Help Topic: Downloading and Building the MOOS-IvP Software

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Downloading and Building the MOOS-IvP Software

The MOOS-IvP autonomy code may be checked out and built following the steps on this page. Before you begin, below are few steps that need to be done beforehand:

For MacOS

Here are prerequisites for the Mac (likely not needed if working with a laptop provided by course instructors):

- On the Mac you will need to have installed XCode and command line tools.
- On the Mac you will need to have installed the Homebrew package manager.
- Once the package manager has been installed install the packages needed for running the course software, e.g., cmake, subversion, fltk, libtiff, xterm.

```
$ brew install cmake fltk libtiff xterm
```

For Linux

Here are prerequisites for Linux (likely not needed if working with an MIT course-provided laptop):

- On a Linux machine, the build environment, e.g., C++, and the package manager come with the Linux OS install, so there should be no issues there.
- Install the packages needed for running the course software, e.g., cmake, xterm, subversion, libfltk1.3-dev, libtiff5-dev.

```
$ apt-get --assume-yes install cmake xterm libfltk1.3-dev libtiff5-dev
```

Downloading the Software

The latest software is downloaded using Git (`git`). You will download this into your home directory.

```
$ cd
$ git clone --depth=1 https://github.com/moos-ivp/moos-ivp.git
```

- The above command invokes `git` to clone a tree, at the given URL, with the local name of "moos-ivp".
- This tree is generally available from moos-ivp.org in one of several forms. The most public forms are (1) the latest release, and (2) the development trunk.
- At any point after an initial checkout, users may pull down the latest updates to the software by typing:
- The `git clone --depth=1` command creates a shallow clone of a Git repository, meaning it only fetches the most recent commit of the main branch, rather than the entire commit history.

```
$ cd ~/moos-ivp
$ git pull
```

Building the Course Software

After a successful download, you should have a new directory (folder) called `moos-ivp`. All the code is in this folder. There are `README` instructions in the top-level folder for each OS flavor.

Assuming you have installed the handful of prerequisite packages outlined above, the course software may be built in the steps below:

```
$ cd ~/moos-ivp
$ ./build-moos.sh
(let it build)
$ ./build-ivp.sh
(let it build)
```