Git with style

by Esteban Lorenzano

Today is no-release day!

What is iceberg

- A front-end to work with git using

  - filetree

  - libgit2

- Yes, it can be other things tomorrow, but now is that.

Presented to you by

Nicolás
Passerini

(Sponsored by the Pharo consortium)

Iceberg goals

- Nicely move Pharo into git world

- Allow Pharo development itself on it

- To grow incrementally

    - Starts with some few use-cases

    - Add functionality as needed

    - That's why there are a lot of functionality missing

- Extensible

Why

- Monticello is showing age

- With time, the "package" metaphor became insufficient.

  - We now use more complex "projects"

  - Programs often have different kind of sources

Iceberg status

- Version 0.4 released last week, and integrated into Pharo6 as preview.

- Tested in several projects and working (some minor problems on different platforms)

- It will work to develop Pharo7, so it should work for you too.

- Hot-fixes will be incorporated (I already have a couple on the works)
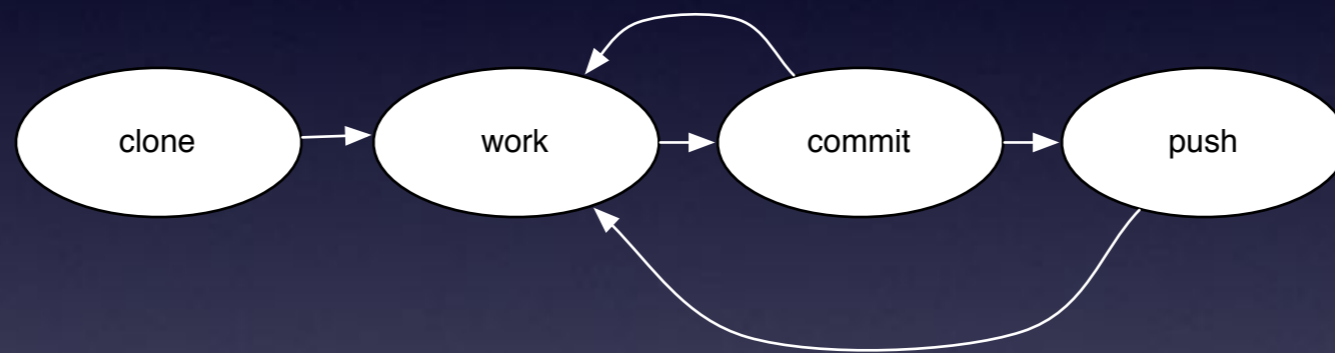
Use-cases we have in mind

Solo

Iceberg repositories

Repositories   ☀ New repository ╋ Clone repository Add local repository Fetch all

Name	Current branch	Loaded version	Status
iceberg	dev-0.4	f9c63ee (10:03:55 am)	9 not published
libgit2-pharo-bindings	development	2a86f76 (19 April 2017)	Up to date
themes	master	e645c6b (14 May 2017)	Up to date
* pharo	master	e9d735b (11 May 2017)	Uncommited changes

Clone repository by URL

Remote URL	https://github.com/estebanlm/TestToDelete.git
Local directory	/Users/esteban/Dev/Pharo/xx/pharo-local/iceberg
Code subdirectory	

Create repository

General Pack

Name	
Origin	
Remote User	
Remote host	github.com
Repo Owner	pharo-project
Location	/Users/esteban/Dev/Pharo/xx/pharo-local/iceberg/pharo-project/pharo
Pulling from	origin
Pushing to	origin
On branch	master

Iceberg repositories

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themes	master	e645c6b (14 May 2017)	Up to date
* pharo	master	e9d735b (11 May 2017)	Uncommited changes
* TestToDelete	master	03bd70e (11 May 2017)	Uncommited changes, 1 not

General Packages Remotes Branches   ↺ Reload all ➕ Add package

Name	Status
* TestToDelete	Uncommited changes

Commit your changes   Update   Push

Local changes   ⟳ Refresh tree   Commit changes

▼ 🗀 TestToDelete
  ▼ Ⓒ TestToDeleteClass1
        + method4

the answer of life the universe and everything

| Commit onto master | Commit and Push onto master |

Left: working copy / Right: local repository

☐ Pretty print

```
"protocol: accessing"
method4
    ^ 42
```

Commit your changes   Update   Push

New local commits to be published   ⇥ Publish all   Incoming changes   ⟳ Refresh tree

User	Date & time	Comment
Esteban Lorenzano	2017-05-15 13:32	the answer of life the univers
Esteban Lorenzano	2017-05-11 15:06	test

Commit info

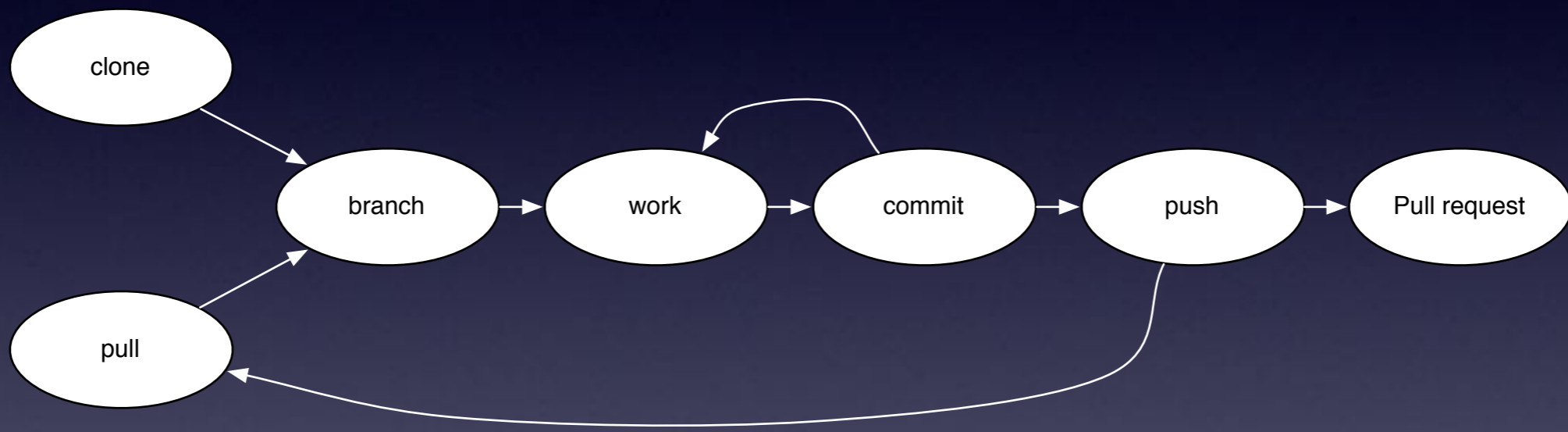| Date & time	2017-05-15 13:32
Commit Id	e347ecfd44655bcaba2728514e6eb72aedcc727c [e347ecf]
Parent(s)	03bd70e
Author	Esteban Lorenzano
Comment	the answer of life the universe and everything

Team on unique repository

Iceberg repositories

Repositories

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iceberg	dev-0.4	f9c63ee (15 May 2017)	9 not published
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themes	master	e645c6b (14 May 2017)	Up to date
* pharo	master	e9d735b (11 May 2017)	Uncommited changes
TestToDelete		347ecf (15 May 2017)	2 not published

Synchronize repository...   ⌘S
Show history...   ⌘H
Switch branch...   ⌘B
Create new branch...   ⇧⌘B
Add remote...
⟵ Pull incoming commits   ⌘P
Pull from...
→ Push outgoing commits   ⇧⌘P
Push to...
Clone repository again   ⇧⌘R
Refresh repository   ⌘R
Edit repository...   ⌘E
Forget repository...   ⌘X
GitHub   ▶

General Pa

Name	
Origin	
Remote User	
Remote host	
Repo Owner	
Location	
Pulling from	
Pushing to	origin
On branch	master

berg/estebanlm/TestToDelete

Iceberg repositories

Repositories   ☀ New repository   + Clone repository   🖴 Add local repository   [← Fetch all

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libgit2-pharo-bindings	development	2a86f76 (19 April 2017)	Up to date
themes	master	e645c6b (14 May 2017)	Up to date
* pharo	master	e9d735b (11 May 2017)	Uncommited changes
* TestToDelete	branch-for-feature	e347ecf (15 May 2017)	Uncommited changes

General   Packages   Remotes   Branches   ↺ Reload all   + Add package

Name	Status
TestToDelete	Up to date

Commit your changes | Update | Push

Local changes | ⟳ Refresh tree | Commit changes

▼ 📁 TestToDelete
   ＋ TestToDeleteClass2

adding tesst class

Commit onto branch-for-feature | Commit and Push onto bran

Left: working copy / Right: local repository

☑ Pretty print

```
Object subclass: #TestToDeleteClass2
    instanceVariableNames: ''
    classVariableNames: ''
    poolDictionaries: ''
    category: 'TestToDelete'
```

Commit your changes | Update | Push

New local commits to be published   ⇥ Publish all   Incoming changes   ⟳ Refresh tree

User	Date & time	Comment
Esteban Lorenzano	2017-05-16 09:21	adding tesst class

Commit info

Date & time	2017-05-16 09:21
Commit Id	59e9ea8de364420cd8fdc106373a60423cde1863 [59e9ea8]
Parent(s)	e347ecf
Author	Esteban Lorenzano
Comment	adding tesst class

Iceberg repositories

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themes	master	e645c6b (14 May 2017)	Up to date
* pharo	master	e9d735b (11 May 2017)	Uncommited changes
TestToDelete		(9:21:13 am)	Up to date

Synchronize repository...   ⌘S
Show history...   ⌘H
Switch branch...   ⌘B
Create new branch...   ⇧⌘B
Add remote...
⬅ Pull incoming commits   ⌘P
Pull from...
↗ Push outgoing commits   ⇧⌘P
Push to...
Clone repository again   ⇧⌘R
Refresh repository   ⌘R
Edit repository...   ⌘E
Forget repository...   ⌘X
GitHub   ▶ Create pull request...
                                      Remove old branches...

General Packages

Name	Valu
Origin	git@
Remote User	
Remote host	githu
Repo Owner	estel
Location	/Use
Pulling from	origi..
Pushing to	origin
On branch	branch-for-feature

Iceberg repositories

Repositories   ☀ New repository   + Clone repository   🗐 Add local repository   ⬅ Fetch all

Name	Current branch	Loaded version	Status
Iceberg	dev-0.4	f9c63ee (15 May 2017)	9 not published
libgit2-pharo-bindings	development	2a86f76 (19 April 2017)	Up to date
themes			
*pharo			
TestToDelete			

New pull request

Title	branch-for-feature	
From (Head)	estebanlm/TestToDelete ▼	branch-for-feature ▼
To (Base)	estebanlm/TestToDelete ▼	master ▼

Comment

test of PR

Create pull request

General   Package

Name	Va
Origin	git
Remote User	
Remote host	git
Repo Owner	est
Location	/U:
Pulling from	origin
Pushing to	origin
On branch	branch-for-feature

<> Code   Issues **0**   **Pull requests 1**   Projects **0**   Wiki   Pulse   Graphs   Settings

branch-for-feature #10

Edit

Open   **estebanlm** wants to merge 3 commits into `master` from `branch-for-feature`

Conversation **0**   Commits **3**   Files changed **17**   +112 −15 ▰▰▰▰▱

---

estebanlm commented 29 seconds ago   Owner

test of PR

---

estebanlm added some commits 5 days ago

test		03bd78e
the answer of life the universe and everything		e347ecf
adding tesst class		59e9ea8

Add more commits by pushing to the **branch-for-feature** branch on **estebanlm/TestToDelete**.

✓ **This branch has no conflicts with the base branch**
Merging can be performed automatically.

Merge pull request ▾   You can also open this in GitHub Desktop or view command line instructions.

Write   Preview   AA▾ B i   " <> ⌗   ☰ ☰ ☶   ↩▾ @ 🔖

Reviewers ⚙
No reviews—request one

Assignees ⚙
No one—assign yourself

Labels ⚙
None yet

Projects ⚙
None yet

Milestone ⚙
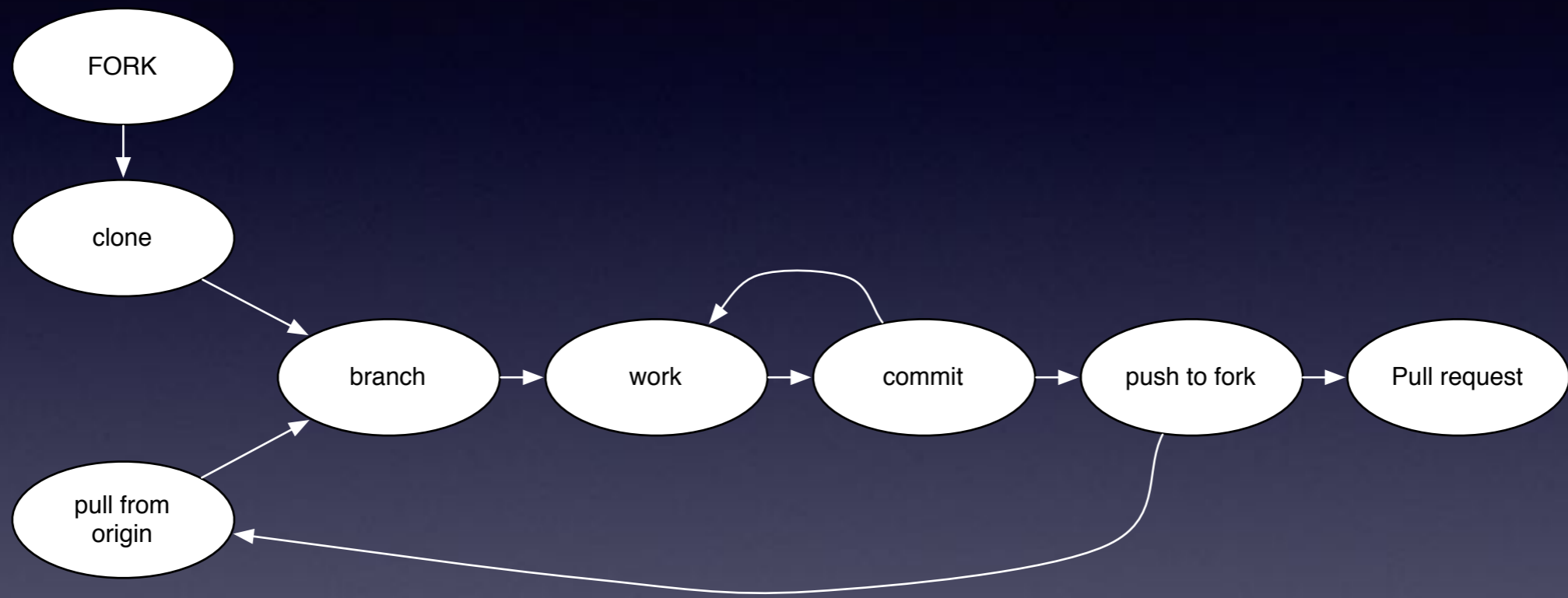No milestone

Notifications
🔇 Unsubscribe

You're receiving notifications because you authored the thread.
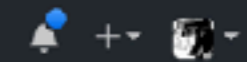
Distributed team

This repository | Search | Pull requests | Issues | Gist

pharo-project / **pharo**

👁 Watch ▾ 2   ★ Star 4   ⑂ Fork 4

<> Code | ⑂ Pull requests 0 | ⊞ Wiki | ⋏ Pulse | Graphs | ⚙ Settings

No description, website, or topics provided.

Edit

Add topics

⊙ **456** commits	⑂ **6** branches	🏷 **314** releases	👥 **2** contributors	⚖ MIT

Branch: master ▾ | New pull request | | | Create new file | Upload files | Find file | Clone or download ▾

👤 **pavel-krivanek** EXPORT VERSION 60486 | Latest commit 4ab2cc8 4 days ago

📁 **bootstrap-emulation**	unsubscribe Breakpoint	2 months ago
📁 **bootstrap**	add cleanup for release at the end	6 days ago
📁 **resources**	add Unicode data	3 months ago
📁 **scripts**	EXPORT VERSION 60486	4 days ago
📁 **src**	EXPORT VERSION 60486	4 days ago
📄 .bintray.json	deploying in different bintray projects	4 months ago
📄 .filetree	gitfiletree repository properties	10 months ago
📄 .gitignore	added bootstrap cache directory into ignore	5 months ago
📄 .travis.yml	removing redirection to /dev/null	25 days ago
📄 **LICENSE**	Initial commit	10 months ago
📄 **README.md**	Added description of the artifacts	3 months ago

Iceberg repositories

Repositories   ☀ New repository   + Clone repository   ⊞ Add local repository   ⟵ Fetch all

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themes	master	e645c6b (14 May 2017)	Up to date

Clone repository by URL

Remote URL	git@github.com:estebanlm/pharo.git
Local directory	/Users/esteban/Dev/Pharo/xx/pharo-local/iceberg 📁
Code subdirectory	src

Create repository

General   Packages

Name	Value
Origin	git@g
Remote User	
Remote host	github.com
Repo Owner	pharo-project
Location	/Users/esteban/Dev/Pharo/xx/pharo-local/iceberg/pharo-project/pharo
Pulling from	origin
Pushing to	origin
On branch	master

Iceberg repositories

Repositories   ✷ New repository   + Clone repository   🔁 Add local repository   ⬅ Fetch all

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📝 Synchronize repository...	⌘S	
📝 Show history...	⌘H	
Switch branch...	⌘B	
Create new branch...	⇧⌘B	
Add remote...		
⬅ Pull incoming commits	⌘P	
Pull from...		
➡ Push outgoing commits	⇧⌘P	
Push to...		
Clone repository again	⇧⌘R	
Refresh repository	⌘R	
Edit repository...	⌘E	
Forget repository...	⌘X	
GitHub	▶	
Pharo	▶	

General   F

Name	
Origin	
Remote Us	
Remote ho	
Repo Owne	
Location	/Users/esteban/Dev/Pharo/xx/pharo-local/iceberg/pharo-project/pharo
Pulling from	origin
Pushing to	origin
On branch	master

Iceberg repositories

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libgit2-pharo-bindings	development	2a86f76 (19 April 2017)	Up to date
themes	master	e645c6b (14 May 2017)	Up to date
* pharo	fix-issue-12345	e9d735b (11 May 2017)	Uncommited changes

General   Packages   Remotes   Branches

Name	Value
Origin	git@github.com:pharo-project/pharo.git
Remote User	
Remote host	github.com
Repo Owner	pharo-project
Location	/Users/esteban/Dev/Pharo/xx/pharo-local/iceberg/pharo-project/pharo
Pulling from	origin
Pushing to	origin
On branch	master

Commit your changes   Update   Push

Local changes   ⟳ Refresh tree   Commit changes

▼ Ⓒ GTSpotterBrickThemer   closes issue 12345
    ✕ rubricBackgroundColor
    ✕ scrollbarColor
    ✕ scrollpaneBackgroundColor
▼ Ⓒ GTSpotterWidgetDarkThemer
    ✕ backgroundColor
    ✕ borderColor
▼ 📁 Metacello-PharoCommonPlatform
  ▼ Ⓒ MetacelloPharoCommonPlatform
      ✕ createRepository:
      ✕ extractTypeFromDescription: Commit onto fix-issue-12345   Commit and Push onto fix-issue

Left: working copy / Right: local repository

                                                                    ☐ Pretty print

                                              "protocol: repository creation"
                                              createRepository: aRepositorySpec

                                                  | type |
                                                  type := aRepositorySpec type.
                                                  type = 'ftp'
                                                      ifTrue: [| description headerSize ind
                                                          description := aRepositorySpec desc
                                                          headerSize := 'ftp://' size.

Commit your changes **Update** **Push**

New local commits to be published   → Publish all   Incoming changes   ⟳ Refresh tree

User	Date & time	Comment
Esteban Lorenzano	2017-05-17 13:10	closes issue 12345

Commit info

Date & time	2017-05-17 13:10
Commit Id	d51dcc4e6797bd346ad19a71125386400a33075a [d51dcc4]
Parent(s)	e9d735b
Author	Esteban Lorenzano
Comment	closes issue 12345

Demo
(The Pharo process)

Pharo process in a nutshell

- Clone from **pharo-project/pharo**

- Create a branch with issue number (or feature name)

- Work on it as needed

- Push **to your fork**

- Submit a Pull Request to "development" branch

Near future (v0.5)

- Work on 64bits (requires move to libgit2 0.25.1)

- Support for multiple directories (allow subtrees)

- Support for cherry-pick

- fix filetree export properties problem

- it should be there ~1 month from now

Thanks!