Maintenance Contract.
Finance	
Cost Center	Related Cost Center CI to the current Hardware Asset
Custodian	Related User who is primarily responsible for the Hardware Asset
Purchase Order	Related Purchase Order that is associated with the Hardware Asset
Invoice	Related Invoice that is associated with the Hardware Asset
Expected date	Date that the Hardware Asset is expected to be delivered or received.
Received Date	Date that the Hardware Asset was delivered or received.

Hardware Asset Property	Description
Asset Cost	Financial purchase cost of the asset and the three letter currency code.
Master Lease / Warranty Status	Manually set date that the Master Lease or Warranty should start from. This is to manually adjust the warranty or lease calculation if it is a master contract and the received date should not be the start date of the contract.
Loaned Date	Date that the Hardware Asset was loaned out.
Loan Returned Date	Date that the Hardware Asset was returned from loan.
Disposal Date	Date that the Hardware Asset was disposed
Disposal Reference	Text field for a description or notes associated with the disposal of the Hardware Asset.
Assigned Date	Date that the Hardware Asset was assigned to a user. Used to assign Hardware Assets to a project or group for a specific time period.
Expected End Date	Date that the Hardware Asset is expected to no longer be required by the Assigned user.
Vendor Name	Related Vendor CI (See section 10.2)
Purchases	
Related Purchases	Related Purchases CI's that are associated with the Hardware Asset (See section 10.4.4)
Related Assets	
Hardware Assets belonging to this Hardware Asset	Related Hardware Assets that would be considered children of this Asset as a Parent.
Hardware Assets this Hardware Asset Belongs to	Related Hardware Assets that would be considered the parent of the Asset.
Related Configuration Item Software Assets	Related Software Asset CI's that are associated, assigned or installed on this Hardware Asset
Related Consumables	Related Consumables CI's that are associated with this Hardware Asset

13.17 Licenses

Property	Description
General	
License Name	A unique name given for the individual license
License Type	Indication of Temporary or Permanent license
License Status	A calculated field based on the License Type and Expiry Date. If the license is Permanent, then the status will always remain as Current. If the license is Temporary then the status will change based on the Expiry Date and will be either Current, Expiring or Expired.
Expiry Date	The date when a temporary license is due to expire
Version	Version of the licensed product
Cost Center	Related Cost Center CI that the license is to be associated with. (See section 10.4.1)
Custodian	Related User who is primarily responsible for the license
License Key	Product key associated with the license. This is only visible to users with adequate permissions.
Allocated Seats	Number of users or computers that this license has been purchased to cover.
Seats Remaining	A calculated field based on number of allocated seats and the number of users and or computers associated in the Assignments tab
Notes	Text field for additional notes associated with the License
Vendor	Related Vendor CI (See section 10.2)
Assignment	
Related Assigned Computers	Related Computer CI's to the current License
Related Assigned Users	Related User CI's to the current License
Related Assets	
Related Software Assets	<p>Related Software Assets to the current License. One software asset may have several Licenses associated with it and a single License may have several Software Assets associated with it.</p> <p>This is to allow the breakup of a License "Pool".</p> <p>Example: An organization may buy 100 Office 2013 licenses but want to allocate 10 to HR, 50 to Engineering, 35 to Head Office Location and 5 to Cost Center 12345.</p>

13.18 Software Assets

Software Asset Property - General / Software Asset		Description
General		
Software Asset Name		A unique name given for the individual Software Asset
Version		Text field for Software Asset version information
Description		Text field for detailed description notes associated with the Hardware Asset
Manufacturer		Text field for name of Manufacturer of the Software Asset
Primary User		Related User who has been identified manually as being the person who primarily uses this Software Asset
Organization		Related Organization CI to the current Software Asset
Location		Related Location CI to the current Software Asset
Support and Maintenance Contract		Related Support and Maintenance Contract CI to the Current Software Asset.
SW Asset Status		List item to select the type of the Software Asset. (See section
SW Asset Type		List item to select the type of the Software Asset. This is populated from the Software Asset Type list.
Software Library Location		Text field for item specific software location details. This field allows for organizations to use ITIL standard to track the Definitive Media Library for software.

Software Asset Property - General / Associated Software	Description
Software Pattern	Software identification text used for matching software found within SCCM data. % is used as a wildcard.
Version Pattern	Software version identification text used for matching software found within SCCM data. % is used as a wildcard.
Warning Threshold	A percentage of Software Asset Count to Installed Count. This is used to trigger alert workflows when usage gets close to exhausting Total Purchase Count.
Exclusion Pattern	Software identification text used for excluding data from the workflow that matches software found within SCCM data. % is used as a wildcard.
Software Metering Filename	The filename associated with the software metering rules created in SCCM
Licensing Mode	Options that affect the usage count workflows by adjusting how the Usage Count is calculated.
Purchase and Install Count Options	Options that affect the usage count workflows by adjusting how the Install Count is calculated.
Purchase Count	A count of Software Assets actually purchased by the organization
Downgrade Licenses	A count of downgrade licenses to add to the count for this Software Asset
Upgrade Licenses	A count of upgrade licenses to add to the count for this Software Asset

Software Asset Property - Software Metering	Description
Last Updated	Display field showing the date that the workflow last run to update the Software Metering data on this Software Asset.
Usage Count	Display field showing the count of computers using the Software Asset.
Exclude this Software Asset from Software Metering	Check box that disables the Software Metering workflow from running against this Software Asset. This can be used to create two Software Assets with the same Software Metering rules but to exclude one from the workflow.
Metering Data	List of associated Computer CI's that have returned metering data associated with the Software Metering Filename listed on the General tab.

Software Asset Property - Finance	Description
Cost Center	Related Cost Center CI to the current Software Asset
Custodian	Related User who is primarily responsible for the Software Asset
Purchase Order	Related Purchase Order that is associated with the Software Asset
Invoice	Related Invoice that is associated with the Software Asset
Expected date	Date that the Software Asset is expected to be delivered or received.
Received Date	Date that the Software Asset was delivered or received.
Asset Cost	Financial purchase cost of the asset and the three letter currency code.
Vendor Name	Related Vendor CI (See section 10.2)

Software Asset Property - Purchases	Description
Related Purchases	Related Purchases CI's that are associated with the Software Asset (See section 10.4.4)

Software Asset Property - Related Assets	Description
Related Computers	Related Software Assets that would be considered children of this Asset as a Parent.
Related Software Items	Related Software Assets that would be considered the parent of the Asset.

Software Asset Property - Authorization	Description
Authorized Cost Centers	Related Cost Centers that are associated with the Software Asset that are authorized to use this Software Asset.
Authorized Organizations	Related Organizations that are associated with the Software Asset that are authorized to use this Software Asset.
Authorized Locations	Related Locations that are associated with the Software Asset that are authorized to use this Software Asset.
Authorized Computers	Related Computers that are associated with the Software Asset that are authorized to use this Software Asset.
Unauthorized Computers	Related Computers that are associated with the Software Asset that are NOT authorized to use this Software Asset.
Authorized Users	Related Users that are associated with the Software Asset.

Any authorization CI's that are selected here are used by the workflow to determine if an installation of the software should be counted or not. Only computers that satisfy these rules will be counted towards the installed count for this Software Asset.

Software Asset Property - Downgrade & Upgrades	Description
Downgrade Licenses	Related Software Assets that are associated with the Software Asset that contain rights to also count it's purchase count towards the purchase count of the current Software Asset.
Upgrade Licenses	Related Software Assets that are associated with the Software Asset that contain rights to also count it's purchase count towards the purchase count of the current Software Asset

14 Appendix 2: Asset Import Connector Log Entries

This section will show some examples the log entries that should be displayed if there are no Warnings or Errors as well as common Warnings and Errors that may be seen. Importing should not continue if there are errors. The warnings may only be informing of values that are not populated if some entries have them and others don't.

Log files are created when an Asset Import connector is synchronized in either Test or non-Test mode. This section will cover some tips and some potential errors and warnings, how to prevent them, as well as tips to remember when importing csv files.

14.1 Log Reader Program

It is possible to read the log files in notepad or other text reader, but it makes life easier for administrators to have a better way of filtering and finding any warnings or errors.

One tool to use is the Configuration Manager Trace Log Tool. It can be downloaded at <http://www.microsoft.com/en-us/download/details.aspx?id=36213>. Please read and follow all licensing rules.

The Configuration Manager Toolkit will come with a tool named CMTrace. When run for the first time, it will ask if the app will be used as the default application for all logs. This can be set as a preference if desired.

This application will highlight Warnings in Yellow and Errors in Red.

14.2 Basic Anatomy of a Log File

Starting Import Workflow v7.5.x.x

This line will display the version of the Asset Import app when the connector was run

Batch Size

Within the Asset Import settings, the default batch size is 100. This can be changed for initial mass imports, but should be changed back once initial imports are complete.

An error will be logged if the synchronization attempts to import more than that defined batch size.

Running Connector in TEST mode

If the "Test Mode" checkbox is checked, this line will appear in the log noting that data is not being written to the database.

Data source is CSV

This line will state where the data was selected to import from. This will be CSV, SQL or ODBC.

Importing from...

This line will display where the data is being imported from.

Workflow completed

The final line will show how many lines were processed and how many errors. This count can be compared to the rows in the csv file or spreadsheet to verify that the correct amount of entries are going to be imported.

14.3.5 Input String Error

2013/09/11 15:35:21.328 - Error - Input string was not in a correct format.

Reason: A value has been mapped to one of either the *Asset Status* or *Object Status* properties. These properties are not intended for use on Asset Import data.

Prevent/Fix: Review the Data mappings section of the connector and verify nothing is mapped to the *Asset Status* or *Object Status* properties.

OR

Reason: Within Asset Excel, a value has been mapped to a property that does not match the data type used by that field.

Prevent/Fix: Review the Excel spreadsheet and ensure the data types match the values that have been entered.

14.3.6 Missing or Moved .CSV File

Error - The input file "C:\Users\ecott.watkins\Desktop\Business Service Data - Copy.csv" no longer exists or is not accessible by the Workflow Account

Reason: The .csv file has been moved from the original location it was during the creation of the connector. Or, the .csv file is in a location the workflow account can no longer access.

Prevent/Fix: Don't move the .csv file after creating the connector. Create a folder for all your .csv file to go into and do not change it.

OR

Place the .csv files on one of the Service Manager Management servers, or share out the folder to the workflow account.

14.3.7 New column added to excel spreadsheet

2013/04/23 20:29:09.298 - Error - Class Cireson.AssetManagement.HardwareAsset does not contain a property with name 'MobileManagingDirector'.

Reason: A new column has been added to the CSV file that does not match any property.

Prevent/Fix: Delete any columns of data from the CSV file before attempting to import it.

OR

Extend the appropriate Asset Management class to include the new value.

14.3.8 Relationships are missing

```
2013/10/23 14:09:28.836 - Warning - All target keys are null for relationship "Hardware Asset Has Organization"  
2013/10/23 14:09:28.839 - Warning - All target keys are null for relationship "Owned By User"
```

Reason: Relationships are being imported but some of the line items have blank values for the relationship.

Description: This warning is acceptable.

For example: The value for a relationship that is being mapped for every entry may not be known at the time of import. Such as the Custodian filed. This error is an informational entry only and can be ignored if this is expected.

14.4 The Input File Does Not Exist

```
2014/01/17 17:07:14.869 - Importing from "C:\SCSM\SCSM\SCSM\Asset Management\Test Multiple Import.csv"  
2014/01/17 17:07:15.103 - Found existing Cireson.AssetManagement.HardwareAsset "Tablet 777"  
2014/01/17 17:07:16.512 - Error - the input file does not exist - "//SCSM2012/Asset Management/File Attachments.txt"  
2014/01/17 17:07:16.512 - Updated Cireson.AssetManagement.HardwareAsset "Tablet 777"  
2014/01/17 17:07:20.084 - Workflow completed - Lines processed: 1, Failures: 1
```

Reason: The file has been renamed, deleted or moved.