Multi-user Concurrent Editing with Emacs

Part of the ESS-Intro (and t4) series

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Motivation

- A lot of love online for how *editor XYZ* supports multi-user mode
- But …
- We have been able to do that with standard Unix tools for maybe two+ decades
- As in Dirk's *t4 series* it is about *combining* existing (shell) tools for better use
- Here: `tmux`, or, if one wishes to, its `byobu` frontend

Setup

- Requirement is multiple accounts on the same machine
- Back in the day this may have been the departmental or group unix server
- These days it may be a cheap cloud instance, and an AWS/GCS/Azure/DO/… box
- Each participant
  - needs to be on the box and
  - have access to a shared (*i.e.* "joint") "named" tmux socket
- We then "merely" invoke `tmux` (or `byobu`) with the named socket
- *Everything* running inside the tmux/byobu session can then be shared
- Including Emacs (in terminal mode) or anything else working in terminal mode

Simplest Demo (as user **edd** with uid/gid 1000:1000 on Ubuntu)

```
$ mkdir /tmp/scratch              # new dir, not strictly needed
$ tmux -S /tmp/scratch/session new-session -t joint
# we are now in a tmux session
> chmod o+rw /tmp/scratch/session  # so that other user can access
```

We created a *new session* under the identifiable handle 'joint' and gave rw rights. (In real settings you probably want both users under a common 'group' for the joint project and make the socket group rw.)

Simplest Demo (as user `git` with uid/gid 1001:1001 on Ubuntu)

```
$ sudo su git                # currently only other 'user' on my box
(git) $ tmux -S /tmp/scratch/session attach-session -t joint
```

That. Is. All. The two sessions mirror each other.

So do `emacs -nw` or `R` or … whatever command session you want to share.

Best of all: *All* the `byobu` (or `tmux`) goodness we talked about in t4 works the same way. Multiple concurrent sessions. Persistent sessions (*i.e.* start this, leave it running, re-connect tomorrow. Or next month.

Alternate Demo (as user `edd`)

- If you prefer **byobu** (as I do) and have it use `tmux` (instead of `screen`)
- Just do `byobu -S /tmp/scratch/session new-session -t joint`
- Followed by `chmod o+rw ....` or `chgrp` or …