

## Network Management and Monitoring

### Cacti command line tools

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#### Notes:

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- \* 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 root.
- \* 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.

### 3. Add graph items to the tree

The last step is to add these graphs to the Graph Tree.

Check the possible options for this command:

```
$ sudo ./add_tree.php | less
```

Note the following options:

```
--type=[tree|node]  
--node-type=[header|host|graph]  
--tree-id=[ID]
```

First, let's use the `add_tree.php` command to see if we have any trees created in our Cacti installation:

```
$ sudo ./add_tree.php --list-trees
```

Known Trees:

id	sort	method	name
1		Manual Ordering (No Sorting)	Default Tree

In the above example, we have one tree: Default.

If you need to create a new tree, save some typing and create it directly in the Web UI, then run the `--list-trees` command again:

```
$ sudo ./add_tree.php --list-trees
```

Known Trees:

id	sort	method	name
----	------	--------	------

- 1 Manual Ordering (No Sorting) Default Tree
- 2 Manual Ordering (No Sorting) NETMGMT routers

Note: We could have created the tree using `add_tree.php`. How ?

Let's add all graphs for our device id 2 from earlier - we know that the device id is 2, the tree id is 2, we want to add a Graph node (not a subtree), and we want all graphs for the device (type = node), not just a single graph from that device.

The final command:

```
$ sudo ./add_tree.php --host-id=2 --tree-id=2 --node-type=host --type=node
```

Added Node node-id: (8)

Done! Check with the Web UI that the Graphs for the device have been placed in the tree.

#### \* Additional commands

If you want to add interfaces that are 'Up' instead of just interfaces that are "ethernet", replace "ifType" with "ifOperStatus" for `--snmp-field`, and replace `--snmp-value=6` with `--snmp-value=Up`.

Example to add all OperUp interfaces:

```
./add_graphs.php --host-id=7 --graph-type=ds --graph-template-id=2  
--snmp-query-id=1 --snmp-query-type-id=14 --snmp-field=ifOperStatus \  
--snmp-value=Up
```

#### \* Summary and more sample commands

```
$ sudo ./add_graphs.php --list-hosts  
# choose your host ID from the list
```

```
$ sudo ./add_graphs.php --list-graph-templates  
# 2 = Interface - Traffic (bits/sec)
```

```
$ sudo ./add_graphs.php --list-snmp-queries  
# 1 = SNMP - Interface Statistics
```

```
$ sudo ./add_graphs.php --list-query-types --snmp-query-id=1  
# 14 = In/Out Bits (64-bit Counters)
```

```
$ sudo ./add_graphs.php --list-snmp-fields --host-id=2 --snmp-query-id=1  
# list includes ifType
```

```
### Add all ifs of type ethernetCsmacd (type 6) ###
```

```
$ sudo ./add_graphs.php --list-snmp-values --host-id=2 --snmp-query-id=1 \  
  --snmp-field=ifType  
# Known values for ifType for host 2: (name)  
# ethernetCsmacd(6)  
# other(1)
```

```
$ sudo ./add_graphs.php --host-id=2 --graph-type=ds --graph-template-id=2 \  
  --snmp-query-id=1 --snmp-query-type-id=14 --snmp-field=ifType --snmp-  
value=6
```

or

```
### Add all OperUp ifs: ###
```

```
$ sudo ./add_graphs.php --list-snmp-values --host-id=2 --snmp-query-id=1 \  
  --snmp-field=ifOperStatus  
# Known values for ifOperStatus for host 2: (name)  
# Down  
# Up
```

```
$ sudo ./add_graphs.php --host-id=2 --graph-type=ds --graph-template-id=2 \  
  --snmp-query-id=1 --snmp-query-type-id=14 --snmp-field=ifOperStatus \  
  --snmp-value=Up
```