

Colliding build directory after switching branches 🌟

- plixus-apps: switch between `master_6x` and `master`

```
git stash
git switch master_6x
rm -rf build_pc # or mv
build_scripts pc
git switch master
rm -rf build_pc
build_scripts pc
```

- Buildroot / Yocto
- linux-tcs
- ...

Clean build 🧹

- plixus-apps takes 20 minutes to build

Failure ❌

```
CMake Error at libtcs_conference_transport_factory/cmake_install.cmake:67 (file):
  file RPATH_CHANGE could not write new RPATH:

to the file:

/home/aaron/Developer/televic/plixus-apps/target/plixus_mmu/usr/lib/libtcs_conference_transport_factory.so.1.0.0

The current RUNPATH is:

/home/aaron/Developer/televic/plixus-apps/build_plixus_mmu/lib:/home/aaron/.local/share/build_scripts/toolchains/tcs-plixus-sdk-x86_64-cortexa9t2hf-neon-plixus-
mmu-imx6-toolchain-0.2024.1215-1/sysroots/cortexa9t2hf-neon-tcs-linux-gnueabi/lib:/home/aaron/.local/share/build_scripts/toolchains/tcs-plixus-sdk-x86_64-cortexa9t2
hf-neon-plixus-mmu-imx6-toolchain-0.2024.1215-1/sysroots/cortexa9t2hf-neon-tcs-linux-gnueabi/usr/lib:/home/aaron/Developer/televic/plixus-apps/build_plixus_mmu/lib:

which does not contain:

/home/aaron/Developer/televic/plixus-apps/build_plixus_mmu/lib:/home/aaron/.local/share/build_scripts/toolchains/tcs-plixus-sdk-x86_64-cortexa9t2hf-neon-plixus-
mmu-imx6-toolchain-0.2024.1215-1/sysroots/cortexa9t2hf-neon-tcs-linux-gnueabi/lib:/home/aaron/.local/share/build_scripts/toolchains/tcs-plixus-sdk-x86_64-cortexa9t2
hf-neon-plixus-mmu-imx6-toolchain-0.2024.1215-1/sysroots/cortexa9t2hf-neon-tcs-linux-gnueabi/usr/lib:

as was expected.
Call Stack (most recent call first):
  cmake_install.cmake:58 (include)

make: *** [Makefile:124: install/strip] Error 1
install failed
```


Problem

■ Colliding build directory 🌟

■ Directory-based IDE configuration 🔧

■ Building / Running integration tests ⌚

■ Compare 2 branches at the same time (not diff) 🔍

- By switching branches you can not view code simultanuously

Problem

- Colliding build directory 🌟
- Directory-based IDE configuration 🔪
- Building / Running integration tests ⌚
- Compare 2 branches at the same time (not diff) 🔍
- Urgent bugfix / Pull request reviews 🤸

```
# ...  
# uncommitted changes in current directory  
# ...  
git stash  
git checkout bugfix/urgent_bug  
# ...  
# fix the bug / review the pr / ...  
# ...  
build_scripts pc  
git checkout feature/i_was_working_here  
git stash pop  
rm -rf build_pc  
# resume work
```

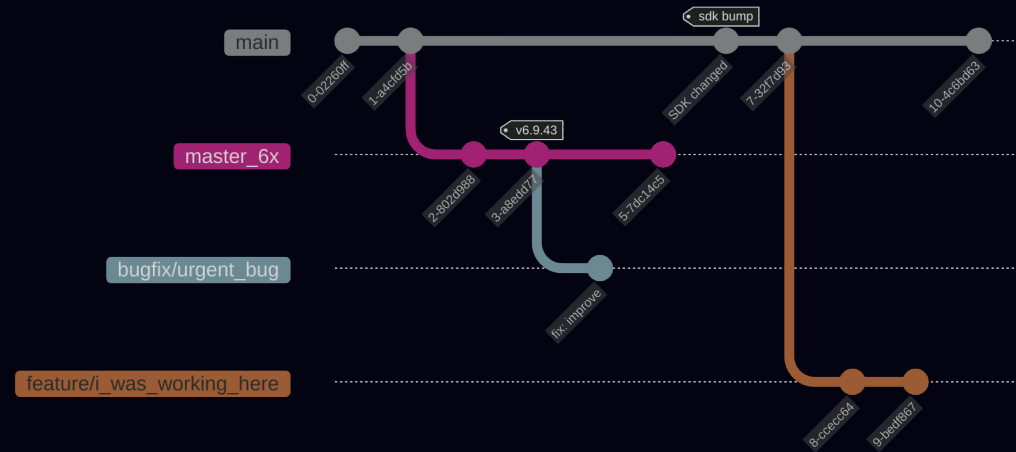
Problem

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- Directory-based IDE configuration 🔧
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Problem

⚠ Caution

Polluted working tree due to context switching



Working tree

A directory containing all files tracked by git

Terminology

Working tree

A directory containing all files tracked by git

.git directory

Holds the repository's metadata

```
ls .git --color=always
```

snippet execution is disabled

Worktree

Working tree + metadata

- typically one main worktree

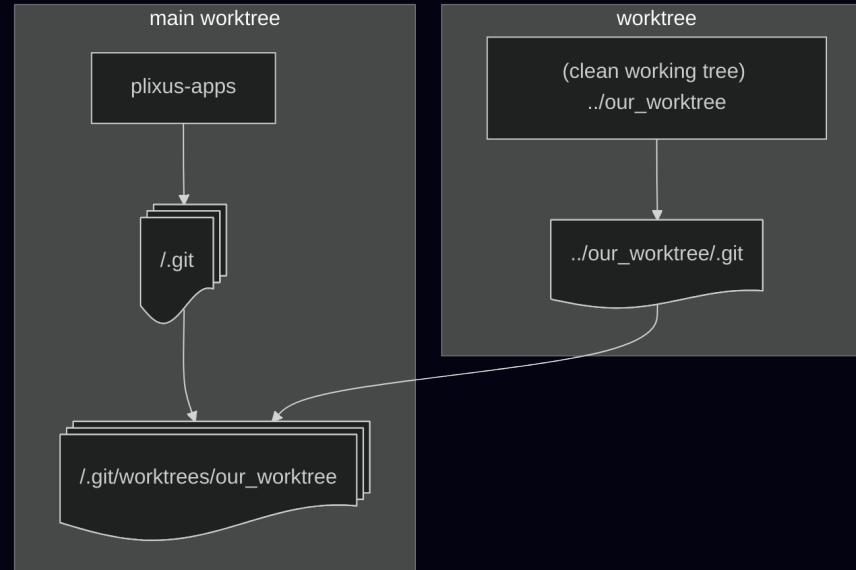
```
ls -alh --color=always
```

snippet execution is disabled

```
man git-worktree
```

■ Linked worktree 🔗

A worktree that links back to the original worktree / metadata.



Git Worktrees Usage

Create a new worktree

```
cd ~/Developer/televic/plixus-apps  
  
git worktree add -b branch_for_our_new_worktree  
../our_new_worktree master_6x
```

git worktree -h

```
git worktree -h
```

snippet execution is disabled

Git Worktrees Usage

```
git worktree add -b branch_for_our_new_worktree ../our_new_worktree master_6x
```

Result

```
git worktree list
```

```
git branch --color=always
```

```
git rev-parse master_6x  
git rev-parse branch_for_our_new_worktree
```

Git Worktrees Usage

⚠ Caution

A branch can only be checked out in one worktree

```
git switch branch_for_our_new_worktree
```

- Colliding build directory
- Simultaneous build
- Inspect several versions (with intellisense)

