

Zentralanstalt für Meteorologie und Geodynamik



Antelope usage at ZAMG

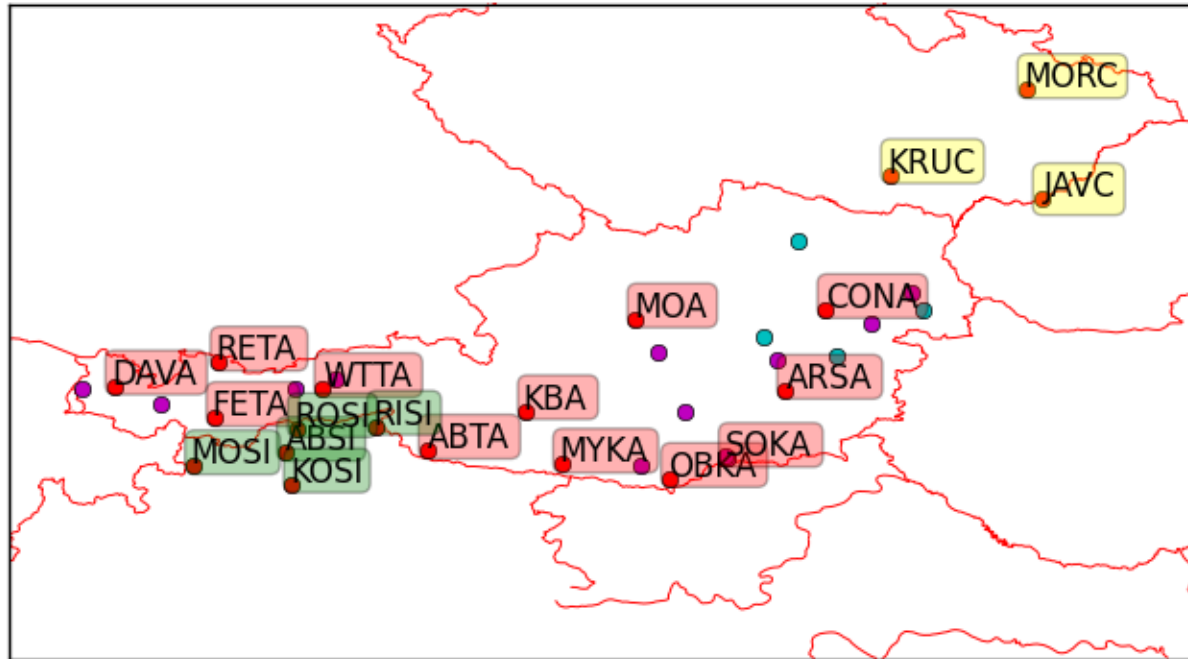
European Antelope User Group Meeting 2012
Trieste, Italy

February 23 & 24

Nikolaus Horn
ZAMG / Vienna

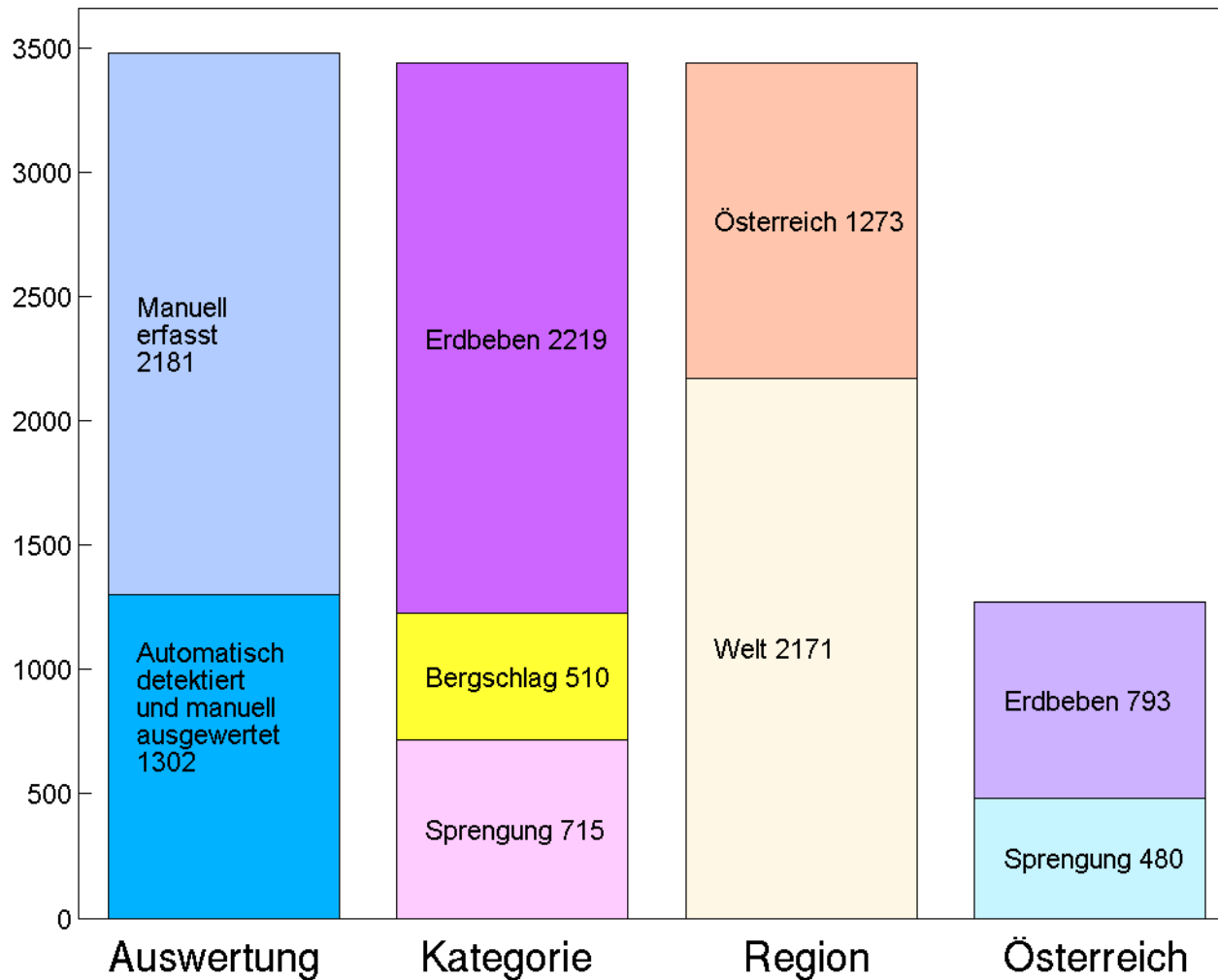


Station Map





Beben-Statistik für den Zeitraum zwischen 20100101 und 20101231



get external databases

EMSC, USGS, CTBTO, neighbours

still no eventORB I am not allowed to run an open
orbserver

dbfix_phase

reassociate to revised solutions

send_bulletin, send_reviewed_bulletin

Specific Bulletins

kelag2csv – gather k2header information for a site





waveforms

cdorb2db, db2msd

compare to orb2d

- foreign stations with cdorb2db - very stable now!
- „own“ stations with orb2db
- triggered data with orb2db, i3 format to make a difference

copy of wf directories to nfs storage

modified rtbackup to keep netcode

events

dbsplit into annual volumes

db2AEC

k2evtinfo2db

distribute database across servers with dbnew2orb



realtime update with manual relocations

safe in realtime applications

relies on IDs

relies on Iddate

main problem is to delete events

solution is to use rtorbcmd with remote scripts

a similar script is used for on-duty remote relocations

might still be interesting to go without IDs



one dbbuild batchfile for each station
append history to file

```
foreach ff (*-dbb)
  dbbuild -b $DB $ff
no problems with ids (but looking forward to css3.1)
```

try to collect dbbuild batchfiles

rebuilding foreign stations with dbbuild most of the times better
than using SEEDfiles

CTBT stations from Geotool dbmaster, calib from somewhere else
if possible



cd1.12orb (
autodrm2db,

some modifications needed for ctb

- ontime/offtime
- format violations
- displacement/velocity issue with autodrm

autodrm_proxy

mail_parser → reb2db, rr2db, rrx2db

w4u2db – parse swiss waves4u webpage to database

request data based upon availability, server-specific requests

Infrasound?

hydroacoustic??

RN???



data exchange

separate data exchange server

backup exchange server

redundant exchange scenarios?

redundant proxies, orbexchange

my homegrown isfbulletin vs db2ims

dborigin2orb with archive flag could be helpful



existing hardware

zagsun10	Enterprise 450	Server, old stuff	zagndc1	Netra T1	Data exchange
zagslmon	PC	Nagios	Zagndc2	V240	
zagsun19	V240	Webserver	zagsun12	Netra T1	email, proxy
zagsun20	V440	Server	zagsun22	V240	
zagsun2	T5220	SunRay	zagsun14	Netra T1	email, proxy
zagsun26	T5220	Webstuff	zagsun24	V240	
iscsi raid	Storagetek 2510		zagsun16	V240	main antelope
iscsi raid	Storagetek 2510		zagsun15	V240	backup
zagsun27	M4000	Computing	Zagls01	PC	samba, nfs
			Raid	TT6100	waveforms
			Raid	TT6100	other archive
			Raid	Brownie	dead now
			zagls02	PC	alternate server samba, nfs
zagsun17	MacPro	only analysis workstation	Raid	TT6100	waveforms
zagsun17	Analysis	fading away	Raid	TT6100	other archive
zagsun13	NDC Analysis	gone	zagls03	PC	
zagsun18	Observatory	Server	Raid	TT6100	waveforms
zagsun28	Observatory	Analysis			
zibk-xlwz	Innsbruck	Analysis, Display	zagslmon	PC	Nagios



hardware needed

2 servers for acquisition / processing (would a Mac mini do?)

2 analysis workstations (macro needed)

1 or 2 data exchange servers (not really demanding tasks)

webserver and other commodities

storage

in terms of computing power, we only need 2 good machines!

interactive analysis

the rest



storage

hardware

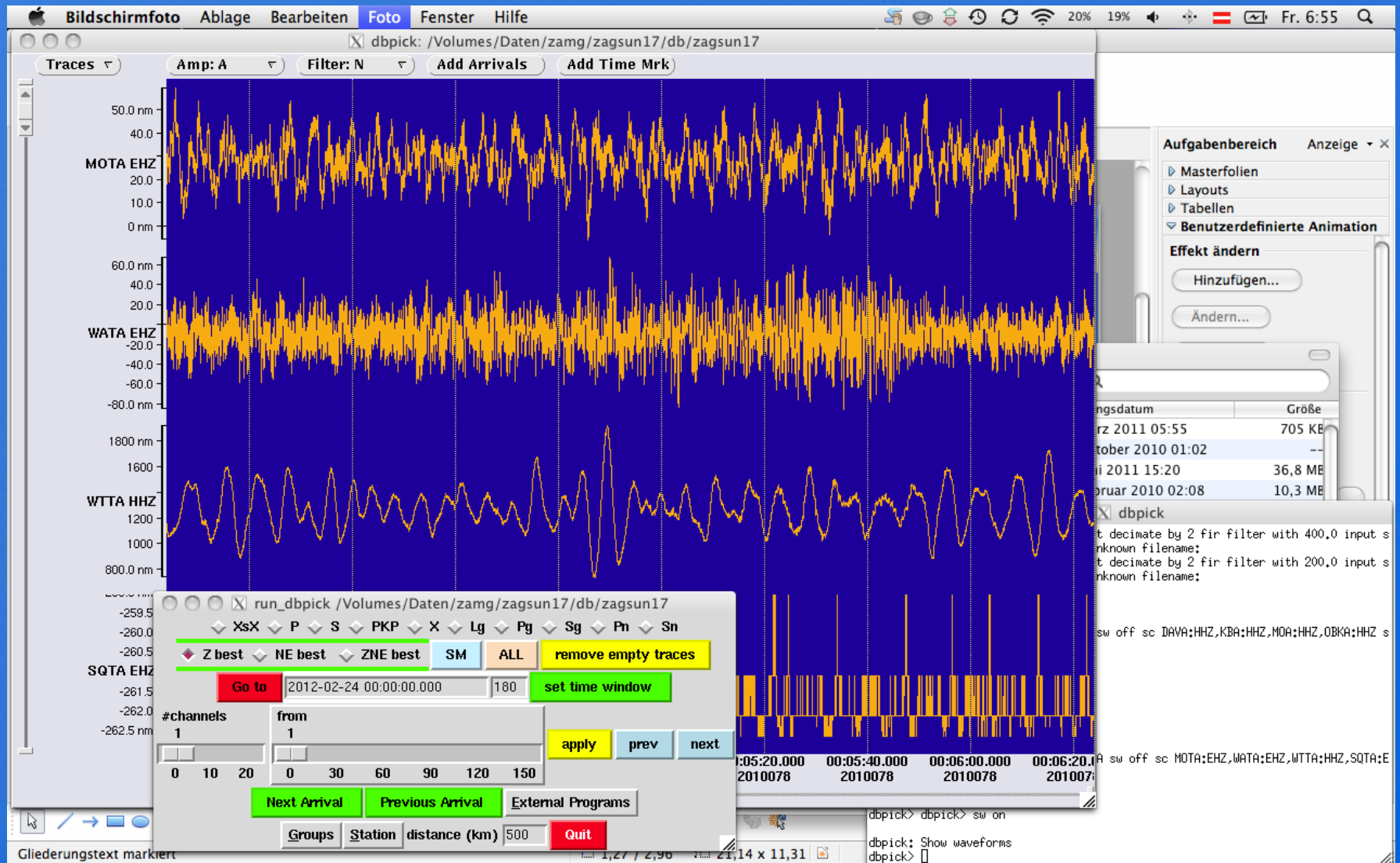
3 standard rackmount PCs running Debian
several external SATA raid with 16 disks each, RAID 5, 2 Hot-Spare
aging – last week primary node died after 8 years of operation

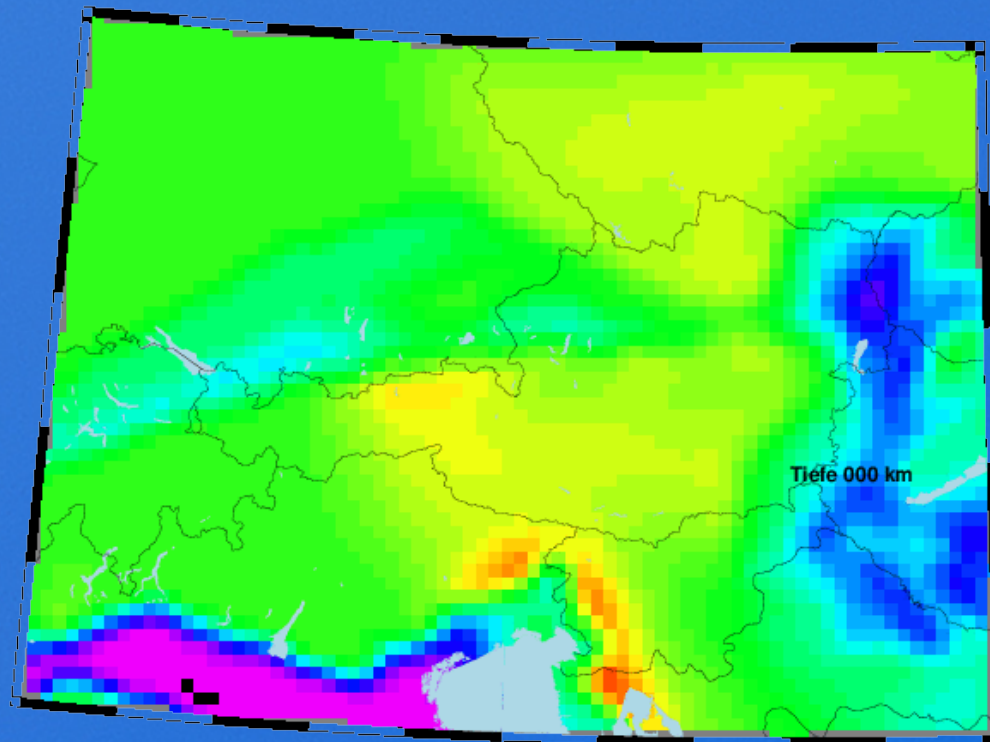
software

Debian or any other Linux
DRBD (<http://www.linbit.com>)
SAMBA, NFS, IDs from Windows domain controller
depending on the data, 2 or 3 way mirroring

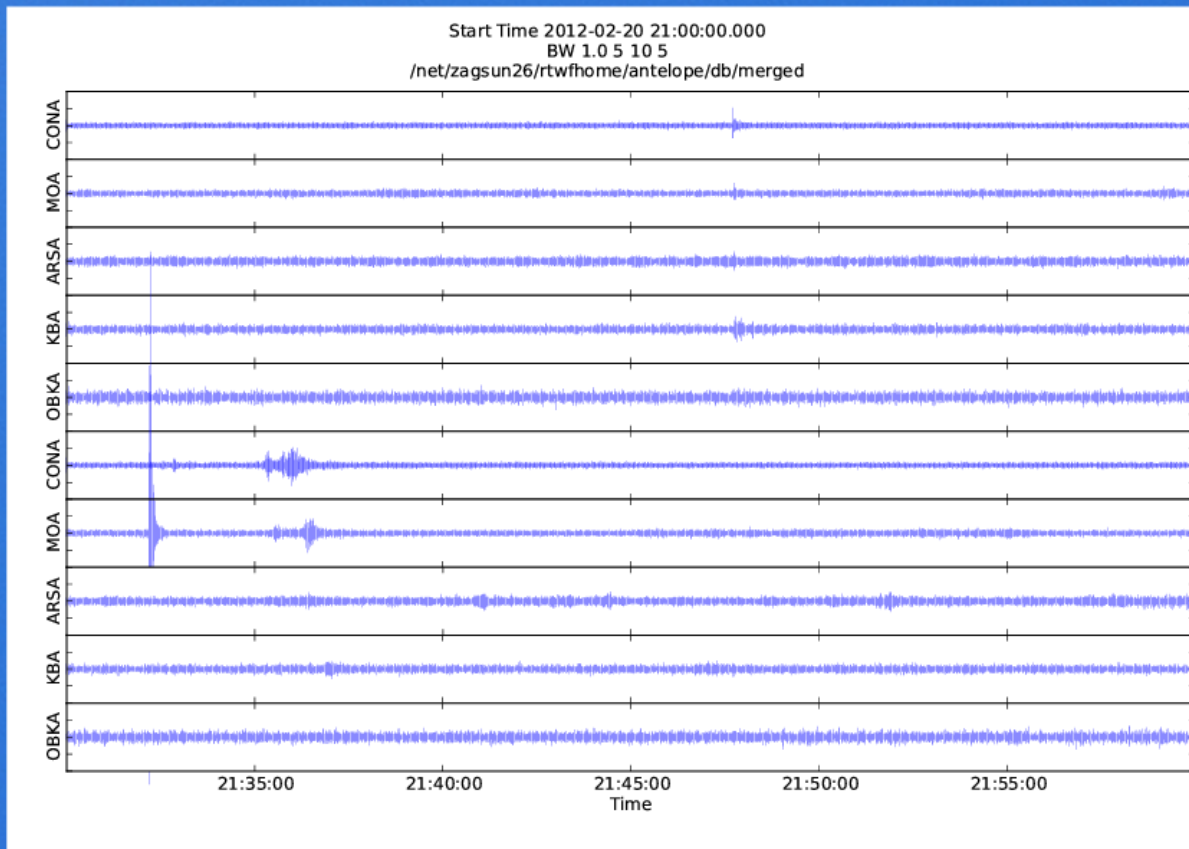


run_dbpick

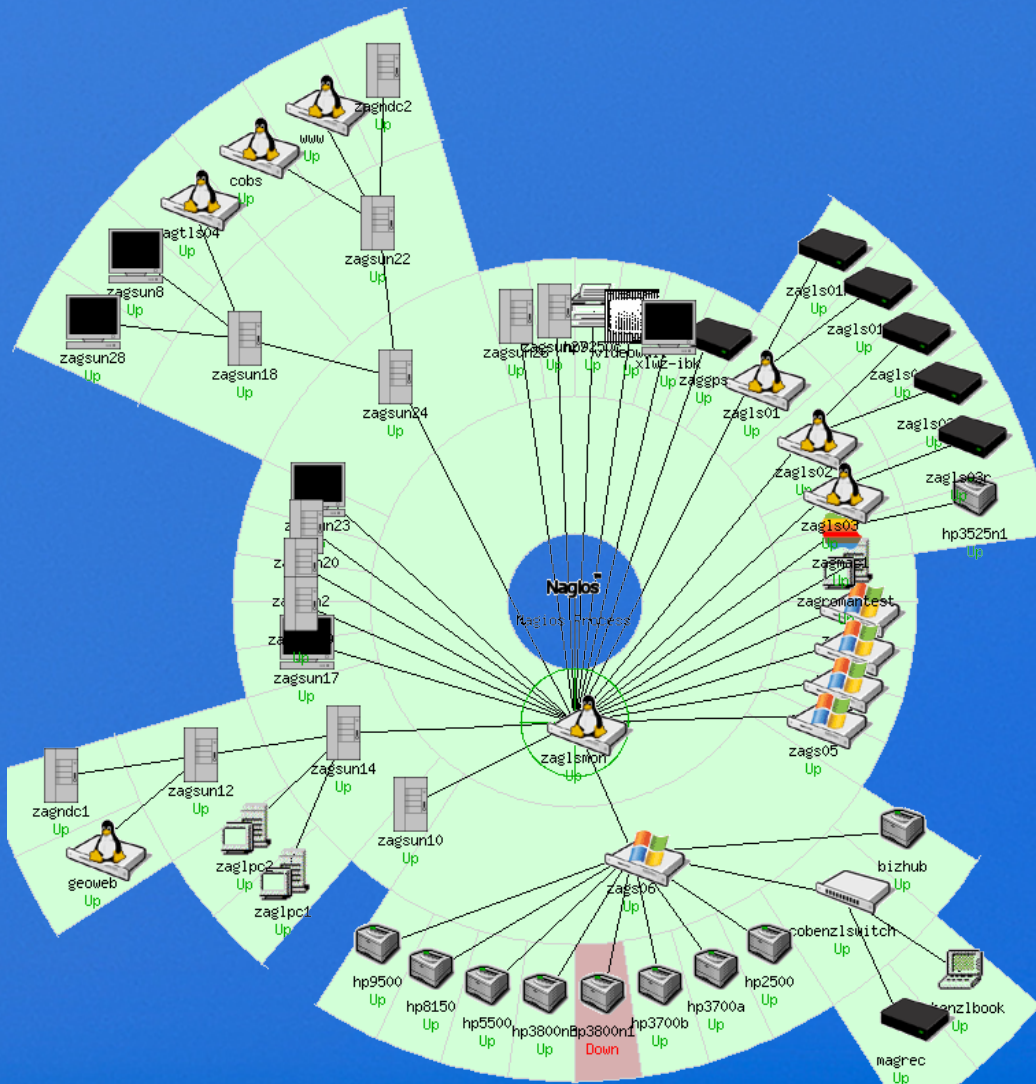




python waveform plotting



Nagios



excessive usage of NRPE –
might be better to use
distributed monitoring

simple check for orbstat
was needed

checking webpages is easy

currently we monitor
stations only by waveform
availability

icons seem to be
important



things we are working on

finding the last origin-netmag problem will still take along time

webstuff, flexible replacement for dbrecenteqs

- waveform plotting,
- mapping

db2sql, db2psql, later even sql2db

email/alerting charset issues

more monitoring

more workflow into databases

- database consolidation



wishes

looking forward to new dbpick

Python on Suns

maybe more acquisition from „alien“ instruments



thank you

