git-annex Cheat Sheet

by babobba via cheatography.com/20826/cs/3715/

Create a new git/git-annex repo

```
mkdir /aNewRepo && cd /aNewRepo
```

Standard git repo init

```
git init .
```

Create git-annex[1] repo

```
git-annex init . " R2D 2-a New R ep o"
```

[1] http://git-annex.branchable.com/

Suggest `locati on-repo` name scheme for multi git repo setups

ie. `R2D2-a NewRepo`

Suggest `locati on- rep o-annex` name scheme for multi `git-annex` repo setups

ie. `R2D2-a New Rep o-Annex`

Customizations

Override global git config (optional)

```
cd ~/aNewRepo
git config user.name name
git config user.email email
```

Speed up large commits at memory cost[1]

```
git config annex.q ue uesize 1024000
```

Add metadata {a,c,m}time at first commit[2]

```
git config annex.g en met adata true
```

Change how git-annex looksup files[3]

```
git config annex.b ac kends {MD5E, WOR M ,..}
```

[1] Default is 102400

[2] Filesystem metadata can only be added during initial commit

[3] Lots of other hashes to include SHA1, **SHA256E**(default).

MD5E is useful for correlation against legacy media.

WORM is useful for fast imports and media files prone to changing metadata.

Indirect/Direct Mode

Use git-annex in direct mode

```
git-annex direct
```

Use git-annex in indirect mode

```
git-annex indirect
```

Default is **indirect** mode.

Direct mode is used when a filesystem can't support sym links like FAT32 or when operating in a Windows OS.

NTFS/exFAT can still be used.

? OSX might cover FAT32 deficiencies and work in indirect mode.

git-annex repos can be switched between direct and indirect at will.

Operating in direct mode takes away some of git-annex's safety in ensuring the availability of a file.

Helpful Aliases

```
alias ga='gi t-a nnex'
alias gaa='g it- annex add'
alias gas='g it- annex sync'
alias gag='g it- annex get'
alias gad='g it- annex drop'
alias gal=gi t-annex unlock'
alias gau='g it- annex unused'
alias gam='g it- annex move'
alias gac='g it- annex copy'
alias gaf='g it- annex fsck'
alias gai='g it- annex info'
alias gaw='g it- annex whereis'
```

File Management (indirect mode)

Use `git-annex` instead of `git`[1]

```
git-annex add afile
```

Unlock a file for editing

```
git-annex unlock afile && echo ' '
git mv afile bfile
git rm bfile
git commit -a -m " commit msg"
```

[1] Faster for large binary files

File Management (direct mode)

git add/rm/mv will **not** work in direct mode

```
git-annex add afile
mv afile bfile
rm bfile
```

git commit will **not** work in direct mode

Use git-annex sync in lieu of git commit

```
git-annex sync -m " commit msg"
```

Undo change as `git revert` will not work[1]

```
git-annex undo afile
```

[1] Use with `--depth` to revert to earlier versions of file

! Use of `git-annex sync` is crucial in direct mode

Web/Torrent Sources

alias ga='git-annex'

Use git-annex to add afile from the web[1]

```
ga addurl http:/ /fq dn/ afile --f ile
```

Add an URL to a file after the fact

```
git-annex addurl afile http:/ /fq ile
```

Download/Add the contents of a torrent

```
ga addurl http:/ /fq dn/ a.t orren
```

Add the contents of magnet link

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Web/Torrent Sources (cont)

```
ga addurl magnet ?....
```

[1] If --file is not specified, the filename is appended to the fqdn. **Not usually desired.**

Adding remotes

```
cd /mnt/usb
```

Standard git clone

```
git clone ~/aNewRepo
cd aNewRepo
# Init git-annex with a unique name
git-annex init " XWI NG- aNe wRe po"
```

Standard git remote config in new USB repo

```
git remote add R2D2 ~/aNewRepo
```

Std git remote config from origin repo

```
cd ~/aNewRepo
git remote add XWING /mnt/u sb/ aNe wR
epo
```

cp/mv/drop/find on remotes

```
cd ~/aNewRepo
```

Copy from this repo **to** a remote

```
git-annex copy afile --to XWING- aNe
o
# Moves a file from this repo to a remote
git-annex move afile -t XWING- aNe wRepo
```

Copy to this repo **from** a remote

```
cd /mnt/u sb/ aNe wRepo
git-annex move bfile --from R2D2-a NewRep
o
#Removes file from current repo only[2]
git-annex drop afile
```

Find who has a copy of a file

```
git-annex whereis afile
```

[1] Checks against `numcopies`

[2]Checks against `numcopies`. Use for space management.

Sync Repos

Sync repo metadata - **No content**

```
cd /mnt/u sb/ aNe wRepo
git-annex sync R2D2-a NewRepo
```

Sync metadata **and** content

```
git-annex sync R2D2-a NewRepo --conten
t
```

Special Remotes (To Do)

bup[1]

[1] https://bup.github.io/

Extra

```
# Tell git-annex to not rely on a repo[1]
git-annex untrust C3PO-a NewRepo
```

Tell a repo is no longer available

```
git-annex dead JABBA- aNe wRepo
```

[1] We all know C3PO is flaky. git-annex by default only **semi-trusts** a repo. You can use this with remotes using direct mode, cloud storage, etc.

Repo maintenance

```
# Show git-annex information
git-annex info
# Fsck git-annex repo
git-annex fsck
```

Do git garbage collection

```
git gc
# Show unused objects in the repo[1]
git-annex unused
```

[1] These are objects that have not been dropped, but removed from a branch. Might want for archival reasons. Best to copy to an archival remote like bup.

Tags/Branches/Views [To Do]

Add git-annex to existing git repos [To Do]

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