

# Workflow With Git

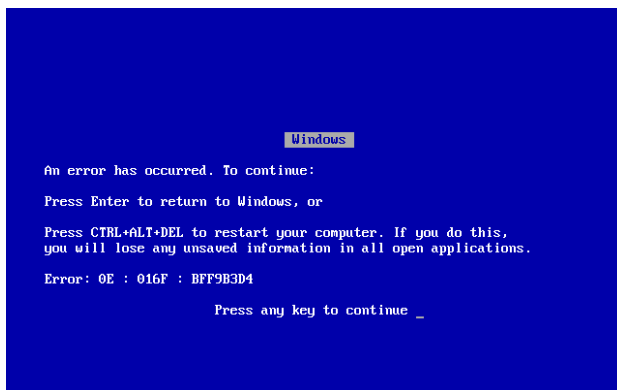
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## Summary

Regardless of what language you prefer, version-control is an essential tool for getting things done - especially when collaborating with others. Git, an open-source tool, has quickly become one of the most widely-used versioning systems, mainly thanks to the ability to branch and merge with relative ease. We'll take a look at how you can begin to integrate Git into your current workflow.

## Remember Windows 95?



# Archives



## Diff

```
*** /path/to/original ''timestamp''
--- /path/to/new      ''timestamp''
*****
*** 1,3 ****
--- 1,9 ----
+ This is an important
+ notice! It should
+ therefore be located at
+ the beginning of this
+ document!
...
```

## Primitive Version Control

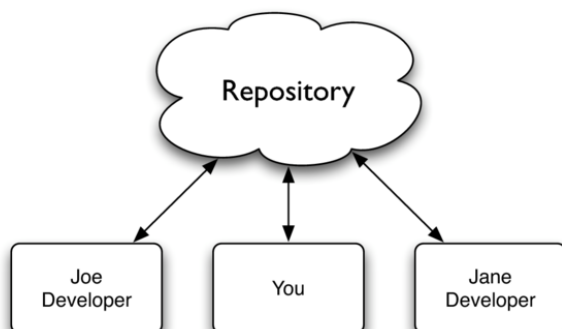
- BitKeeper
- CVS
- Subversion

## Beginnings of Git

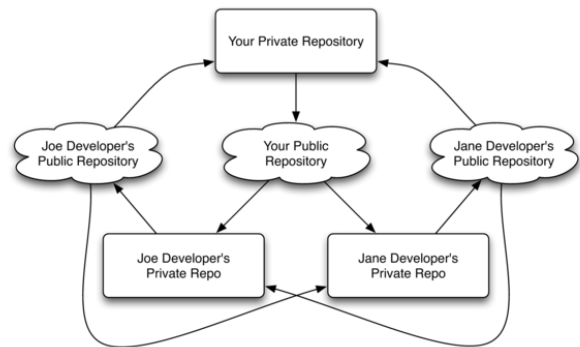


- Linus Torvalds
- 1.0 release on December 21, 2005
- Managed Linux kernel

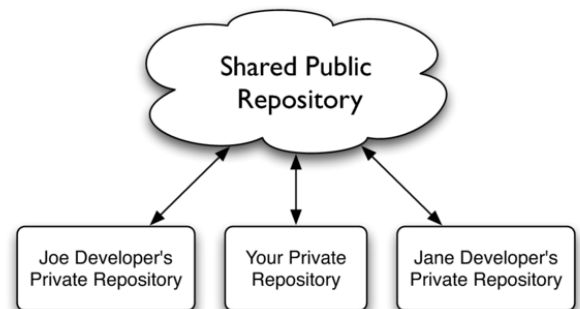
## Centralized Versioning



## Decentralized Versioning



## Git in Practice



## Let's Create a Repository!

```
:$> ls  
about.html  contact.html  index.html  st
```

```
:$> git init  
Initialized empty Git repository in /hom
```

---

## Adding initial files

---

```
:$> git add .
```

```
:$> git commit -m "Initial Commit"
```

```
Created initial commit ed3ec5b: Initial commit
0 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 about.html
create mode 100644 contact.html
create mode 100644 index.html
create mode 100644 style.css
```

---

## Git Add

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Git add doesn't do what you think it does!

```
:$> echo "<p>Hello, world</p>" > index.html
:$> git commit -m "Added initial text to index page"
# On branch master
# Changed but not updated:
#   (use "git add <file>..." to update what will be committed)
#
#       modified:   index.html
#
no changes added to commit (use "git add" and/or "git commit -a")
```

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## Git Add and Commit

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Automatically add changes to files that are currently tracked:

```
$:> git commit -a -m "Added initial text to index page"
Created commit 94bc6d3: Added initial text to index page
1 files changed, 1 insertions(+), 0 deletions(-)
```

---

## Ignoring files

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```
:$> ls
about.html  ~about.html  contact.html  index.html  style.css  test.html

.gitignore
~*.html
test.html
```

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## Git Revisions

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Revision names:

- HEAD - the latest commit
- HEAD~ - the second-to-last-commit
- HEAD~2 - you get the idea

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## Explicit Git Revisions

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```
:$> git log
commit fa8db86872c83fa62efa420548d8afe36
Author: Kevin W. Gisi <=>
Date:   Thu Apr 8 04:35:06 2010 -0500
```

Adjusted index to display standards-

```
commit e4e43f114f9c441ae20d51bf5277044d3
Author: Kevin W. Gisi <=>
Date:   Thu Apr 8 04:34:26 2010 -0500
```

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## Reverting a Commit

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```
:$> git revert HEAD
```

Create a new commit which undoes the changes most recently made.

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## Tagging a Release

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```
It's release time!
:$> git tag 1.0
```

Show current tags

```
:$> git tag
1.0
```

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## Feature Branches

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## Thanks!

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## Merging Branches

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## Additional Resources

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- Pragmatic Version Control Using Git
- Travis Swicegood