

# debmetrics: the software powering metrics.debian.net

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# Show of hands

- Who here has heard about debmetrics prior to this talk?



# About debmetrics

- Software powering [metrics.debian.net](https://metrics.debian.net)
- An interface for adding new metrics
  - Pull metrics
    - debmetrics server runs script that pulls data from remote source
  - Push metrics
    - Remote server runs script and pushes resulting data to debmetrics
    - HTTP POST
  - Manifest file
    - Defines everything about a metric
- A web interface for viewing graphs and tables
  - Dynamic tables and graphs
  - Static matplotlib fallback



# Why debmetrics?

- Debian statistics are scattered
- Can compare metrics if there is a universal interface
- Single location to backup data from



# The technology behind debmetrics

- Python
- Postgres
- SQLAlchemy
- Flask
  - Jinja2 as templating engine
- matplotlib
- JavaScript
- flot
- A number of JQuery plugins
- nosetests



# JQuery plugins

- JQuery UI
- Flot
  - hiddengraphs
  - time
  - tooltip
  - superlegends



# Current metrics

- `dpkg_formats`
- `package_stats`
- `popcon_per_arch`
- `rc_bug_count`
- `releases`
- `releases_count`
- `vcs`
- `your metric???`



# Hacking on debmetrics

- git clone
- make
- crontab crontab
- Code
- Submit patch







Let's demonstrate how easy it is to  
hack on debmetrics!



# How to add a new metric

## Need:

- Manifest file
- Script

## Optional:

- Custom graph script (optional)



# Example manifest

```
[script1]
type = pull
freq = 0 0 * * *
script = scripts/vcs.py
fields = svn:Integer, darcs:Integer, git:Integer, bazaar:Integer,
using_vcs:Integer, cvs:Integer, mtn:Integer, total:Integer,
arch:Integer, hg:Integer
format = csv
delete_before_insert = false
override_ts = false
graph_type = default
description = Provides statistics on how popular each vcs is with Debian
packages.
```



# Example script

```
#!/usr/bin/python3

import sys
import json
import csv
import from urllib.request import urlopen
import datetime

def run():
    url = 'https://upsilon.cc/~zack/stuff/vcs-usage/usage.json'
    j = json.load(urlopen(url).readall().decode('utf8'))
    j = j['values'][0]
    writer = csv.writer(sys.stdout)
    writer.writerow(['ts', 'svn', 'darcs', 'git', 'bzzr', 'using_vcs', 'cvs',
                    'mtn', 'total', 'arch', 'hg'])
    today = "%s" % datetime.datetime.utcnow()
    writer.writerow([today, j['svn'], j['darcs'],
                    j['git'], j['bzzr'], j['using_vcs'], j['cvs'], j['mtn'],
                    j['total'], j['arch'], j['hg']])

    sys.exit(0)
```



# Roadmap

<http://anonscm.debian.org/cgiit/users/josephbisch-guest/debmetrics/tree/TODO>

- historical data injection
- make portal themable
- stable URLs for combined metrics
- other graphs besides timeseries line graph
- more metrics



# Contact

Use the debian-qa mailing list and #debian-qa on OFTC.



# Questions?

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Slides available at: <http://www.example.com/>

