

The SysAidTM CMDB

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Introduction

CMDB are the initials for Configuration Management Data Base. The CMDB is a repository of information related to all the components of an information system. In fact, the CMDB is a data base that keeps information about all your network assets, software products and catalog items, as well as all the information about the relations between them.

The SysAid CMDB helps your organization understand the relationships between components and track their configuration.

The SysAid CMDB can be useful for storing information about many kinds of items. For example, even a Taxi station can use SysAid CMDB to keep track of the different vehicles, drivers, destinations, garages, and other relevant components and information.

As long as you maintain and keep your CMDB up-to-date, you will be able to enjoy the associations SysAid creates between your various configuration items. Here are a few examples for configuration items you can set and manage in your CMDB:

- hardware (including network components where relevant)
- system software, including operating systems
- business systems - custom-built applications
- software packages
- database products
- physical databases
- environments
- configuration baselines
- Policies (Backup, Security etc.)
- configuration documentation, e.g. system and interface specifications, licenses, maintenance agreements, SLAs, decommissioning statement
- other resources e.g. Users, suppliers, contracts
- other documentation e.g. IT business processes, workflow, procedures

The SysAid CI List

To enter the SysAid CMDB you need a special permission to view and modify the CMDB. To set these go to **Preferences**→ **User Management**→Click the row entry of the user you wish to permit access to the CMDB, and then click the **Permissions** tab.

You will notice two checkboxes related to CMDB permissions at the bottom of the page:

- View CMDB
- Modify CMDB

To reach the SysAid CMDB module, choose CMDB  from the left main menu.

You can see five tabs:

CI List

CI Types


CI Relation Types

CI Template

Imports

CI List-


This is the first screen you reach in the SysAid CMDB. Here you can see all your Configuration Items- CIs. A CI is each and every element kept in your CMDB, for which you can see all relations with other CIs. In SysAid CMDB the CI can belong by default to one of the following CI types:

An asset (PC or server) 

A software products 


A catalog item 




A business process 

A physical database 

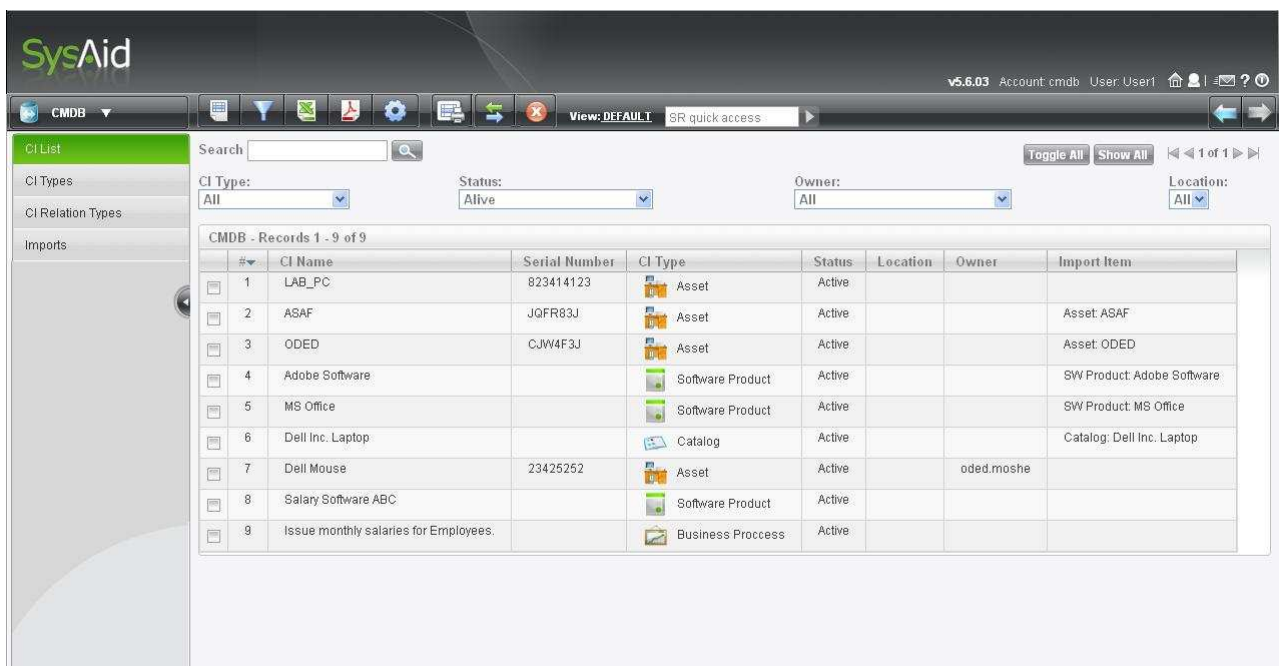
A network component 

A system software 

Or a general CI 


One of these special icons representing the CI type appears next to each CI on your list. You can manually add a new CI by clicking the **New** icon  in the top of the screen, or add any needed column to the CI list by clicking the **Customize** icon,  as is usual with SysAid lists. You may also print your CI list, by clicking the **Print** icon .

1. SysAid CI List



The screenshot shows the SysAid CMDB interface. The top navigation bar includes the SysAid logo, version v5.6.03, account information (cmdb), user (User1), and various utility icons. The left sidebar contains navigation options: CI List (selected), CI Types, CI Relation Types, and Imports. The main area displays a search bar and filters for CI Type (All), Status (Alive), and Owner (All). Below the filters is a table titled 'CMDB - Records 1 - 9 of 9' with the following data:


#	CI Name	Serial Number	CI Type	Status	Location	Owner	Import Item
1	LAB_PC	823414123	Asset	Active			
2	ASAF	JQFR83J	Asset	Active			Asset ASAF
3	ODED	CJW4F3J	Asset	Active			Asset ODED
4	Adobe Software		Software Product	Active			SW Product: Adobe Software
5	MS Office		Software Product	Active			SW Product: MS Office
6	Dell Inc. Laptop		Catalog	Active			Catalog: Dell Inc. Laptop
7	Dell Mouse	23425252	Asset	Active		oded.moshe	
8	Salary Software ABC		Software Product	Active			
9	Issue monthly salaries for Employees.		Business Process	Active			

In the CI list you can view and search all the CIs that exist in your CMDB. You can see the information in a variety of ways, and filter the results according to your needs, simply by clicking the **Filter** icon  to create your appropriate filter. To learn how to customize different views for your CI list, please visit the **SysAid User Guide, Chapter 8.1.4- Understanding Views and their Importance**. <http://ilient.com/download/SysaidUserManual.pdf>

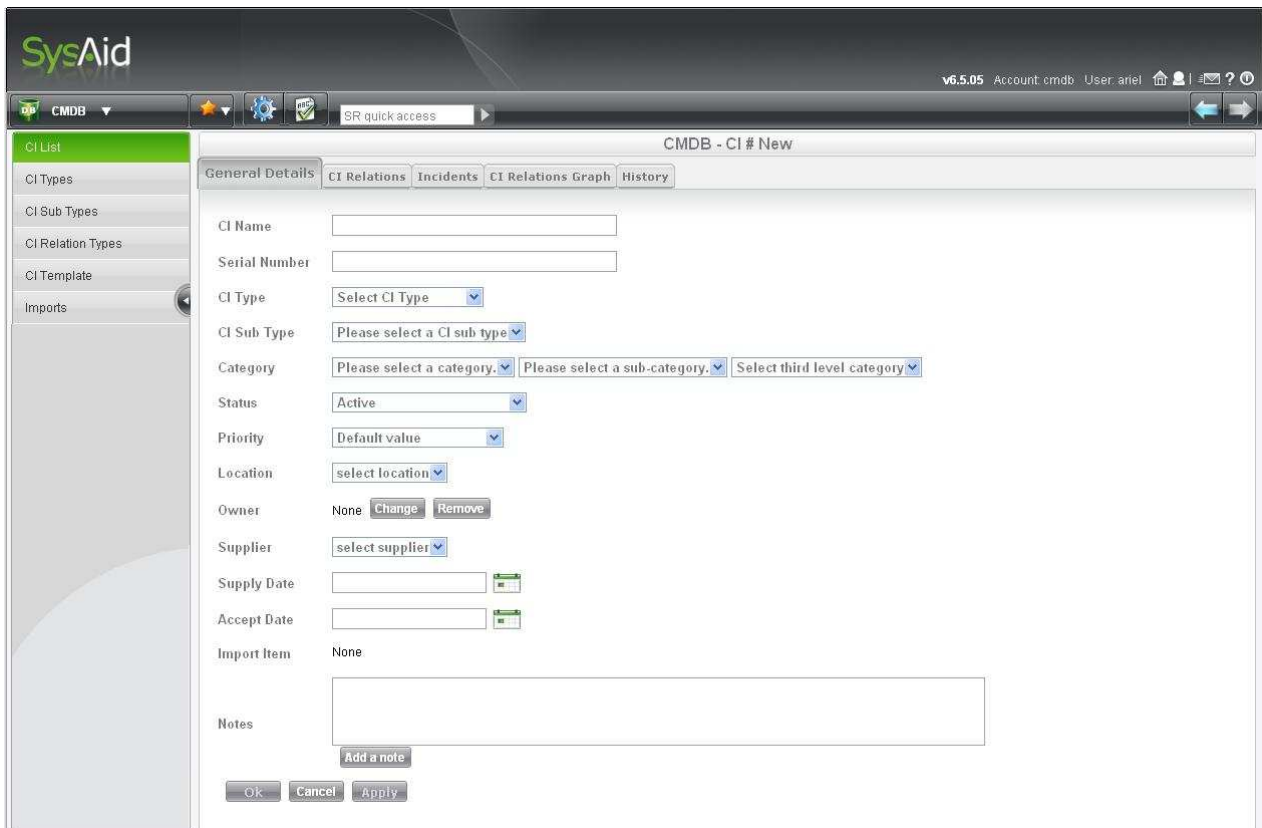
Note that the background color of the CI in the list provides information about its status:

1. If there is a monitoring error or a warning for the asset attached to the CI - the background is red.
2. If there is a monitoring configured on the attached asset with no warnings or errors - the background is green.
3. If there is no monitoring configured for the attachments of the CI but there are some incidents, problems or changes related to the CI - the background is orange.

Configuring a CI

Click any row entry to see more details about a specific CI. For every CI in your system you can find five tabs: General Details, CI Relations, Incidents, CI Relations Graph and History. As usual, SysAid allows you to customize additional tabs if needed. Click the **Customize** icon , and then in the popup screen click the New Page button to add new tabs.


2. CI General Details page



The screenshot shows the SysAid CMDB interface. The top navigation bar includes the SysAid logo, version v6.5.05, and user information (Account: cmdb, User: ariel). The main content area is titled 'CMDB - CI # New' and features a 'General Details' tab. The form contains the following fields:

- CI Name: Text input field
- Serial Number: Text input field
- CI Type: Dropdown menu (Select CI Type)
- CI Sub Type: Dropdown menu (Please select a CI sub type)
- Category: Three dropdown menus (Please select a category, Please select a sub-category, Select third level category)
- Status: Dropdown menu (Active)
- Priority: Dropdown menu (Default value)
- Location: Dropdown menu (select location)
- Owner: Radio button (None) with Change and Remove buttons
- Supplier: Dropdown menu (select supplier)
- Supply Date: Text input field with calendar icon
- Accept Date: Text input field with calendar icon
- Import Item: Radio button (None)
- Notes: Text area with an Add a note button

At the bottom of the form are buttons for Ok, Cancel, and Apply.

Under the **General Details** tab you can see the CI name, type, sub type, serial number- for assets, status, priority, location, and other significant information. If you wish to customize the fields available in this form, click the **Customize**  icon.

Under the **CI Relations** tab, you will be able to see all the CIs related to this CI, and their type of relations with it. For instance, if the CI you are looking at is a workstation in your network, you will be probably able to see the employee who works on this station, the software installed on it, the printer this station is connected to, the server it is using, etc. Note that for any information to appear, it should be first fed into SysAid.

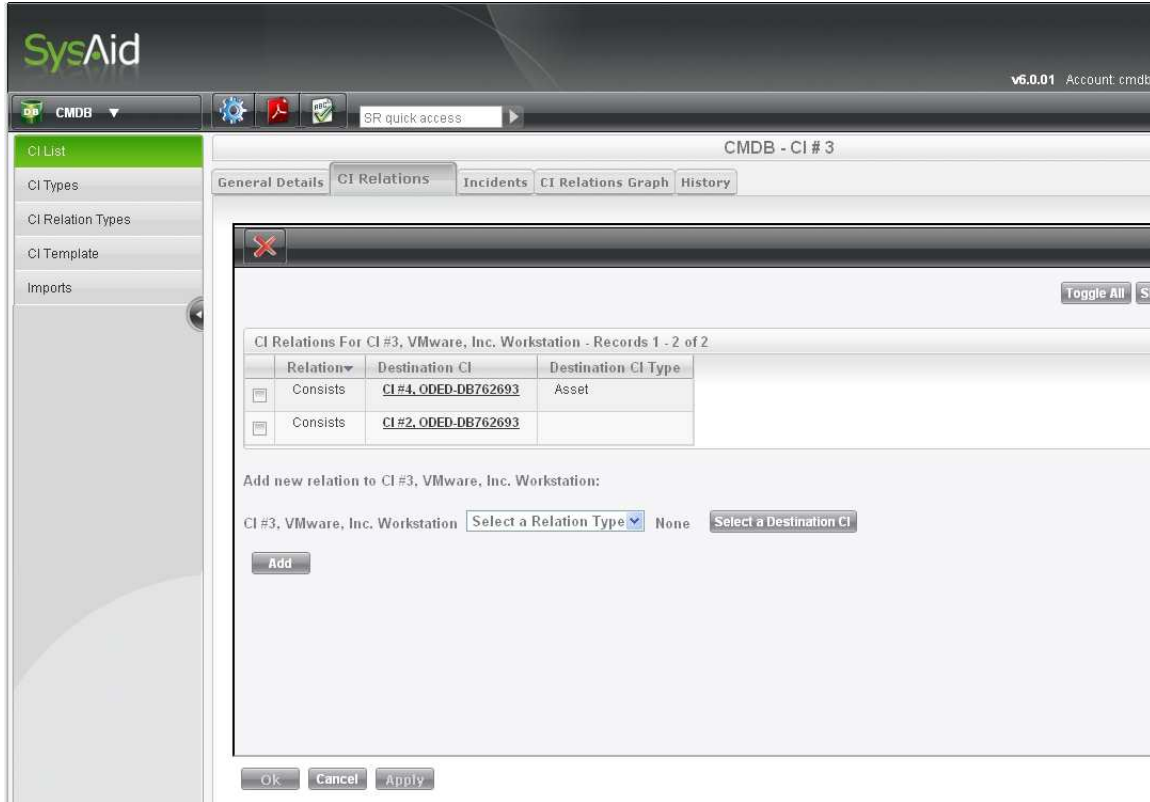
In this screen you can also manually add a relation of any type to any other CI in your system, by clicking the **Add** button and choosing a relation type from the dropdown menu. Clicking the button **Select a Destination CI** will open a popup with a list of all your CIs.

To attach any asset to a CI:

1. Go to Asset Management → My Network Asset.
2. Click the row entry of the asset you wish to attach.
3. Under the CMDB tab of that asset, click the 'Change' button.
4. Select from the list in the popup screen the CI to attach your asset to.

As a result, you will be able to see a link to this asset inside the CMDB, under the **General Details** tab. The asset will appear as an **Import Item**- a field which shows the source of the CI.

3. CI Relations tab



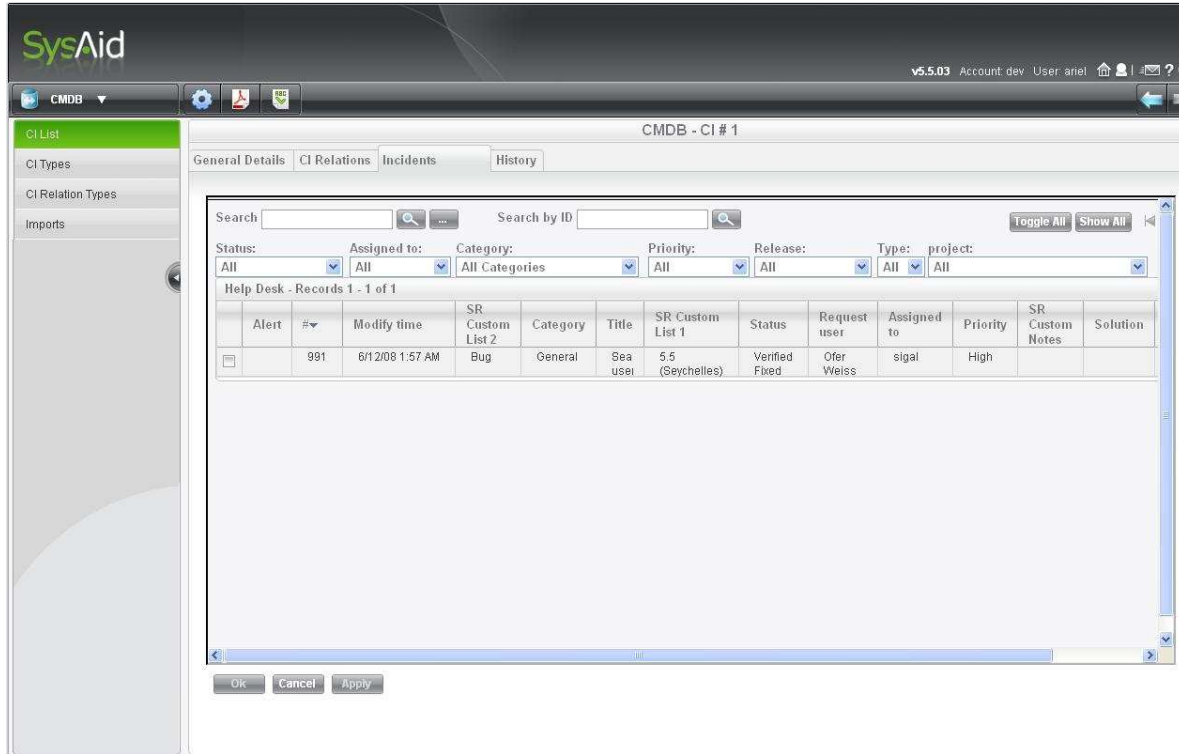
Under the **Incidents** tab you can view a list of all the Service Requests this CI is involved with. For a relevant service request to appear under this CI Incidents tab, the SR should be connected to that CI. To make such a connection go to:

Service Desk → Service Request → Business Impact tab.

Click the **Change** button to choose the CI to attach the SR to.

Click **Save** to save the connection between the SR and your chosen CI.

4. CI Incident tab



The ability to see under the Incidents tab all the service requests connected to this CI can help plan ahead: for instance, if you can see one of your servers is out of order, you will be able to answer all the service requests from CIs connected to this server that their server is down, and the problem is being taken care of. If you maintain your CMDB in good order, all your service requests will be associated to their relevant configuration items, and you will be able to enjoy the CMDB benefits.

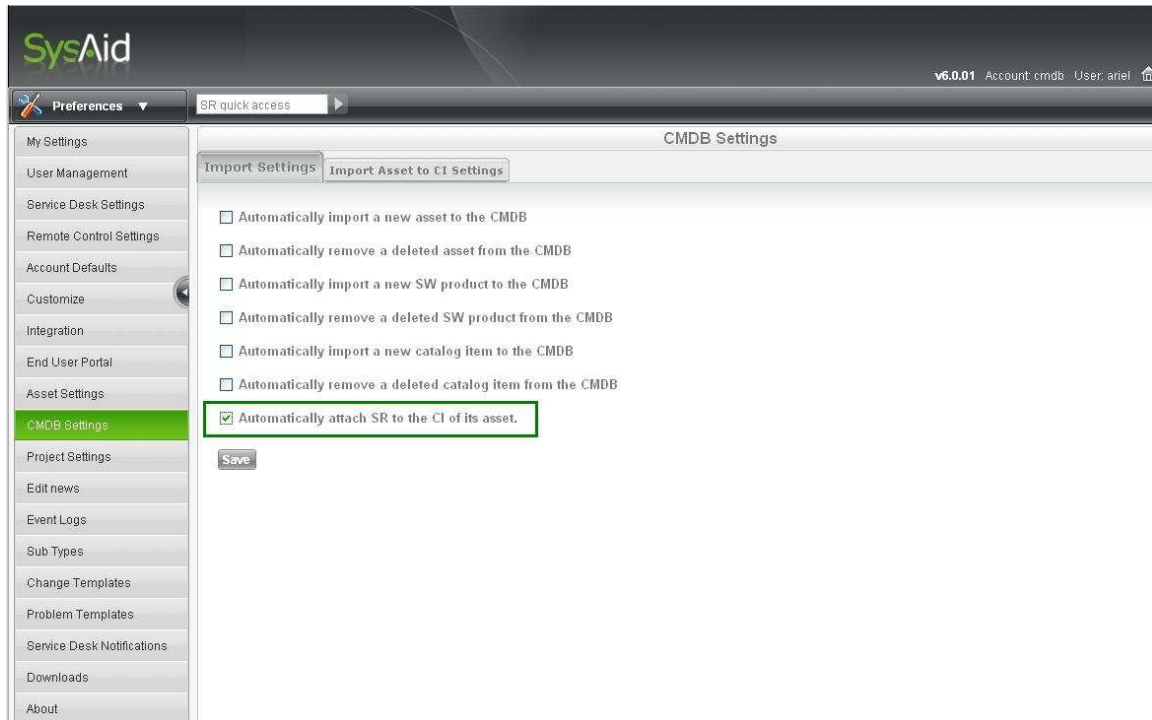
Please Note:

Only when an end user sends a service request via the SysAid agent to your helpdesk will the SR automatically be attached to the relevant CI. To set SysAid to make the automatic association, go to:

Preferences → CMDB Settings

And check the box: “Automatically attach SR to the CI of its asset”.

5. Automatically attach SR to the CI of its Asset



In any other case, for instance, when the administrator opens a service request as a result of a phone call, or when a service request arrives as an email message, you will have to manually attach the service request to the CI.

To do so, go to:

Service Desk → click the row entry of the service request you wish to attach
→ **Business Impact** tab → Choose CI to attach to the SR.

This process is similar to manually attaching an asset to a service request.

Under **Preferences** → **CMDB Settings** → **Import Asset to CI Settings** tab, you can determine what information will be automatically updated for the CI, when details of the parallel asset change. If you choose to automatically import your assets to CMDB as CI-s, the fields defined here will be pulled from the asset to the

CI. Choose the fields content and their format from the dropdown menus, and click Save to order SysAid to keep your preferences. If you wish to increase the number of fields available for import, specify the number of fields you need in the **Number of Fields** box above the table, and then click the **Update Fields Number** button.

Please note that you need to match the types of the fields you map.

6. Map the fields to import into the CI

The screenshot shows the SysAid interface for configuring CMDB imports. The left sidebar lists various settings categories, with 'CMDB Settings' highlighted. The main area is titled 'CMDB Imports' and contains two tabs: 'Import Settings' and 'Import Asset to CI Settings'. The 'Import Asset to CI Settings' tab is active. Below the tabs, there is a 'Number of fields' input field with the value '5'. A table below this field allows mapping fields to import. The table has three columns: 'Position', 'Field content', and 'Format'. The rows are as follows:

Position	Field content	Format
1	Serial - Text	Serial Number - Text
2	Name - Text	CI Name - Text
3	Location - Integer	Location - Integer
4	Supplier - Integer	Supplier - Integer
5	Owner - Text	Owner - Text

Below the table are two buttons: 'Update Fields Number' and 'Save'.

Next is the **CI Relations Graph** tab, about which this guide elaborates later.


Under the **History** tab you can see all the changes in the CI. For instance, if you change the status of the CI, the change and the date will be recorded in the history of the CI. Note that the changes recorded are only changes that were made inside the SysAid CMDB module.

7. CI History tab



The screenshot shows the SysAid CMDB interface. The left sidebar contains navigation options: CI List (selected), CI Types, CI Relation Types, and Imports. The main window displays the 'History' tab for 'CMDB - CI # 2'. The table below shows the history of changes:

Version	Timestamp	Modifier
<u>1</u>	5/14/08 1:23 AM	oded.moshe
<u>2</u>	5/20/08 1:31 AM	SysAid Agent
<u>3</u>	5/20/08 5:29 AM	SysAid Agent
<u>4</u>	5/20/08 8:28 AM	SysAid Agent
<u>5</u>	5/20/08 8:59 AM	SysAid Agent
<u>6</u>	5/21/08 1:10 AM	SysAid Agent
<u>7</u>	5/21/08 8:03 AM	SysAid Agent
<u>8</u>	5/21/08 8:17 AM	SysAid Agent

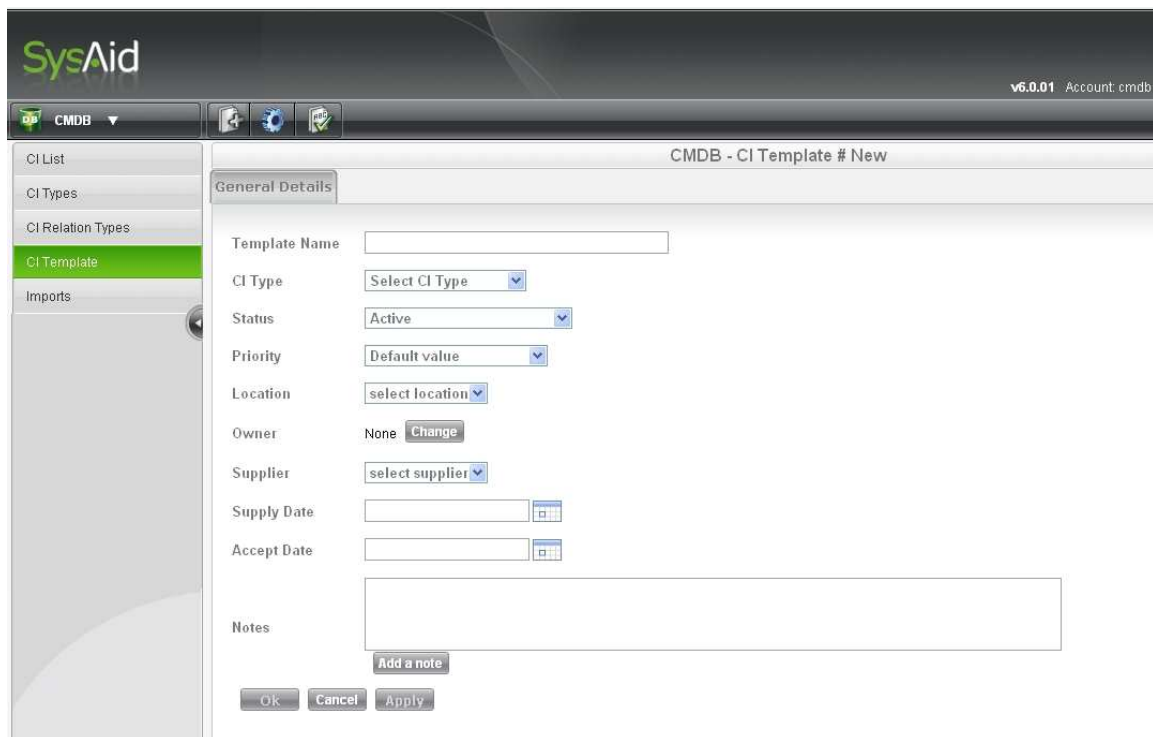
Buttons for 'Ok', 'Cancel', and 'Apply' are located below the table.

You can check the previous versions (before changes were made in the CI) by clicking the version number under the **Version** column. In addition, you can search and filter this list, as is usual with SysAid lists, by clicking the **Customize** icon .

CI Templates

CI Template- from SysAid release 6.0 on, it is also possible to create templates for CIs. Go to **CMDB** → **CI Template** → and click the  **New** icon to create a new template. The CI templates can save you time when adding a group of new CIs of the same type to your CMDB. For instance, if you wish to add to your CMDB all the telephones in your offices, you can set a Telephone CI Template. Fill out the CI Template General Details form with the CI Type, name of the supplier, priority, and any other relevant detail, according to your need. To customize the template form, click the customize icon . For more details about customizing a form page in SysAid, please consult the SysAid User Manual <http://ilient.com/download/SysaidUserManual.pdf>, in **Chapter 8: Advanced Configurations**, under: **Customize the Form**.

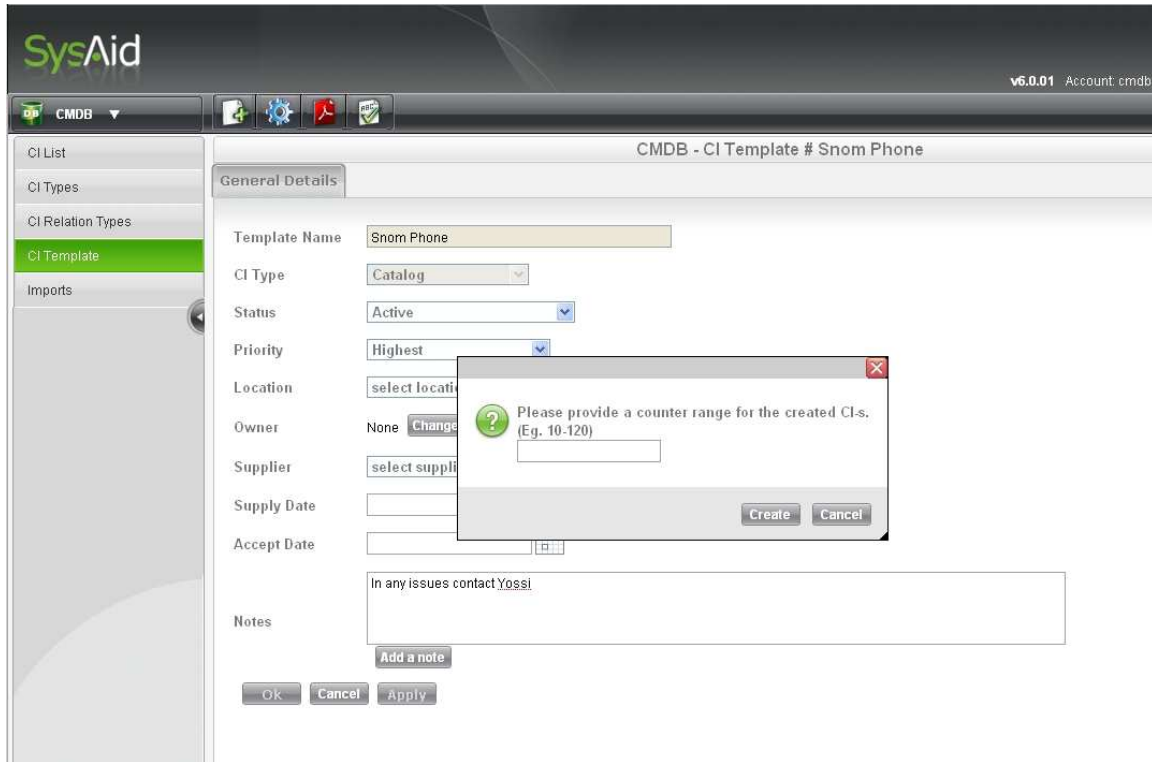
8. Create New CI Template



To add the new CIs themselves, click on the **Plus** icon .

A popup screen will open, asking you to specify a counter range for the new CIs. SysAid will provide a number for each of the new CIs according to the range you have specified.

9. Range of numbering new CIs Popup



Click the Create button. A popup screen announcing that your new CIs have been successfully created will appear.

In your CI list, you will be able to see the new CIs you have added with the template, and by clicking each CI row entry, you can edit and add more information about that specific CI.

CI Types, Sub-Types and CI Relation Types

CI Types-

In this page you see a table with eight pre-defined CI types. Note that three of them cannot be deleted: Asset, software Product, and Catalog Item. If you add more CI types, they will be listed here.

If you click any of the row entries you will reach a screen in which you can add a description of the CI type.

CI Sub Types-

In this page it is possible to edit CI Sub Types. CI sub types can help you classify in more details each of your CI-s. For example, while the CI type maybe 'Asset', the CI sub type can indicate what asset it is exactly, in accordance with the 'asset type' field under the Asset Management. When you have SysAid automatically turn assets to CI-s in your CMDB, you will be able to see whether the CI of the asset is a switch, a laptop, a printer- or any other asset type you have in your system- under the CI sub-type field.

You can also add new CI sub-types and import icons for them, according to your needs. To add a new CI type, on the left column, you can choose from the dropdown menu a CI Type. For this type, insert in the **CI Sub Type** pane the name of the new CI sub type you wish to create. You may use the **Upload Icon** button to add your own specific icon for this CI sub type, or click the **Add/Change** icon to replace an existing icon with your own image. Click the **Delete** button in case you wish to remove a sub type.

You will be able to see the new CI sub-types you have edited under the dropdown menu when adding a new CI. All your CI sub types will also be visible in the CI list.

10. Configure CI Sub Types

CI Type	CI Sub Type	Icon	Action
Please select a CI type.			Upload icon Add
Asset	Other		Delete Change icon
Asset	Other SNMP Device		Delete Change icon
Asset	DHCP Server		Delete Change icon
Asset	Router		Delete Change icon
Asset	Switch		Delete Change icon
Asset	Workstation		Delete Change icon
Asset	Server		Delete Change icon
Asset	Printer		Delete Change icon
Asset	PDA		Delete Change icon
Asset	Laptop		Delete Change icon

CI Relation Types-

In this screen you can see another list, a list of CI relation types. There are five pre-defined types of relations in this list, and you can add as many as you need. Two of the five relations cannot be deleted- the relation type Consists/Part of, and the relation type Contains SW/Installed on.

The pre-defined CI relation types are:

Consists/Part of

Contains SW/Installed on

Uses/Used by

Connected to/Connected to

Can access/Accessed by

As you see, each CI relation type has two directions- the active and the passive relation. This means that if a certain software, MS Word, for instance, is installed on one of your network workstations, the relation type between MS Word and that workstation will be Contains SW/Installed on. When you look at that workstation on your SysAid CMDB, you will see that CI contains MS Word. Similarly, when you check in your SysAid CMDB the software MS Word, you will see this workstation listed as one of the CIs it is installed on.

CI Relations Graph

Under each CI in your SysAid CMDB module, you can find a CI Relations Graph tab. Opening this tab will allow you to see a visual representation of all the relations of that CI, in the three closest levels of relations.

A dropdown menu at the top of the page allows you to choose between three views: a display of all the CI affected by the CI in question, a display of all the CIs this CI affects, or a general view with all the relations of that CI.

The CI in question will always appear at the top of the chart, and if you move your mouse over the different CIs, you will be able to see their full captions.

To move to a different Configuration Item in your CMDB, simply click its icon in the chart. A new popup screen will open, with a view of the relations of that CI. You can keep clicking on CIs in your graph to further investigate their relationships to other CIs in all levels.

To print the graph, move the mouse away from the icons of the CIs, and right click it. You will be able to choose the option 'Print Chart'.

By right clicking your mouse while not standing on any CI icon, you can also choose to enable dragging the icons in the chart to see them where you prefer, or to choose to be able to navigate to each CI by clicking its icon. Right-click you mouse and then choose 'Enable Drag' or 'Enable Link'.


11. CI Relations Graph

The screenshot displays the SysAid CMDB interface. The top navigation bar includes the SysAid logo, version v6.0.01, and a search bar labeled 'SR quick access'. The left sidebar contains a menu with 'CI List' selected, along with options for 'CI Types', 'CI Relation Types', 'CI Template', and 'Imports'. The main content area is titled 'CMDB - CI # 12' and features tabs for 'General Details', 'CI Relations', 'Incidents', 'CI Relations Graph', and 'History'. Below the tabs, a dropdown menu for 'CI Graph Relations Direction' is set to 'Display CI-s affected by test CI2'. The central graph shows a hierarchical relationship starting with 'test CI2' at the top. Three arrows point downwards from 'test CI2' to three child nodes: 'ODE D-', 't1 6', and 'test CI3'. Each arrow is labeled with a relationship type: 'Consists' for the first two and 'Installed on' for the third.

CI Imports-

SysAid allows you to import all your network assets, your software products and your catalog items into the CMDB. There are three ways in which you can import assets.


A.

1. Go to CMDB  → **Import** screen
2. Click the appropriate button according to the CI type you wish to import: asset, SW product or catalog item.

This option is useful when you already have SysAid and wish to start using the CMDB with your existing data.

B. Go to **Preferences** → **CMDB Settings**

Here you can set that whenever a new asset is added to SysAid, whether through the SysAid agent or manually, it will automatically create an equivalent CI in the SysAid CMDB. Similarly, you can set that whenever an asset is deleted, the relevant CI will be deleted as well. Note that this option is not recommended, though, since whenever a CI is deleted, all its relations are deleted along with it. This a similar outcome to that of deleting a project in the SysAid Tasks and Projects module: as a result all the tasks of the deleted project are deleted.

C. Automatic Import of CIs from an External CSV file. SysAid allows you to map the fields you wish to import from a delimited file of your assets to the parallel CIs in your CMDB. Go to CMDB  → **Import CIs from a Comma Delimited File** screen

12. Importing your Assets into your CMDB

The screenshot shows the 'Import CIs from a delimited file' tab in the SysAid CMDB interface. The sidebar on the left has 'Imports' highlighted. The main form contains the following elements:

- Input file:** A text box with a 'Browse...' button.
- Do not import the head line (the first line)**
- Select the field delimiter:** A dropdown menu set to ','.
- Number of fields:** A text box containing '10'.
- Key field number:** A text box containing '0'.
- Default CI Type:** A dropdown menu set to 'Asset'.

Position	Field content	Format
1	Do not import field	
2	Do not import field	
3	Do not import field	
4	Do not import field	
5	Do not import field	
6	Do not import field	
7	Do not import field	
8	Do not import field	
9	Do not import field	
10	Do not import field	

At the bottom of the form, there is a checkbox for **Schedule** with a start time of '03/02/2009 08:49', a 'Rerun every' dropdown set to 'Day', and a 'File path' text box. 'Submit' and 'Save Fields' buttons are located at the bottom.

Import your assets into SysAid CMDB from Excel

1. To import your assets into your CMDB from Excel, first prepare the Excel file.
2. Save your Excel file as a .csv file. Go to **CMDB** → **Imports** → **Import CIs from a delimited file** tab. Click on the **Browse** button. Select your file name.
3. In the **Number of Fields**, enter the column headings or number of fields you have in the Excel file (maximum 32). It is advisable not to add or subtract from this number in the Number of Fields box whilst you are in the middle

of selecting **Field Content**, since this will delete the already completed row entries.

4. Set the different titles for the columns in your asset list which will be imported into the CMDB.
5. Click the **Submit** button. To confirm that the file was imported successfully, go to **CMDB** → **CI List** and verify that parallel CIs had been created for your assets.


SysAid CMDB Scenarios

To better understand how the SysAid CMDB module can help you with your work, following is a common scenario in which the CMDB capabilities are exploited for your maximum advantage.

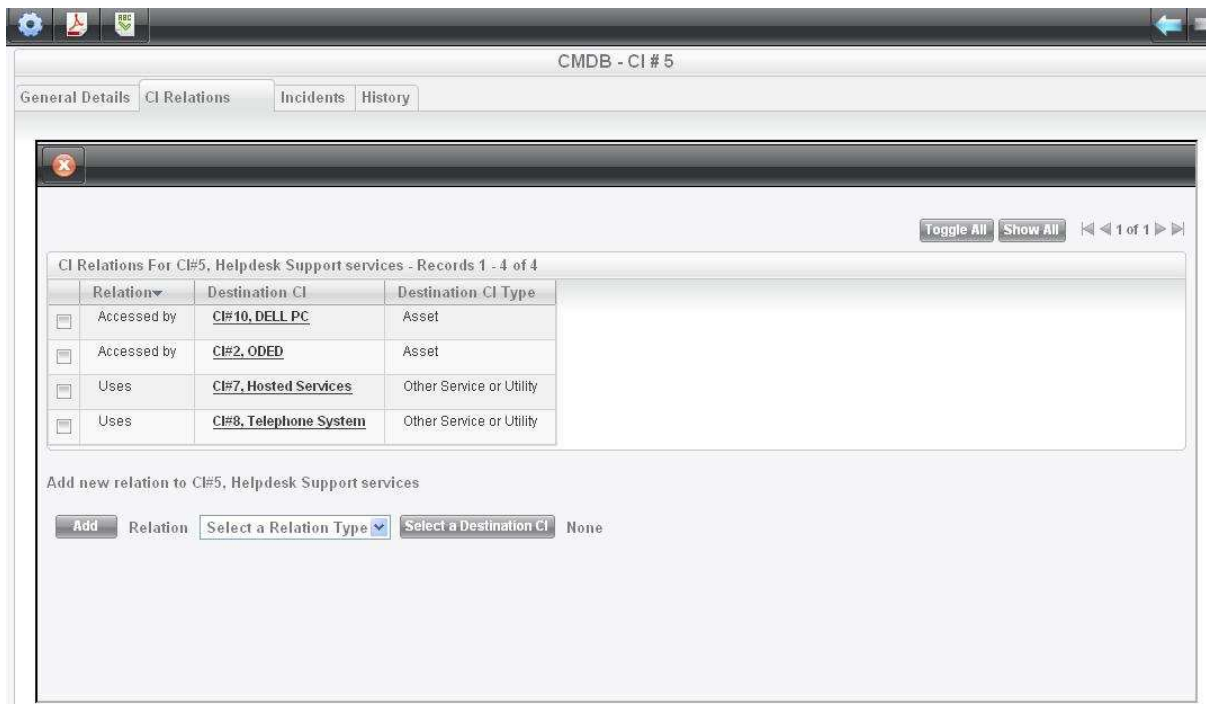
Pre-Defined Elements:

1. In our SysAid CMDB module, we have defined “Helpdesk and Support services” as a Configuration Item, belonging to a type “Business Process”.
2. Our SysAid CMDB module includes a few CIs of the following types: PCs, software products, printers, utilities, business processes. We have added these CIs manually.
3. CIs Relations should be defined by the administrator. In each CI, under **CI Relations** tab, you can determine a relation to another CI, simply by selecting the relation type from the dropdown menu, and the related CI from your CI list.

Example-

From the left main menu we choose the CMDB module  and then we click on the row entry of CI no. 5, the business process, “Helpdesk and Support services”. In the page for CI#5, under the **CI Relations** tab, you can see what other CIs are related to the helpdesk and support services, and what utilities this business process employs. In our example the helpdesk services employ the utilities: telephone, and hosting services. The assets used for this business process are the PCs CI#10 and CI#2.

13. Example- Helpdesk and Support services CI Relations



In our example the person working on a PC which is defined in our CMDB as CI#2 has encountered a problem, and sends a service request to the helpdesk. The administrator who received the service request updated the state of that CI, to indicate the computer is out of order.

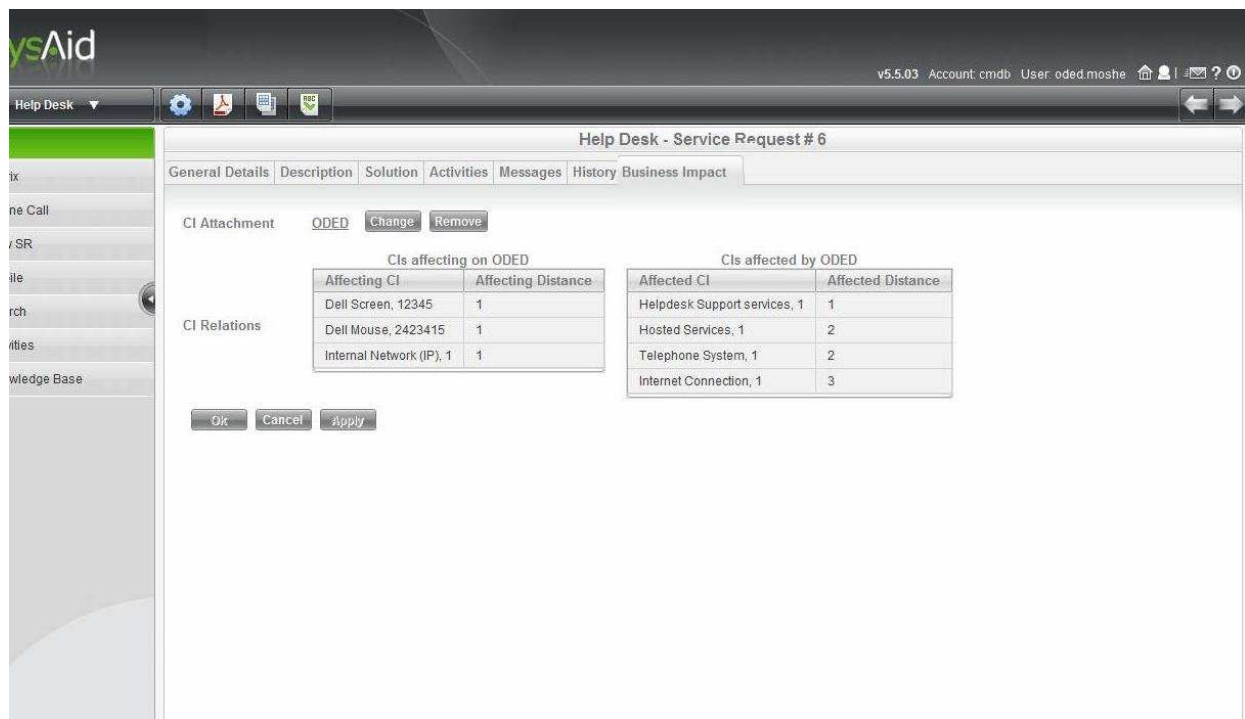
Now you are able to see the business impact this failure will cause a difficulty in the helpdesk services. Only the computer CI#10 will be now available for helpdesk services. Taking care of the problem in CI#2 may be more urgent than you have estimated...

Another Example

Here is another example of how to use the CMDB for your advantage:

A service request arrives at your helpdesk, complaining that a certain PC in your network is out of order.

14. Business Impact tab in the Helpdesk



The end user who sent the SR has attached this PC to his service request. You can see the attached asset under **Helpdesk** → click the entry of the SR → **Business Impact** tab.

If all your CIs and their interrelations are set in your SysAid CMDB, you will be able to see all the other CIs affected by the malfunction of this PC.

Let us say that the PC in question is the only one in your network on which an accounting software is installed. The accounting software is also defined as a CI in your CMDB, so you will be able to view it simply by clicking the name of the PC

that is out of order, as one of the software used by this asset.

Now you are able to know no one will be able to use the accounting software, until you fix the problem with the PC.

What is the business impact of this problem and how urgent is it? Click the CI of your accounting software. Let us say that you have defined this software as used for your billing process. You will be able to see this under the CI of the software, in your CMDB.

Now you know that if you do not fix the problem reported on in the SR you just got, the only PC in your network on which your accounting software is installed will stay out of order, which will harm your billing process. It will be a good idea to take care of the problem immediately, then!

This is how the CMDB helps you determine your work schedule and your priorities.