

RRD-fu with Cacti

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Who Am I?

- Electronics Technician
- Programmer
- Systems Analyst
- Technical Architect
- Manager
- Debian Developer

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RRDTool

- Time Series Data
- Lossy compression
- Graphing

RRDTool

```
•/usr/bin/rrdtool create \  
•/usr/share/cacti/site/rra/andrews_home_internet_cpu_user_643.rrd \  
•--step 300 \  
•DS:cpu_user:COUNTER:600:0:100 \  
•RRA:AVERAGE:0.5:1:600 \  
•RRA:AVERAGE:0.5:6:700 \  
•RRA:AVERAGE:0.5:24:775 \  
•RRA:AVERAGE:0.5:288:797 \  
•RRA:MAX:0.5:1:600 \  
•RRA:MAX:0.5:6:700 \  
•RRA:MAX:0.5:24:775 \  
•RRA:MAX:0.5:288:797 \  

```

RRDTool

```
/usr/bin/rrdtool graph - \  
  --imgformat=PNG \  
  --start=1137876528 \  
  --end=1137962928 \  
  --title="UPS Monitor - Humidity (Ambient)" \  
  --base=1000 \  
  --height=120 \  
  --width=500 \  
  --alt-autoscale-max \  
  --lower-limit=0 \  
  COMMENT:"From 2006/01/22 09:48:48 To 2006/01/23 09:48:48\c" \  
  COMMENT:"\n" \  
  --vertical-label="Percent" \  
  DEF:a="/usr/share/cacti/site/rra/ups_monitor_snmp_oid_170.rrd":snmp_oid:AVERAGE \  
  AREA:a#7EE600:"Humidity" \  
  GPRINT:a:LAST:"Current\:%8.2lf %s" \  
  GPRINT:a:AVERAGE:"Average\:%8.2lf %s" \  
  GPRINT:a:MAX:"Maximum\:%8.2lf %s\n"
```

Cacti

- Expose functionality

Cacti

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- Hide complexity

Cacti

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- Hide complexity
- Written in PHP

Cacti

Expose functionality

Hide complexity

Written in PHP

... and a few other things.

Uptime

- A useful server statistic

Doing it

- Show it to me quickly
- Show it to me slowly
- Help me through it once
- Let me do it on my own...

So, you get to do it on your own.

Well, you can take a look at a brief tutorial I wrote.

It looks like this:

- Build the Templates
 - Data Template
 - Data Source
 - Data Source Item
 - Custom Data
 - CDEF Formula
 - Graph Template
 - Graph Template Items
- Use the Template

Although it does also fill out some details
there :-)

Questions?

References

- **Cacti:**

<http://www.cacti.net/>

- **RRDTool:**

<http://people.ee.ethz.ch/~oetiker/webtools/rrdtool/>

- **A Walk Through Example I wrote:**

http://debiana.net/using_cacti.html