

DEMO costruzione manuale init, blob, tree, commit, main, (index)

```
mkdir -p .git/objects
mkdir -p .git/refs/heads
printf "ref: refs/heads/main" > .git/HEAD
```

```
cb="A\nB\nC"
blob="blob $(printf "${cb}" | wc -c | xargs)\000${cb}"
hb=$(printf ${blob} | shasum | cut -f 1 -d ' ')
mkdir -p .git/objects/${hb:0:2}
printf ${blob} | pigz -z > .git/objects/${hb:0:2}/${hb:2:38}
```

```
hashBin=$(printf $hb | sed 's/./\x&/g')
ct="100644 A.txt\000$hashBin"
tree="tree $(printf "${ct}" | wc -c | xargs)\000${ct}"
ht=$(printf "${tree}" | shasum | cut -f 1 -d ' ')
mkdir .git/objects/${ht:0:2}
printf "${tree}" | pigz -z > .git/objects/${ht:0:2}/${ht:2:38}
```

```
cc="tree $ht\nauthor Sergio Mattarella <presidente@gov.it> 0 +0100\ncommitter Tizio Caio <tizio.caio@gamil.com> 1743157851"
commit="commit $(printf "${cc}" | wc -c | xargs)\000${cc}"
hc=$(printf ${commit} | shasum | cut -f 1 -d ' ')
mkdir .git/objects/${hc:0:2}
printf ${commit} | pigz -z > .git/objects/${hc:0:2}/${hc:2:38}
```

Comandi di plumbing visti durante la demo

- `git cat-file -t -p -s hash`
 - per interpretare gli object
- `git ls-files -s`
 - per vedere i file sull'index o nel repository
- `git hash-object -w file`
 - crea un blob a partire da un file
- `git merge-base`
- `git write-tree`
- `git update-index`



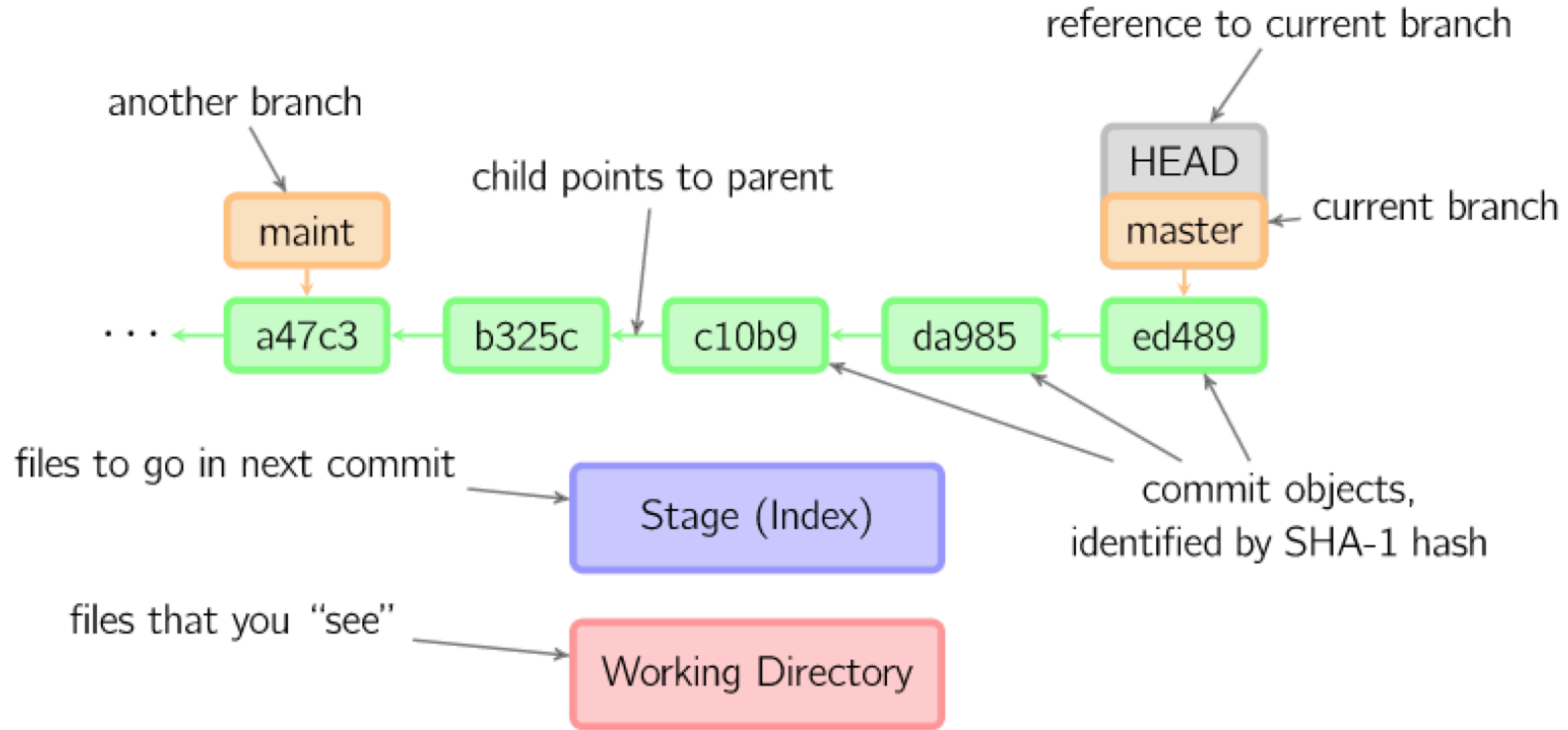
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Alcuni comandi

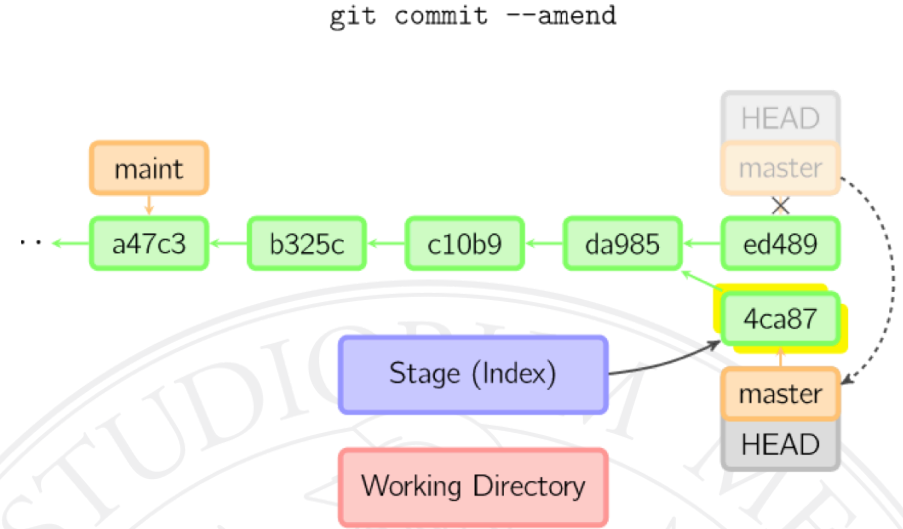
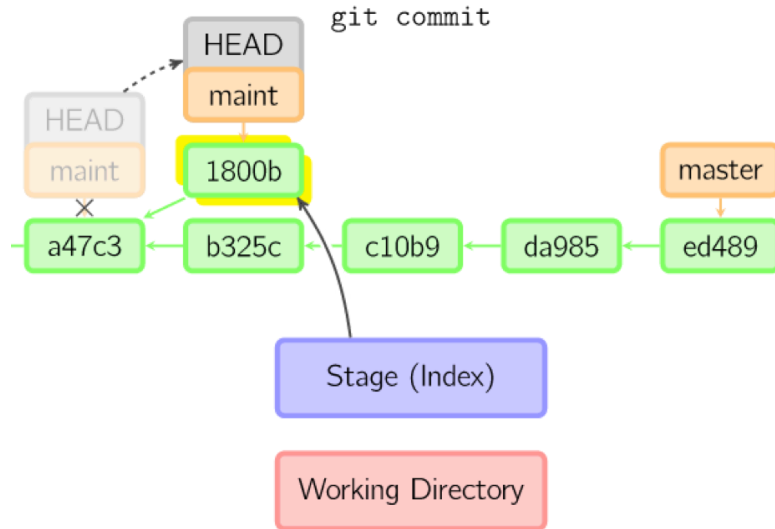
Comandi base

- git init
- git clone
- git diff
- git status
- git log
- git branch
- git add
- git commit
- git checkout
- git merge
- git cherry-pick
- git remote
- git push
- git pull

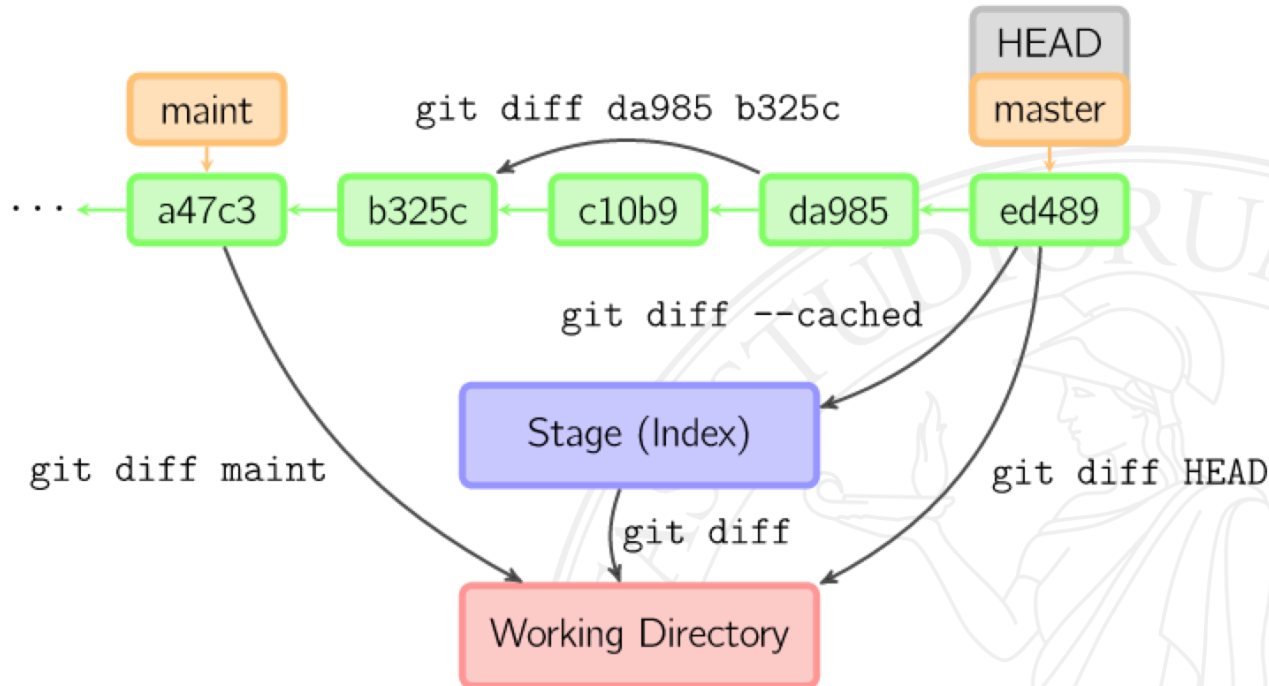
Convenzioni grafiche



git commit

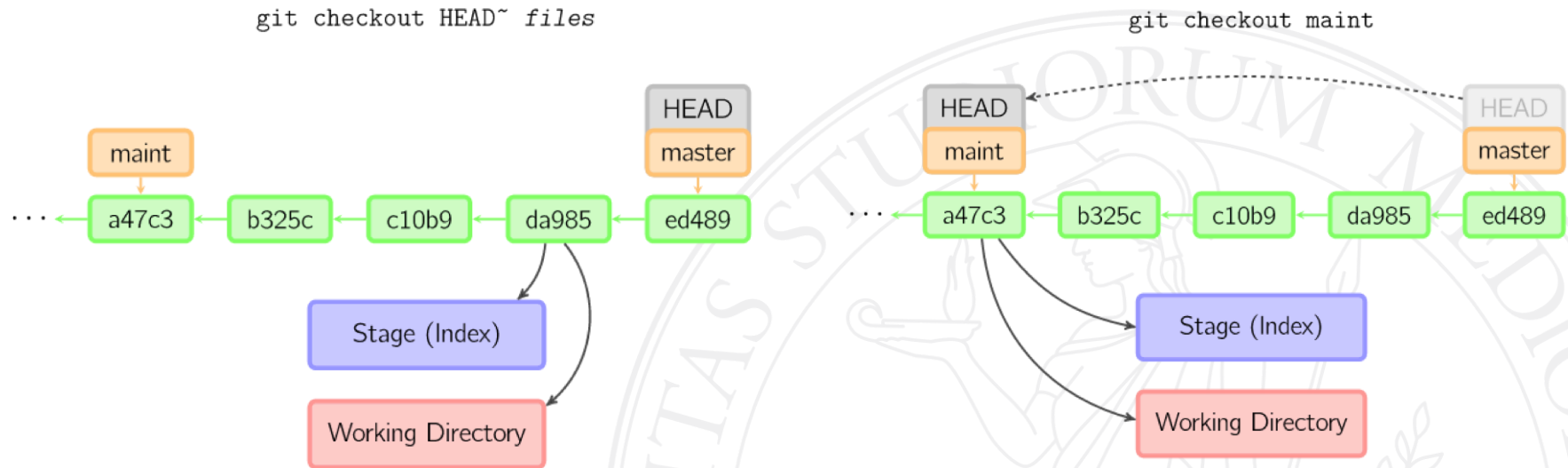


git diff [-cached] [ref] [ref1] [--] [files]



git checkout [ref] [--] [files]

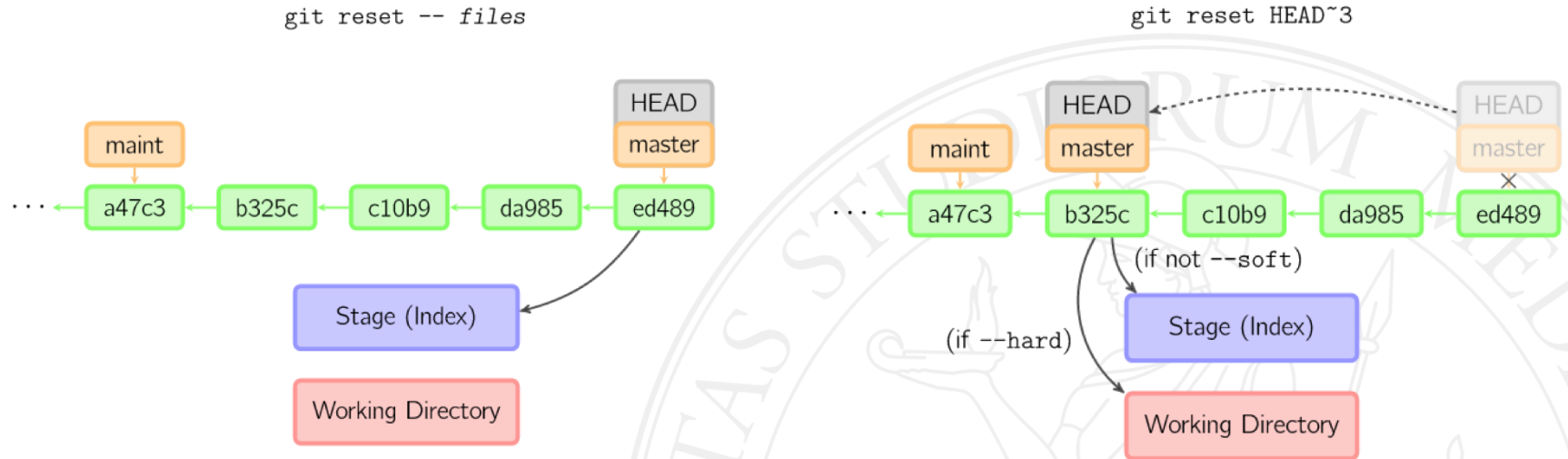
- vengono copiati i files nella versione presente in *ref* dentro a *index* e *working directory*
- se non sono indicati *files* allora viene spostata la HEAD



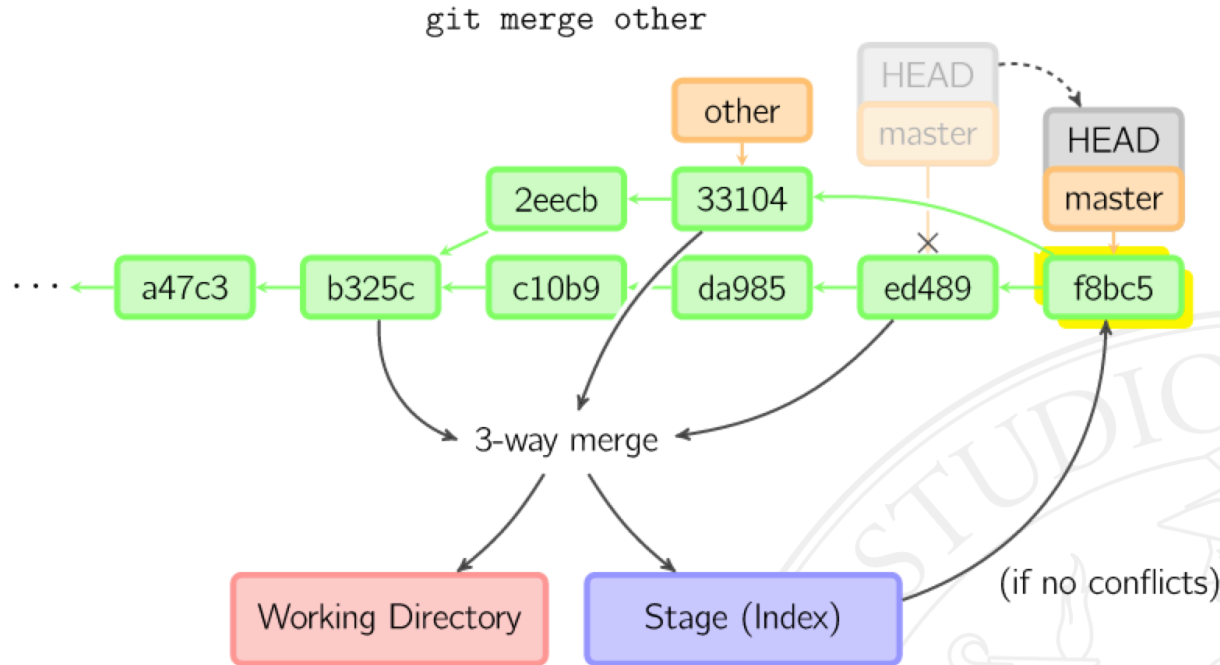
git reset [ref] [--] [files]

simile a checkout ma:

- con *files*, non modifica working directory
- senza *files*, sposta non solo HEAD, ma anche il branch puntato



git merge

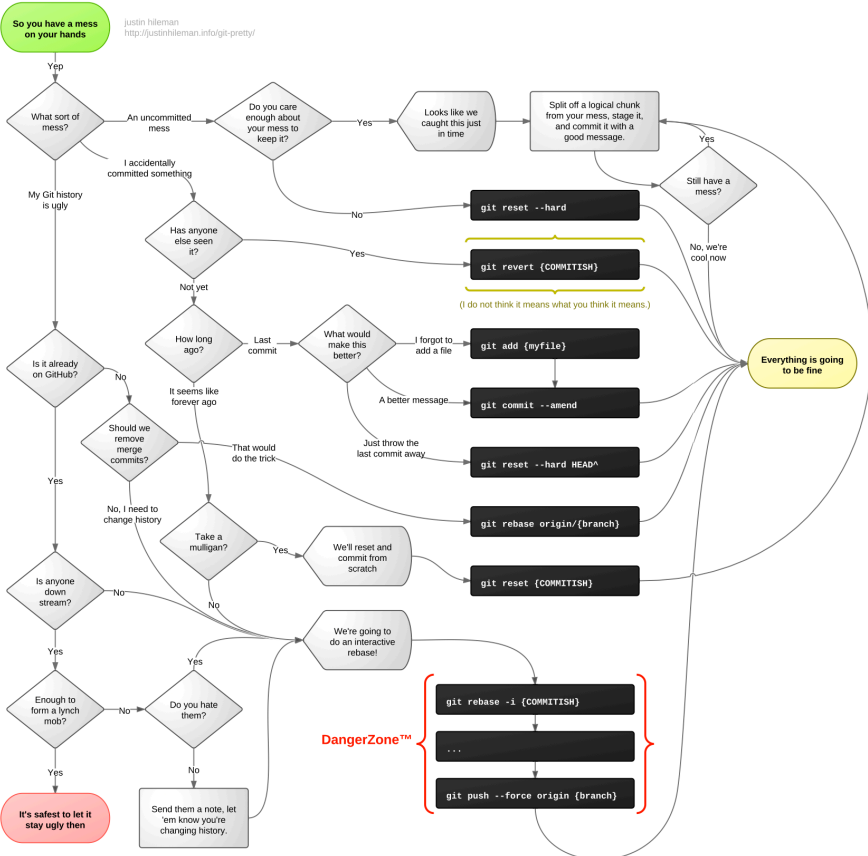


- fast forward
- `git config merge.conflictStyle zdiff3`

git notes

- Strumento di annotazione
- Aggiunta di metadati
- Non modifica commit
- Utilizzo di `git notes add`
- Visualizzazione con `git log --show-notes`
- crea gerarchia parallela di commit, tree, blobs

History rewriting



curiosità: npm i -g git-pretty



Alias utili



Oliver Widder @geekandpoke · 19 Aug 2014

```
git config --global alias.fuck "reset --hard  
HEAD~1"
```

← ↻ 89 ★ 32 ...



Oliver Widder @geekandpoke · 19 Aug 2014

```
git config --global  
alias.fuckYouAllYouBastards "push origin -f  
master"
```

← ↻ 15 ★ 6 ...

<https://github.com/GitAlias/gitalias/>