

CGA-Backup

Stephan Plepelits

Institute of Computer Graphics and Algorithms

Vienna University of Technology



- Wozu Backup?
- Geschichte des Backup am ICGA
 - ◆ Bandbackup
 - ◆ Mit tar auf Festplatte
 - ◆ Mit rsync auf Festplatte

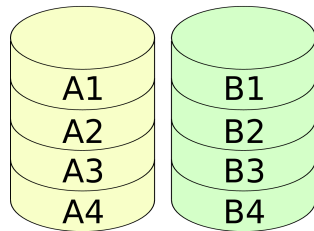


- RSH/SSH
- Perl
- Filesystem
 - ◆ EXT3
 - ◆ Inodes, Harte Verweise
- Rsync
- Cron
- Datenspeicherung

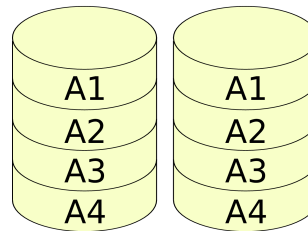


■ Datenspeicherung

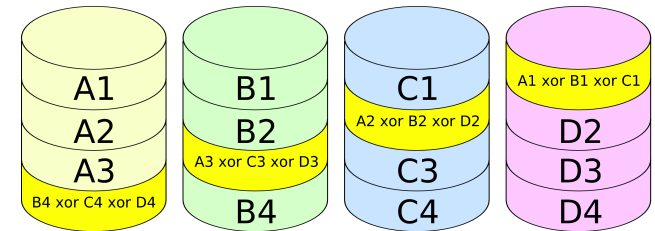
◆ Raid (Redundant Array of Individual Disks)



Raid 0

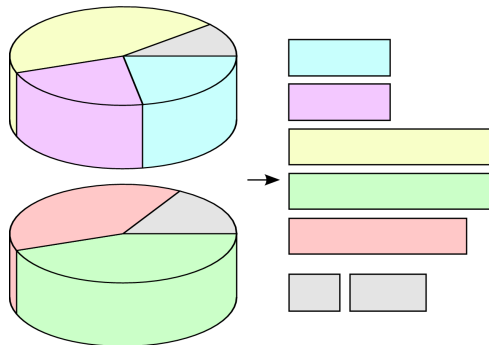


Raid 1

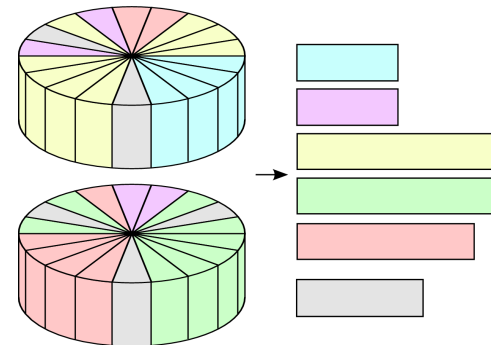


Raid 5

◆ LVM (Logical Volume Manager)



Herkömmliche Partitionen



Partitionen mit LVM



- Backups von Konfiguration und Daten
- Pro Backupdurchführung wird ein Verzeichnis angelegt
- Platz sparen durch harte Verweise bei unveränderten Dateien



■ `cgabackup [-c configfile] [-v] [-p]`

■ Konfiguration

◆ `/etc/cgabackup.conf`

```
host=backup.example.com  
rsh=ssh
```

```
# Backup der Homeverzeichnisse  
dir=/home/*  
hostdir=/backup/myhost/home/
```

```
# Backup der Konfiguration  
dir=/etc/  
hostdir=/backup/myhost/etc/
```

◆ `.../.cgabackup`

```
BACKUP_MAILTO    bob@example.com  
BACKUP_SUCCESSMAIL 0  
BACKUP_ERRORMAIL  1  
BACKUP_EXCLUDE    ./tmp/ *.mp3
```



■ /backup/myhost/etc/

```
20080401
20080701
20080719
20080722
20080723
20080724
cgabackup-20080401.log
cgabackup-20080701.log
cgabackup-20080719.log
cgabackup-20080722.log
cgabackup-20080723.log
cgabackup-20080724.log
last_backup
statistic
statistic.last_backup.progress
statistic.total.progress
```



- `cga_del_backups [-c configfile]`
- `cga_build_statistic [-c configfile]`

■ Konfiguration

◆ `/etc/cgabackup-server.conf`

```
root_dir=/backup  
mail=admin@example.com
```

◆ `.../backup.cfg`

```
daily=14  
incomplete=7  
weekly=5  
monthly=6  
quarterly=5
```



- Apache, PHP
- Konfiguration in `/var/www/conf`

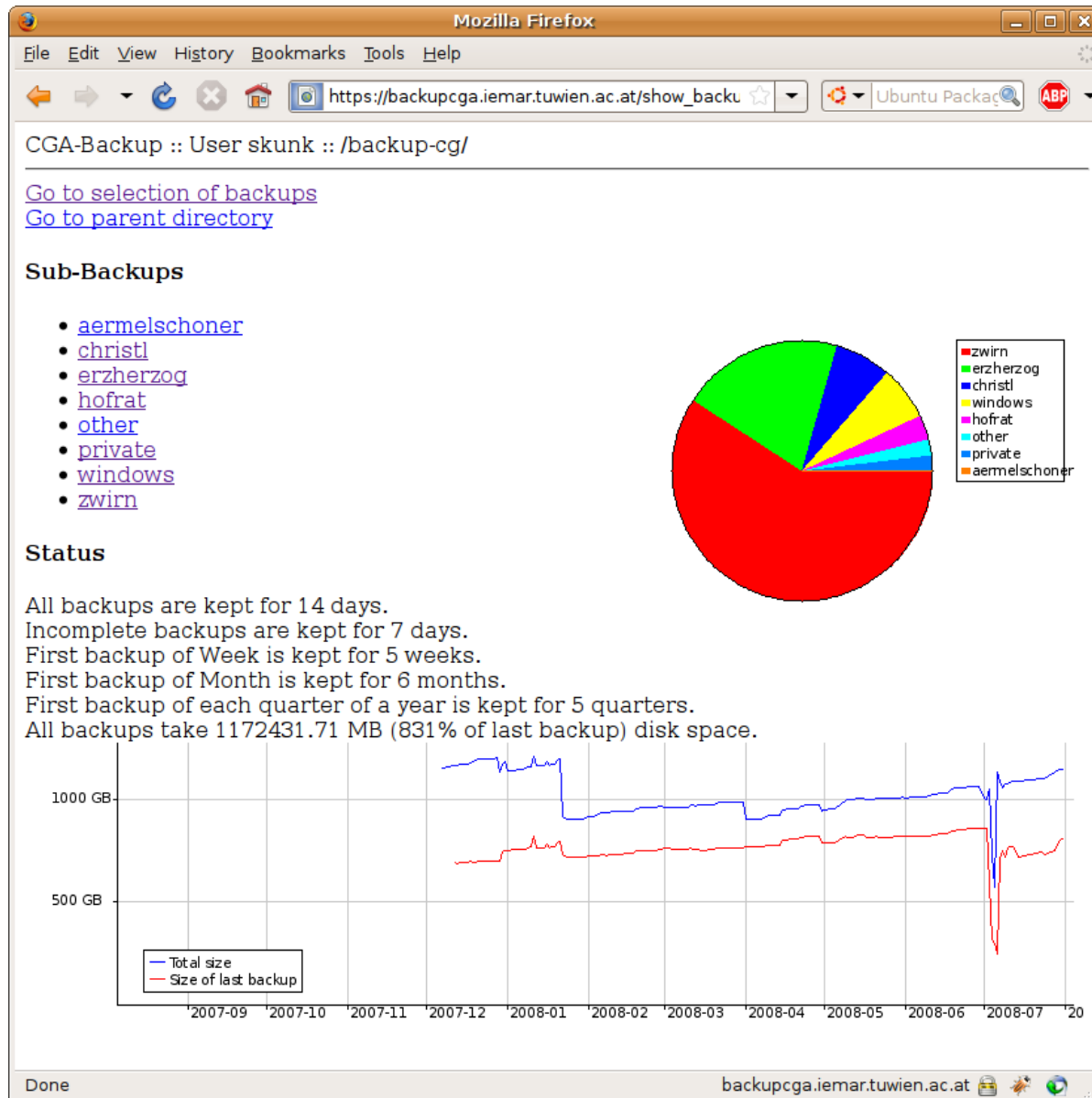
```
=Personal Backups
:/backup/myhost/home/%u:Your Homedirectory

=Other Backups
bob,@admin:/backup/myhost/www:Webserver
@sekr:/backup/myhost/sekr:Secretary stuff

=Admin Stuff
@admin:/backup/:All Backups
```

- Suid-Wrapper





Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://backupcga.iemar.tuwien.ac.at/show_backu

CGA-Backup :: User skunk :: /backup-cg/zwirn/homes/skunk

[Go to selection of backups](#)
[Go to parent directory](#)
[Go to filelist](#)

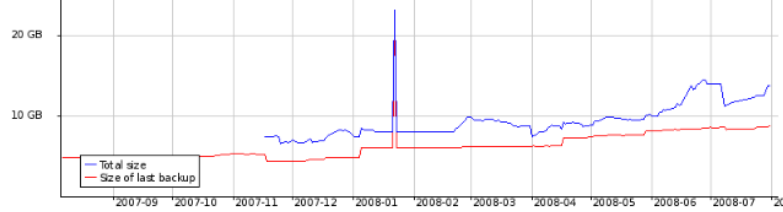
Available Backups

Effective size is the space that is needed on the disk additionally to the next newer backup.
The last backup is marked with a '*'.

Name	Backuptime	Logfile	Size	Effective Size
20080730*	2008-07-30 05:00	view logfile	8942.75 MB	8942.75 MB
20080729	2008-07-29 05:02	view logfile	8918.54 MB	662.41 MB
20080728	2008-07-28 05:00	view logfile	8884.79 MB	670.35 MB
20080727	2008-07-27 05:04	view logfile	8884.68 MB	110.88 MB
20080726	2008-07-26 06:28	view logfile	8884.65 MB	110.88 MB
20080725	2008-07-25 05:01	view logfile	8869.77 MB	122.90 MB
20080721	2008-07-21 04:55	view logfile	8731.71 MB	154.78 MB
20080714	2008-07-14 04:48	view logfile	8612.26 MB	148.36 MB
20080707	2008-07-07 10:08	view logfile	8811.36 MB	382.07 MB
20080701	2008-06-30 04:26	view logfile	8765.53 MB	679.38 MB
20080601	2008-05-31 04:33	no logfile	8325.42 MB	953.30 MB
20080501	2008-04-30 04:41	no logfile	7550.99 MB	418.66 MB
20080401	2008-03-31 04:26	no logfile	6399.61 MB	389.08 MB

Status

All backups are kept for 14 days.
Incomplete backups are kept for 7 days.
First backup of Week is kept for 5 weeks.
First backup of Month is kept for 6 months.
First backup of each quarter of a year is kept for 5 quarters.
All backups take 14163.63 MB (158% of last backup) disk space.



Configuration

The following files/directories are excluded (in your current backup):
./netscape/cache ./test ./tmp ./kde ./themes ./Down ./netscape.ps ./graphics9 ./Office51 ./win/WIN98 ./doc/Valentin ./kde2 /socket* ./wine/wineserver* ./mozilla/skunk/hnal9ebl.slt/Cache ./mozilla/firefox/cOpkesae.default/Cache/




Done

backupcga.iemar.tuwien.ac.at



Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://backupcga.iemar.tuwien.ac.at/file_list.php?   




CGA-Backup :: User skunk :: Your homedirectory on Zwirn

[Go to selection of backups](#)
[Go to overview of backup](#)

Show: ☐ Hidden files | ☐ Don't combine same files | Only files that are in backup all

Path: [root/zeugs/studium/Bachelorarbeit/](#) (Download: [20080730](#) [20080729](#) [20080728](#) [20080727](#) [20080726](#) [20080725](#) [20080721](#) [20080714](#))

CGA-Backup.odt	20080730	38415	07/29/08 14:46
	20080729	53950	07/25/08 12:13
	20080725	53282	07/24/08 15:06
	20080721	87587	07/15/08 15:21
	20080714	70960	07/10/08 14:06
RAID_1.png	20080730	10287	07/08/08 09:32
RAID_5_new.png	20080730	20398	07/08/08 09:32
lvm.eps	20080730	32394	07/29/08 13:59
lvm.svg	20080730	37808	07/29/08 13:58
partitionen.eps	20080730	12816	07/29/08 13:55
partitionen.svg	20080730	15011	07/29/08 13:48
raid_0.eps	20080730	10195	07/29/08 09:55
raid_0.svg	20080730	12502	07/29/08 09:51
raid_1.eps	20080730	10280	07/29/08 10:00
raid_1.svg	20080730	13376	07/29/08 09:52
raid_5.eps	20080730	20748	07/29/08 10:00
raid_5.svg	20080730	24683	07/29/08 09:53
raid_basic.svg	20080730	7201	07/29/08 09:30

Done backupcga.iemar.tuwien.ac.at   



- Backupserver: backupcga.iemar.tuwien.ac.at
- Logische Laufwerke

```
/dev/mapper/backup--cg-default
          9.9G 151M 9.2G  2% /backup-cg
/dev/mapper/backup--cg-christl
          9.9G 5.7G 3.8G 61% /backup-cg/christl
/dev/mapper/backup--cg-erzherzog
        168G 139G  21G 88% /backup-cg/erzherzog
/dev/mapper/backup--cg-erzherzog--homes
        99G  88G 6.3G 94% /backup-cg/erzherzog/homepages
/dev/mapper/backup--cg-zwirn
        99G  19G 75G 21% /backup-cg/zwirn
/dev/mapper/backup--cg-zwirn--homes
       640G 589G  19G 97% /backup-cg/zwirn/homes
```

- Cygwin für Windows



Danke für die Aufmerksamkeit!

