Sun™ Desktop Manager Tutorial

Willem van Schaik, May 2006

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Introduction

There are many ways to model a repository for storing Sun™ Desktop Manager (SDTM) configurations. Many types of directories also can be used, such as LDAP, Active Directory, or flat files. This tutorial describes how to set up a simple SDTM configuration based on the Sun Java™ Enterprise System Directory Server, version 5.2.

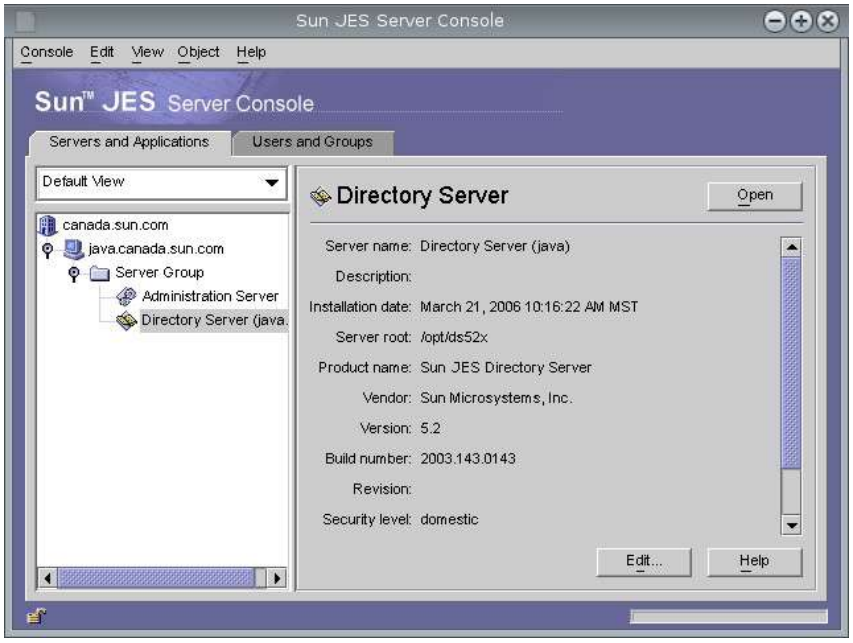
This tutorial will configure the directory solely through GUI-based tools: The Directory Server start console will be used to add entries to the directory, and the SDTM Web Console will then add the desktop configurations. This method of building the directory is chosen to illustrate the various steps involved. For real-world large-scale deployments, creating LDAP Data Interchange Format (LDIF) files and loading those is, of course, the more efficient way of building the directory repository.

Creating the Root Suffix

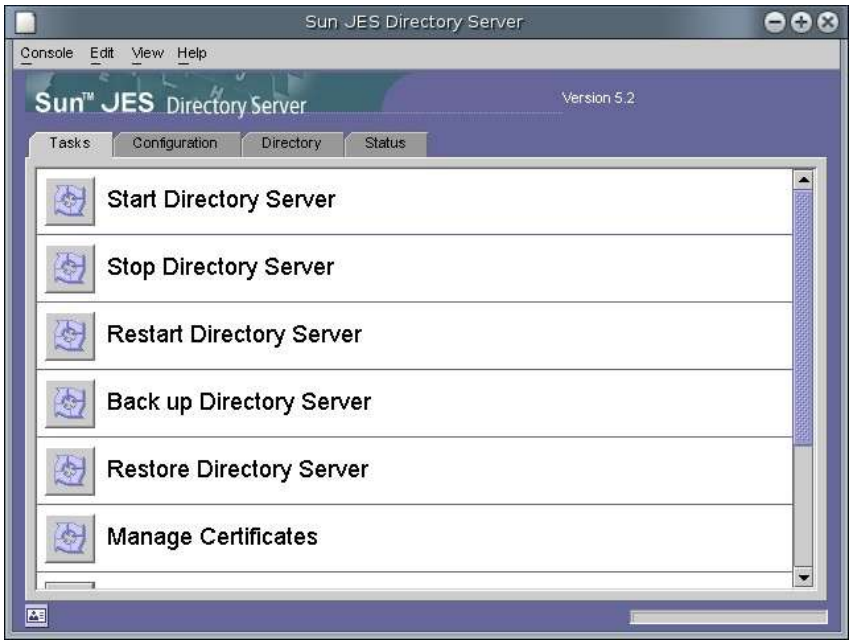
It is assumed that you have installed both the Directory Server and Sun Desktop Manager system according to their installation manuals. Also, this tutorial will try not to repeat what is already described in the SDTM administration and user guides.

Because this SDTM setup is for demo purposes only, the first step is to create a new root suffix in the directory. This will provide an easy way of deleting the setup, with no impact on other parts of the tree, after the tutorial has been finished or when a fresh start is required.

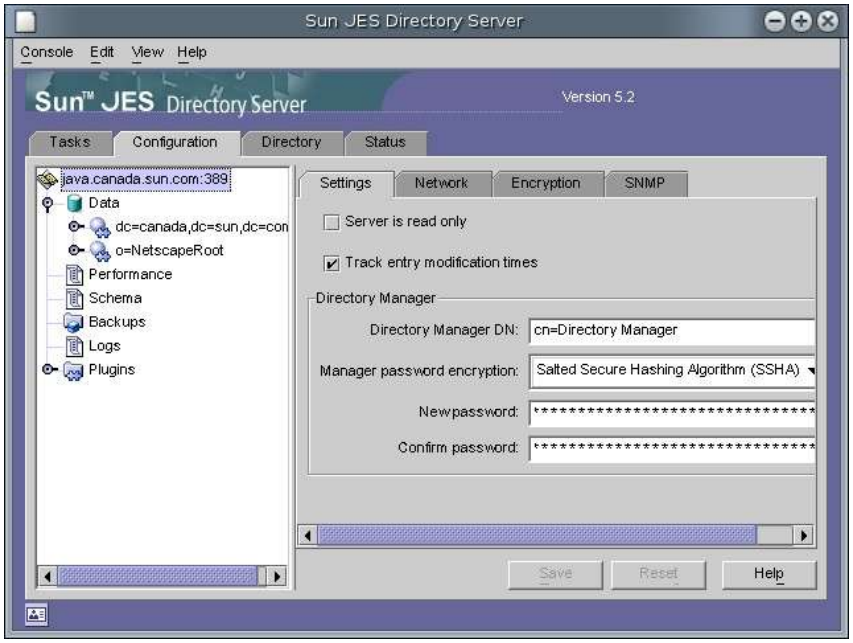
Open the Directory Server console, log in as the directory manager (by default: 'cn=Directory Manager'), select the Directory Server and click 'Open'.



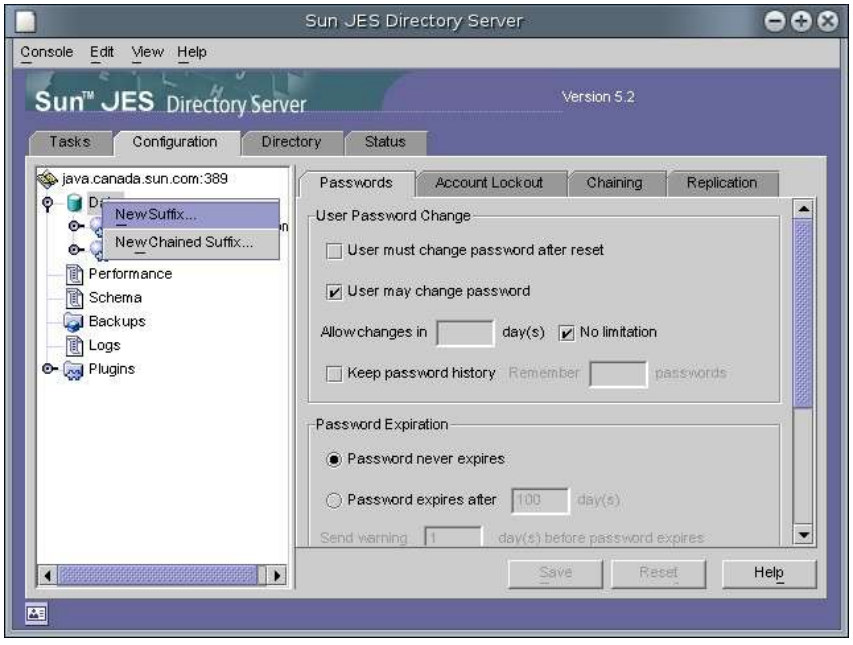
On the next screen, click the 'Configuration' tab.



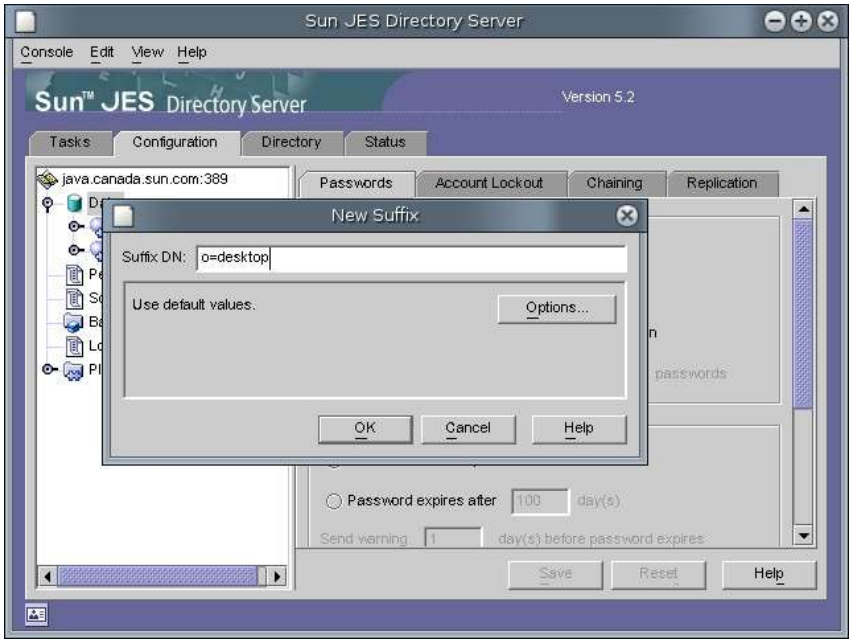
The following screen capture shows the ‘Configuration' tab.



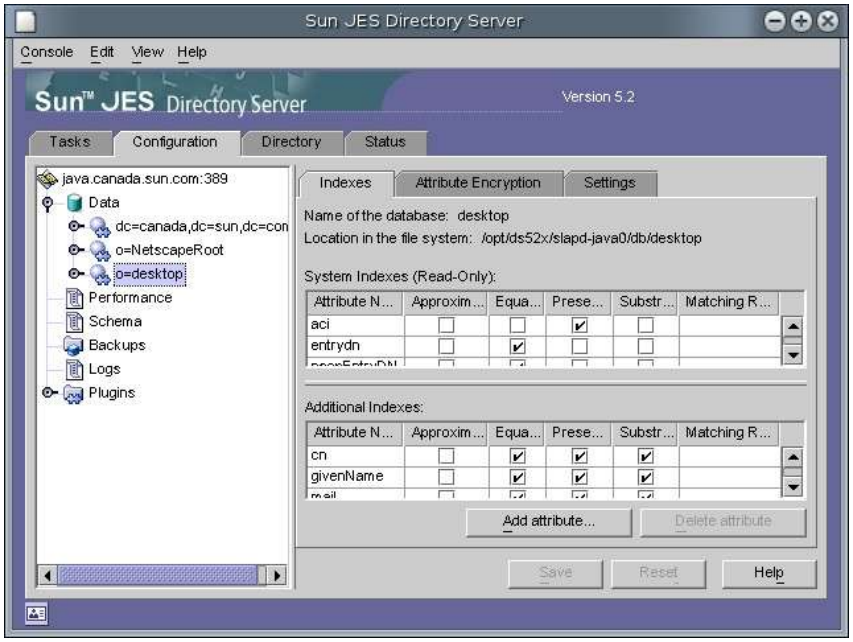
Then select 'Data' in the tree view on the left and right-click it (see the following screen capture).



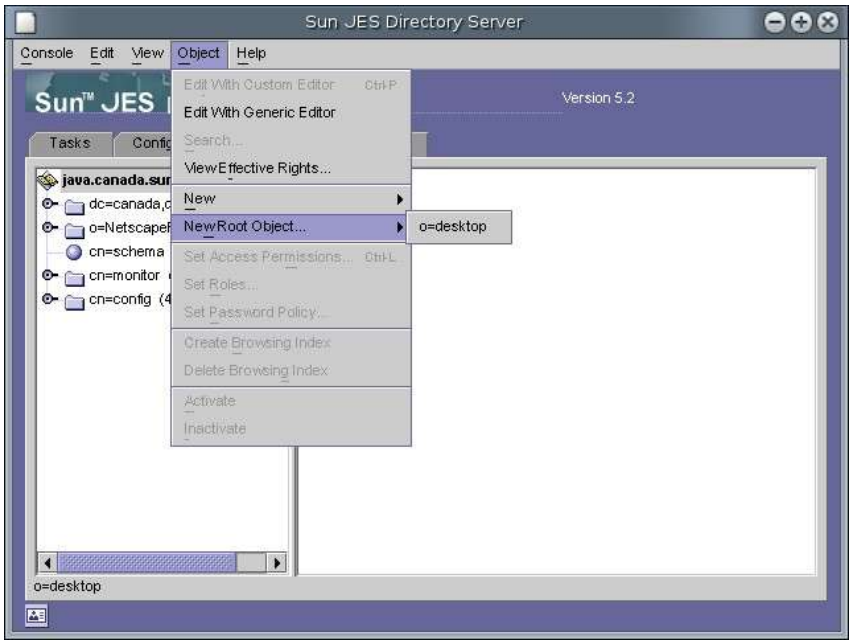
Select 'New Suffix' and enter the name for the suffix, for example 'o=desktop'.



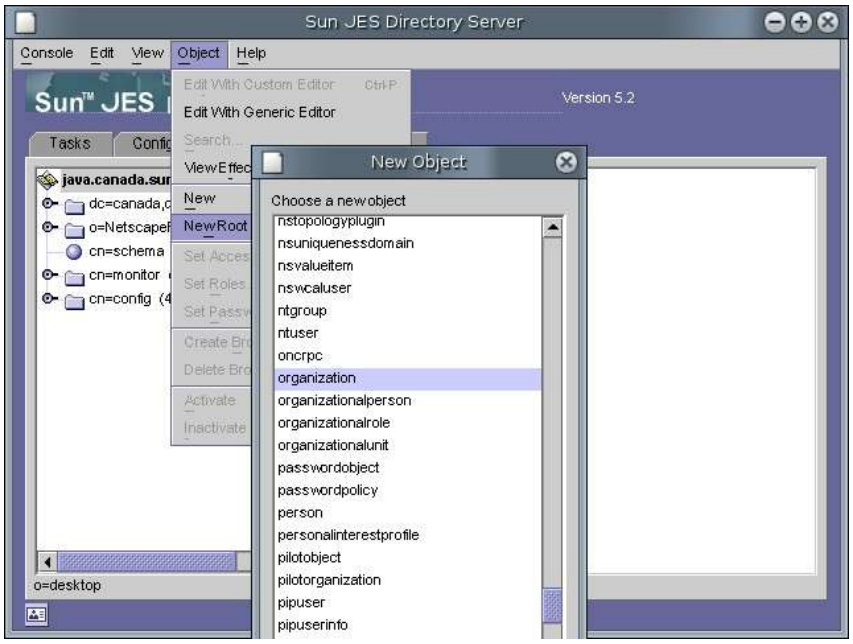
The new suffix is added to the tree. The following screen capture shows how your screen should look.



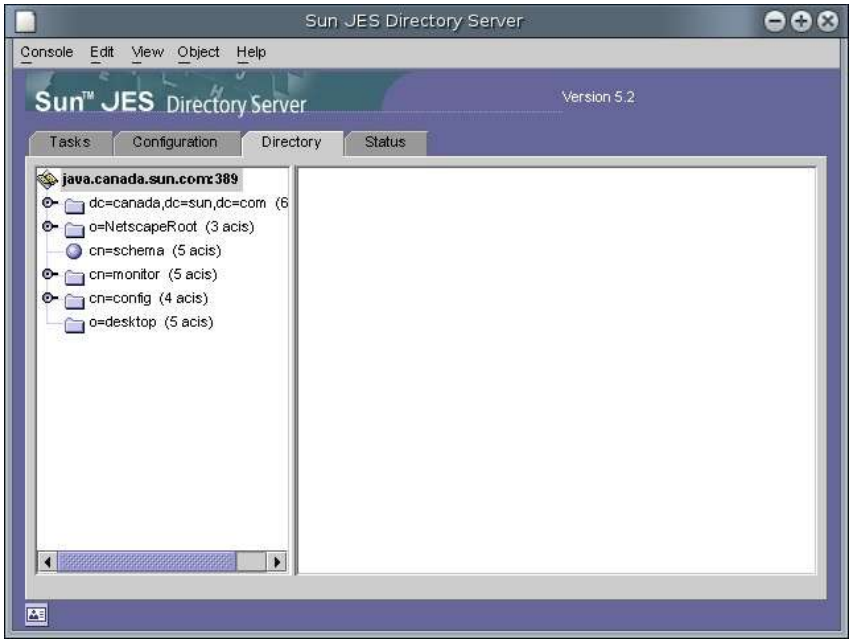
The next step is to create the root object. Click the 'Directory' tab and select the top-level element in the tree, which is the name of your directory server, and then either right-click it or choose from the menu 'Object -> New Root Object' and select the root suffix you just created.



In the pop-up window, select 'organization' and click OK.



You can see the new root suffix (o=desktop) being added to the tree view.

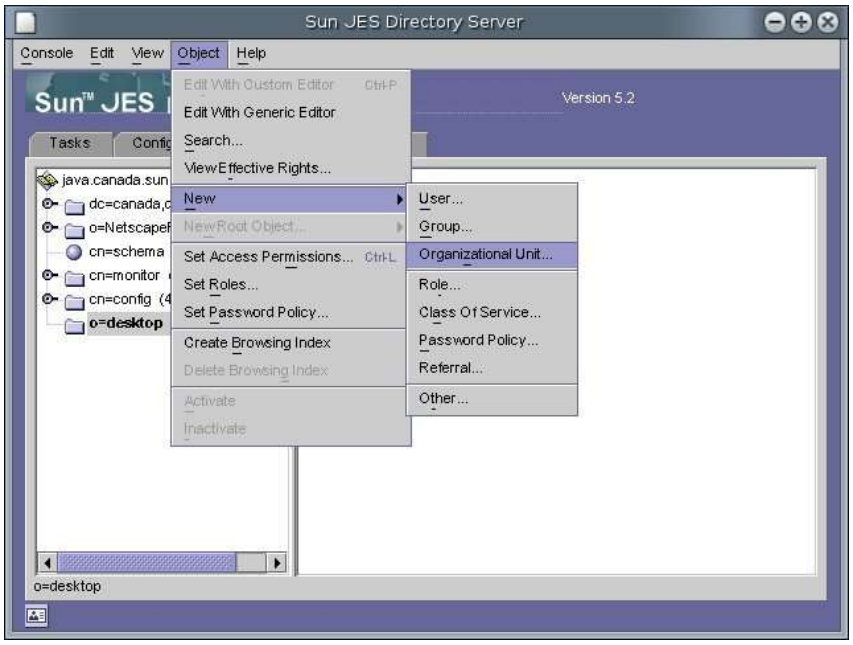


There are two common naming conventions for a root suffix, either 'o=something' as was used in the preceding screens, or a 'domain component' notation, like 'dc=canada,dc=sun,dc=com'. If you opt for the latter as your suffix name, you must choose 'domain' instead of 'organization' in the new root object pop-up (see previous page).

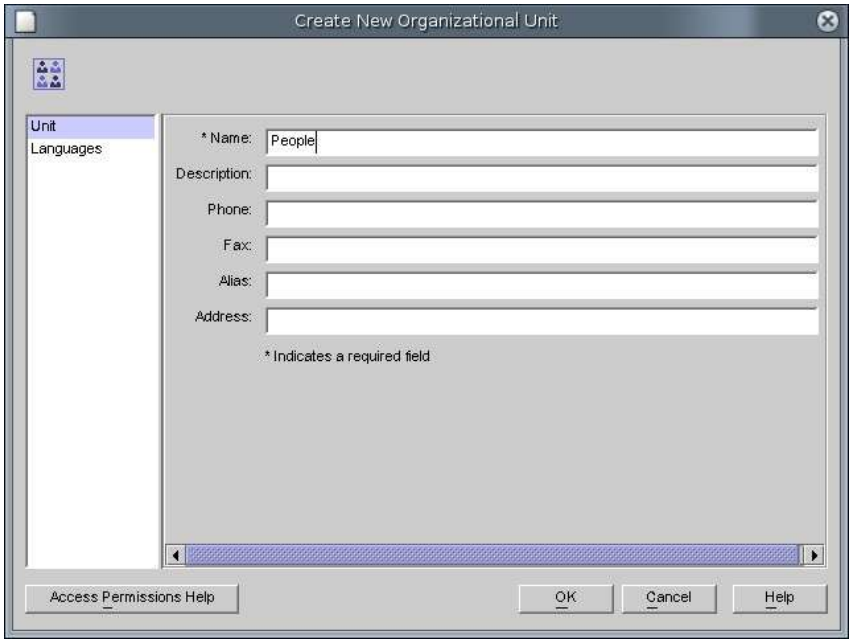
Groups and Users

Now you're ready to build up a directory tree of users and groups, probably reflecting the departments of your organization. For this example we will create a directory for a factory with three departments: Engineering, Manufacturing, and Distribution. Each department will have a user, and we will create an SDTM admin user.

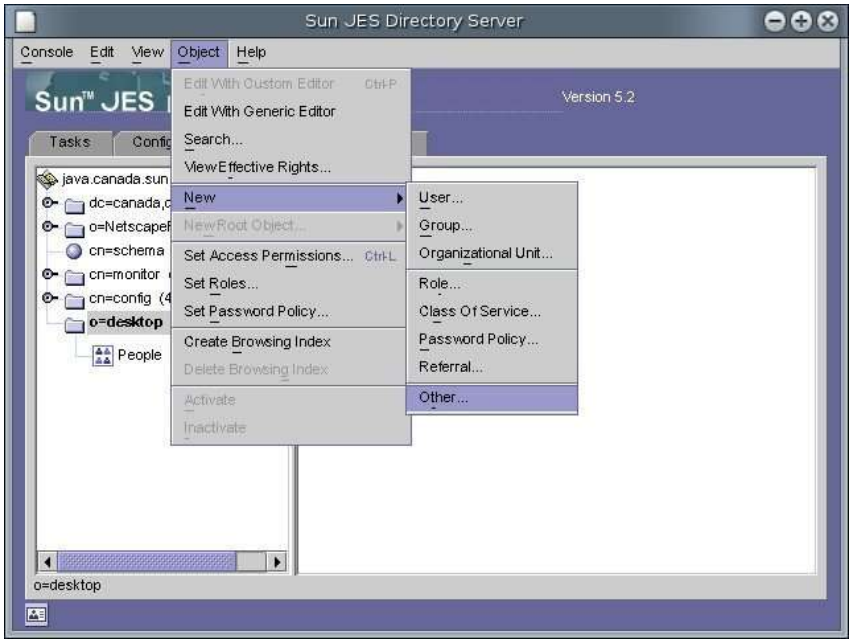
Still in the 'Directory' tab of the directory console, select your newly created root suffix, choose from the menu 'Object -> New', and select 'Organizational Unit'. The following screen capture shows these steps.



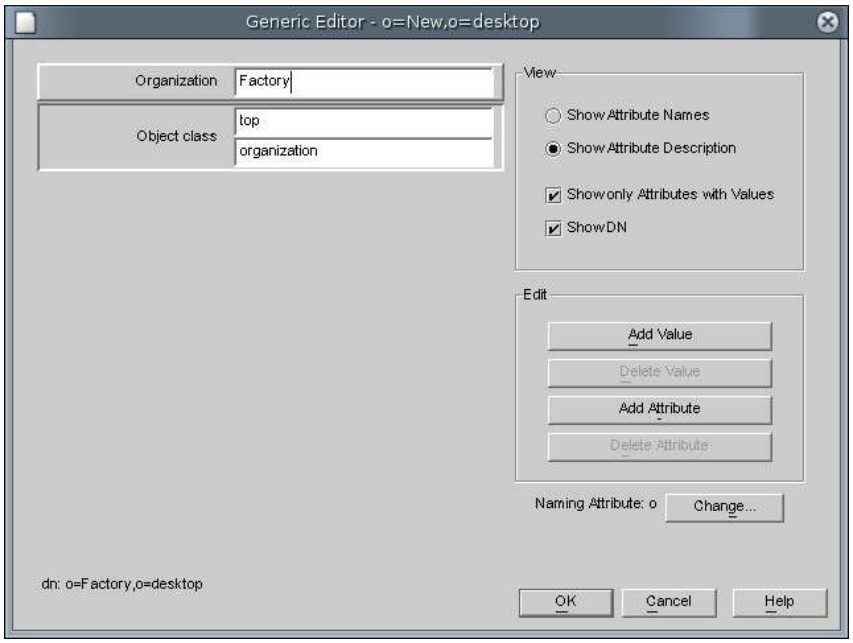
Assign the name 'People' and click OK, as shown in the following screen capture.



Repeat this step to create the 'Factory' top level: again choose 'Object -> New', but now select 'Other'.

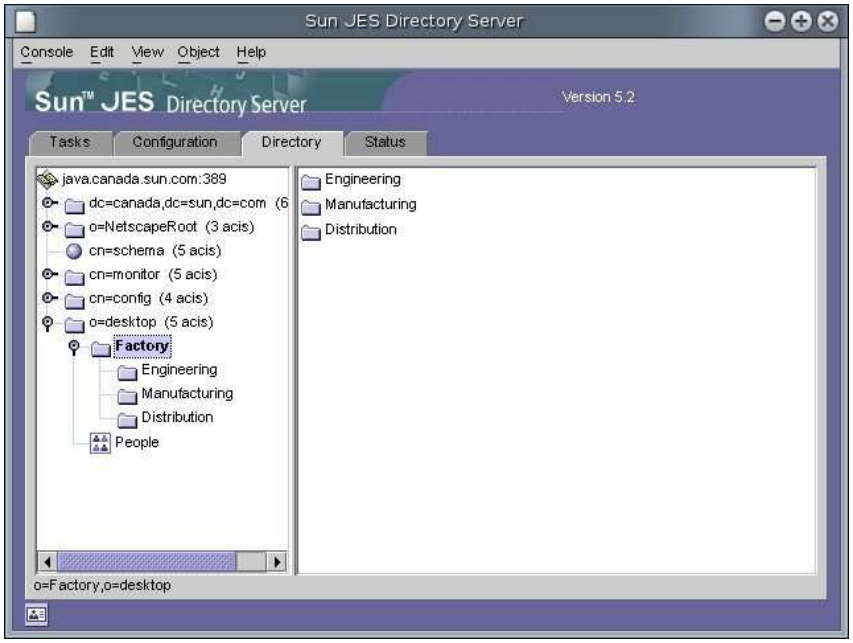


In the next screen give your organization the name 'Factory'. In the bottom left you see the dn becoming 'o=Factory,o=desktop'. Be careful with the distinction between creating an organization (o=) and an organizational unit (ou=).

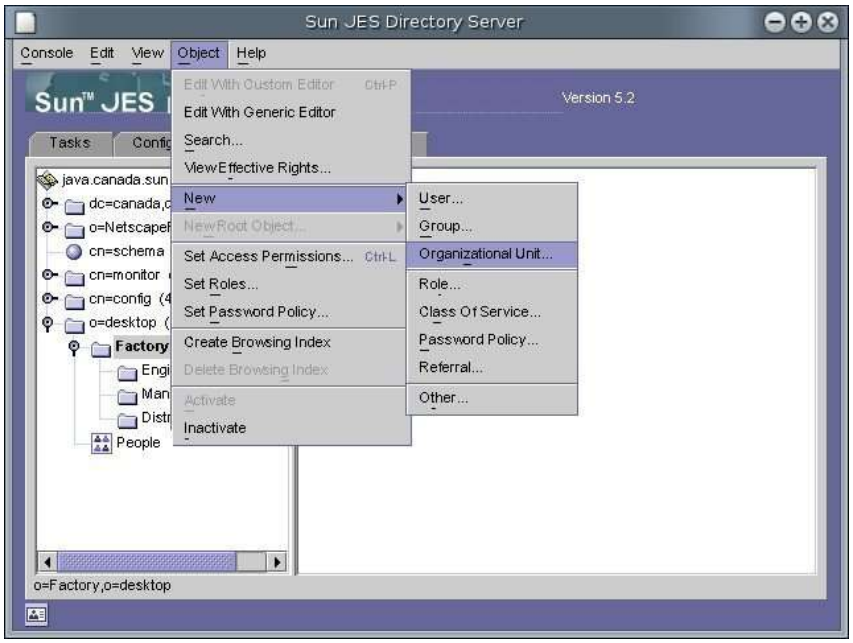


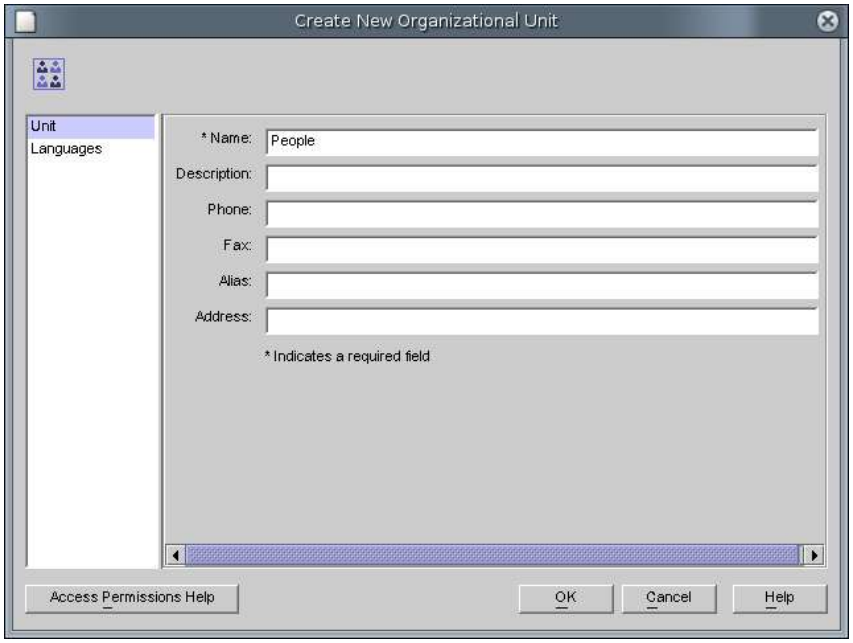
Create the departments the same way. Select 'Factory' in the tree on the left, then use 'Object -> New' and 'Other'. Name the first department 'Engineering' and the next two 'Manufacturing' and 'Distribution'.

The result is shown on the following screenshot in the tree on the left.



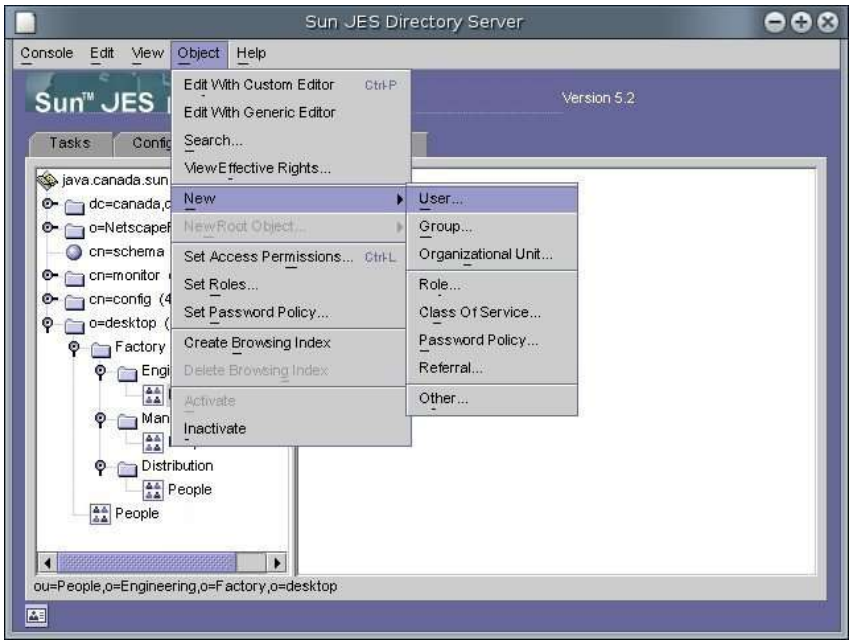
Users are not stored directly under their respective departments but in an 'organizational unit' called 'People'. So you have to create those organizational units under each of the three departments. These are created the same way as the one created under the root suffix. The following images capture these steps.



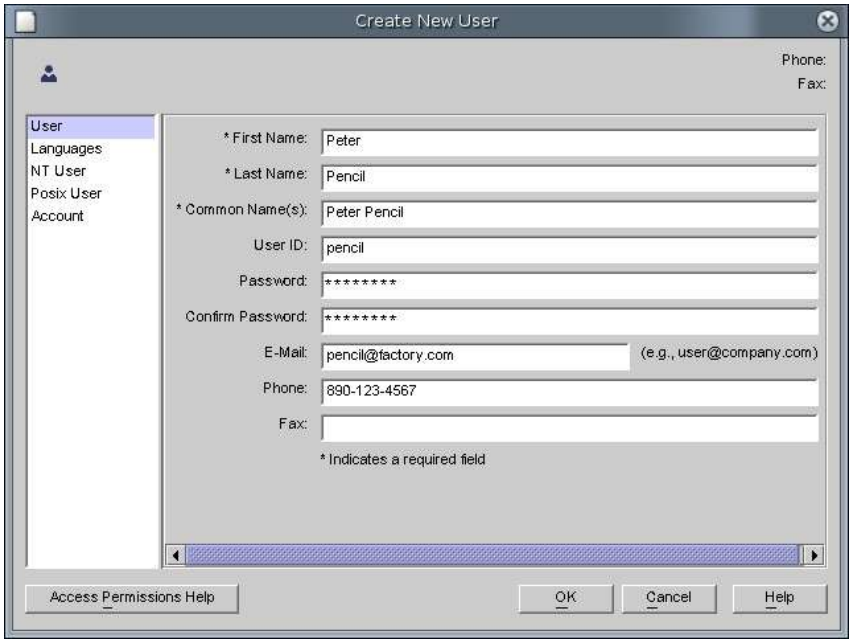


You are now ready to create actual users.

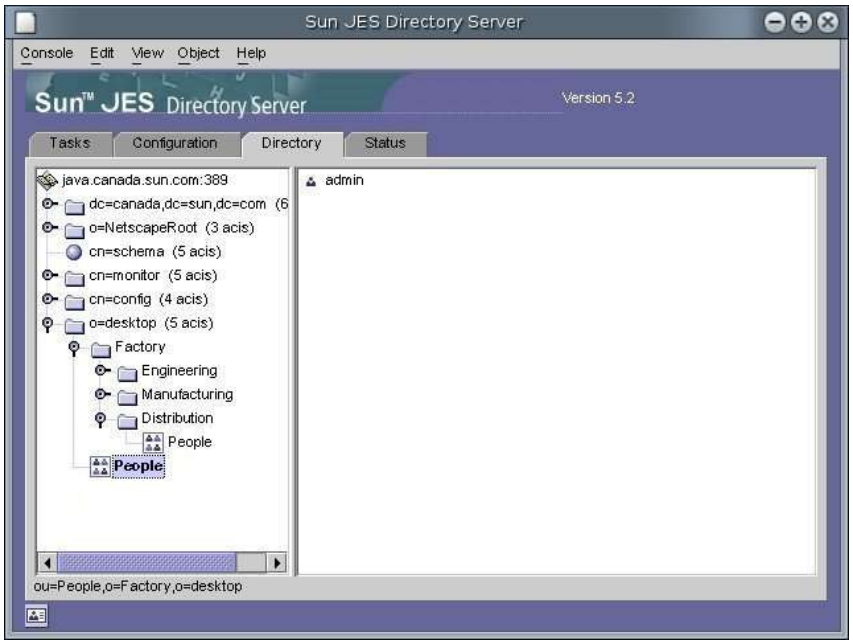
Select in the tree the 'People' entry under 'Engineering' and 'Object -> New -> User'. Your screen should look like the following screen capture.



In the next screen enter the credentials for Peter Pencil.

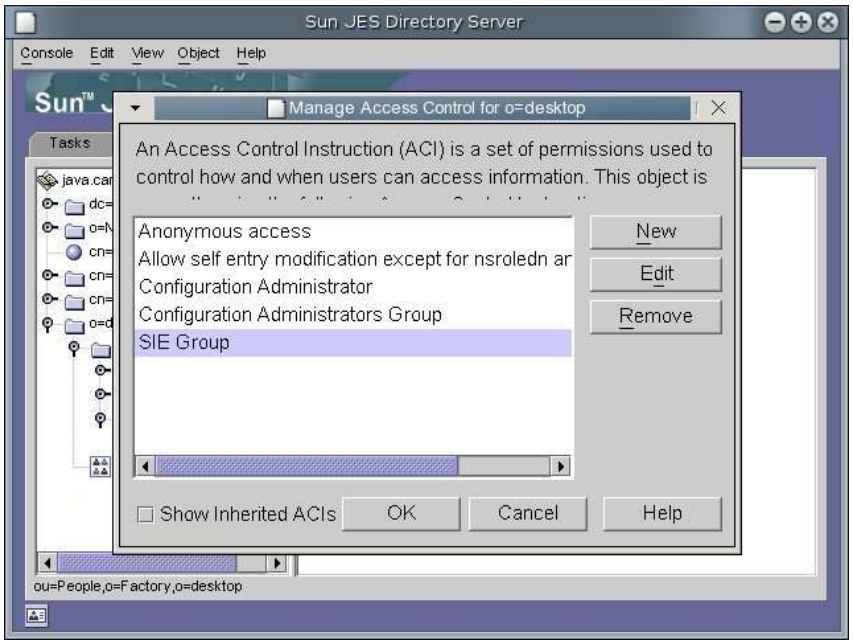


Repeat this process to create a Hans Hammer in Manufacturing and a Theo Truck in Distribution. Finally (or first, it doesn't matter) create an SDTM admin in the People 'ou' of 'o=desktop'. If you call this user 'admin' you will have to log in with the full DN. Therefore, it is better call this user something different like 'dadmin'.

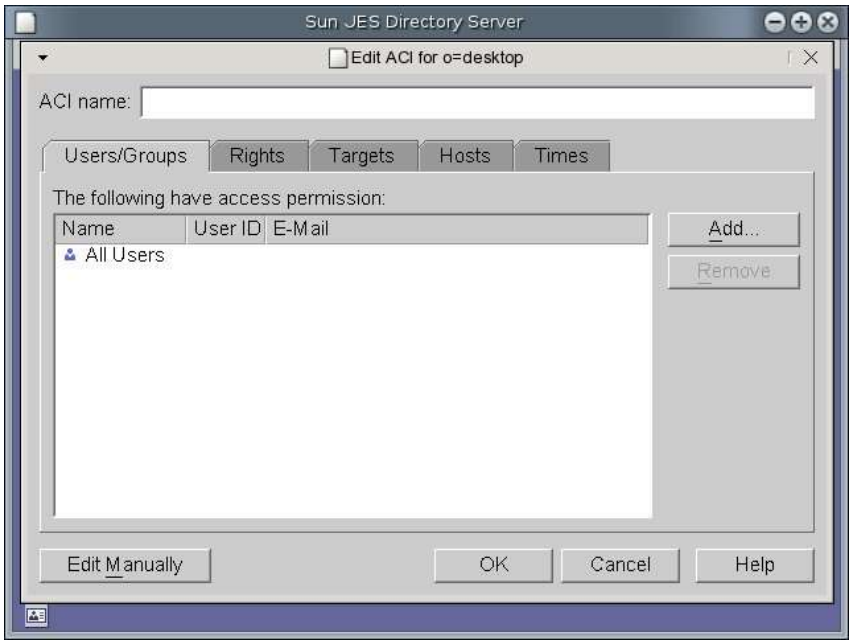


To take care that the SDTM admin will be able to manage the SDTM setup, we have to give the admin full access rights, but only in the 'o=desktop' tree.

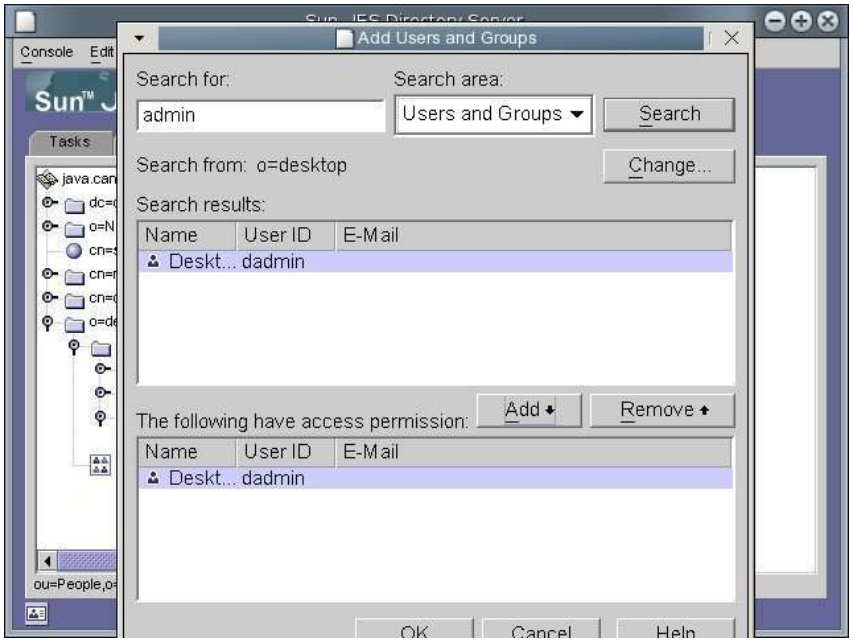
To accomplish that, right-click on the 'o=desktop' entry in the tree and select 'Set Access Permissions' from the menu.



In this pop-up window, click 'New' for the 'Edit ACI' screen.

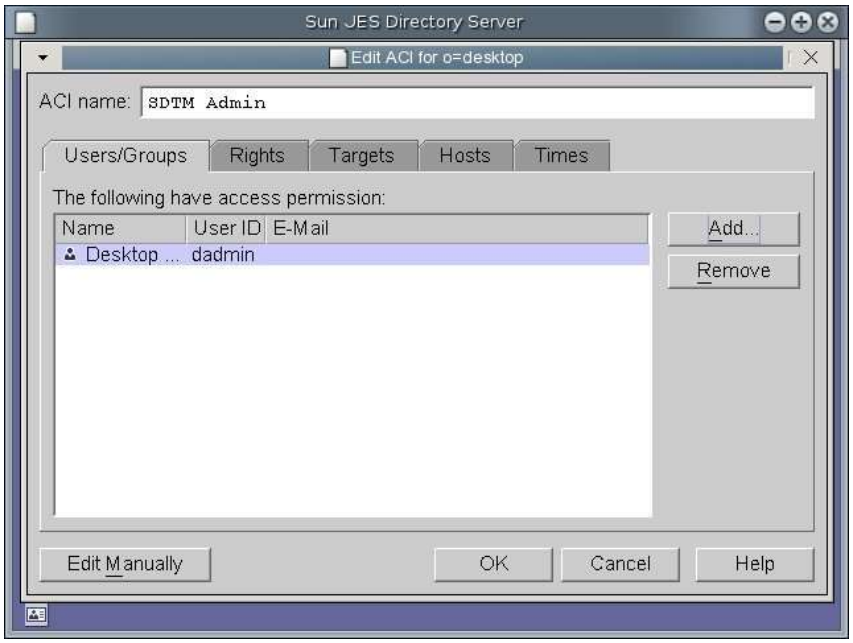


Fill in the ACI name (with something like 'SDTM Admin') and click 'Add'.

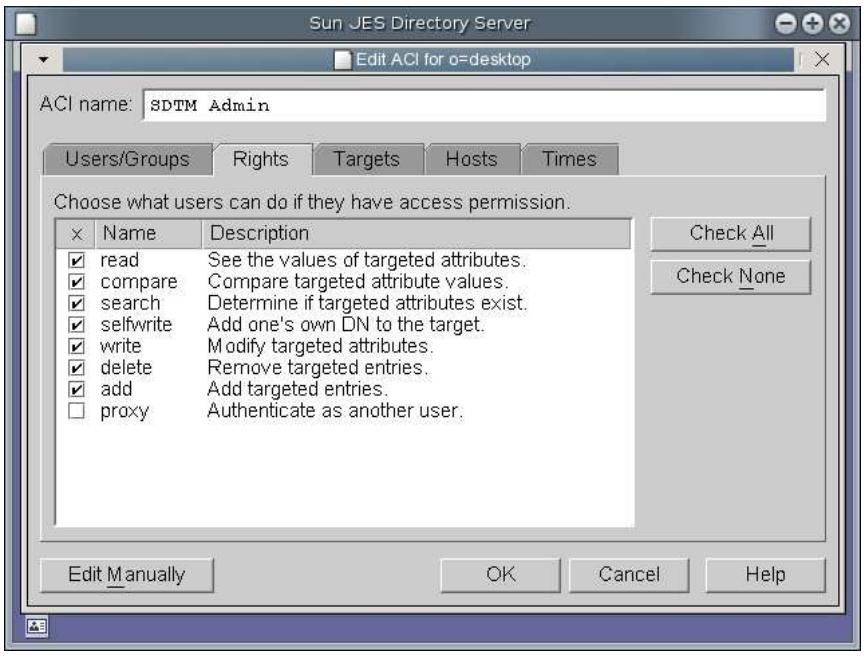


On this screen, first click 'Change' to set the 'Search from' to 'o=desktop'. Next, type 'admin' in the 'Search from' field and click 'Search'. The Desktop Admin (uid=dadmin, ou=People, o=desktop) should now appear in the 'Search Results'. Select that user and click the 'Add' button.

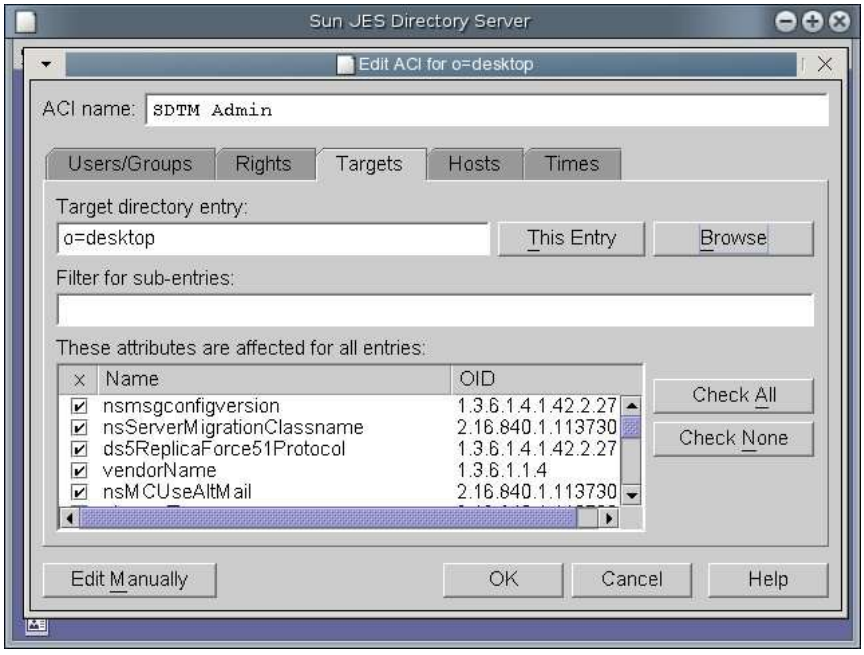
Finally click 'OK'.



Back on the ACI screen, select the 'Rights' tab.



Nothing needs to change here, but just verify that the ACI has all the read/write rights. Now select the 'Targets' tab.

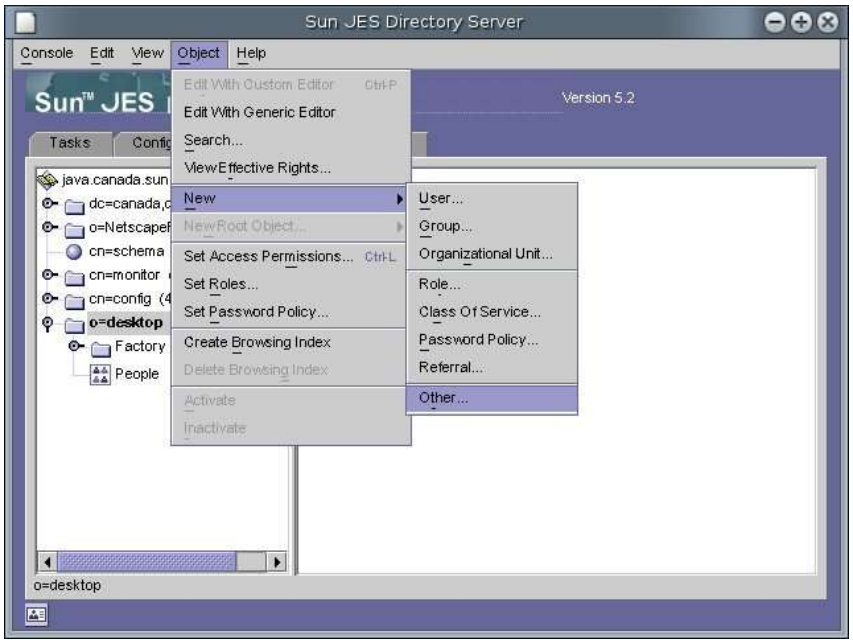


On this screen, click 'Browse' to change the 'Target directory entry' to 'o=desktop'. After a couple of OK's, you are all set. To check if everything went OK, right-click your 'o=desktop' suffix and select 'View Effective Rights' from the menu. Change to 'Other' and then 'Browse' to the dadmin user. Finally click 'Display Effective Rights', which should show all checkboxes selected, except 'Proxy'.

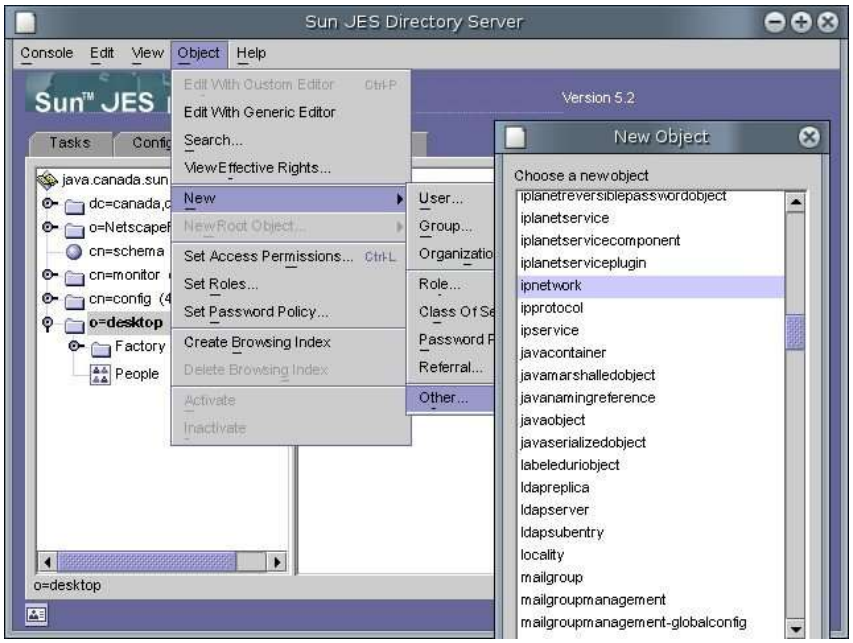
Domains and Servers

As the Sun Desktop Manager manuals describe, some desktop properties are linked to a person or the individual's place in the organization, but some, like a browser's proxy server, are related to where the desktop is hooked up in the network. Therefore you need a second tree in your directory to store these settings.

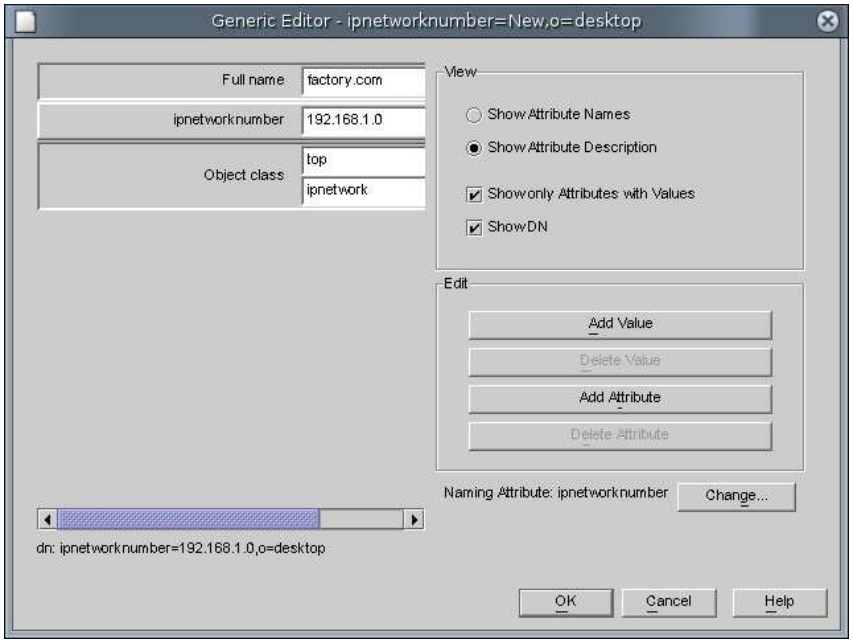
Select the root-suffix 'o=desktop' and choose from the menu 'Object -> New -> Other'.



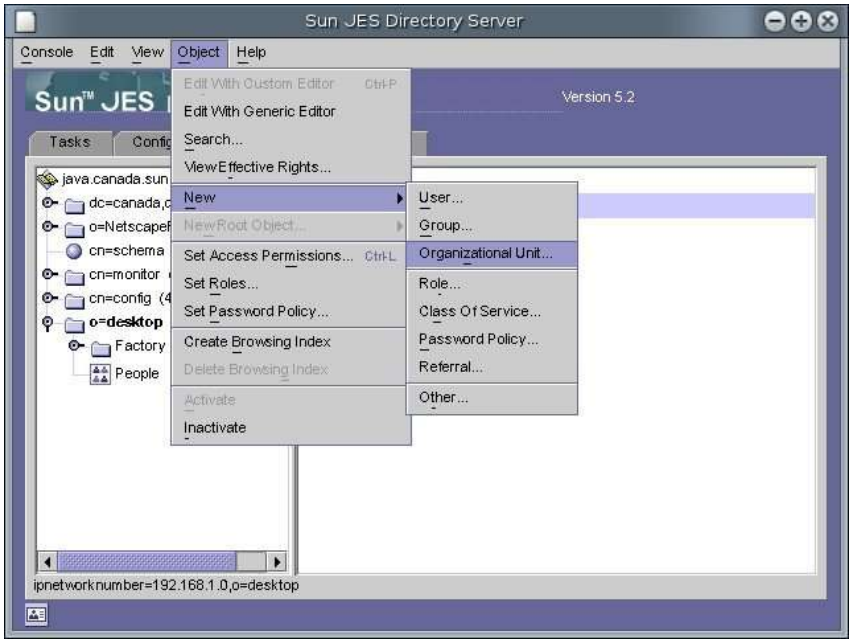
From the pop-up window, select 'ipnetwork' and click OK .



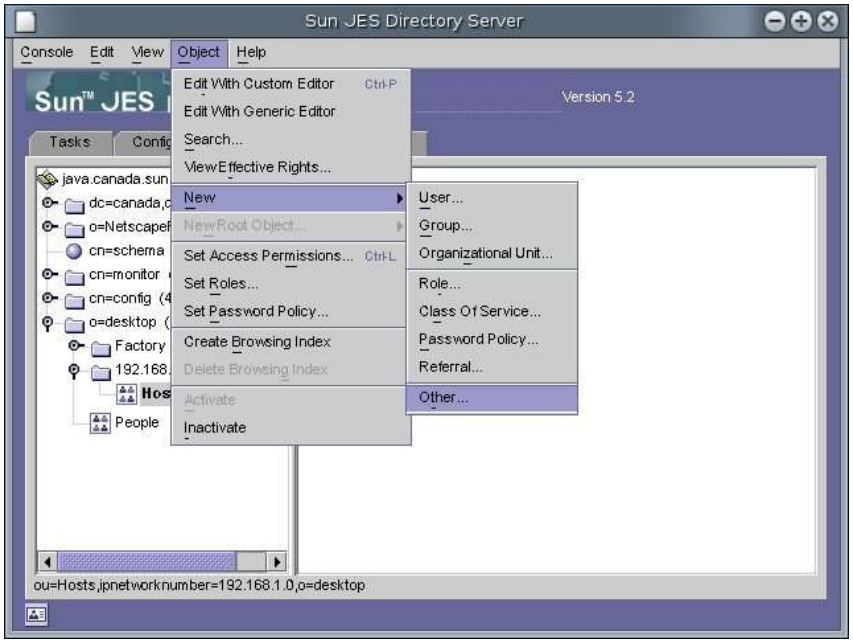
On the following screen give 'ipnetwork' the 'Full name' of your domain and enter the network IP (something like `192.168.1.0` ending with one or more zeroes).



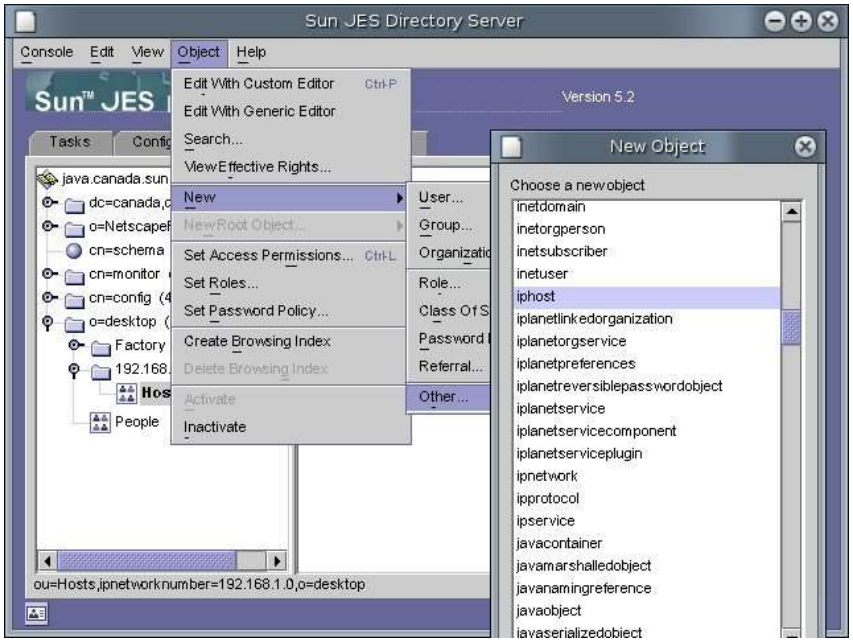
Under this 'ipnetwork', create an organizational unit called Hosts, similar to the People entries in the organization tree.



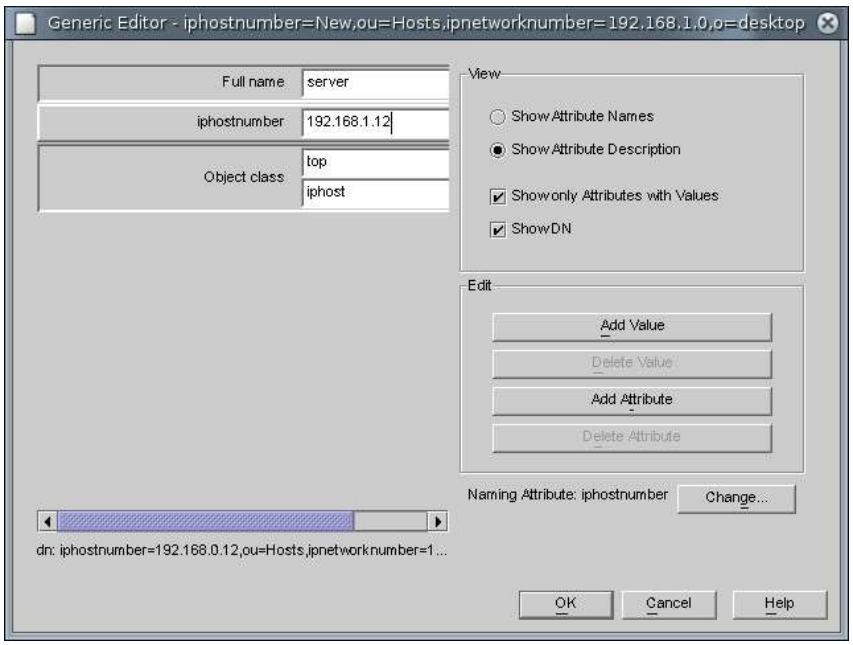
Next, select the 'Hosts' entry in the tree and 'Object -> New -> Other'.



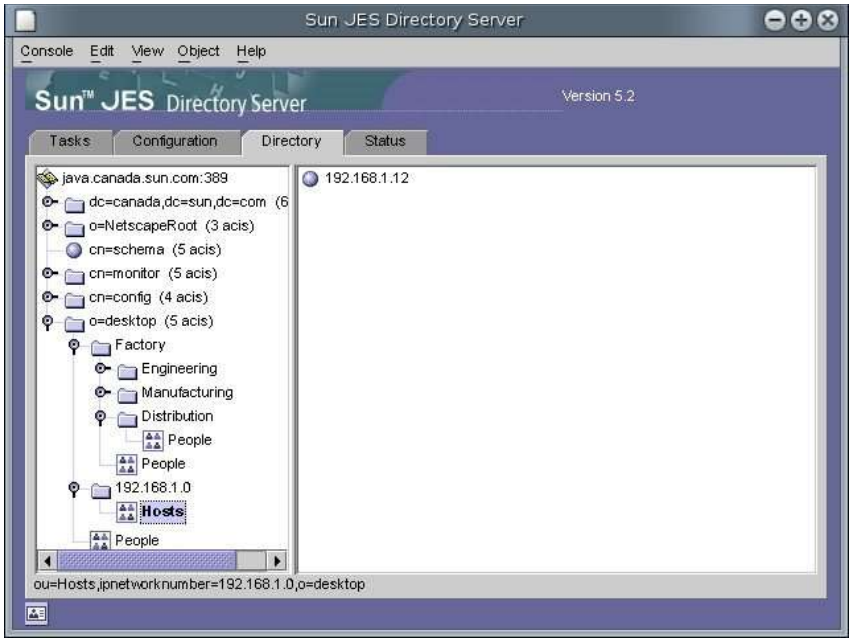
Next create an iphost under hosts.



Give the host a name and enter the IP address.



Click OK and your domain tree is done.

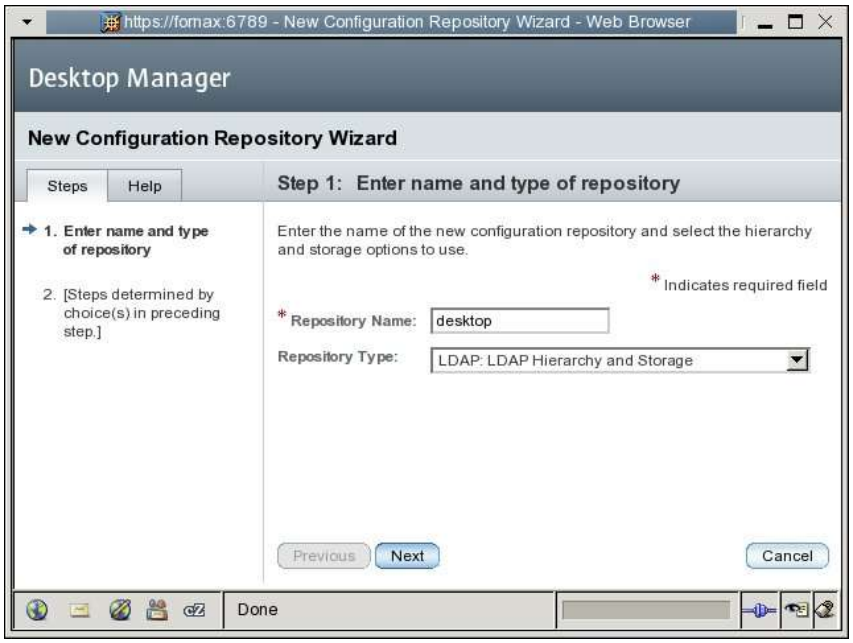


This example shows only a single level of network domain, immediately followed by hosts. In reality, there will be many levels of domains (for different sites) and maybe even no hosts. When desktops are using DHCP for their IP address, it is little use to enter the hosts in the directory.

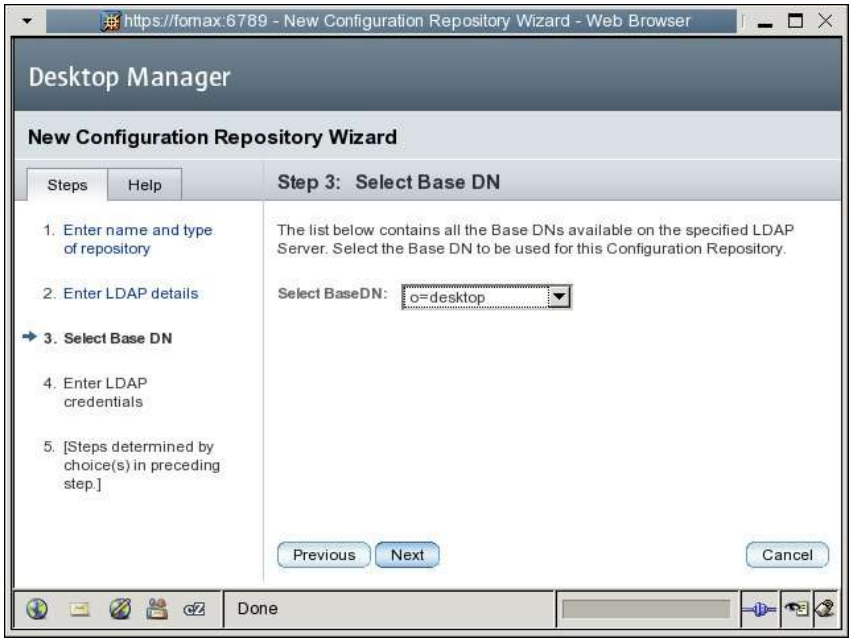
This is all you have to configure in the console of the Directory Server.

Configuring Sun Desktop Manager

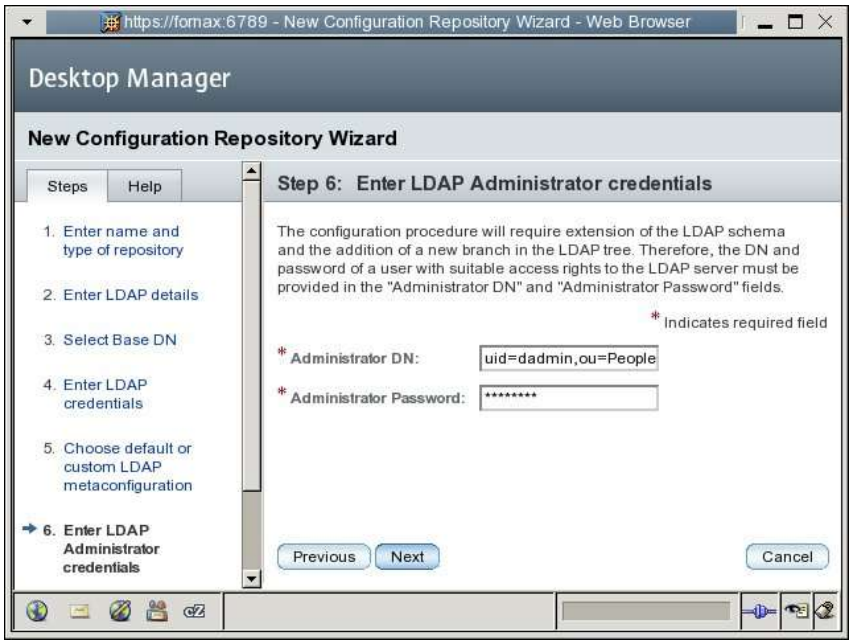
To continue with the configuration of the Sun Desktop Manager console, log in to your Web Console (`https://domain.com:6789/`) using a UNIX® userid/password, and select Sun Desktop Manager from the Desktop Applications menu. The next page is an empty 'Configuration Repositories' page. Click 'New', which brings up a pop-up to enter the name of the repository. Here we choose 'desktop', but you could also use something more meaningful.



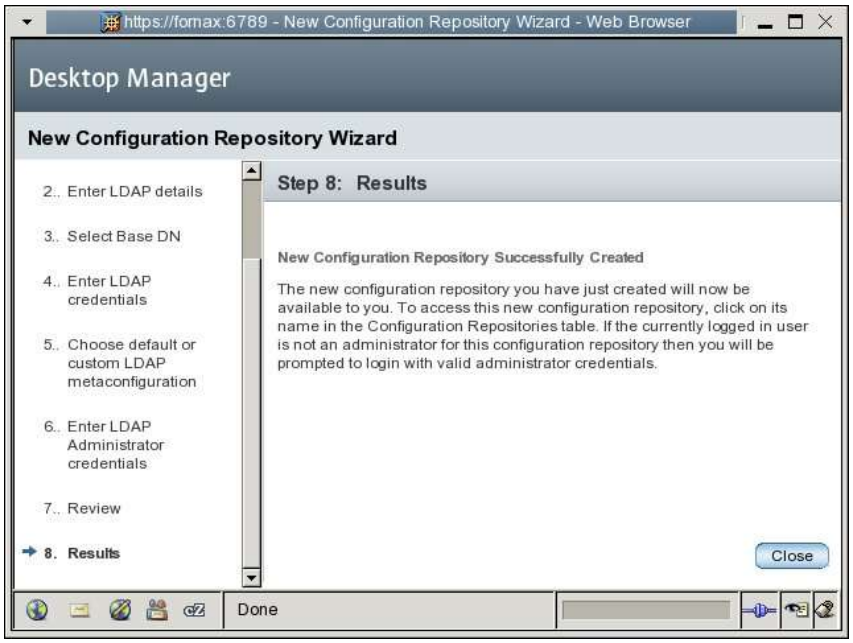
Click 'Next' and enter the hostname of your LDAP server and 389 as the portnumber. Again, click 'Next' and for step 3 select 'o=desktop' as the BaseDN.



At step 4 and 5 you can leave the defaults as they are, but for step 6 enter 'uid=dadmin,ou=People,o=desktop' as the Administrator DN.

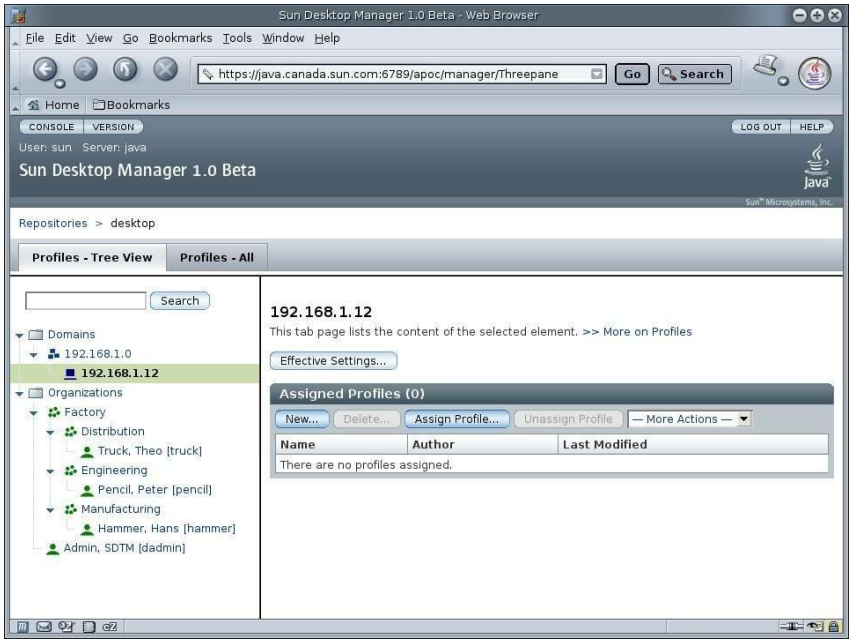


On the next screen review your results and you should see the following screen, indicating that all went well.

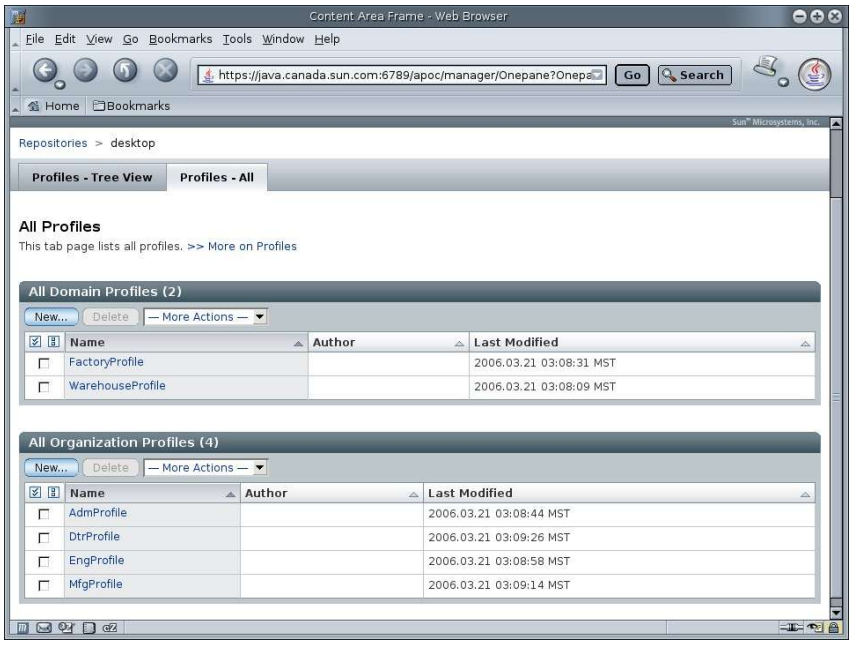


Click 'Close' and you're back on the 'Configuration Repositories' screen, which will show the 'desktop' repository. Click on the name and you will be asked to log in. This time, use the 'dadmin' userid as you created in the Directory Server.

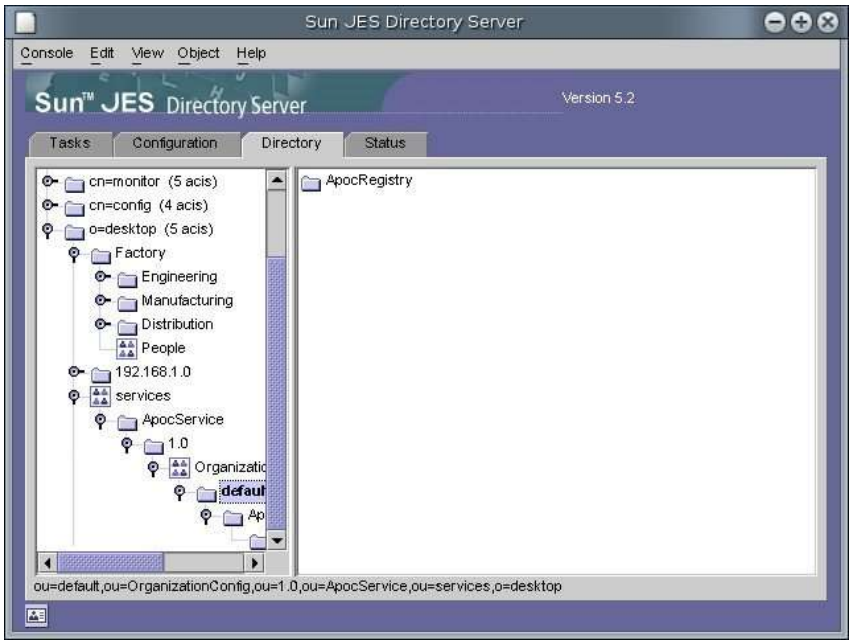
This will open the Sun Desktop Manager console that shows the domain and organization tree you built with the Directory Server console. See the following screen capture for reference.



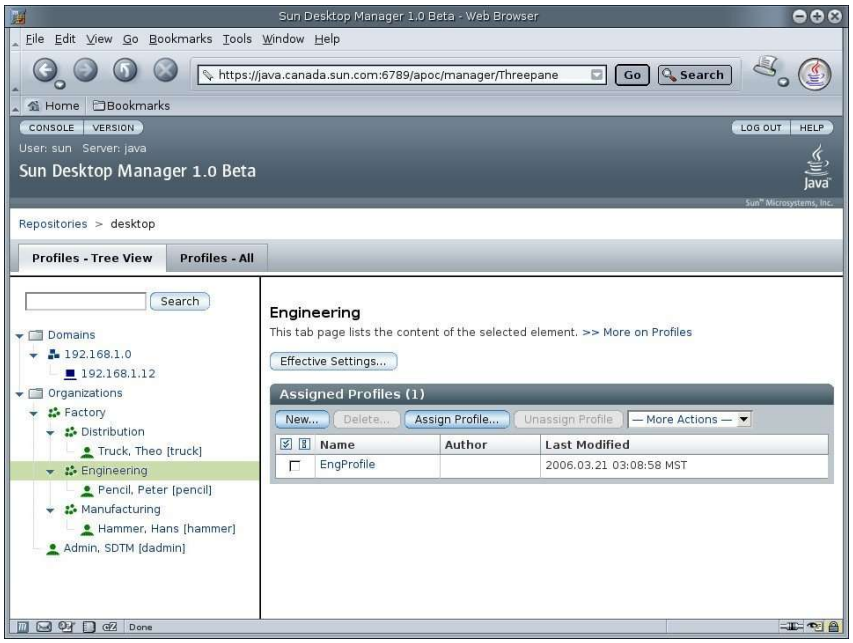
Switch from 'Profiles -- Tree View' to 'Profiles -- All' and create a couple of Domain Profiles and Organization Profiles. In the former, change Mozilla's proxy server, and in the latter, change the GNOME display background image.



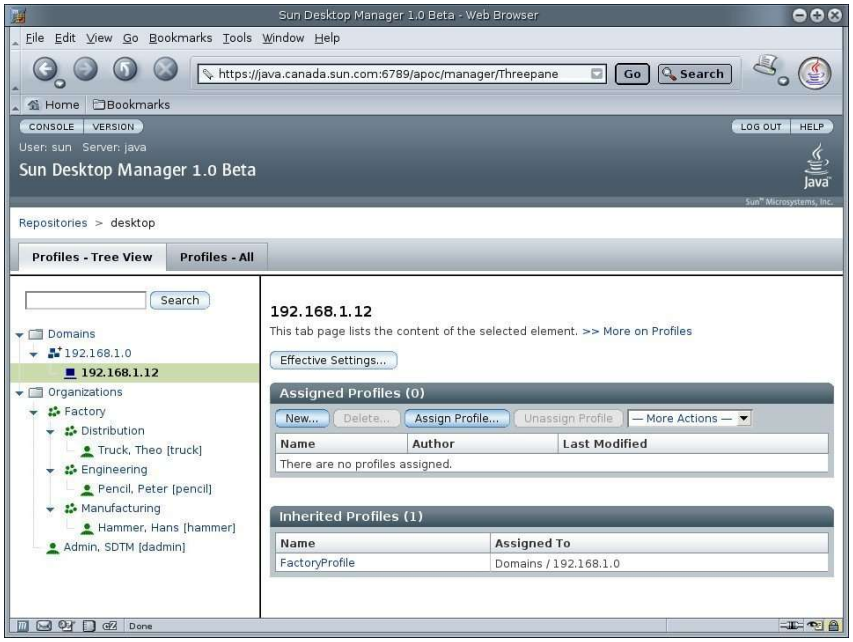
Back in the directory console, you see that SDTM has added a 'services' entry to your suffix in which it stores a tree with configuration information. This will repeat itself at various levels when you assign profiles to organizations, users, or domains.



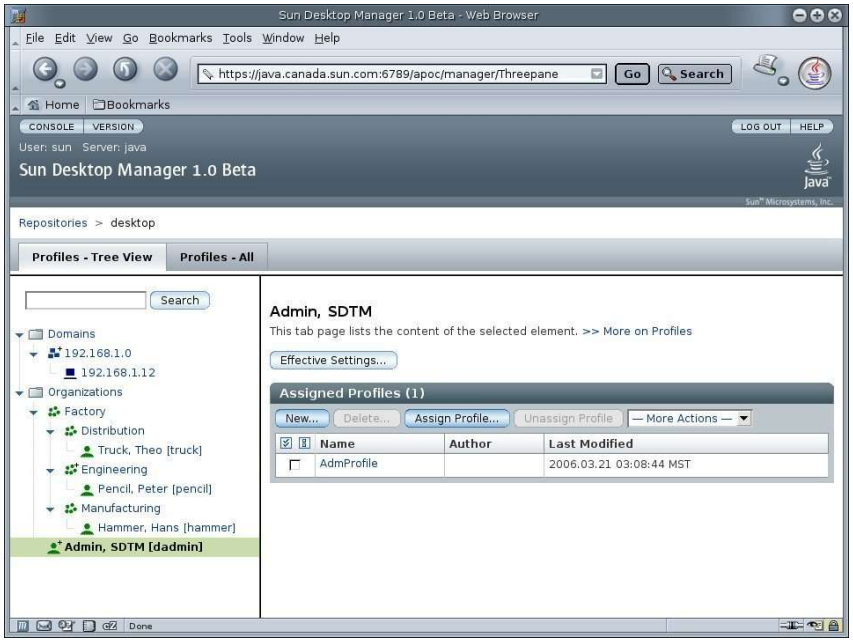
In the SDTM console, select Engineering in the tree on the left, click 'Assign Profile' on the right and choose 'EngProfile'. This profile will now be used for Peter Pencil and all his colleagues in the Engineering department.



In the same way, assign the 'FactoryProfile' to server `192.168.1.12`.



Assign the 'AdmProfile' to the SDTM admin.



When you finally switch back to the DS console, you can explore the combination of what you configured yourself and what was added by the SDTM Web Console.

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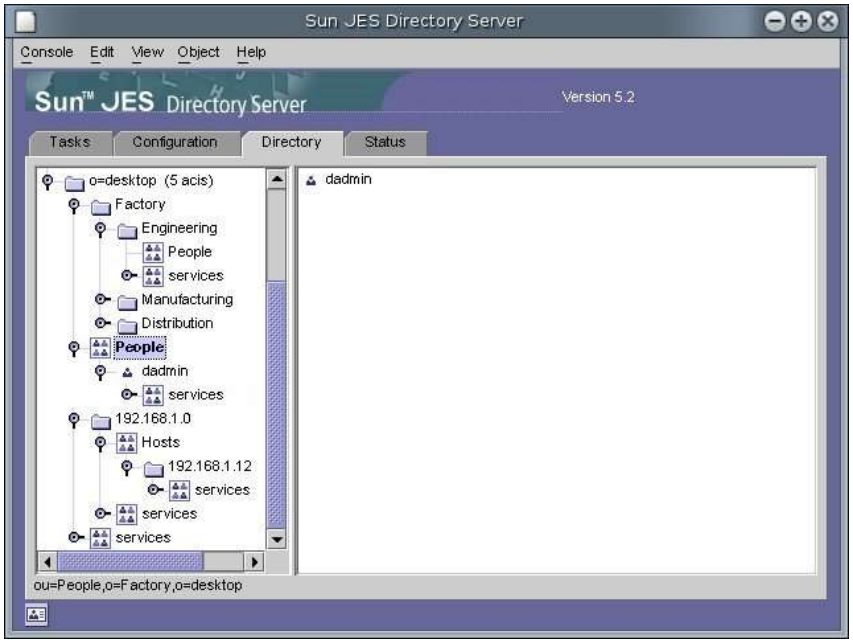

Wrap-Up

As we mentioned in the beginning, this interactive way of configuring the directory is not a scalable method suitable for adding and configuring thousands of users. However, it is a good starting point to see what needs to happen. The logical next step is to export what you configured into an LDIF file (see the example LDIF file available from BigAdmin). Exporting is easiest when done from the Directory Server console under the 'Tasks' tab (refer back to the second screen capture).

If you want to use this LDIF file as the starting point for your larger Sun Desktop Manager deployment, you have to be careful when to take this snapshot. You could choose to do it after the organizations, users, and domains are configured but before the SDTM console has added the 'services' entries, in which case your LDIF scripts will only create users but not assign profiles. Or you could take your snapshot at the end, resulting in a more complex LDIF file, but with the opportunity to have your scripts do the SDTM profile assignments as well.