

# MasterSim - Master Simulator Manual

Program Version 0.1

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## 1 Overview

MasterSim consists of a command line simulator and a user interface, that allows configuration of simulation scenarios, running the simulation and monitoring progress of the simulation via variable plots.

The User Interface is still being developed and the manual will extended as implementation grows.

For now, most information can be found on the wiki-pages of the sourceforge project: [MasterSim-Wiki \(https://sourceforge.net/p/mastersim/wiki\)](https://sourceforge.net/p/mastersim/wiki)

## 2 Algorithms

### 2.1 General Info

see wiki

## 2.2 Gauss-Jacobi

see wiki

## 2.3 Gauss-Seidel

see wiki

## 2.4 Newton

see wiki

## 2.5 Local Error Estimate

see wiki

## 2.6 Step Size Control

see wiki

# 3 Command line reference

The command line simulation master takes the following arguments, which can be shown when calling `MasterSimulator` with the `--help` option.

```
Syntax: MasterSimulator [flags] [options] <project file>

Flags:
  --help                Prints the help page.
  --man-page            Prints the man page (source version) to std output.
  --cmd-line            Prints the command line as it was understood by the
                        command
                        line parser.
  --options-left       Prints all options that are unknown to the command
                        line
                        parser.
  -v, --version        Show version info.
  -x, --close-on-exit  Close console window after finishing simulation.
  -t, --test-init      Run the initialization and stop right afterwards.
  --skip-unzip         Do not unzip FMUs and expect them to be unzipped in
                        extraction directories.

Options:
  --verbosity-level=<0..3>
                        Level of output detail (0-3).
  --working-dir=<working-directory>
```

Working directory for master.