BEAM Installation Guide

Installing the BEAM tool simply requires users to run the install.bat file located in the BEAM project folder.

This script is a batch file that will install the dependencies for the BEAM tool automatically, creating an environment that can be used to run the tool. This environment contains the Python packages and dependencies needed to run the beam test program.

To use this installer, you need to have the following:

- A Windows operating system (64-bit)
- An NVIDIA graphics card with up-to-date drivers
- PowerShell installed and enabled (should be installed by default on Windows systems)
- An internet connection
- The default folder structure for the BEAM tool

The script will perform the following steps:

1. Checks if Mamba is already installed on your system. Mamba is a package manager for Python. If Mamba is found, it will skip to step 4.
2. Downloads the Mambaforge installer PowerShell. Mambaforge is a distribution of Miniforge that includes Mamba. The installer will be saved as a temporary file in the %TEMP% directory.
3. Runs the Mambaforge installer in silent mode with the following options:
   - InstallationType=JustMe: Install Mambaforge only for the current user
   - S: Suppress any user interface or prompts
   - D: Specify the installation directory as %USERPROFILE%\mambaforge
   - After the installation, the script will delete the temporary installer file and check if the installation directory exists. If not, it will exit with an error message.
4. Initializes Mamba by using the mamba init command. This will modify your PATH environment variable and activate Mamba by default in your shell sessions. If this fails, exit with an error message.
5. Creates the beam environment. This will install all the packages and dependencies listed in the file into a new environment named beam. If this fails, exit with an error message.
6. Exits with a success message.

To run this script, you can either double-click on it or open a command prompt in the directory and type its name. You may need to run it as an administrator if you encounter any permission issues.

The installation will take some time, as the dependencies are more than 3GB in size.

After running this script, the BEAM tool can be run by following the steps in the "Test Guide". The start_interface_browser.bat file will activate the beam environment and launch the tool.

If firewall or network issues prevent downloading of the dependencies through the installer, the packaged dependencies are available here: [INSERT LINK].

Updates to the BEAM models can be downloaded by running the updater.bat file. This will check for changes to the source code and download any updates.