

# C2110 *UNIX and programming*

## 13. lesson / module 2

**PS / 2020 Distance form of teaching: Rev1**

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# Compilation

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- **Armagetron application**
- **Unpacking archive**
- **Configuration**
- **Compilation**
- **Installation**

# Compilation of applications

## Procedure:

- 1) Download source code
  - Web browser
  - wget, curl
  - git, svn, etc. (versioning systems)
- 2) Unpack archive
  - tar/gzip
- 3) Installation instructions (README, INSTALL, doc/README, doc/INSTALL)
- 4) Configuration (configure, cmake, qmake, etc.)
- 5) Compilation
- 6) Installation

## Examples of configuration approaches

### Configuration script

```
$ ./configure  
$ make  
$ (sudo) make install
```

### Holy Trinity

### CMake

```
$ cmake .  
$ make  
$ (sudo) make install
```

[https://en.wikipedia.org/wiki/Configure\\_script](https://en.wikipedia.org/wiki/Configure_script)

<https://en.wikipedia.org/wiki/CMake>

# Armagetron

<http://armagetronad.org/>

## Procedure:

- 1) Download source code
- 2) Unpack archive
- 3) Installation instructions (README, INSTALL, doc/README, doc/INSTALL)
- 4) Configuration
- 5) Compilation
- 6) Installation

# Armagetron, Procedure I

We do everything in scratch.

1) Unpacking the archive:

```
$ tar xvf armagetronad-0.2.9.1.0.tbz
```

2) Create an installation directory, i.e., where the program will be installed (required if you do not have root permission)

```
$ mkdir armagetronad
```

```
$ pwd
```

```
/scratch/kulhanek/game/armagetronad
```

3) Changing the working directory to the extracted archive:

```
$ cd armagetronad-0.2.9.1.0
```

where program will be installed

4) Configuration for compilation and installation:

```
$ ./configure --prefix=/scratch/kulhanek/game/armagetronad \  
-disable-etc -disable-uninstall
```



At this stage, some libraries or applications may be missing. These can either be installed in a similar way. However, it is more convenient (and faster) to ask the administrator to install them. For compilation, it is necessary to install development packages of individual libraries.

E.g: # apt-get install libxml2-dev

# Armagetron, Procedure II

5) Compilation

```
$ make
```

6) Installation

```
$ make install
```

where program is installed

7) Starting the program

```
$ cd /scratch/kulhanek/game/armagetronad
```

```
$ bin/armagetronad
```

