

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
- 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



✗	vcs
✗	svn
✗	darcs
✗	git
✗	bzr
✗	using_vcs
✗	cvs
✗	mtn
✗	total
✗	arch
✗	hg
✗	package_stats
✗	date
✗	stable
✗	testing
✗	unstable
✗	experimental
✗	stable_to_testing
✗	testing_to_unstable
✗	unstable_to_experimental
✗	new_in_testing
✗	new_in_unstable
✗	new_in_experimental
✗	new_upstream_in_testing
✗	new_upstream_in_unstable
✗	new_upstream_in_experimental



Current metrics

- dpkg_formats
- mentors
- nm
- package_stats
- popcon_per_arch
- rc_bug_count
- releases
- releases_count
- vcs
- your metric???



Hacking on debmetrics

- `git clone`
- `./minified_grabber`
- `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.josephbisch.com/debmetrics.pdf>

