**Automatic Train Controller**

**Configuration Management**

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**Version Control (GitLab)**

**Login**

**Username**

fantastic4admin

**Password**

password

**Repository**

<https://gitlab.com/Fantastic4/Train>

**Cloning (ssh)**

git clone git@gitlab.com:Fantastic4/Train.git

**Commits**

Categories commits per branch.

**Network**

Contains a timeline of all the commits for the entire project.

**Issues**

Contains all defect tracking filed for the entire project

# **Installation Overview**

This section provides a brief tutorial regarding how to properly build and install the full Automatic Train Controller software package.

## **Prerequisites**

Apache ant was used to build the Automatic Train Controller, and on top of that, Apache ivy was used for dependency management.

One of the modules that the Automatic Train Controller depends on is Jython, however ivy only pulls down the core jar for the Jython interpreter. The Jython standard library should also be downloaded and installed as well.

For more information on how to do so, see the below section.

## **Installing Prerequisites**

In order to download the required dependencies, execute the following command.

ant resolve

In addition, the Jython standard library should be downloaded from<http://www.jython.org/>, and placed in a directory Lib under a directory lib in the top-level source directory.

## **Building**

There are 5 separate submodules that can be built

* ctc
* track\_controller
* track\_model
* train\_controller
* train\_model

These submodules correspond to ant tasks that are used to build the matching submodule.

In addition, the ant task atc is set up to be the default ant build task, and is used to build the final system. To build the whole system, execute the following:

ant

or, to explicitly specify the task to build the whole system.

ant atc

# **Installing**

After completing the above steps, all intermediate and binary files would have been outputted to the bin directory. The following files are required for bare-bones execution:

* The lib directory, and all of its contents.
* The jar AutomaticTrainController.jar.

As long as these files and directories stay in the same relative location, the Automatic Train Controller *should* execute properly.