Installation and update

MATLAB HEC-RAS Interface Documentation, IMTLD

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This document contains information used in the video tutorial 0 – Get started with MATLAB HEC-RAS interface.

In general, installation consists simply in zip and unzip of archives, and check that everything works in MATLAB. Version restore consists in deletion of a set of folders and files, and unzip of an archive.

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Update

Note : update a folder like *BETA X_X_X MATLAB HECRAS interface.zip* or *RELEASE X_X_X MATLAB HECRAS interface.zip* is nonsense, because each interface version has got a distinct folder name, so the update of the interface consists simply in the addition of a new folder, which contains the new version. This kind of update is automated in the installer.m script.

In addition, update the launcher is possible, in this case, you can delete the old launcher.m file and replace it with the new one, that you have unzip.

The procedure mentioned above for the launcher script is the same for Installation folder and Documentation folder.

Restore

Warning: to restore a Ras project, please refer to the User guide paper.

Warning: this procedure can erase modifications that you have eventually done on several MATLAB scripts.

To restore a version of the interface, i.e. a folder like *BETA X_X_X MATLAB HECRAS interface.zip* or *RELEASE X_X_X MATLAB HECRAS interface.zip* , follow the procedure below with *BETA X_X_X MATLAB HECRAS interface or RELEASE X_X_X MATLAB HECRAS interface* as main_folder. This ZIP file is usually stored in the Version library folder.

To restore the entire interface (including launcher, documentation, etc.), i.e. a folder like *essentials.zip* or a set of ZIP files containing every required file. Follow the procedure below with the parent folder of the launcher as main_folder.

1. Delete main_folder (in Windows file explorer, right click, delete)
2. Unzip the archive (ZIP file) at the location where the deleted folder was.
3. Launch the launcher script, check that everything works well

How to install the MATLAB HEC-RAS interface?

If you have access to this documentation, you probably have a essentials.zip file, that you have unzipped in any folder.

If it is not your case, please refer to the Incomplete installation and How to get a essentials.zip file? paragraphs of this paper.

Procedure to install the MATLAB HEC-RAS interface using the essentials.zip file

1. Unzip essentials.zip in any folder
2. Launch MATLAB > browse folder, select the folder where you unzipped essentials.zip
3. Write launcher in the MATLAB command window, and press ENTER

If there is no error, your installation has successfully done. Else try to get a new version of essentials.zip.

If it does not work again, write installer in the command window and press ENTER > choose to install all versions available, then check if there is any missing file, if so, try to fix it.

Procedure to install one or several versions of the MATLAB HEC-RAS interface

1. Copy-paste every ZIP file with a name following one of these patterns: *BETA X_X_X MATLAB HECRAS interface.zip* or *RELEASE X_X_X MATLAB HECRAS interface.zip* in the Versions library folder.
2. Launch MATLAB > browse folder, choose the parent folder of the launcher script.
3. In MATLAB command window, write launcher, then wait a few seconds

If an error appears at this moment see the procedure above install interface using essentials.zip.

4. Quit launcher with Ctrl + C, write installer, press ENTER > install a specific version, choose the version you want to install and follow the instructions
5. Launch launcher again, select your newly installed version, try it on a stable Ras project

If there is no error, your new version is ready to work. Else, try to use another version, double check that your Ras project works and that your settings are correct.

How to get a essentials.zip file?

For the time being, there is no way to obtain one.

If a public website exists, you can search in a search engine “MATLAB HEC-RAS interface IMT Lille Douai” > go to Downloads page > click on the essentials.zip hyperlink to start download

Incomplete installation

Warning: this paragraph presents workaround solutions, always prefer the simple way explained above with essentials.zip

If you cannot get an essentials.zip file, you can perhaps anyway use the MATLAB HEC-RAS interface.

Identify interface files

1. If you have an essentials.zip file, follow the classical procedure explained above

2. If you have a folder named essentials, zip it, and then, make tests like in the procedure explained above, it contains perhaps every required files

3. If you have just a version ZIP file, i.e. a folder named following one of these patterns: *BETA X_X_X MATLAB HECRAS interface.zip* or *RELEASE X_X_X MATLAB HECRAS interface.zip*. Then you will be able to perform a manual installation, explained in the procedure below.

4. If you have somewhere on your hard drive a master.m script and a MATLAB code folder located in the same folder, this is likely a MATLAB HEC-RAS interface installation, try the standalone installation procedure explained below.

5. If you do not have any of the files mentioned above, try to identify your files, according to the Download page of the website MATLAB HEC-RAS interface, if this website is online.

Procedure for a manual installation of a standalone version

1. Unzip the version ZIP file in any folder

2. Launch MATLAB > browse folder, choose the parent folder of the folder which contains master function, we will call this folder HOME.

3. Create these files in HOME: settings.ini, input_after_step.m, input_before_init.m, output_after_step.m, output_after_all.m

4. In command window, write addpath(genpath(pwd)), press ENTER. Then write master, press ENTER

5. You will run into a lot of errors, fill in settings.ini with all required information, an information asked to settings.ini is called in the master script by a sett.GetValue method.

If after that, you can run a RAS simulation without error, your standalone installation is ready to work.