Network Monitoring and Management
Cacti Plugin Configuration and Use (Settings and Thold)

Notes:

- Commands preceded with "$" imply that you should execute the command as a general user - not as *root*.
- Commands preceded with "#" imply that you should be working as the *root* user.
- Commands with more specific command lines (e.g. "RTR-GW>" or "mysql>") imply that you are executing commands on remote equipment, or within another program.
- If a command line ends with "\" this indicates that the command continues on the next line and you should treat this as a single line.
- These exercises are tested against Ubuntu server version 9.10.

Exercises

These exercises *assume* that you have installed Cacti from source. If you installed cacti by doing "apt-get install cacti" on your Linux machine, then these exercises will not work.

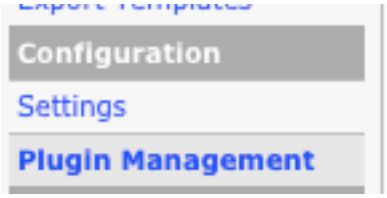
Exercise 0

Log in to your PC or open a terminal window as the sysadm user.

Exercise 1

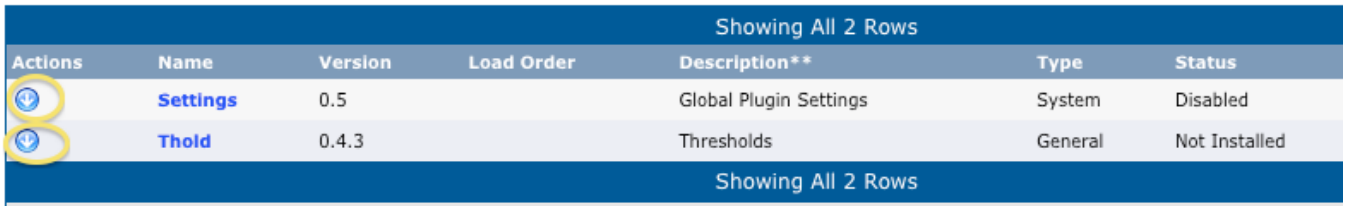
Using Plugins

Note on the left side of the Cacti page there is now a "Plugin Management" option under Configuration:



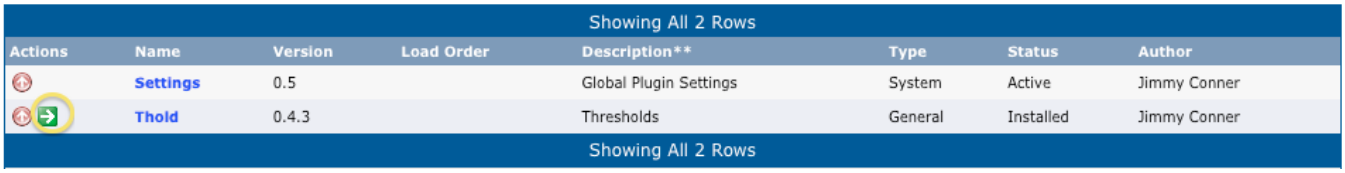
Complete the install of Settings and Thold Plugins

Click on the Plugin Management choice on the left of the screen in Cacti. You should now see:



Showing All 2 Rows						
Actions	Name	Version	Load Order	Description**	Type	Status
	Settings	0.5		Global Plugin Settings	System	Disabled
	Thold	0.4.3		Thresholds	General	Not Installed
Showing All 2 Rows						

To install and enbale the Settings and Thold plugins click on the two white down-arrows circled above. Your screen will now show:



Showing All 2 Rows							
Actions	Name	Version	Load Order	Description**	Type	Status	Author
	Settings	0.5		Global Plugin Settings	System	Active	Jimmy Conner
	Thold	0.4.3		Thresholds	General	Installed	Jimmy Conner
Showing All 2 Rows							

To finish the Thold Plugin installation click on the green arrow white arrow in the green box circled above.

Your plugins are now fully installed and active in Cacti.

Exercise 2

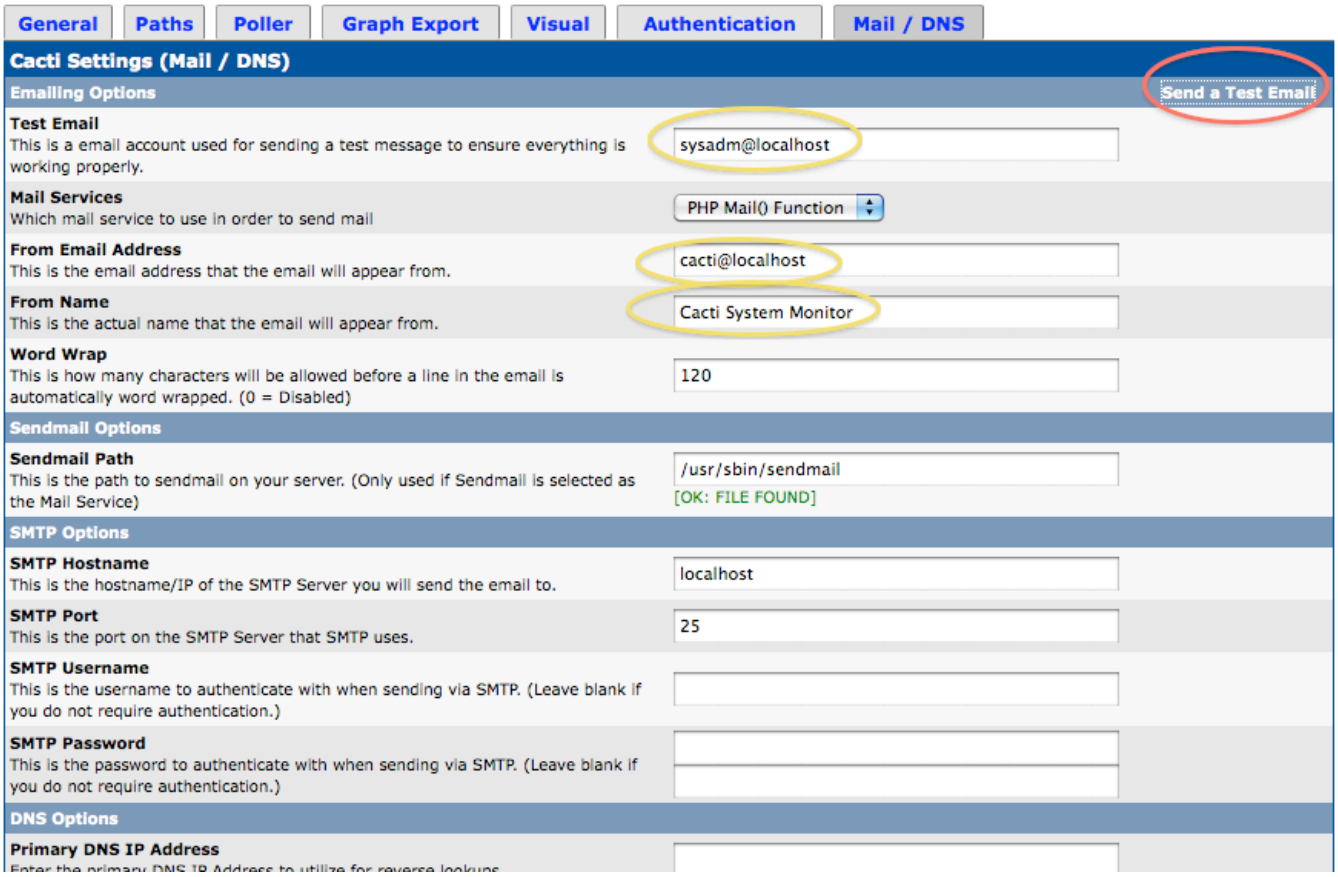
Configuring the Settings plugin

The Settings plugin allows you to specify additional settings for sending email in Cacti. This is very important (actually critical) if you wish to set up Cacti so that it can send email and generate tickets in a ticketing system.

Logged in to Cacti as the “admin” user you should click on the “Settings” link on the left side of the page you will now see an extra tab in your available settings called “Mail / DNS” – Click on this tab and view the newly available options.

At this point we are going to configure Cacti to send email to the sysadmin@localhost account. This way we can test that email is working before we attempt to configure email to go to our Request Tracker ticket queue at net@localhost.

On the next page fill in the items circled in yellow (Test Email, From Email Address, From Name) and then click on the “Send a Test Email” item circled in red.

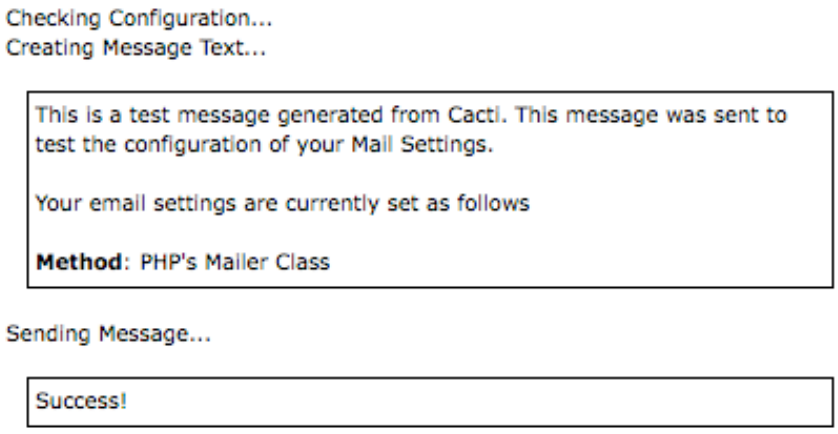


Settings

Test Email: sysadm@localhost
From Email Address: cacti@localhost
From Name: Cacti Systems Monitor

You must press Save first before attempting to send a test email.

One you press, "Send a Test Email" you should see a popup window like this:



You can verify that your sysadmin account received the email by viewing your mail. Be sure to do this as the *sysadm* user on your machine. If mutt is not installed, then as the *sysadm* user on your machine do:

```
$ sudo apt-get install mutt
```

And, now check your email. If prompted, say yes to create a new mailbox if you are prompted to do so.

```
$ mutt
```

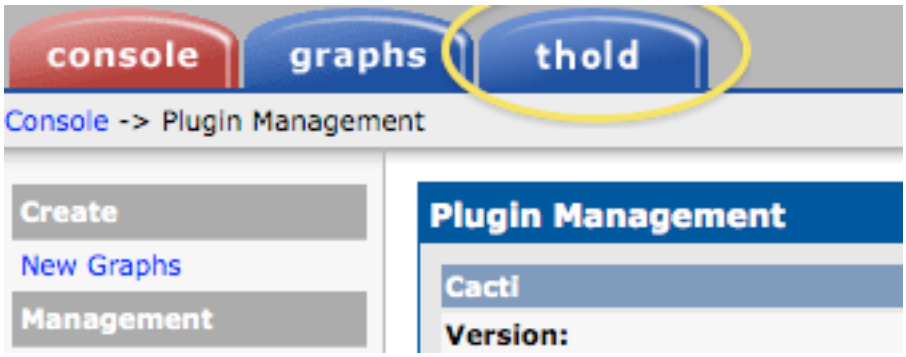
Later we will revisit this tab and update the “Test Email” field to send email to our ticketing system.

Most installations that use Cacti with a ticketing system install the Thold (threshold) plugin (next exercise). This plugin requires that the settings plugin be installed first in order to work.

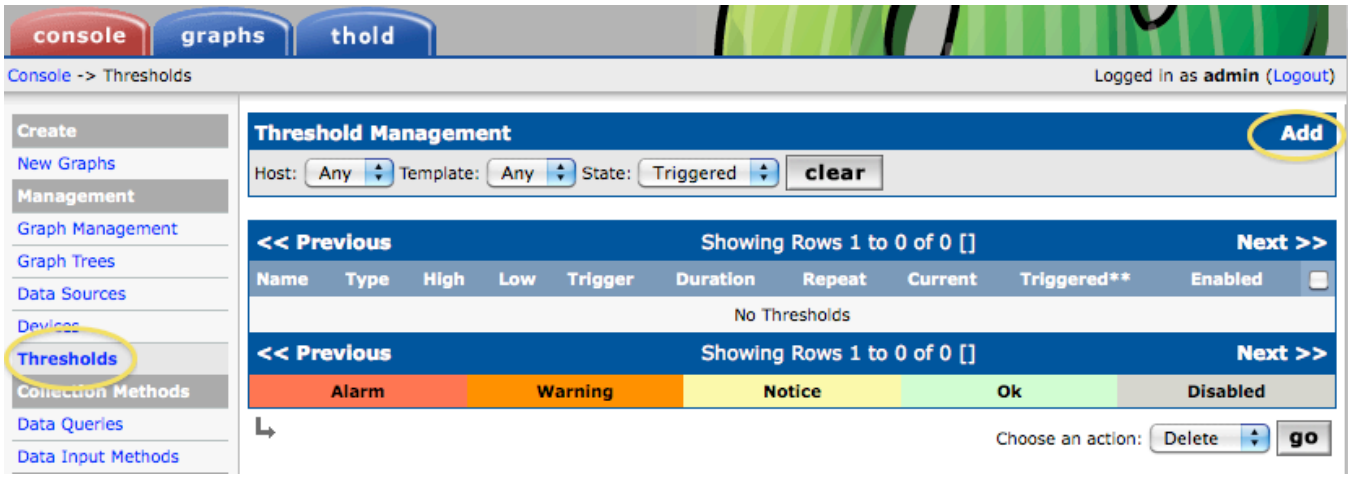
Exercise 3

Configuring the Thold Plugin

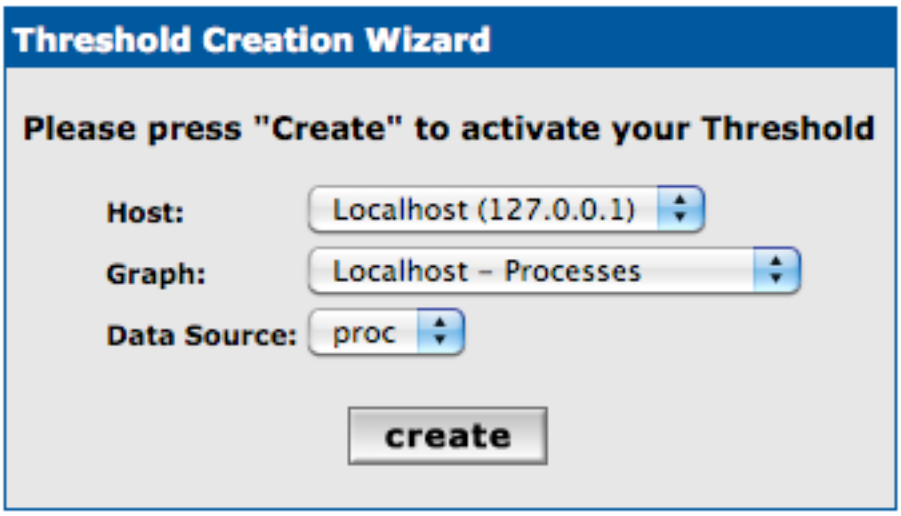
You should see a new tab in your Cacti web interface that looks like this:



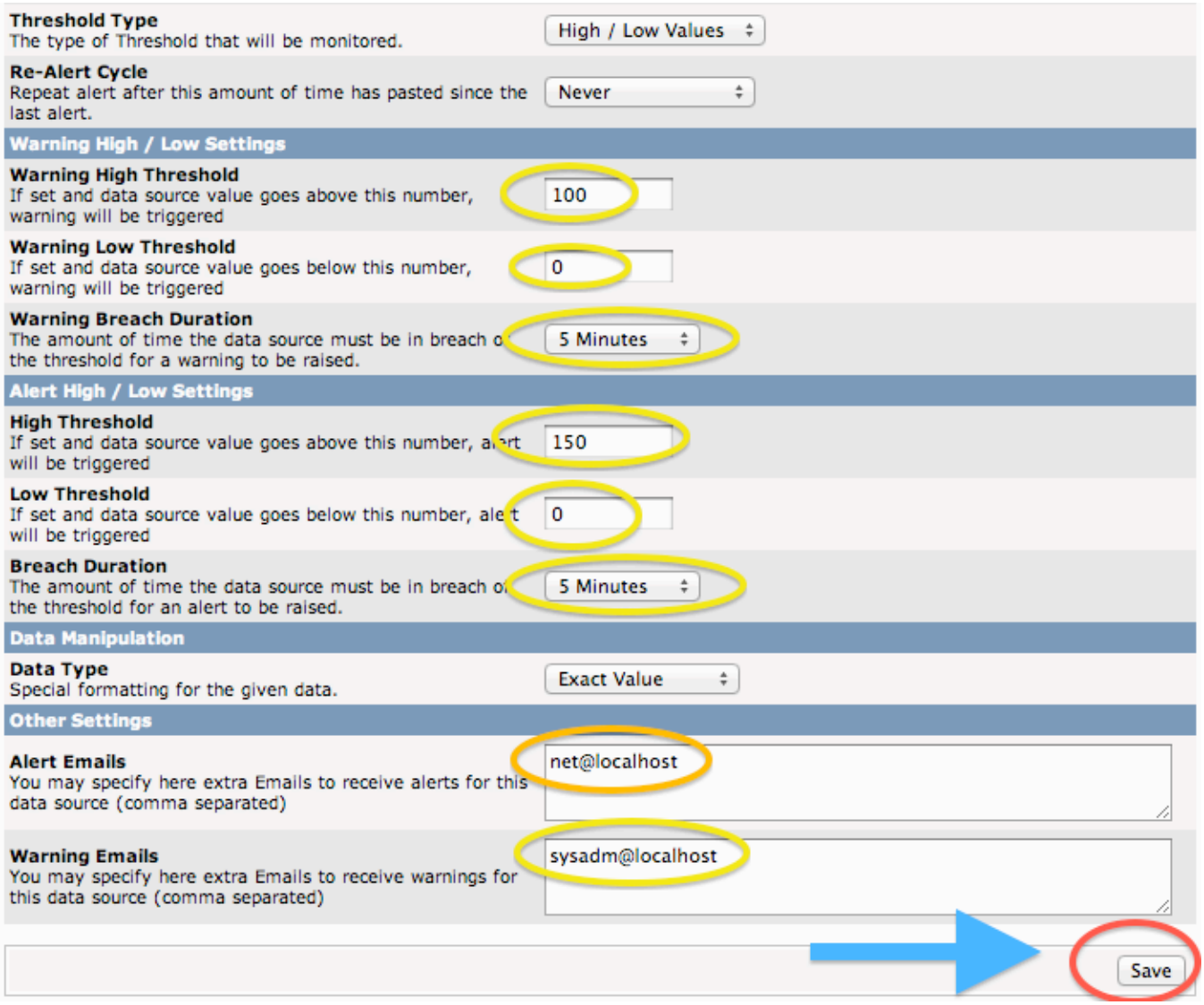
Now we are ready to define a new threshold so that we can generate tickets in Request Tracker if, or when, the threshold is met. You can come up with most any threshold imaginable. As we’d like to generate a ticket let’s create a threshold that we know will be met. First, click on the “Thresholds” menu choice on the left of your screen just under the “Management” category:



Click on the “Add” option at the upper-right of the screen. You will see the Threshold Creation Wizard. In the drop-down menu for “Host” choose “Localhost (127.0.0.1). Under “Graph” choose “Localhost – Processes.” Finally, when “Data Source” appears select “proc.”



Now press “create” and you will see a full page of options appear. Near the bottom of the page are the ones that we will update to create our threshold (next page):

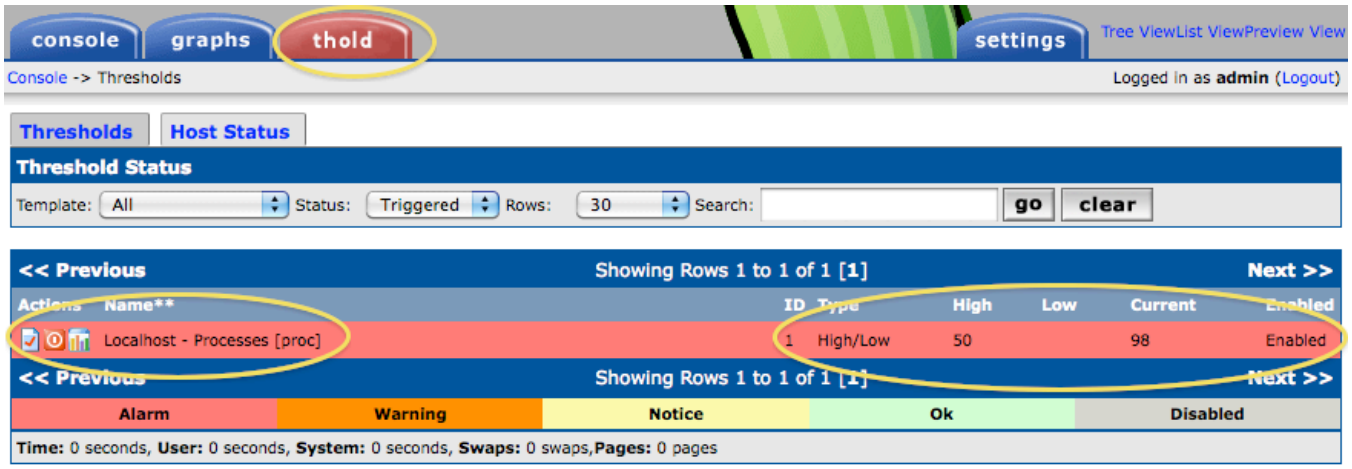


What we are saying here is that if we see more than 100 processes running on our localhost machine for more than 5 minutes, then we will send an email to sysadm@localhost. If we see more than 150 processes running on our localhost machine for more than 5 minutes, then we will send an email to net@localhost. Note that under the "Re-Alert Cycle" we have chosen "Never" to avoid creating a new ticket every 5 minutes. Also, if you have not installed a ticketing system and set up the net@localhost alias, then you may want to use sysadm@localhost instead.

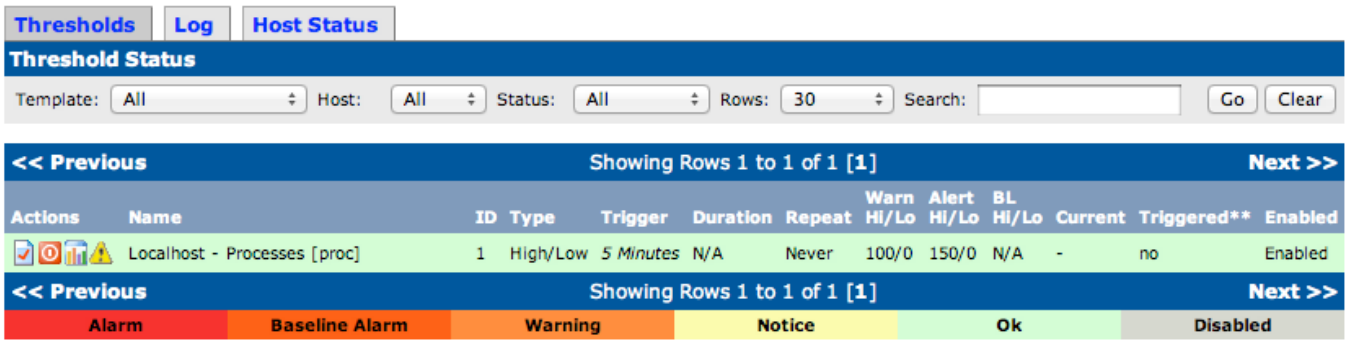
We have to give a "Low Threshold" value as well as the "Threshold Type" that is selected above is for "High / Low Values"

Be sure you fill in the fields as shown in the screen capture on the previous page. In reality this is a contrived threshold, as most Linux boxes will easily run with over 100 or, even 150 processes. We simply want to show you how to create a threshold and to have it trigger.

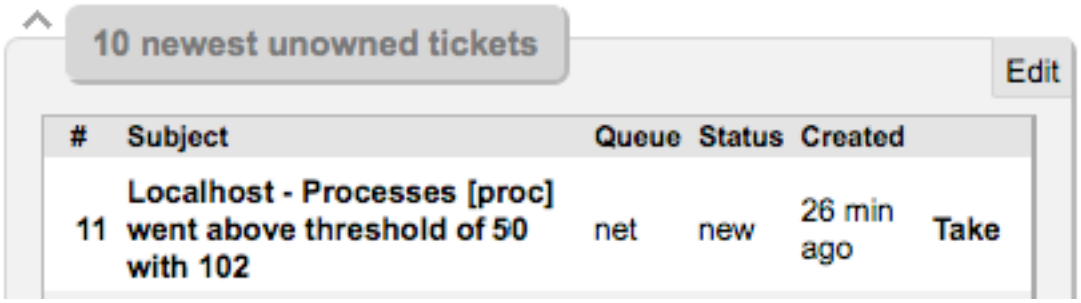
Note that once you press "save" you will not see anything for a few minutes. But, after 5 to 10 minutes if you click on the "Thold" tab in your Cacti web pages you will see something like this:



When there are no warnings or alerts, then the thold screen will look something like this:



If you check email for your sysadmn account or if you look at the Request Tracker pages logged in as "sysadmn" (go to http://pcN.ws.nsrc.org/rt/) you should see a new ticket created that looks something like the one on the next page (once you have installed RT, perhaps later in the week):



Now you are ready to review what hosts and services you are monitoring. If you see items that you wish to be notified about, then you can create thresholds for them and send an email notice to an account or to a ticket queue of your creation.