

Macoun' I I

Git Crash-Kurs

Tobias Günther

I. Repository

I a) Neues Repo erstellen

I b) Existierendes Repo clonen

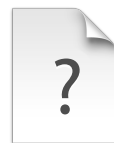
2. Basis-Workflow

Working Directory
„Real Files“

Staging Area
„The Index“

.git Directory
„The local Repo“

Working Directory
„Real Files“



untracked

Staging Area
„The Index“

.git Directory
„The local Repo“

Working Directory
„Real Files“



unmodified

Staging Area
„The Index“

.git Directory
„The local Repo“

Working Directory
„Real Files“



modified

Staging Area
„The Index“

.git Directory
„The local Repo“

Working Directory
„Real Files“



Staging Area
„The Index“



staged

.git Directory
„The local Repo“



staged

=

im nächsten Commit

Warum Staging Area?

Bananen-Milchshake

Bananen-Milchshake

Mixer



Bananen-Milchshake

Mixer + Milch



Bananen-Milchshake

Mixer + Milch + Tomate



Schmeckt wie ein Bug.

Versuchen Sie ein
“Rollback” der Tomate!

“Mixen” in der
Versionskontrolle heißt...

...Rollback wird schwierig.

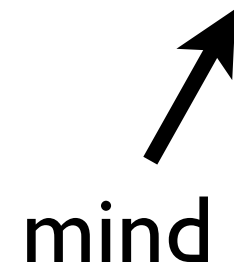
...schwer nachvollziehbar.

Ihre Kollegen werden Sie hassen.

VC-Grundregel:
“Commit only related changes!”

| Feature = | Commit

| Feature = | Commit



| Bugfix = | Commit

“Staging Area”

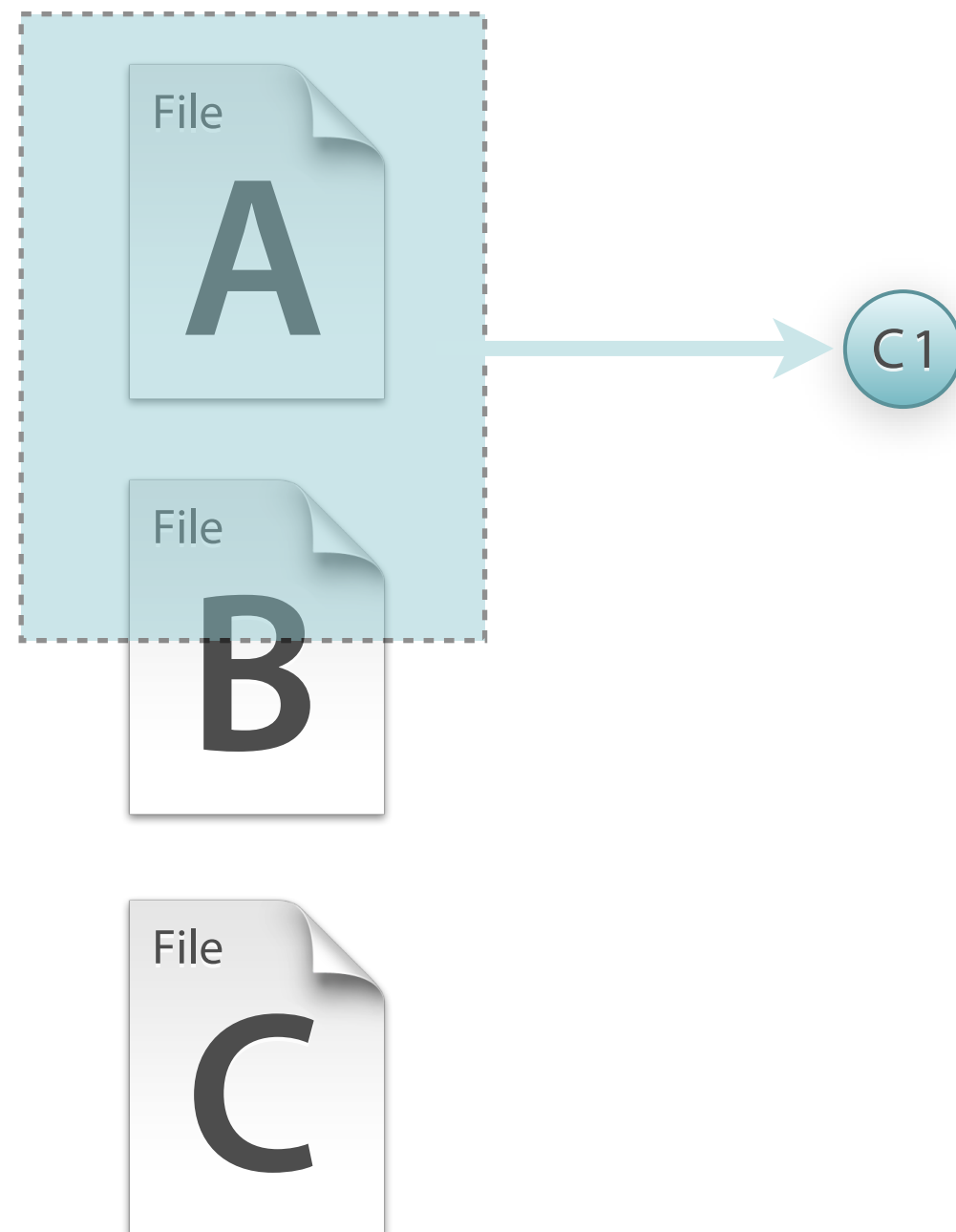
“Staging Area”

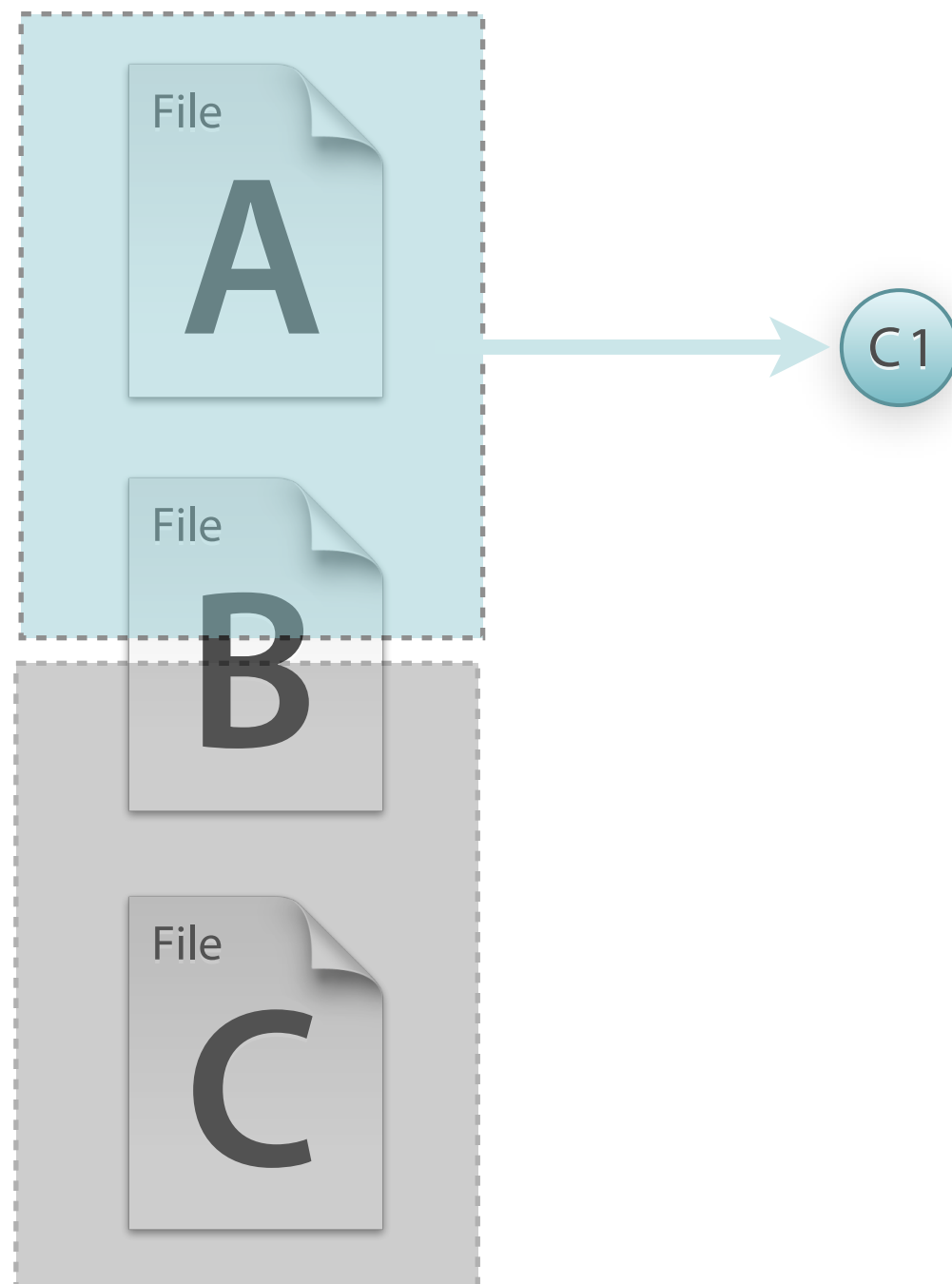
-oder-

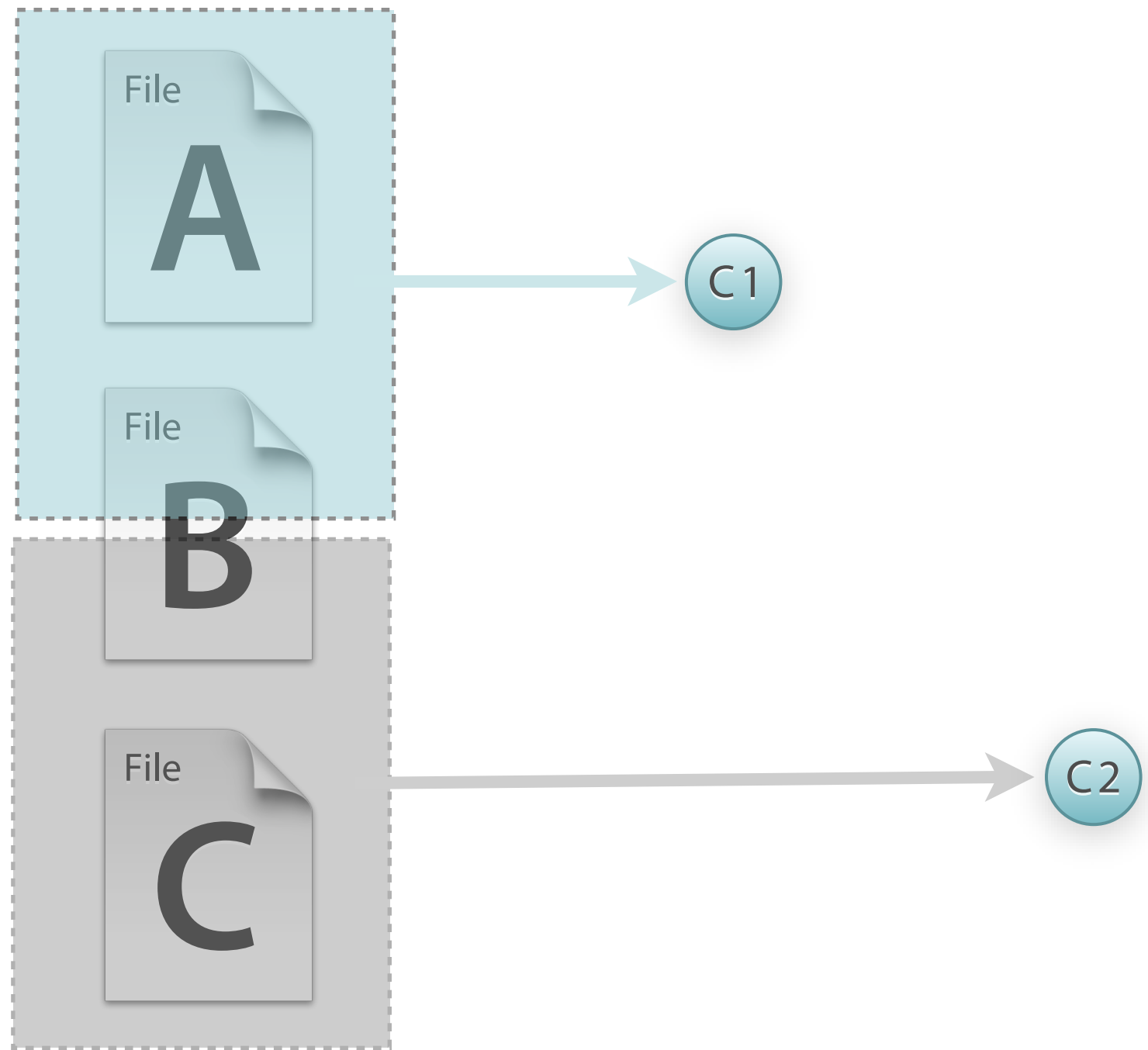
Commits granular
zusammenstellen



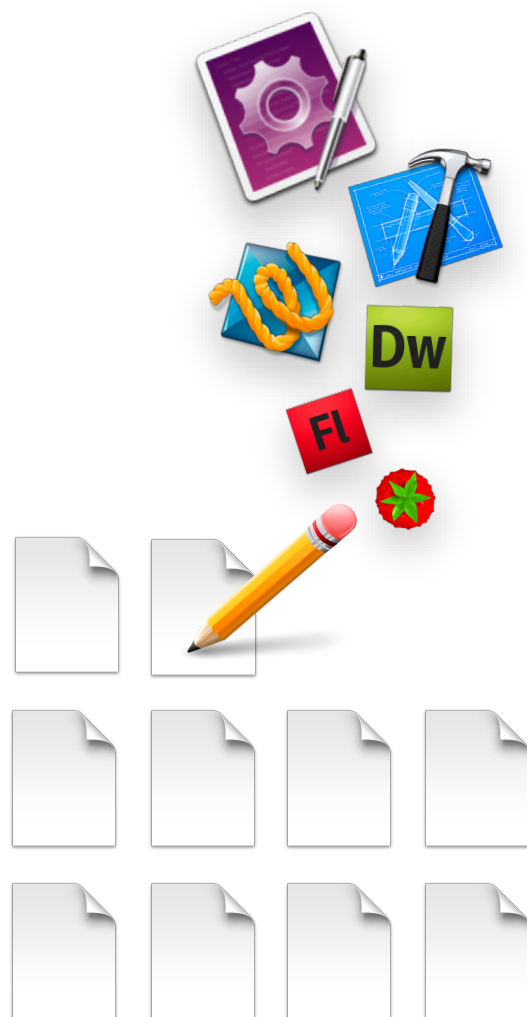








Working Directory
„Real Files“



Staging Area
„The Index“

.git Directory
„The local Repo“

Working Directory
„Real Files“



Staging Area
„The Index“

.git Directory
„The local Repo“

Working Directory
„Real Files“



Staging Area
„The Index“

.git Directory
„The local Repo“

```
$ git status
```

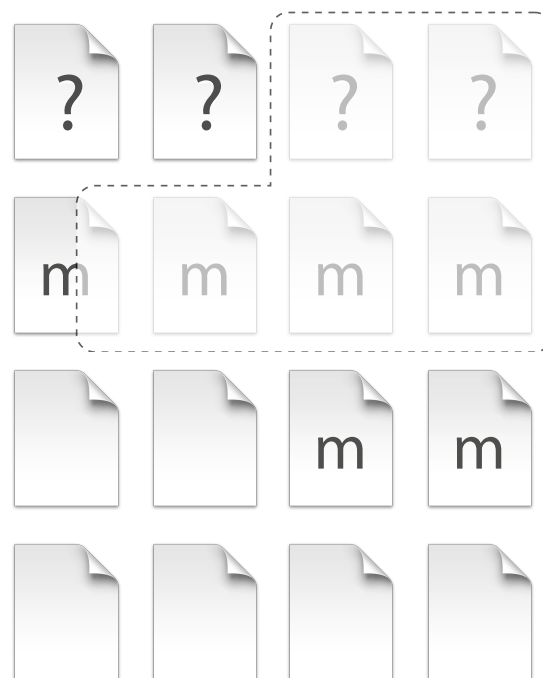
Changed (but not staged):
f5, f6, f7, f8, f11, f12

Untracked files:
f1, f2, f3, f4

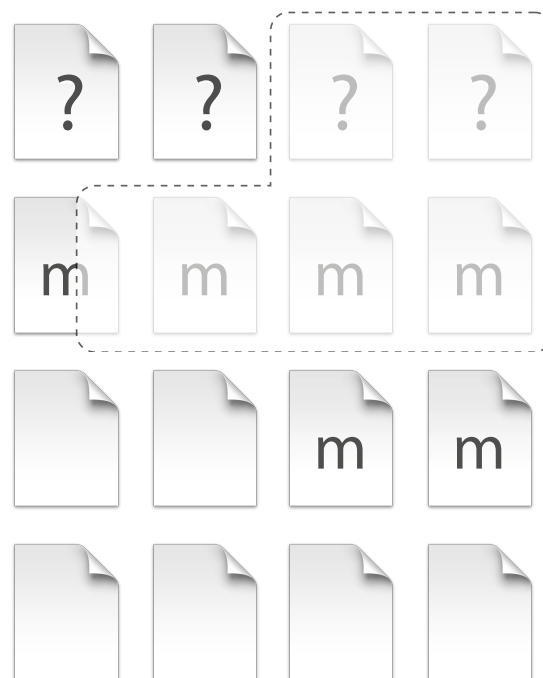
Working Directory
„Real Files“

Staging Area
„The Index“

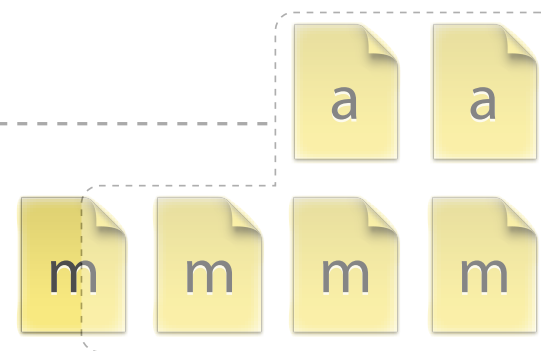
.git Directory
„The local Repo“



Working Directory
„Real Files“

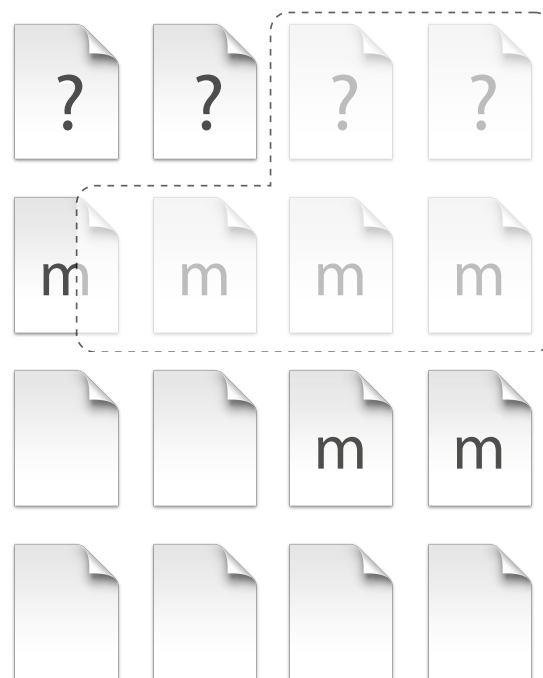


Staging Area
„The Index“

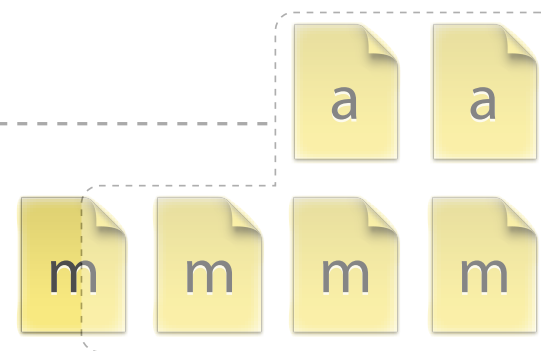


.git Directory
„The local Repo“

Working Directory
„Real Files“



Staging Area
„The Index“

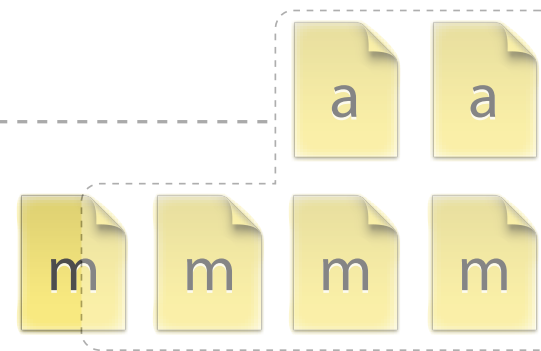
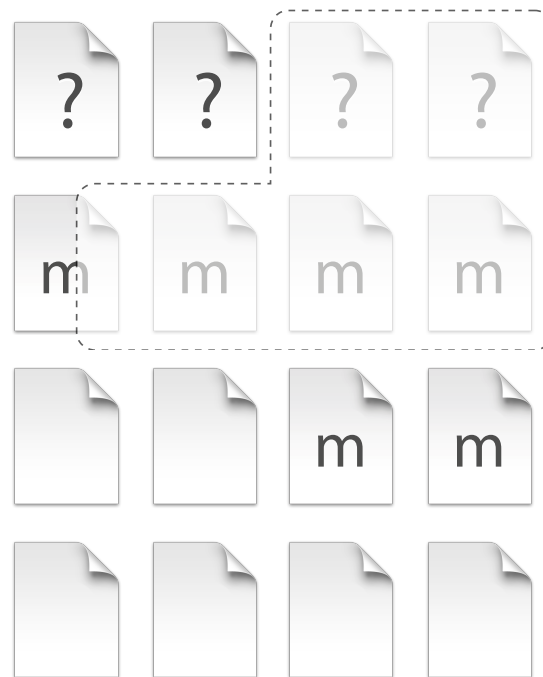


.git Directory
„The local Repo“

Working Directory
„Real Files“

Staging Area
„The Index“

.git Directory
„The local Repo“



\$ git status

Changes to be committed:
f3, f4, f5, f6, f7, f8

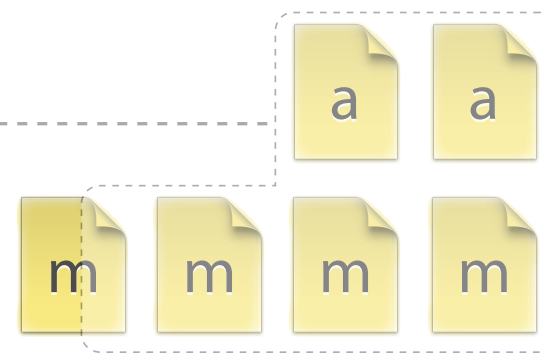
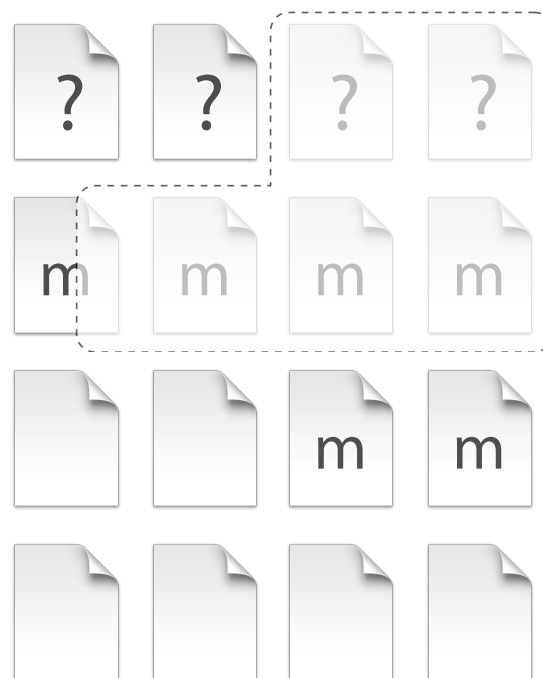
Changed (but not staged):
f5, f11, f12

Untracked files:
f1, f2

Working Directory
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.git Directory
„The local Repo“



\$ git commit

Working Directory
„Real Files“



Staging Area
„The Index“

.git Directory
„The local Repo“

```
$ git status
```

Untracked files:

f1, f2

Changed (but not staged):

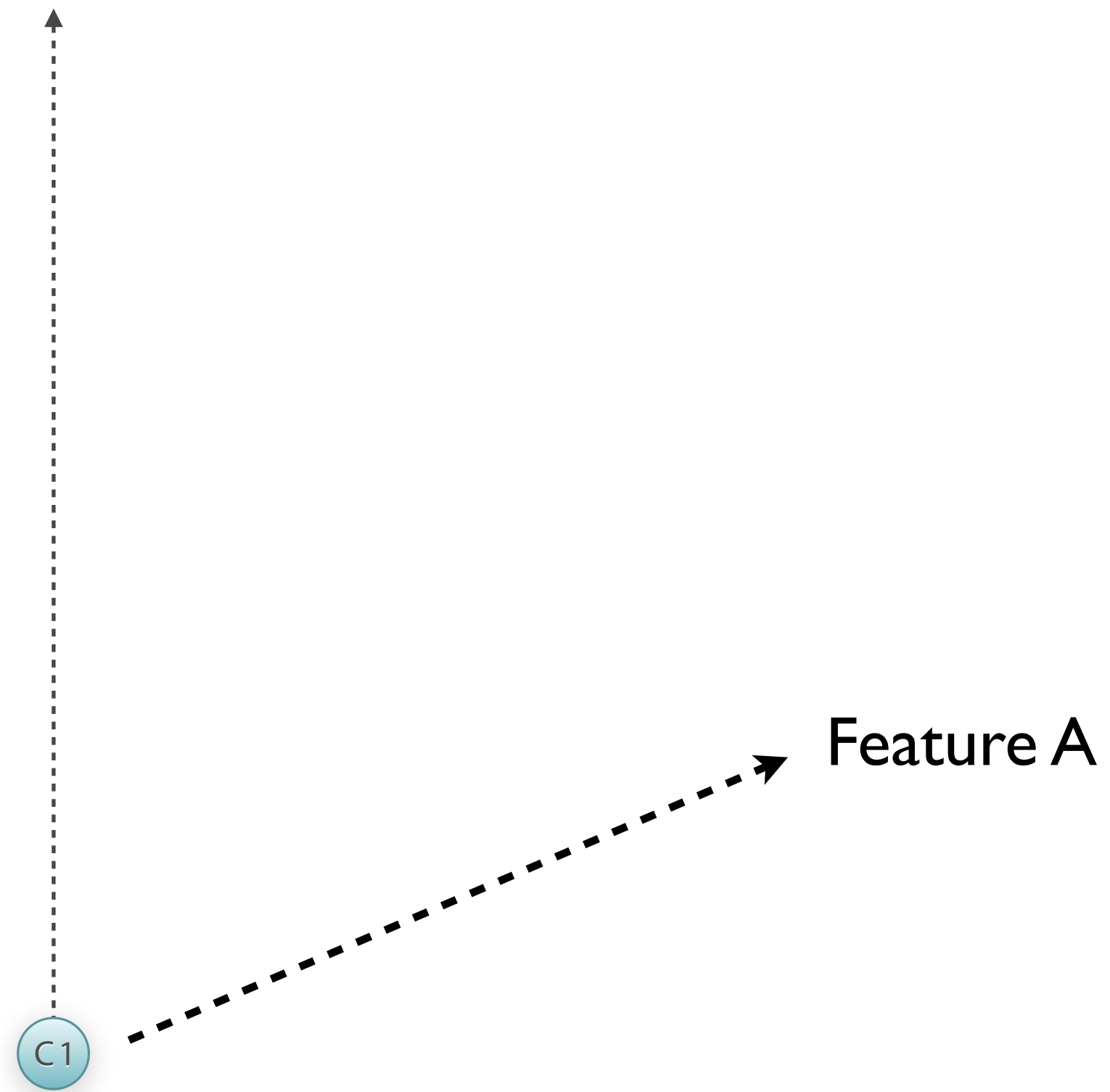
f5, f11, f12

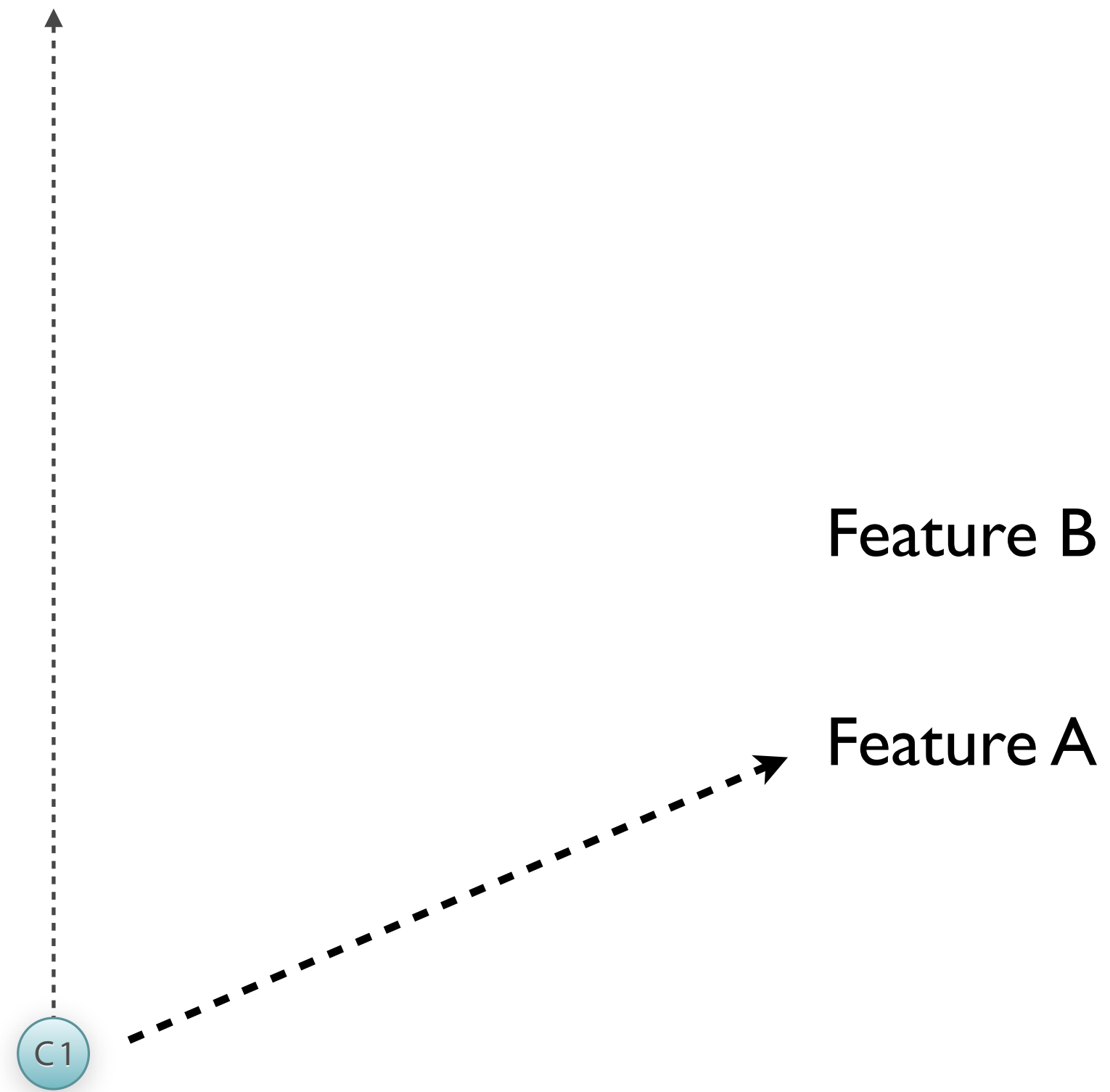
git commit
git commit -a

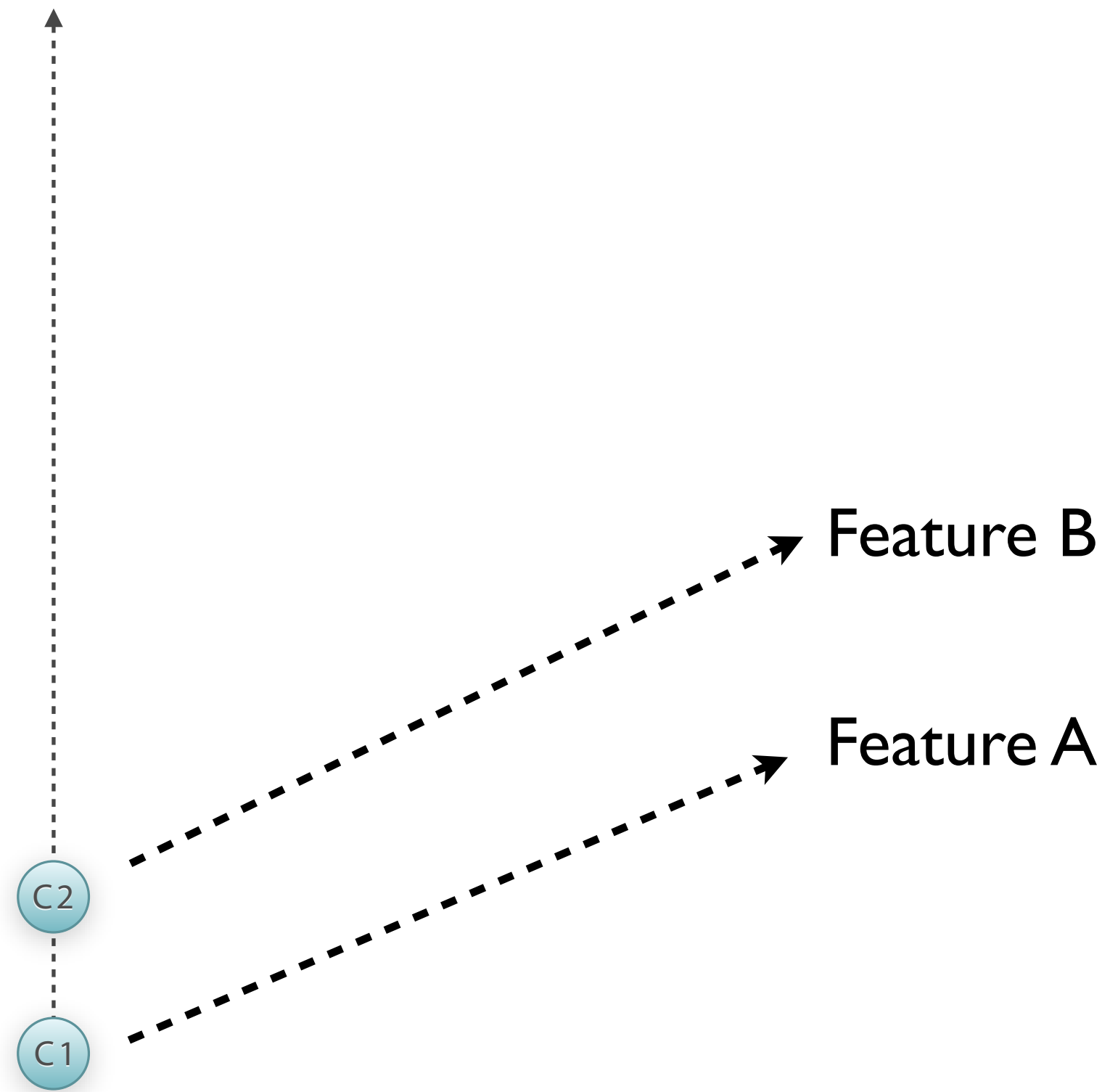
3. History

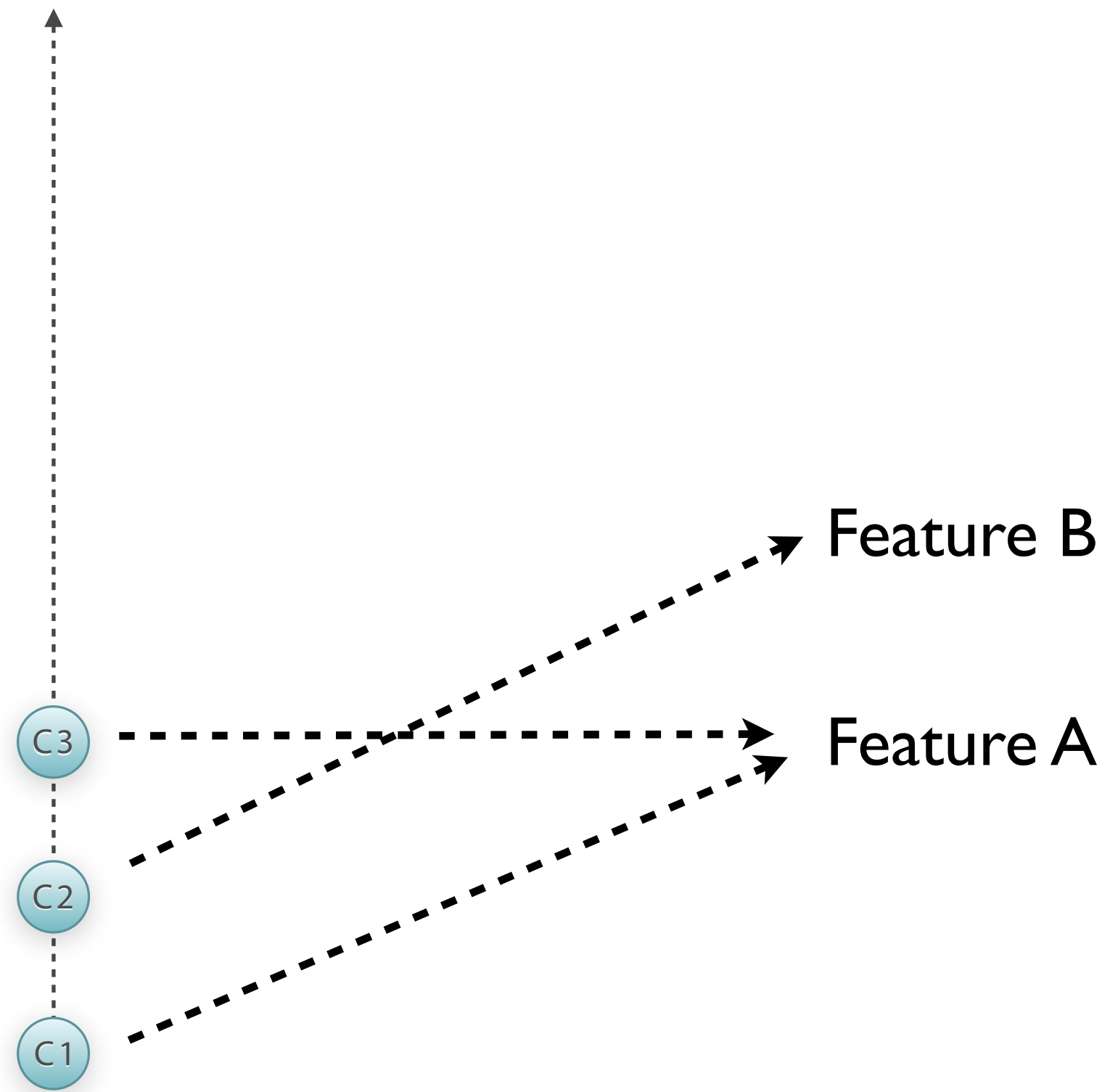
4. Branching & Merging

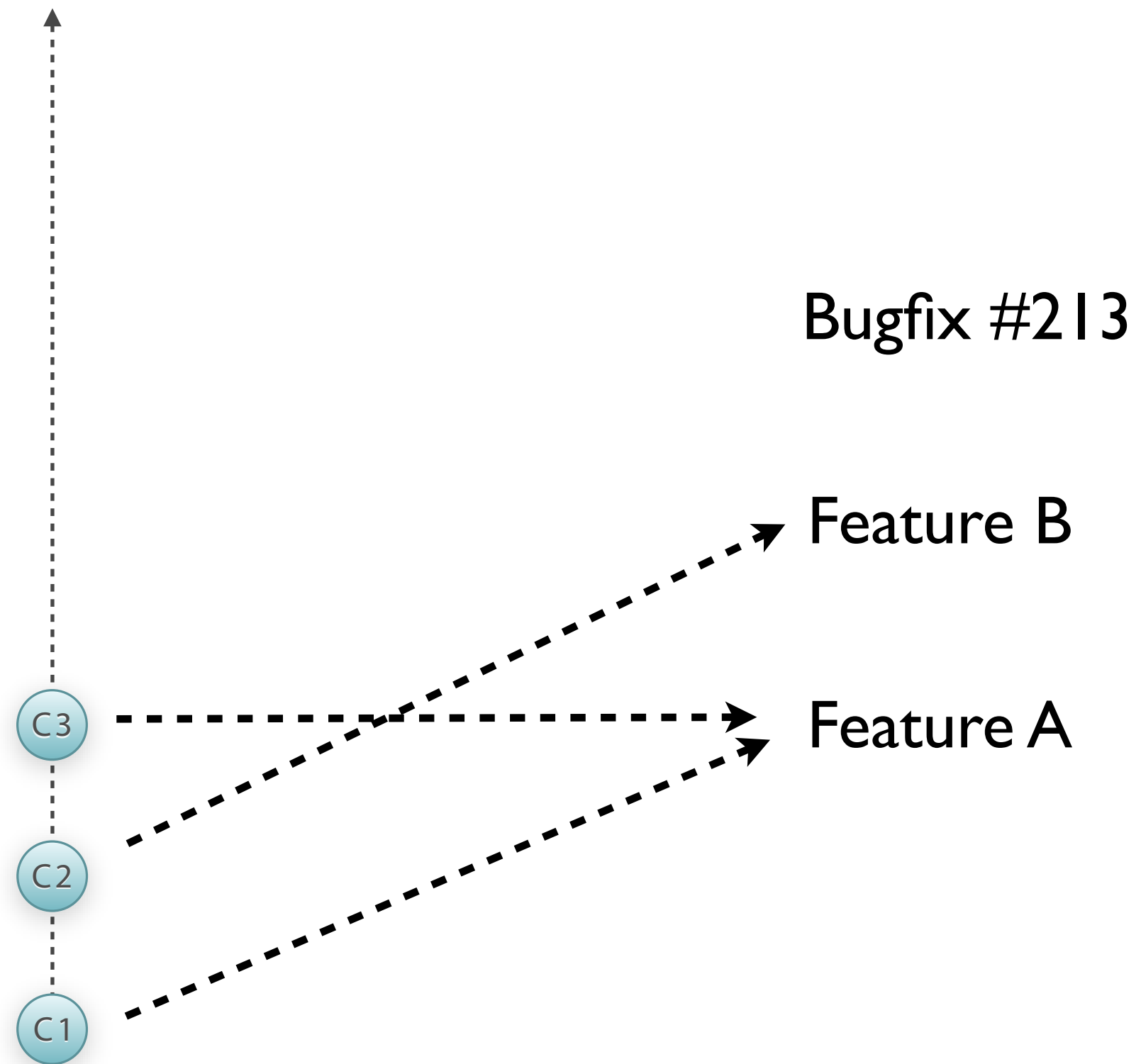
Parallele Entwicklung an mehreren Themen

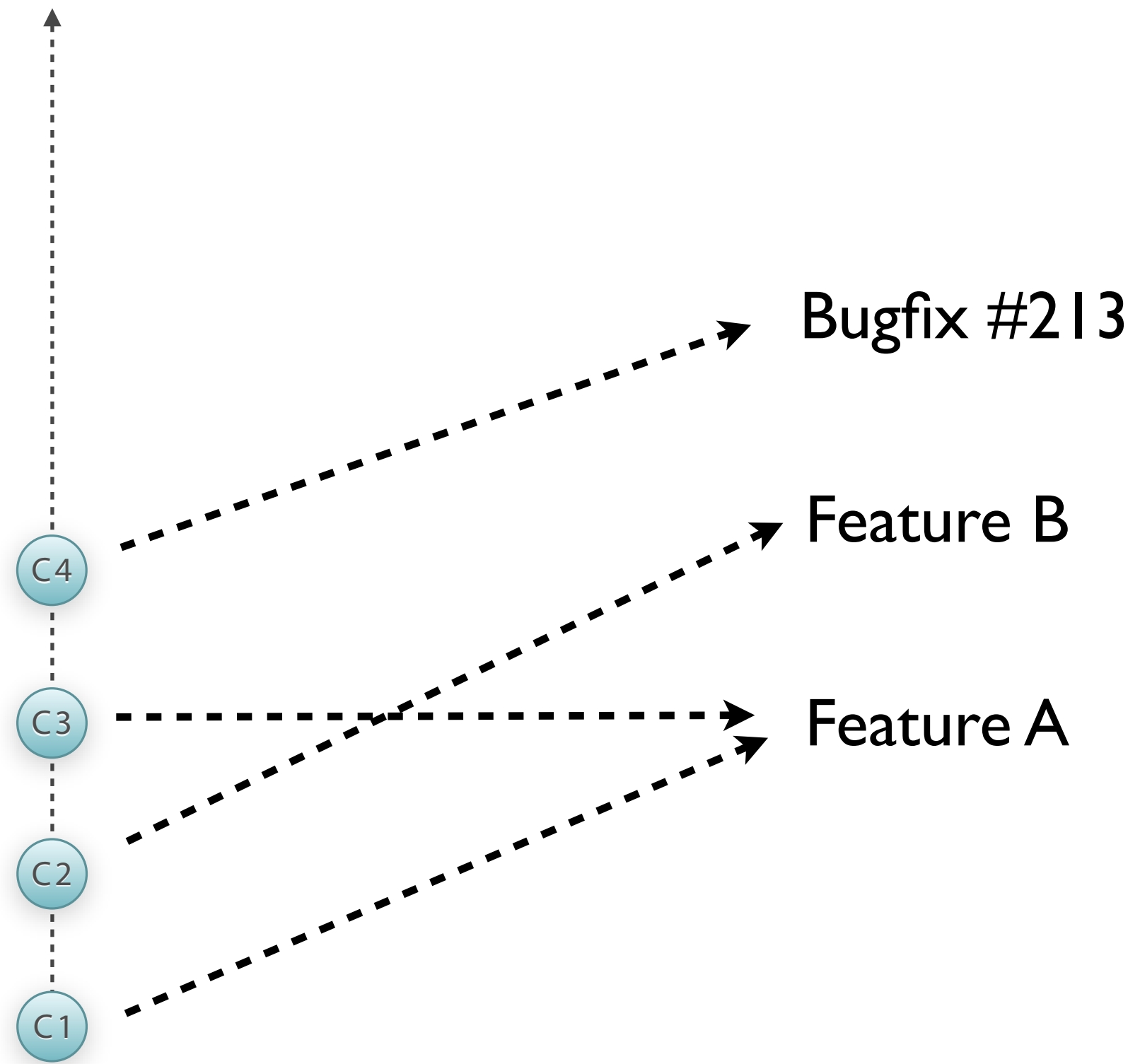


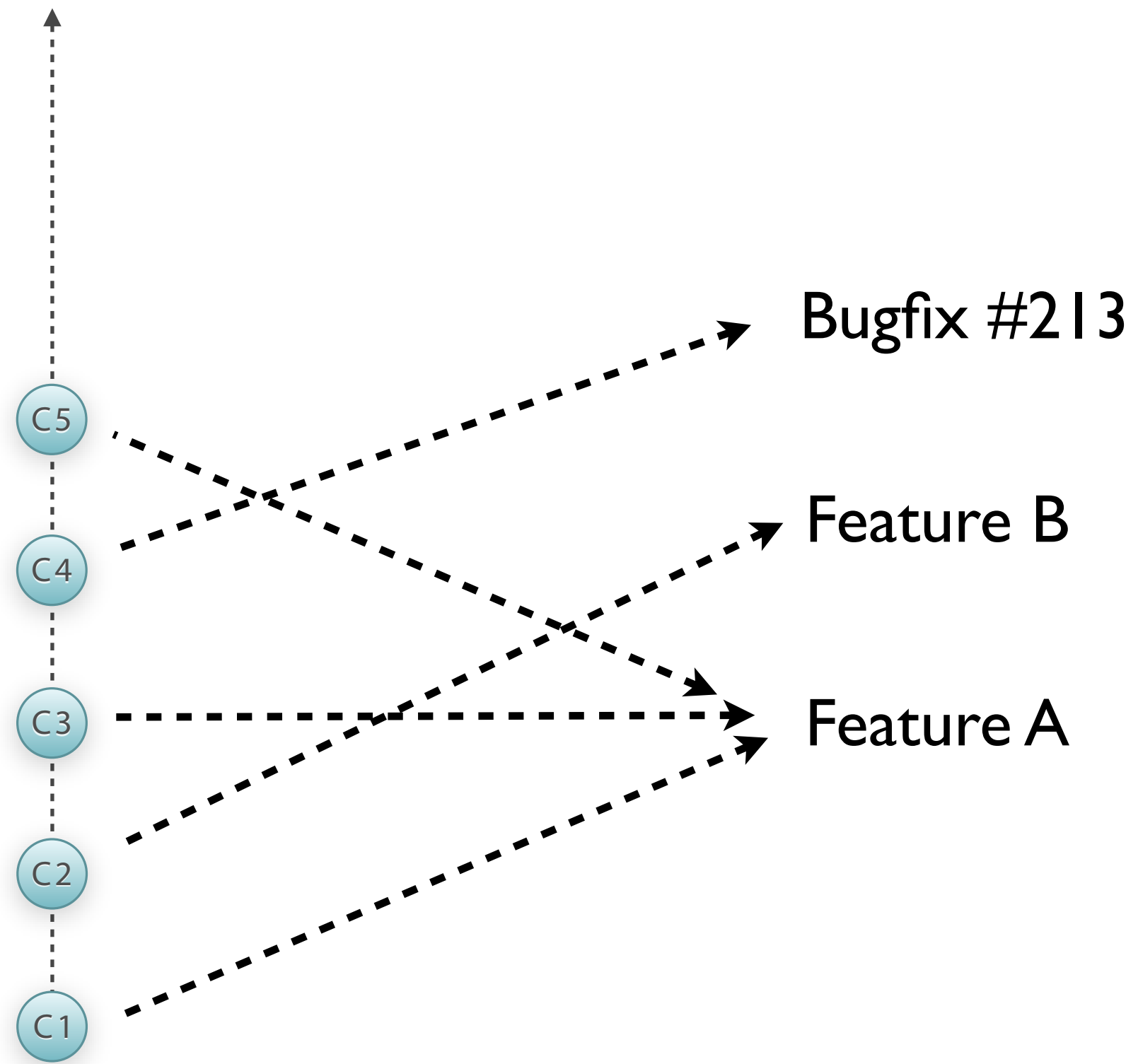


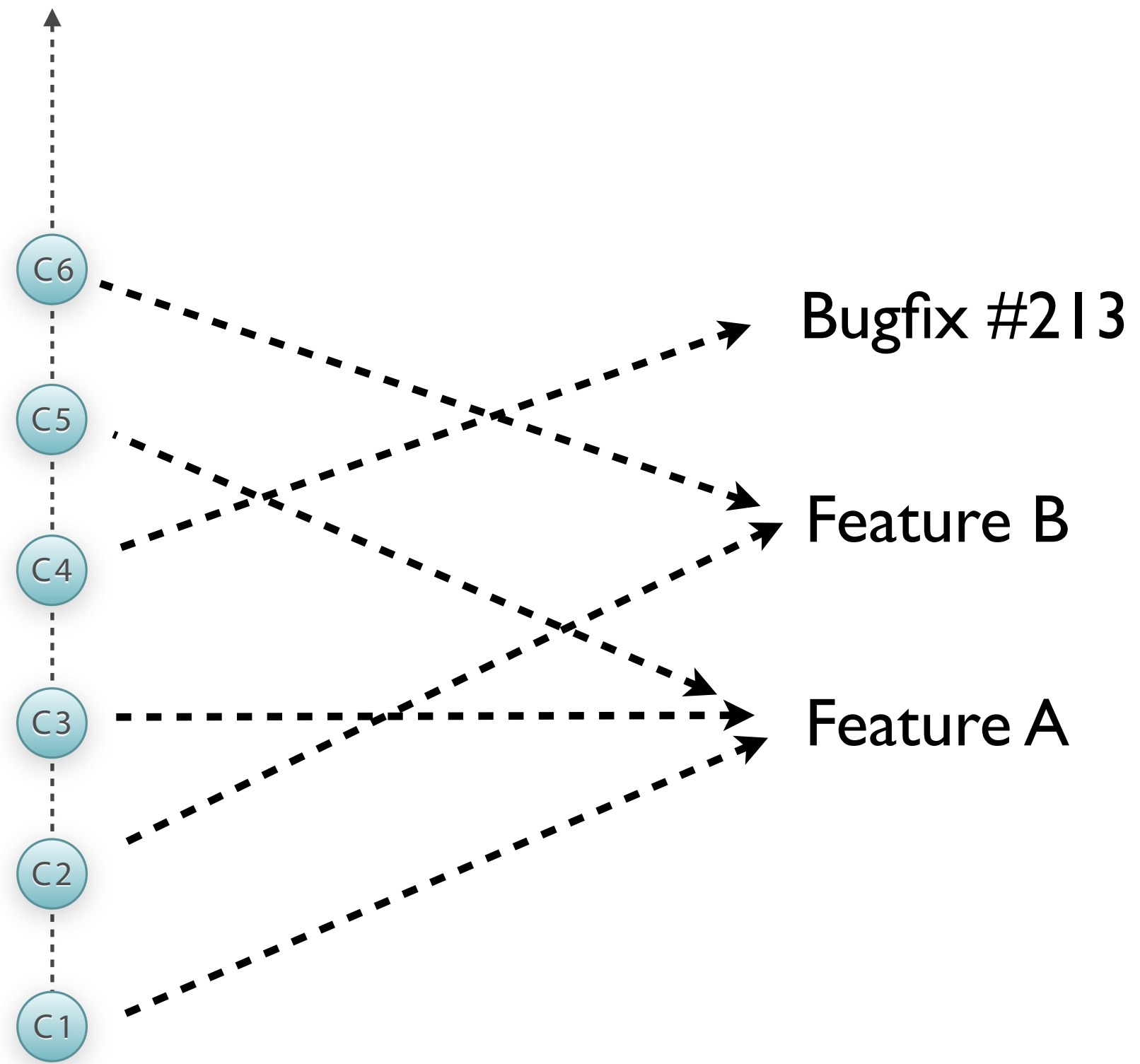


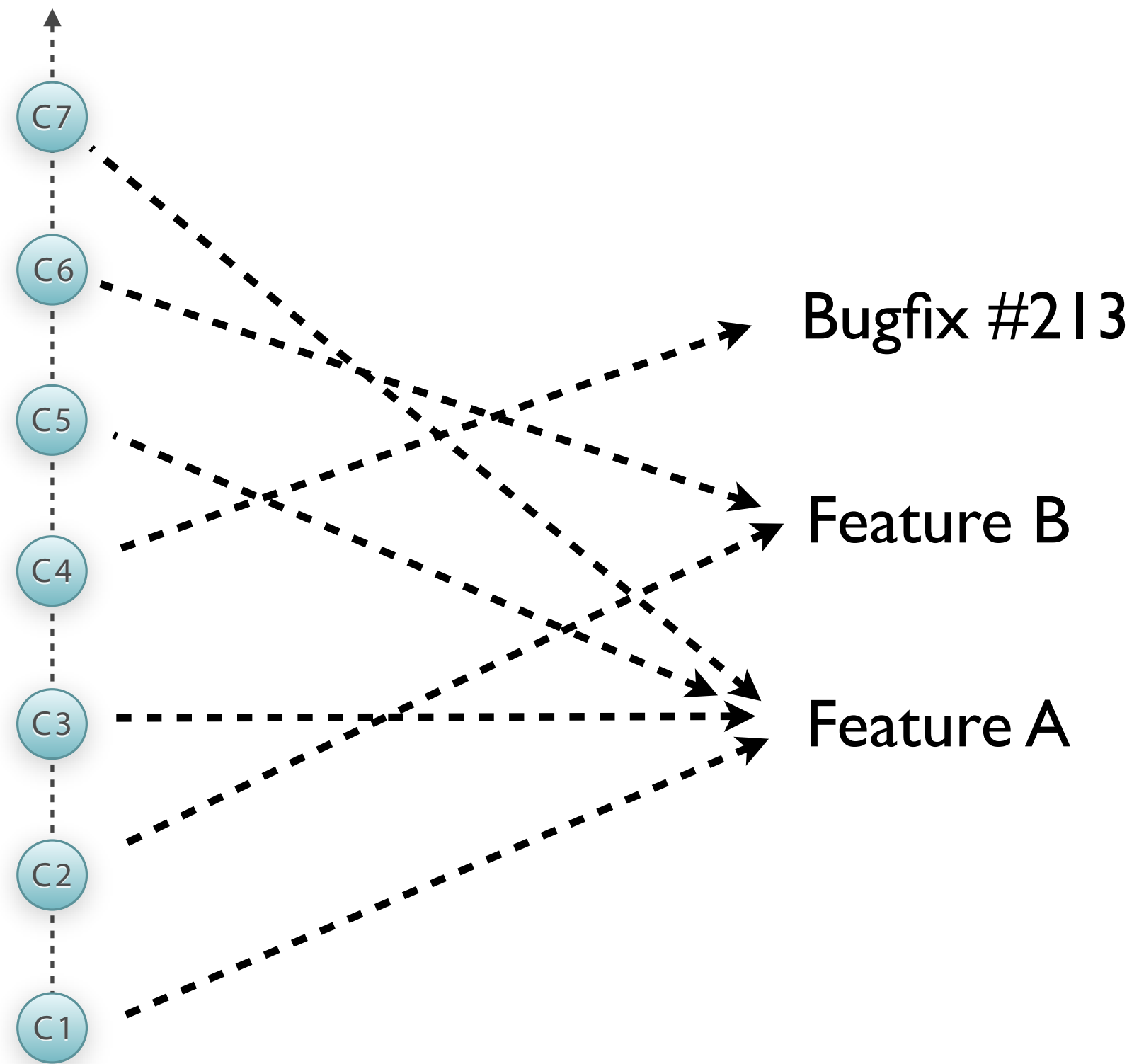












Nicht gut.

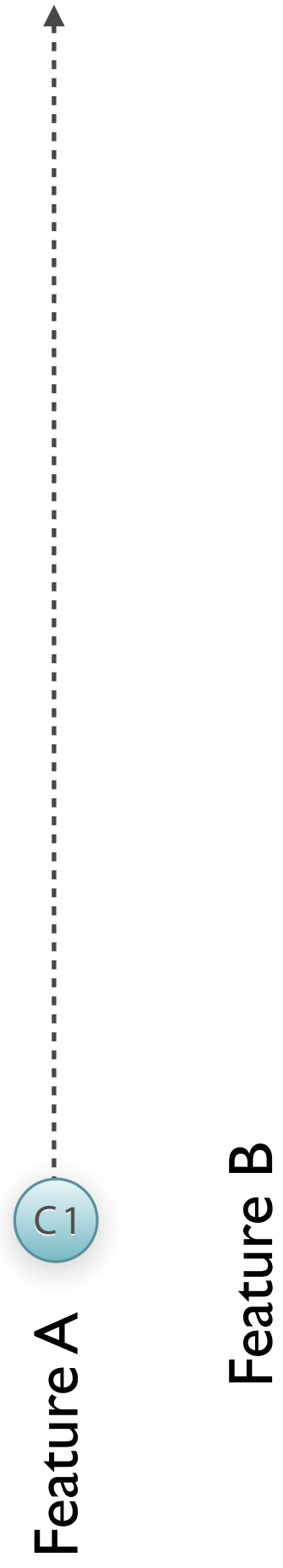


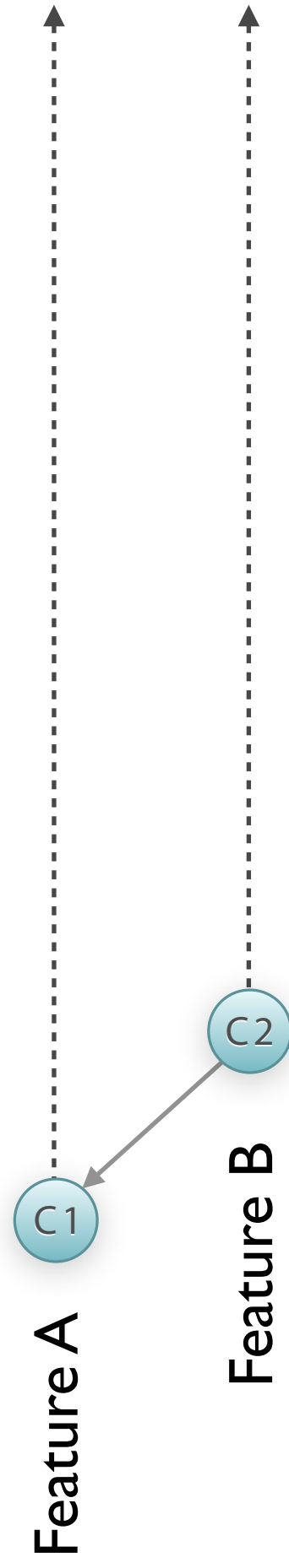
Code aus unfertigen
Features separat halten!

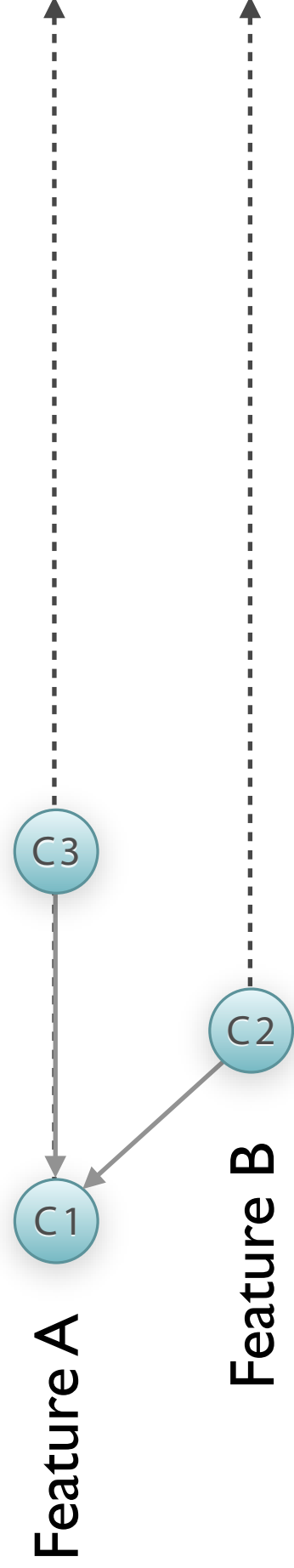
Anforderungen ändern sich -
Feature wird obsolet

Proof of Concept schlägt fehl
Feature unrealisierbar

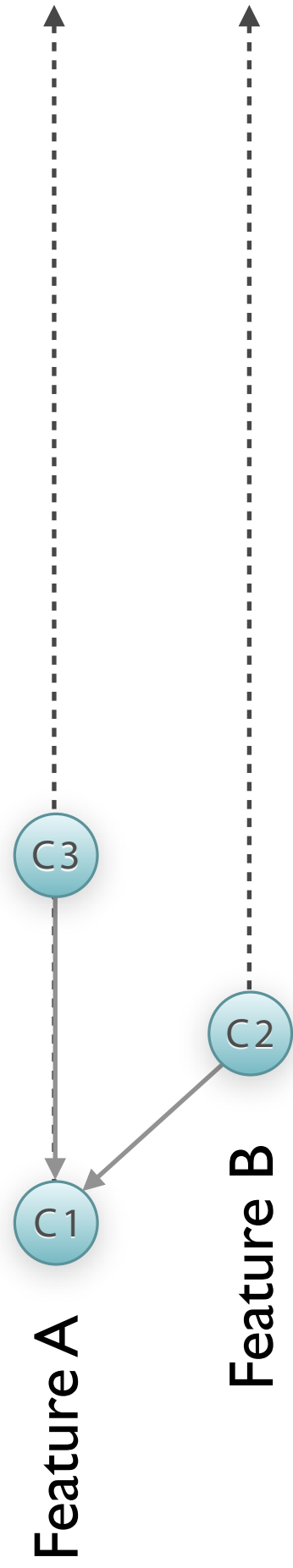


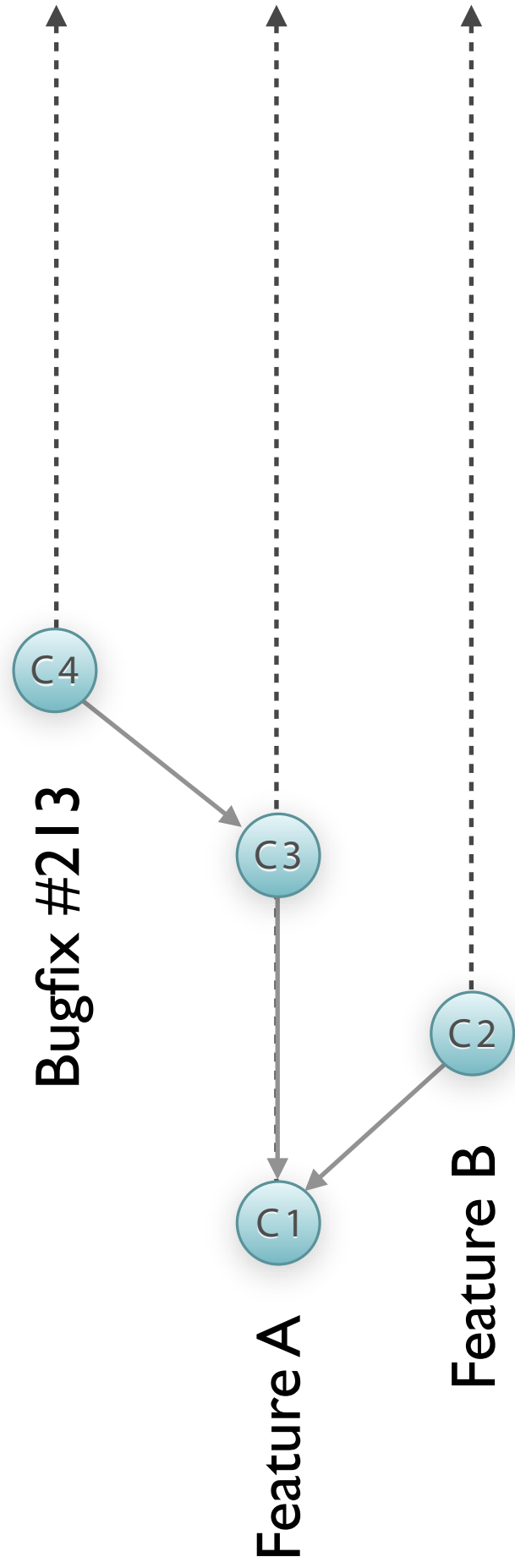


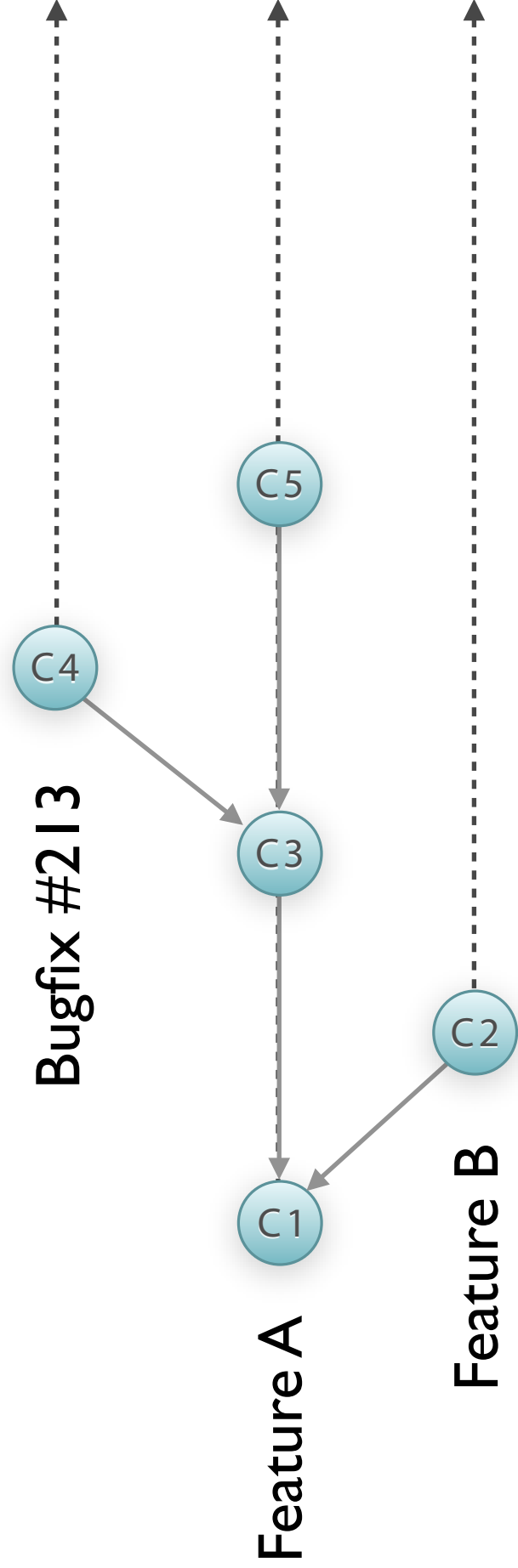


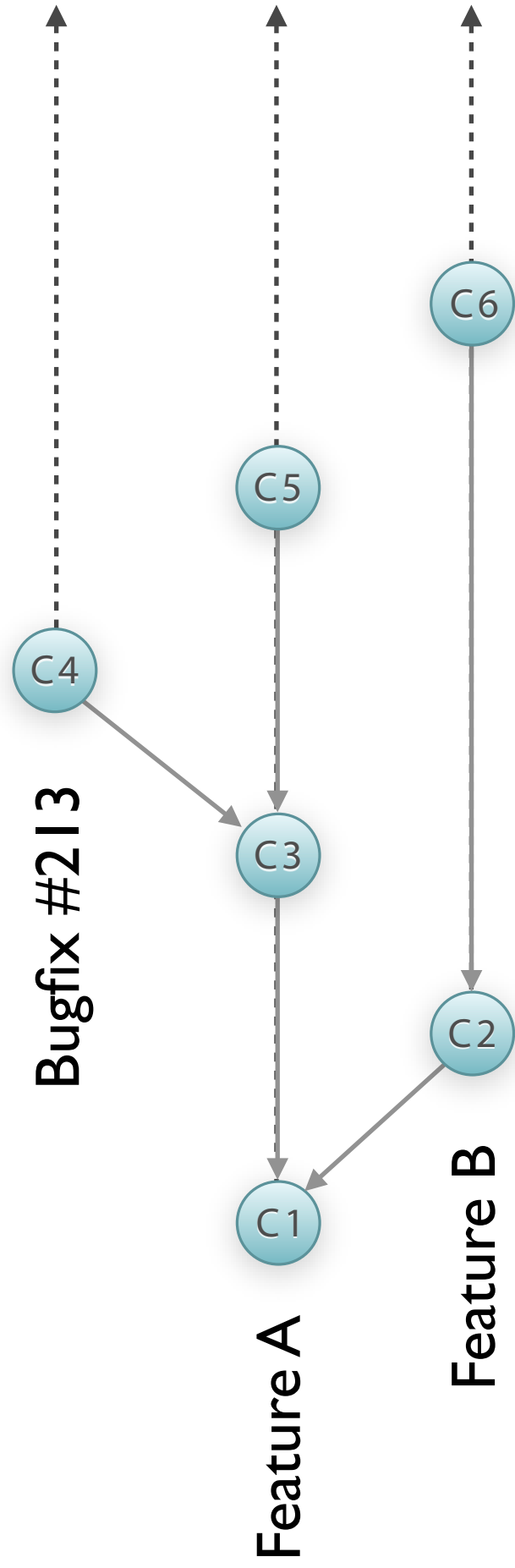


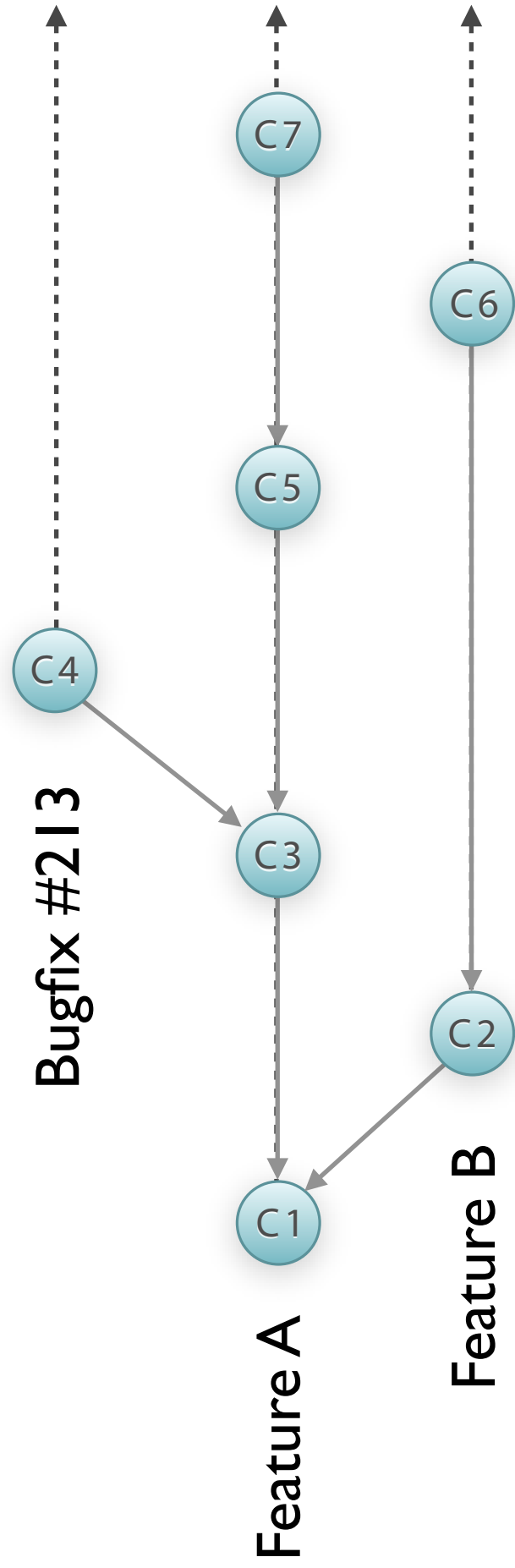
Bugfix #213











**“SVN und Mercurial kennen
Branches auch - nicht nur Git!”**

“SVN und Mercurial kennen
Branches auch - nicht nur Git!”

↑
Apfel

Birne



“SVN und Mercurial kennen
Branches auch - nicht nur Git!”



Apfel

Wassermelone



Birne

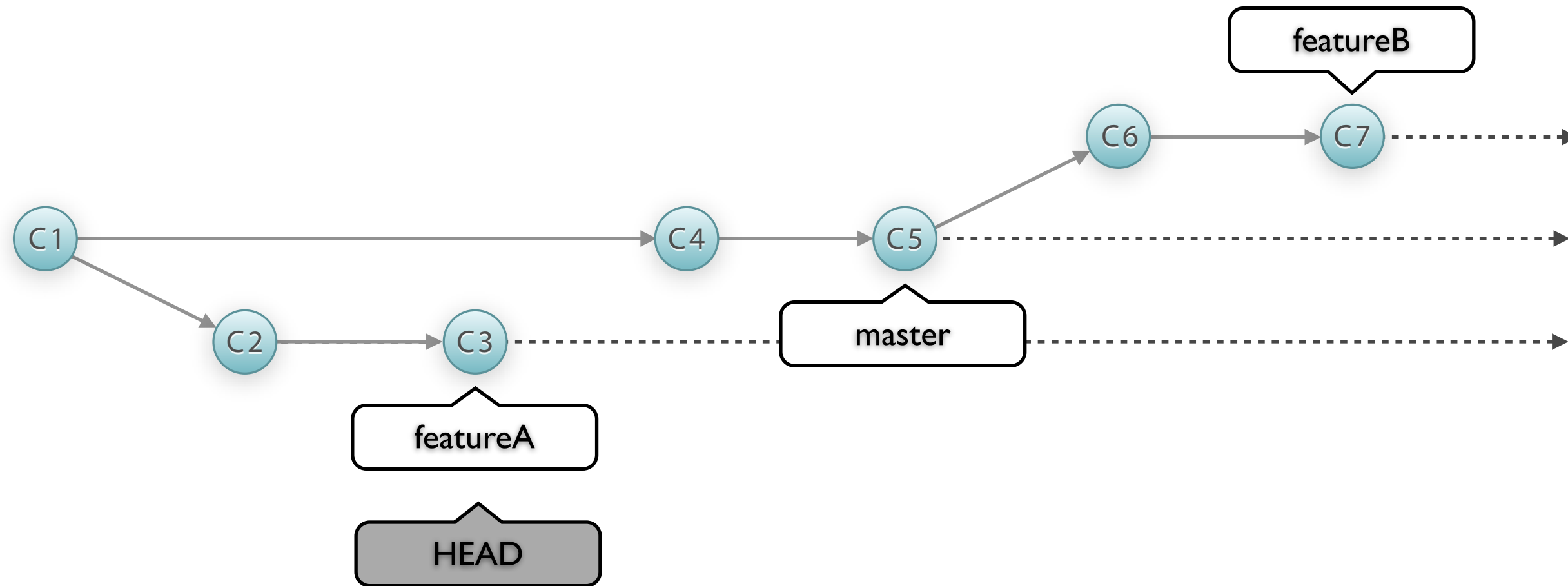


“SVN und Mercurial kennen
Branches auch - nicht nur Git!”

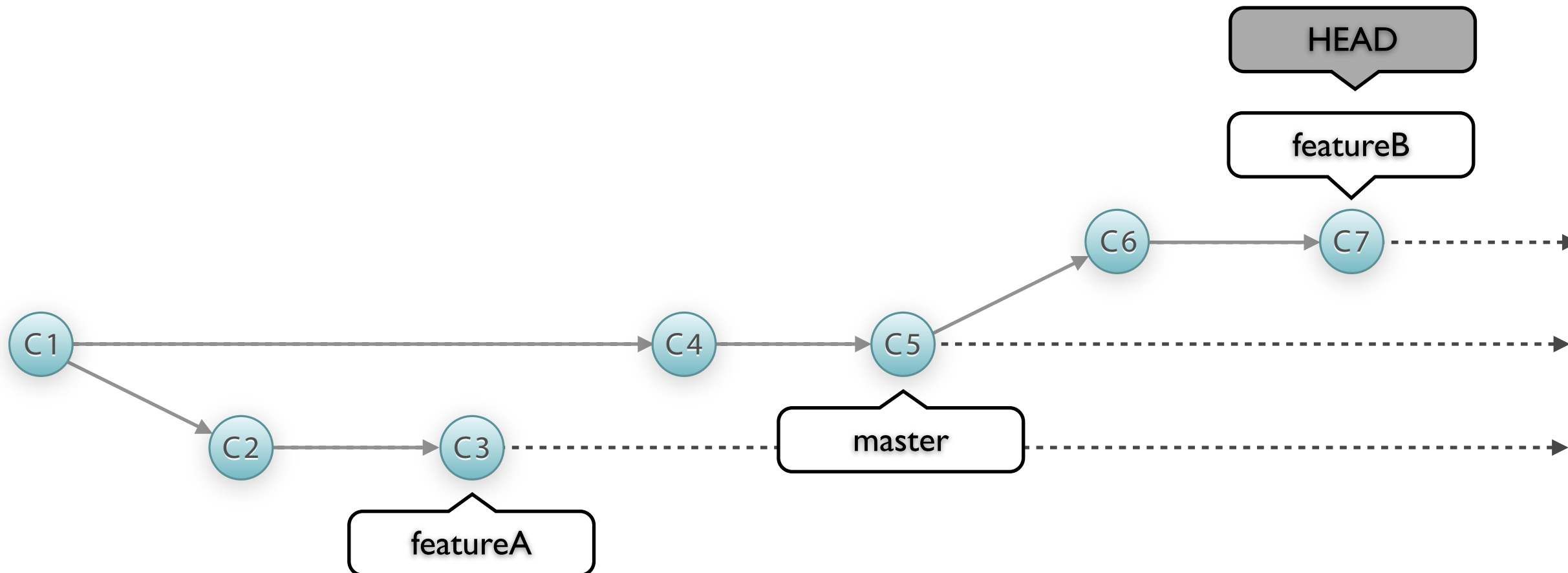


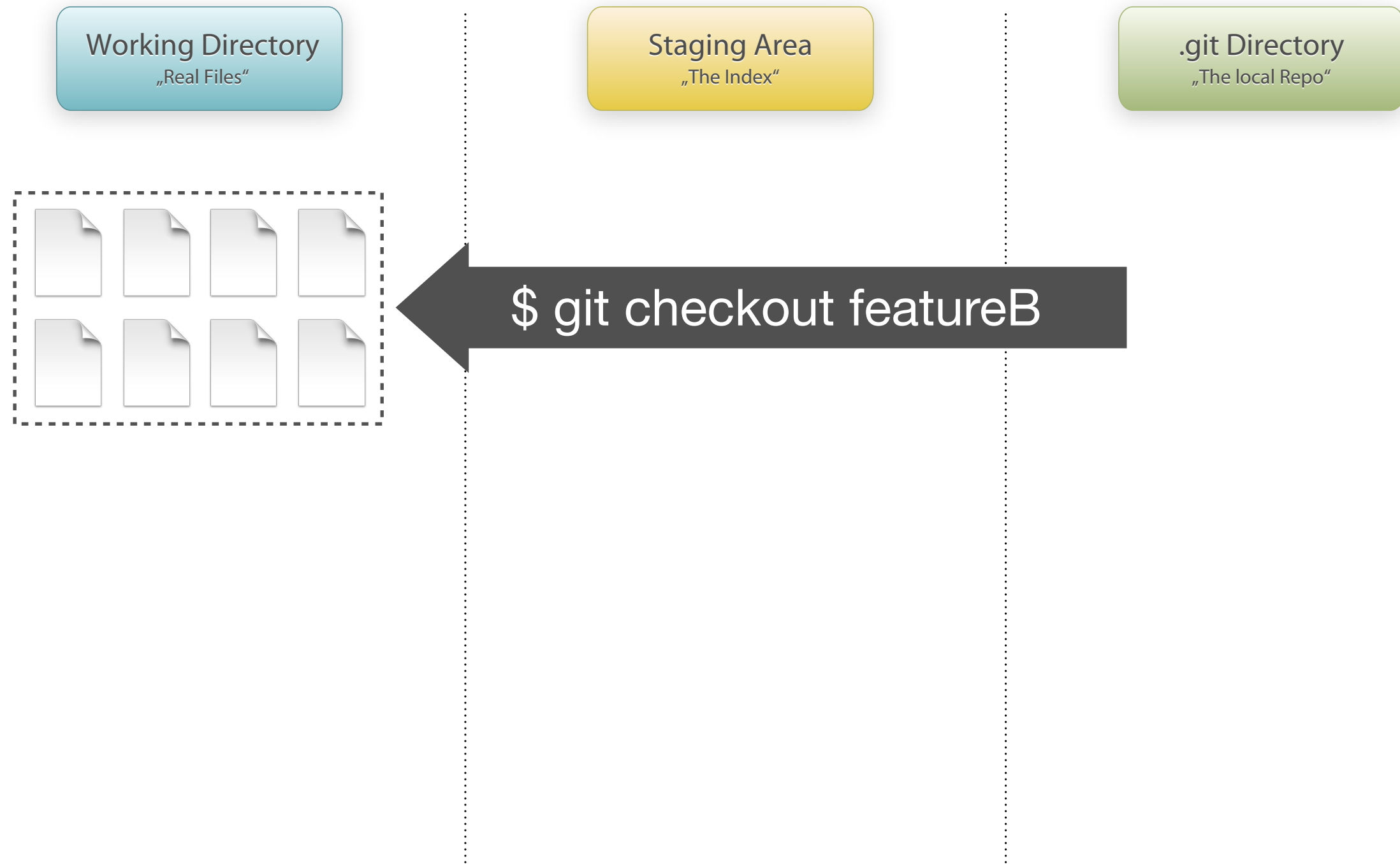
Apfel

HEAD



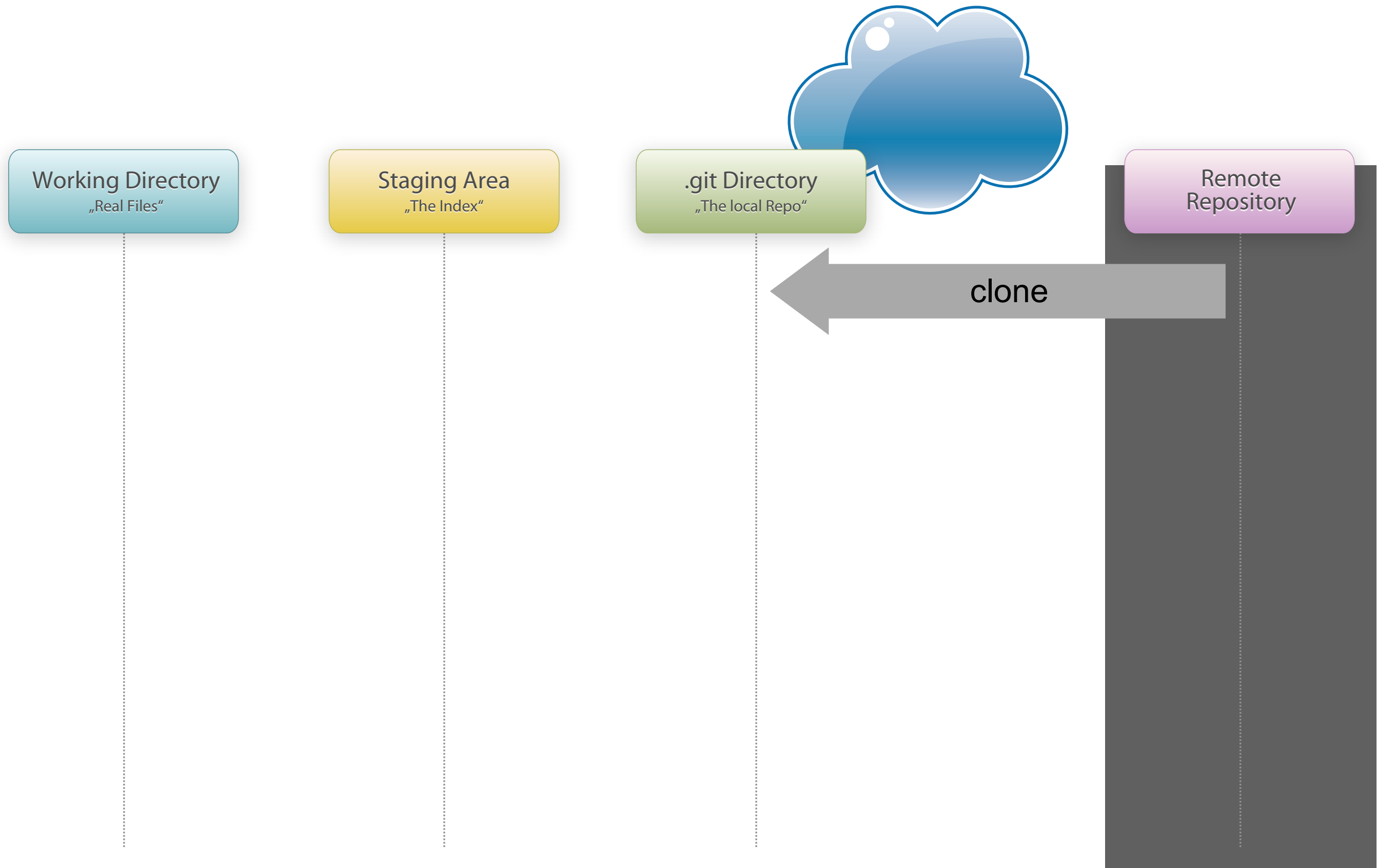
Checkout

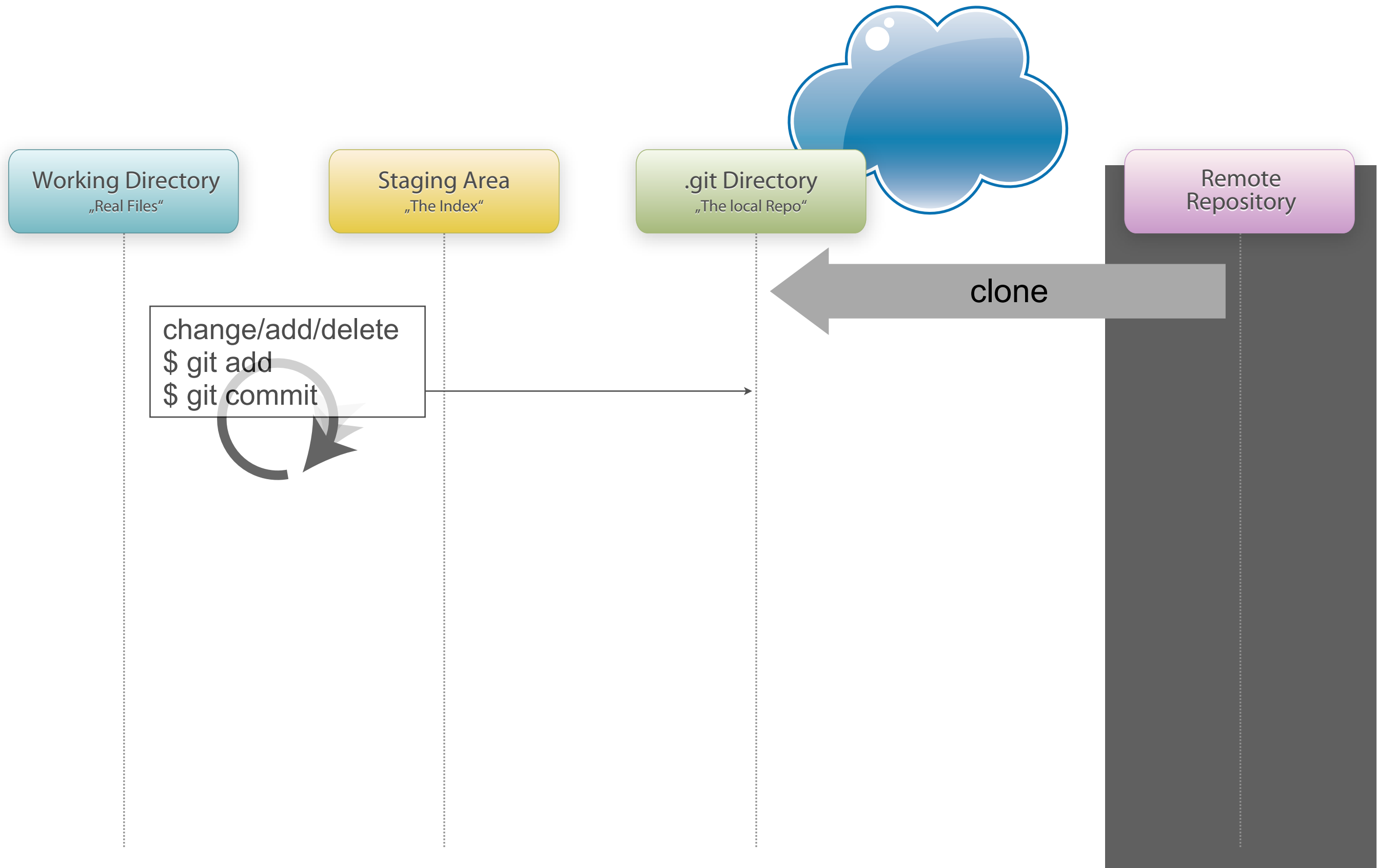


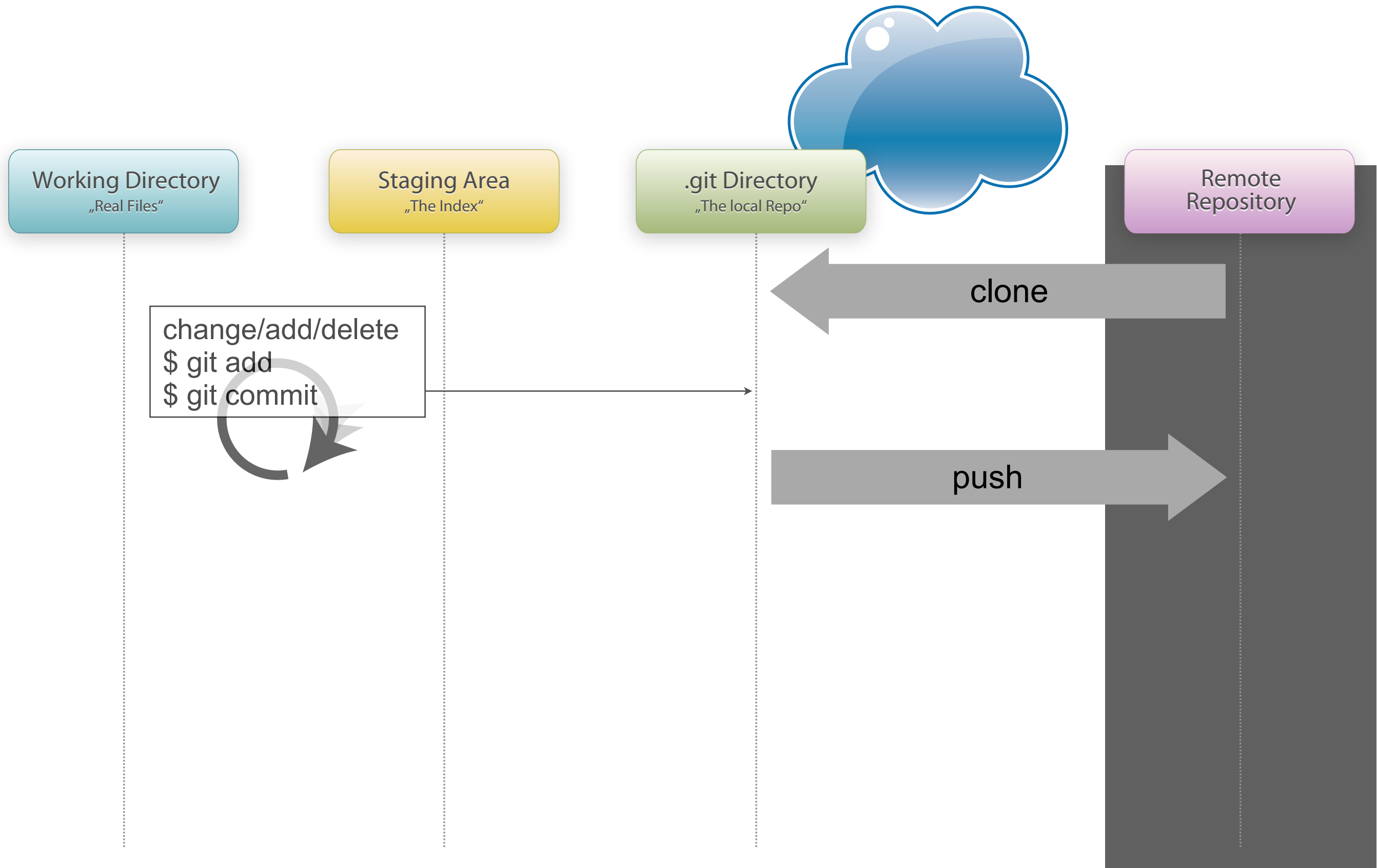


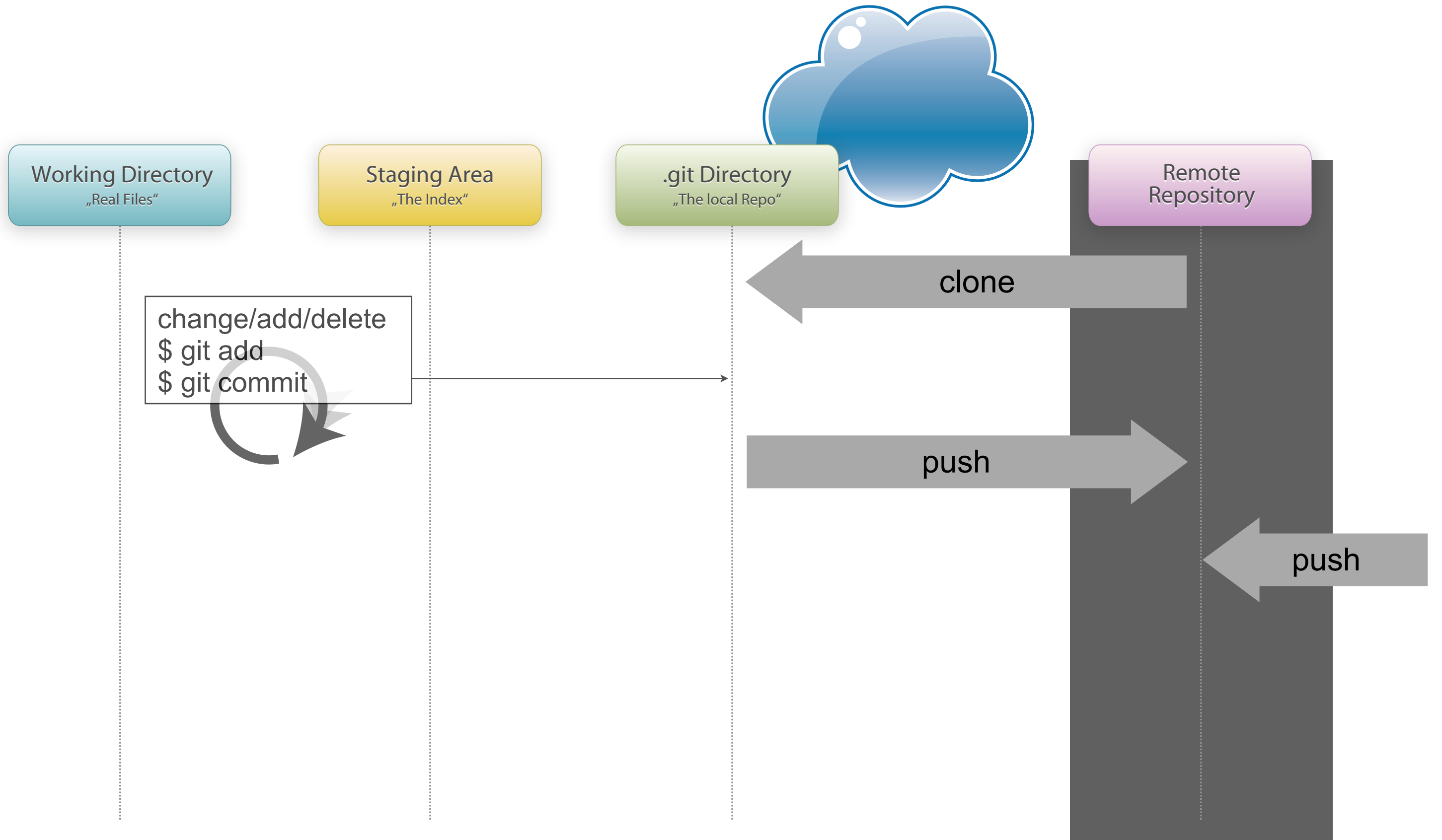
5. Stash

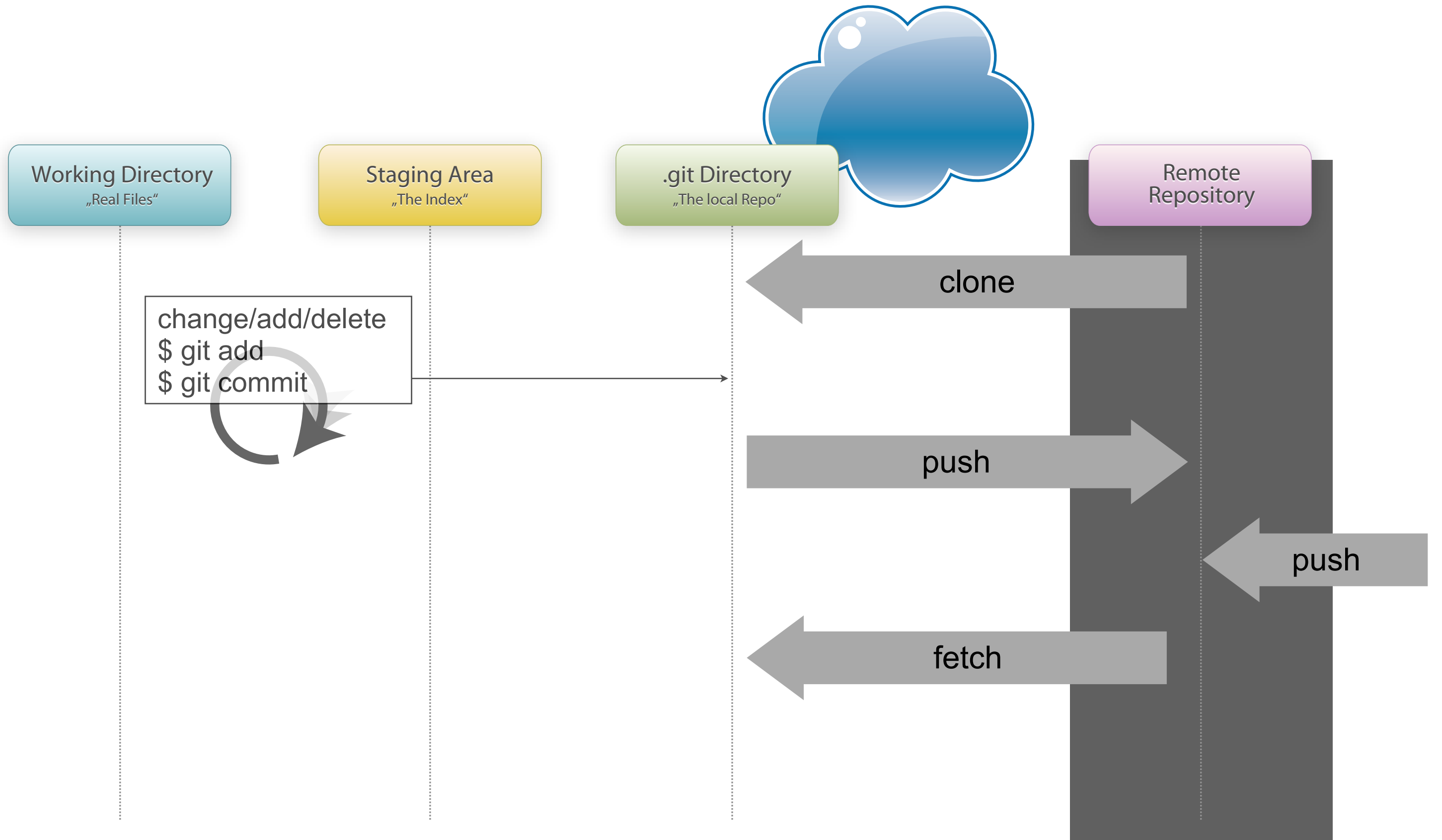
6. Remotes

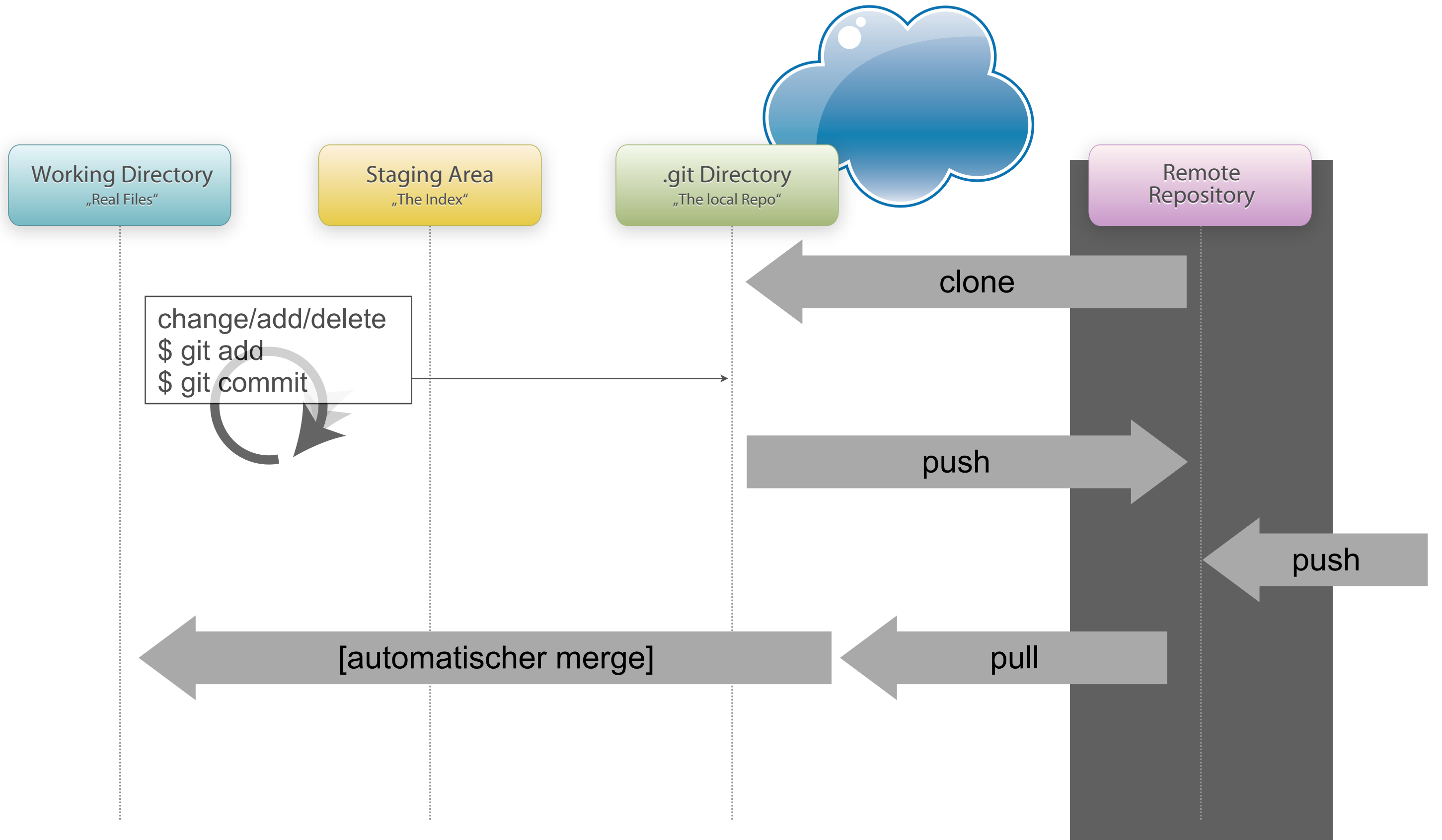










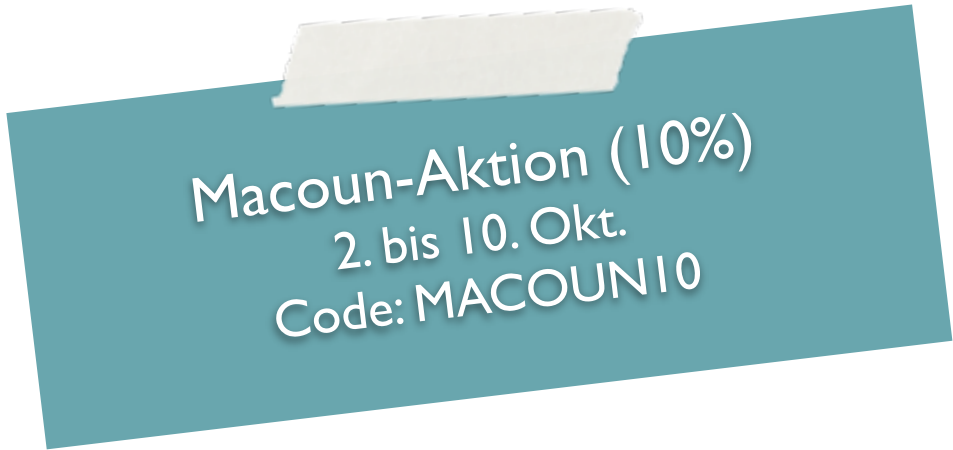


git fetch

git pull

git push

7. Chunk & Line Staging



Macoun-Aktion (10%)
2. bis 10. Okt.
Code: MACOUN10

Vielen Dank