ExpressCluster® X SingleServerSafe 2.1

Linux version

Quick Reference Guide for SSS installation & configuration of a sample application-Calculator

Installing SSS

1. Install the SSS server rpm package
   - rpm –ivh expressclssss-2.1.0-1.i686.rpm

   The rpm package is different for 64 bit machine. Choose the one that matches CPU configuration.
2. After the installation is successful, register the license
   - clplcnsc – i ECX2.1_trial_lin_SSS1.key –p XSSS21

   Here ECX2.1_trial_lin_SSS1.key is the license key name & XSSS21 is the product id. Similarly install other license applicable. If the license is installed properly then following message will displayed in the command terminal:

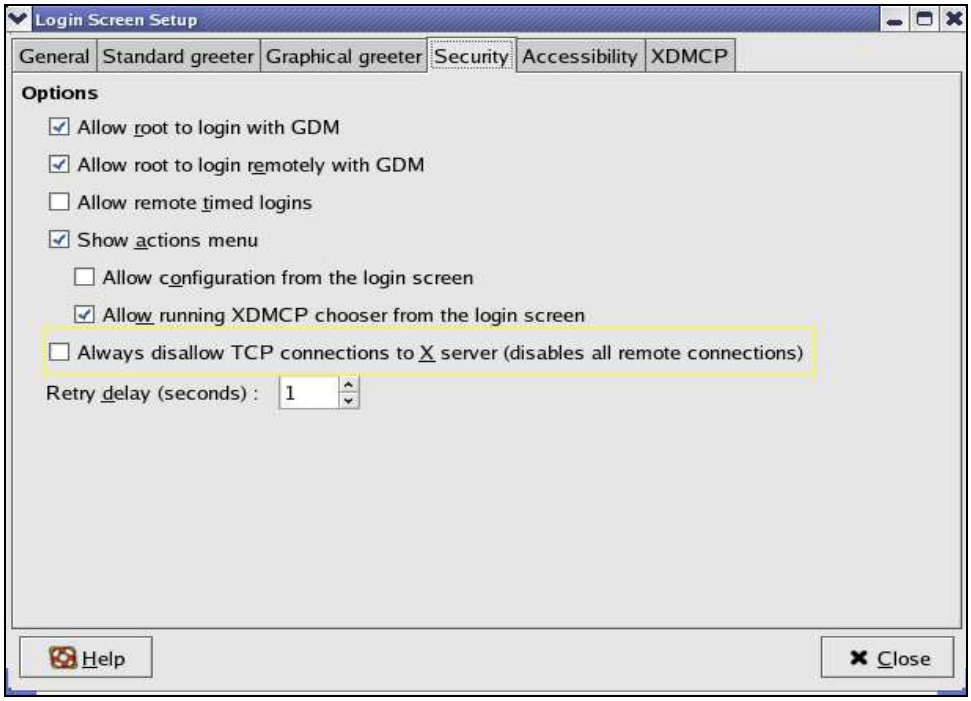
   “Command Succeeded”

Using SSS to configure application (kcalc)

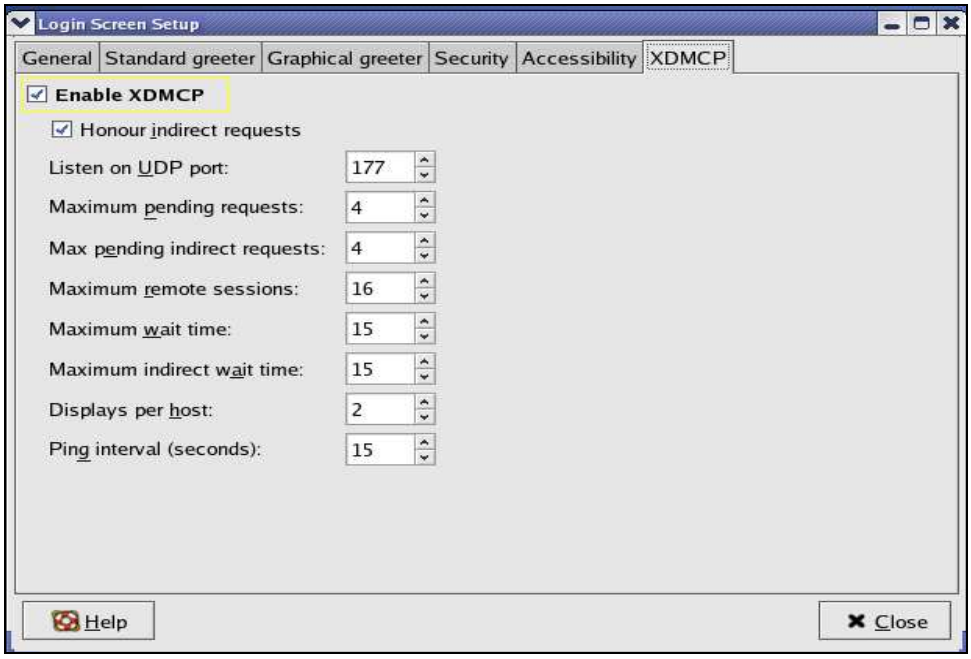
For GUI based application like calculator (kcalc), the display need to be exported via X server (X Window System Display server). The following steps is being done to allow localhost machine (in which SSS is installed & configured) to connect to X server.
(The settings below is with respect to RHEL 4 Linux 2.6.9-5.EL)

1. From the program start window, select Login screen as given below:

2. In the window of “Login Screen” select “Security” tab & **uncheck** “Always disallow TCP connections to X server”. Refer highlighted (in yellow) option in snapshot below



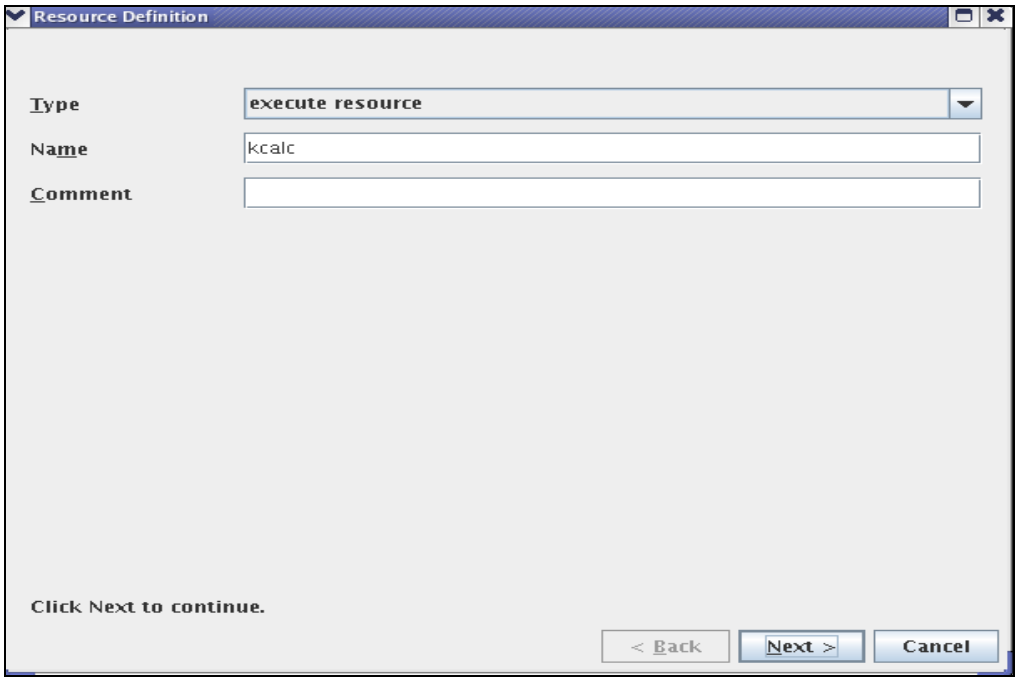
Now click on the XDMCP tab of the same “Login Screen Setup” & **select** option “Enable XDMCP” . Refer snapshot – option highlighted in yellow.



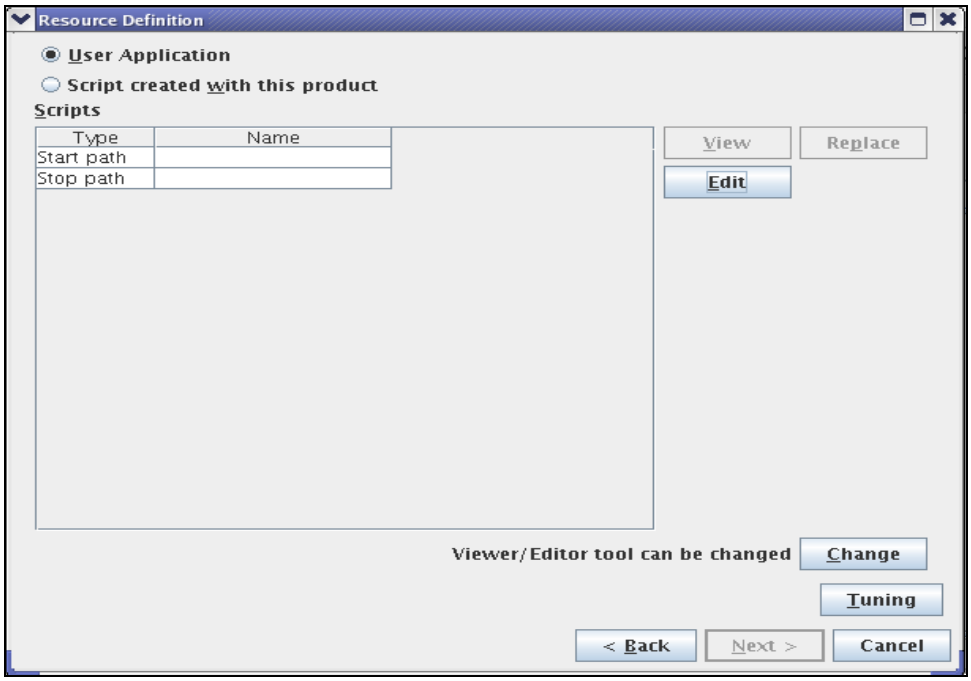
This completes the X server display settings. To make this change effective, logout from current session & then login again.

After logging again we need to configure “kcalc” application with SSS using Web Manager. For details on how to start the web manger & definitions of features available, refer the SSS manuals. Given below is a brief demonstration on how to configure SSS using sample GUI application.
Sample application being used is calculator.

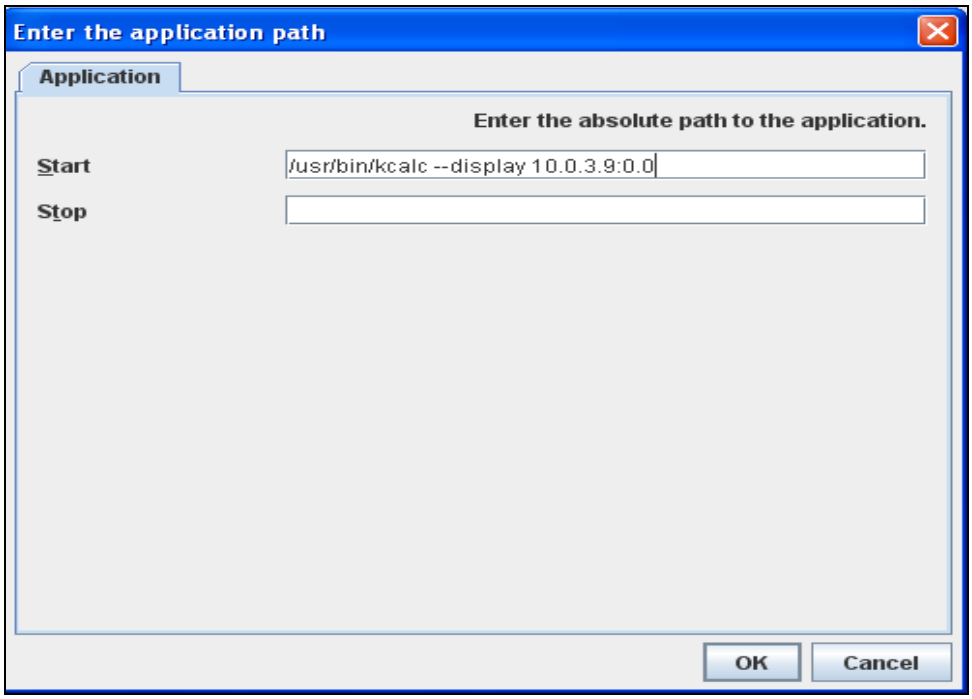
Step 1: Using the cluster generation wizard, create new cluster using the server name of the server where SSS is installed. In this demo let’s assume it to be “SSS”
Step 2: Add a failover group by right clicking the “Groups” icon.
Step 3: Once group is added the resources required to create the configuration is to be added.
Right click on failover & select “Add Resource”.
Step 4: A Resource definition window will pop up, select exec resource & type name you want to give to the resource (here its kcalc). Type comments if required. Click next



Step 5: Since calculator is a simple application program we can invoke it by providing its resident path. So we choose the option “User Application” in the radio button. Start path for the calc need to be specified now.



Select Edit button here to give the absolute paths for the application being configured. Then click OK



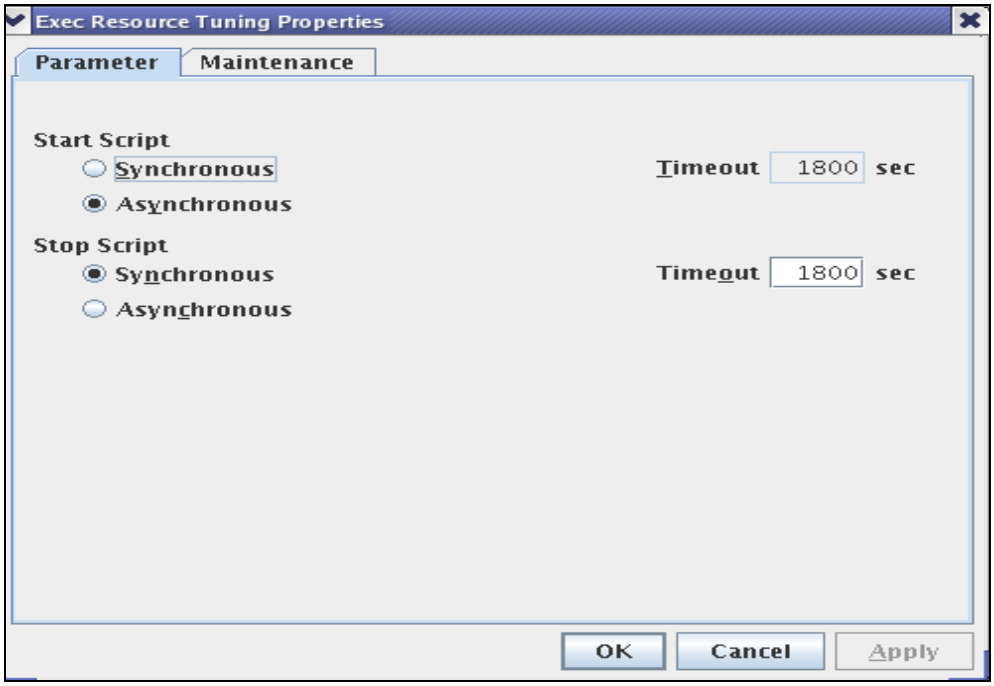
In above snapshot absolute path for kcalc is specified along with display option to allow SSS to connect with X server. Here 10.0.3.9 is IP of the Linux machine & 0.0 is the co ordinates.

Step 6: After editing the start & stop path, click on “Tuning” button to modify resource settings.

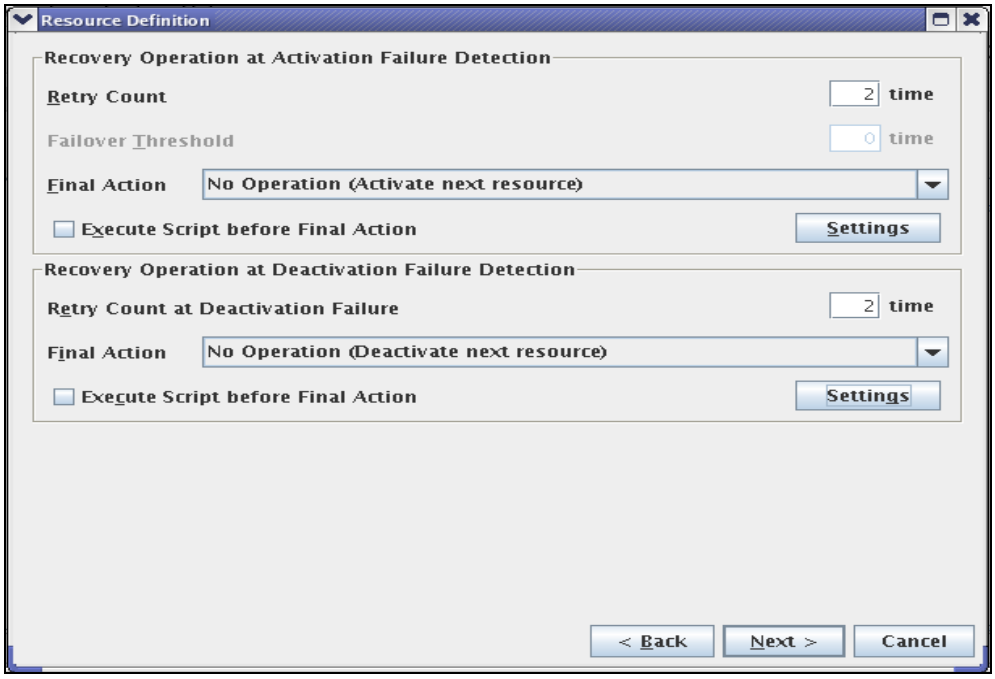
In the Parameter tab select radio button “Asynchronous” for Start Script & keep the Stop script to “Synchronous” only.

In the Maintenance tab select log output path if you need to generate log messages.

Then choose OK & click Next.



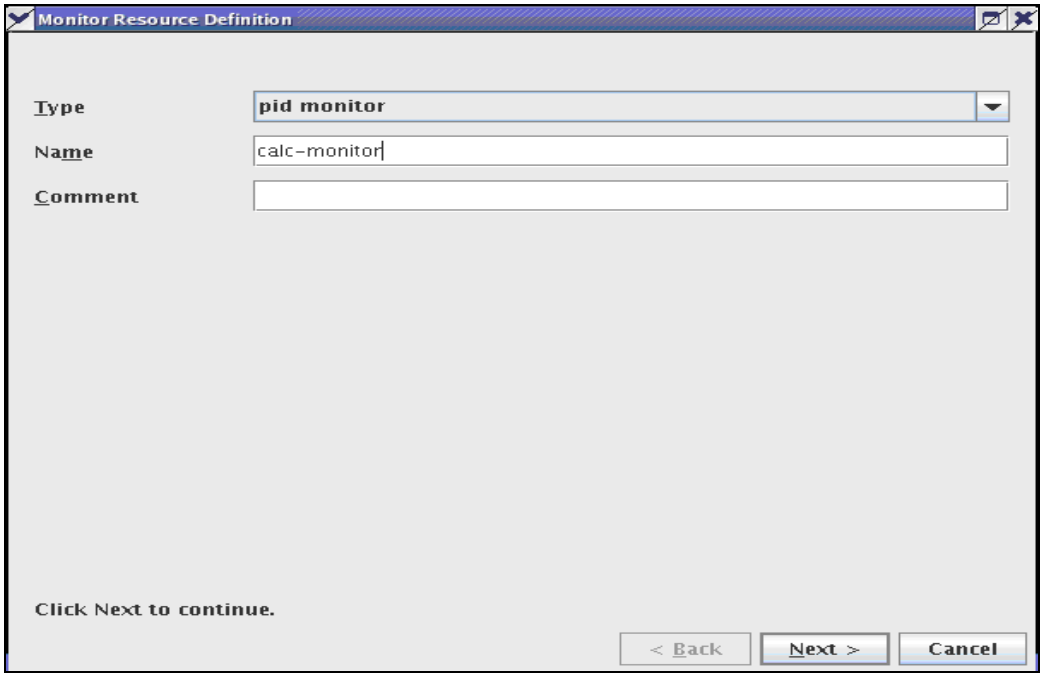
Step 7 Choose “Retry count” value & the “Final Action” value. Please refer SSS guide to decide what values to fill in these parameters.



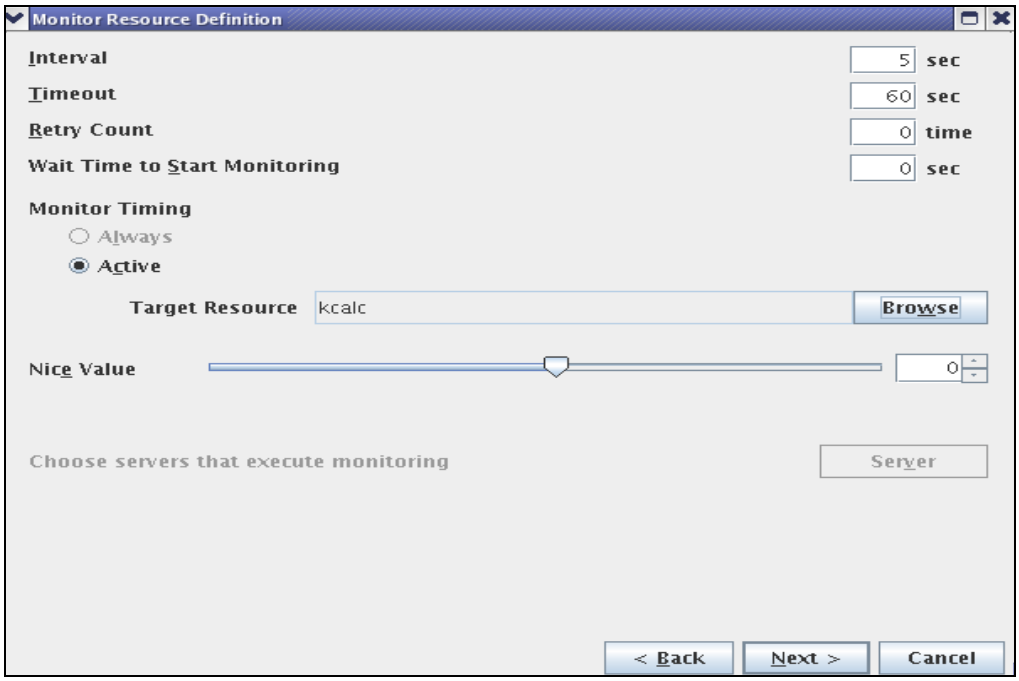
Click Next & then Finish.

Step 8 Resource has been added successfully. Let's add the monitor for the resource now. Right click on "Monitor" & choose Add Monitor Resource

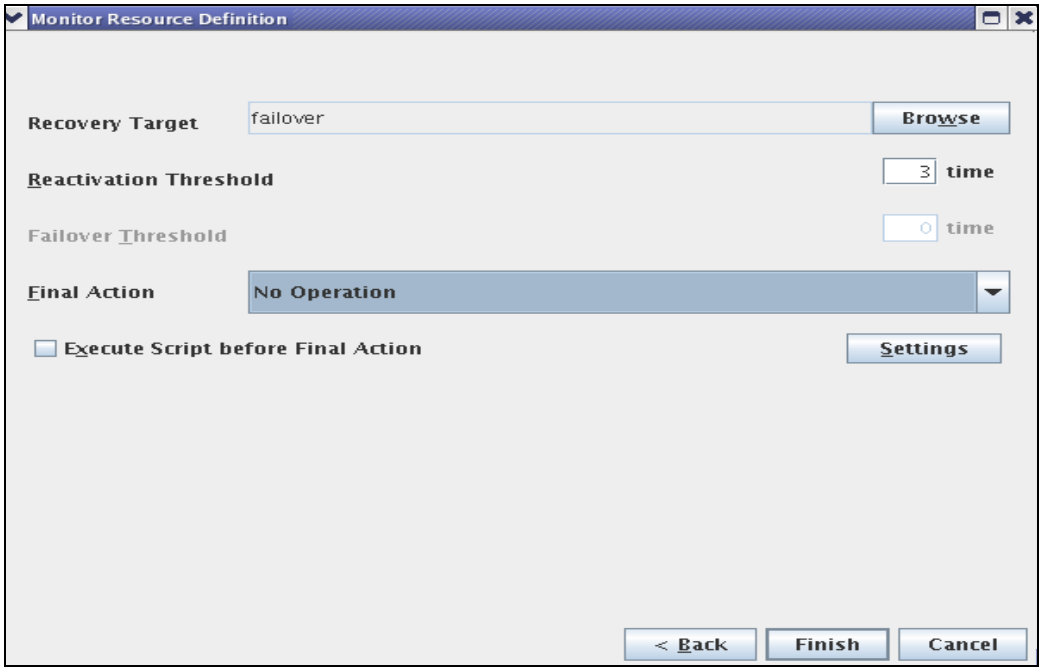
Step 9 Choose the type as "pid monitor" & assign any name in the Monitor name field. Click Next. (Here we chose pid monitor option because calculator is a simple application which can be monitored by its process id)



Step 10 Set Interval, Timeout & other values as per requirements. Refer SSS Manual to know what these value means. In Monitor Timing “Active” button is already selected, browse to select Target resource (in this case “kcalc” i.e name we gave to exec resource while adding resource) Click Next.



Step 11 Browse & choose Recovery target as “failover”. Set Final action value as per requirement. For this demo “No Operation” has been selected.
Finally click Finish button.



Step 12 The SSS & calc configuration is now complete. Follow steps given in manual to save/upload config file & start the cluster. But before the cluster is started, in the command prompt execute the below command:

$ xhost +

Message displayed: *access control disabled, clients can connect from any host*

This command is issued to allow the SSS machine to connect to the X server.

End Result: What to expect?

The calculator has been successfully configured with SSS. When “Start Cluster” command is selected from the Web manager, the resource (calculator in this case) will be invoked by SSS & calculator application will **open up automatically.** If we manually close the calculator application, SSS monitor will detect its non existence & soon as it does so; it will restart the resource (calculator) again.

The status of the resource can also be seen in the Web manager. Refer SSS manuals to know more about using Web Manager.