

# Mozilla Build Activity. Let's build Firefox!

In Class Activity: Oct 12, 2016

- This will not go smoothly. Building an open source project never does.
- Each pair will run OpenSUSE in VirtualBox on their Lab machine or laptop.
  - VirtualBox &
  - File | Import Appliance | /tmp/CS360\_2016\_CS\_Lab\_MozillaBuild.ova
  - User:cs360 password: cs360!!acct!!
  - Root:cs360!!root!!

- Launch OpenSUSE and login as cs360

- **Linux Prep**

We need to install some dependencies.

Find the Linux install instructions here:

[https://developer.mozilla.org/en-US/docs/Mozilla/Developer\\_guide/Build\\_Instructions/Simple\\_Firefox\\_build/Linux\\_and\\_MacOS\\_build\\_preparation](https://developer.mozilla.org/en-US/docs/Mozilla/Developer_guide/Build_Instructions/Simple_Firefox_build/Linux_and_MacOS_build_preparation)

You should be able to copy and paste.

- **Download:**

Mozilla uses Mercurial (hg), which is like Git.

```
hg clone https://hg.mozilla.org/mozilla-central
```

This can take a while so let's shortcut this:

```
mkdir mozilla
```

```
cd mozilla
```

```
tar xzf /tmp/mozilla-central_10Oct2016.tar.gz
```

```
cd mozilla-central
```

- **Configure build environment**

Make sure you are inside the **mozilla-central** directory

```
pwd
```

```
nano mozconfig
```

add the text:

```
mk_add_options MOZ_MAKE_FLAGS="-j8"
```

```
ac_add_options --disable-debug-symbols
```

Save and exit nano.

# This step is not strictly necessary. The build system generally spawns the correct  
# number of processes. However, as a serious Mozilla developer you may need to set  
# other options in this file.

- **Build**

Make sure you are inside the **mozilla-central** directory

```
pwd
```

```
export NO_MERCURIAL_SETUP_CHECK=1
```

```
time ./mach build
```

Wait for about 20-30 minutes

- **Run**

```
./mach run
```

- **Patch**

[https://developer.mozilla.org/en-US/docs/Mercurial\\_FAQ#How\\_can\\_I\\_generate\\_a\\_patch\\_for\\_somebody\\_else\\_to\\_check-in\\_for\\_me.3F](https://developer.mozilla.org/en-US/docs/Mercurial_FAQ#How_can_I_generate_a_patch_for_somebody_else_to_check-in_for_me.3F)

```
./mach mercurial-setup
```

Give your name and email. Answer Y to everything.

Choose MozReview and Bugzilla

Hg push review -> N

Push-to-try -> N

```
nano ~/.hgrc
```

add **editor = nano** to the **[ui]** section

```
hg bookmark cs360_test
```

```
nano gfx/2d/Types.h
```

Add a comment with your group number at the top.

Save and exit nano

```
hg commit gfx/2d/Types.h
```

```
hg update default
```

```
hg export cs360_test > my-change.patch
```

Copy and paste this patch into an email to Chadd. Make sure to put “**CS360 Mozilla Patch Group #**” as the subject line.

- **Rebuild**  
./mach build  
OR  
./mach build gfx/2d
- **To get new updates from Mozilla**  
hg pull -u