



C i v i l F E M

Installation Guide



CivilFEM Installation Guide

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1. Introduction

Welcome to CivilFEM Installation Guide. User will find below step-by-step instructions to install CivilFEM which is the main program and then Marc software, needed for meshing and solving.

There are two different programs with their own installation process.

A typical installation on a Windows machine (choosing the default installation directory) installs CivilFEM in \Program Files\CivilFEM and Marc in \MSC.Software, located on the same drive as the operating system.

The capabilities of the Commercial version depend on the license, and may be seen at the product launcher once the product is installed.

The installation now has a wizard that launches both: MSC and CivilFEM installations:



2. Hardware and Software Requirements

2.1. Platform and Operating Systems

PLATFORM	OPERATING SYSTEM
Intel x64 / AMD64	Windows 10 (Creator's Update)

2.2. Graphic Card

- **Minimum:** OpenGL 3.1 and GLSL 1.4 compatible graphic card.
- It is advisable to have a 3D graphic card with updated **OpenGL** drivers.

2.3. Minimum Requirements

- **Administrator privileges** are required to install the software.
- Internet connection for software updates.
- **3 GB** space is needed in the hard disk for the installation of the software (1 GB for CivilFEM and 2 GB for Marc). Additional space is needed to work with the models (depending on the size of the models), but a minimum of 10 GB more free space is recommended to start working.
- A minimum of **8 GB of RAM** is recommended to properly work with this version.

2.4. Recommended Hardware

- To properly work with big models, **16 GB of RAM** or more are recommended.
- A primary SSD hard disk is recommended to install the software to improve the general speed.
- To have enough hard disk space to work with big models, a secondary hard disk of 1 TB or more is recommended.

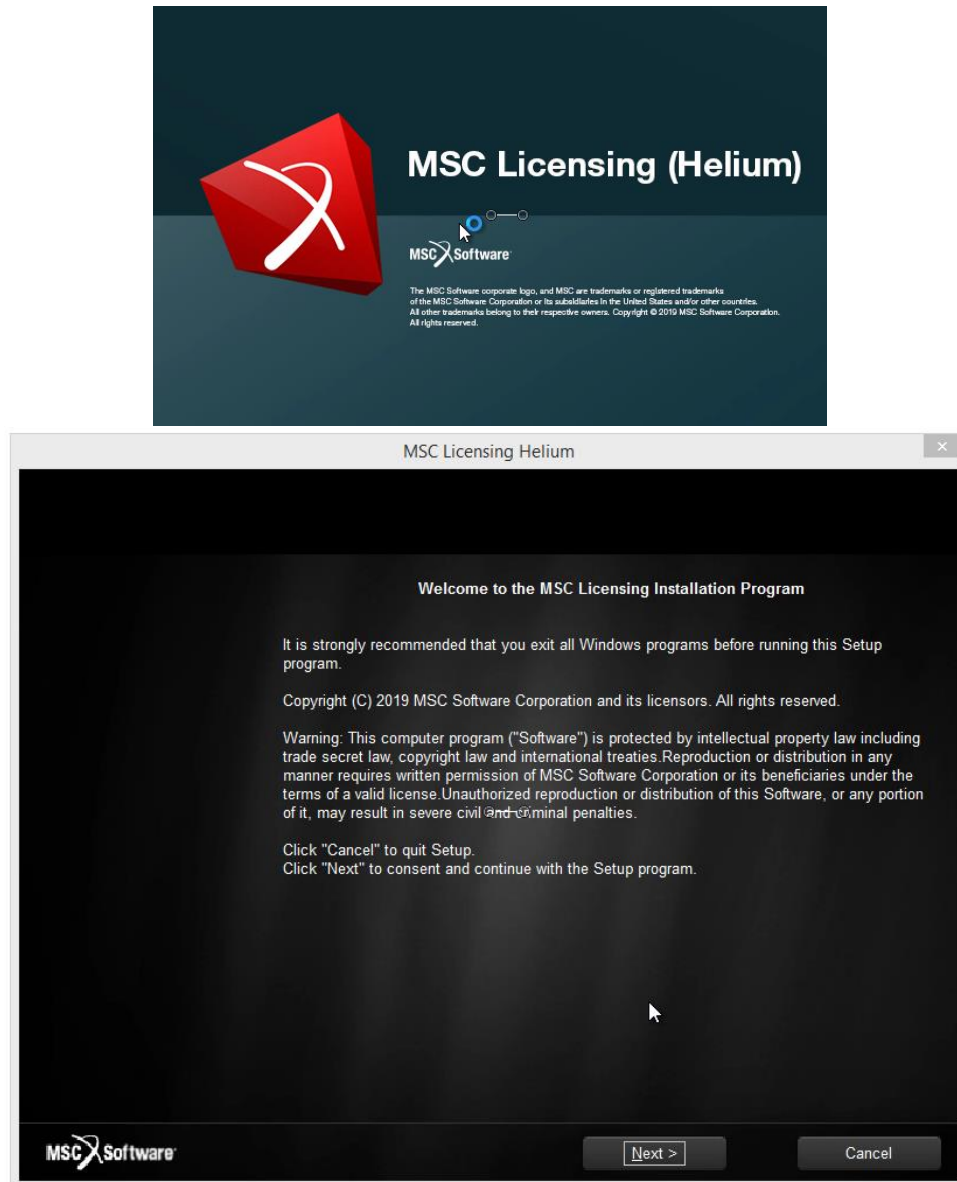
3. Installation of Marc

To run CivilFEM, **Marc 2024.1** (MSC. Software) **must be installed** (any other version of Marc Mentat also works but these versions are recommended and fully supported). A license file for MSC licensing server or a nodelock license for Marc should also be provided by your distributor.

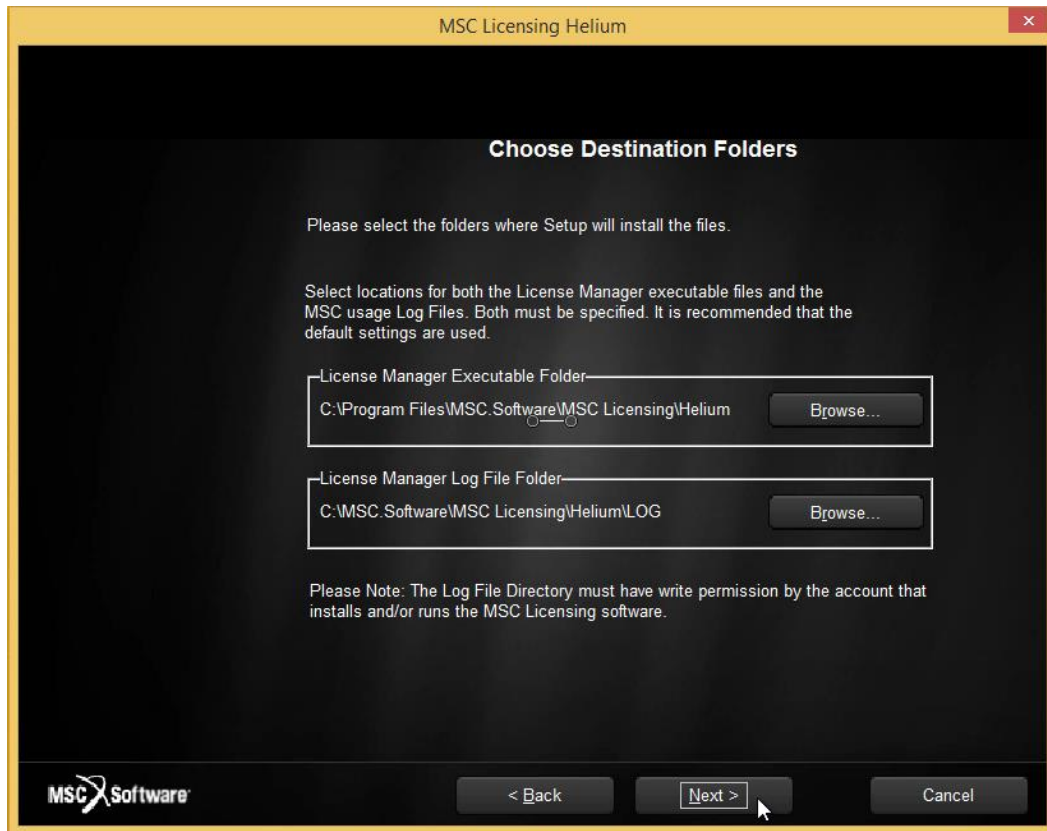
3.1. Install MSC Licensing

If a nodelock license is provided, which is intended to be used only on one computer, this step should **not** be done. This step is only for installing network licenses that can be shared across your local network and requires a network (non-nodelocked) license file.

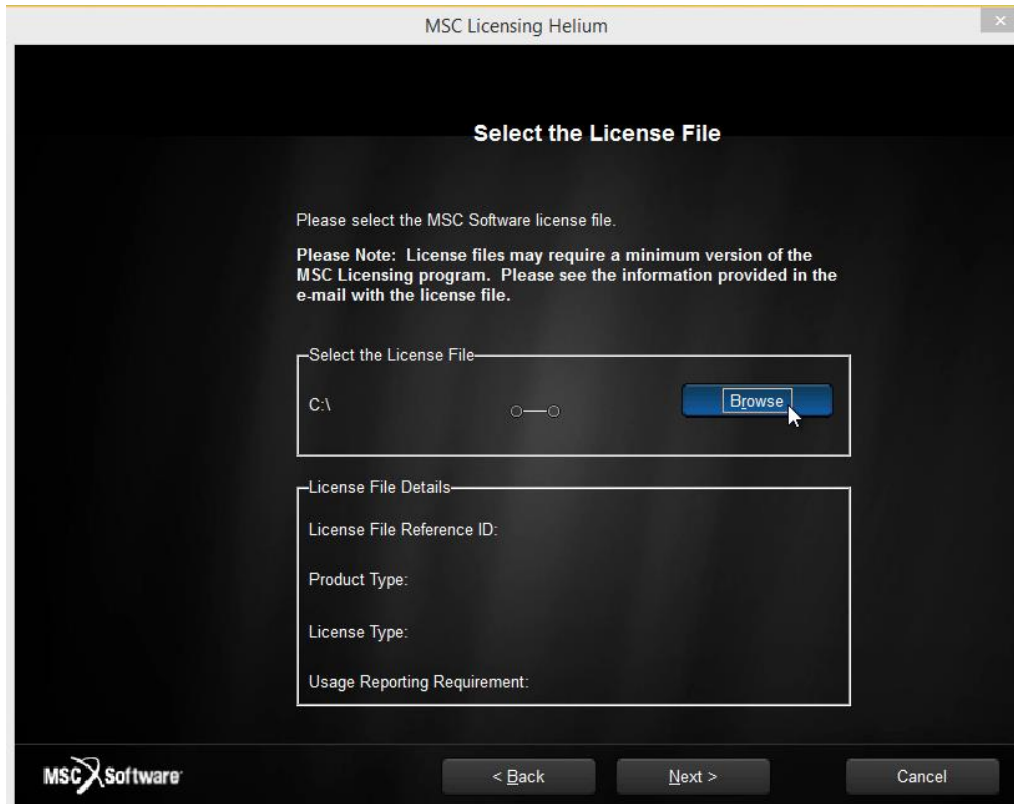
Run MSC Licensing executable, version 11.9 or above. A welcome screen will appear:



- Choose the installation folders or left the default ones:



- Browse for the provided MSC license file:



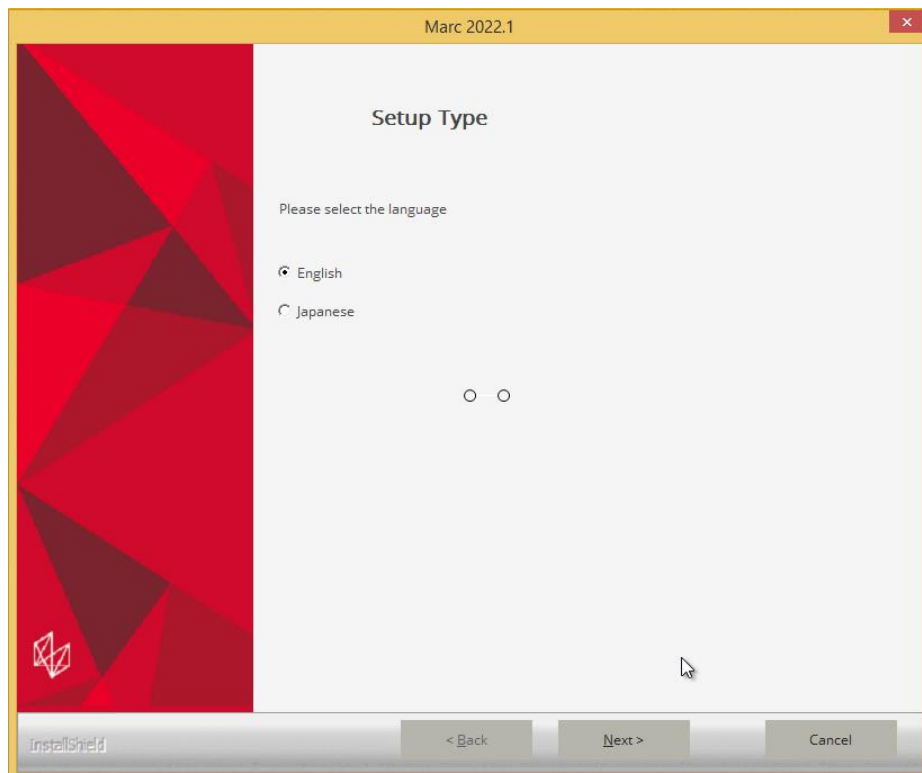
Click next and wait until the installation finishes.

Please, refer to the original MSC installation guide for more information: “**Marc and Mentat for Microsoft Windows Installation and Operations Guide**”.

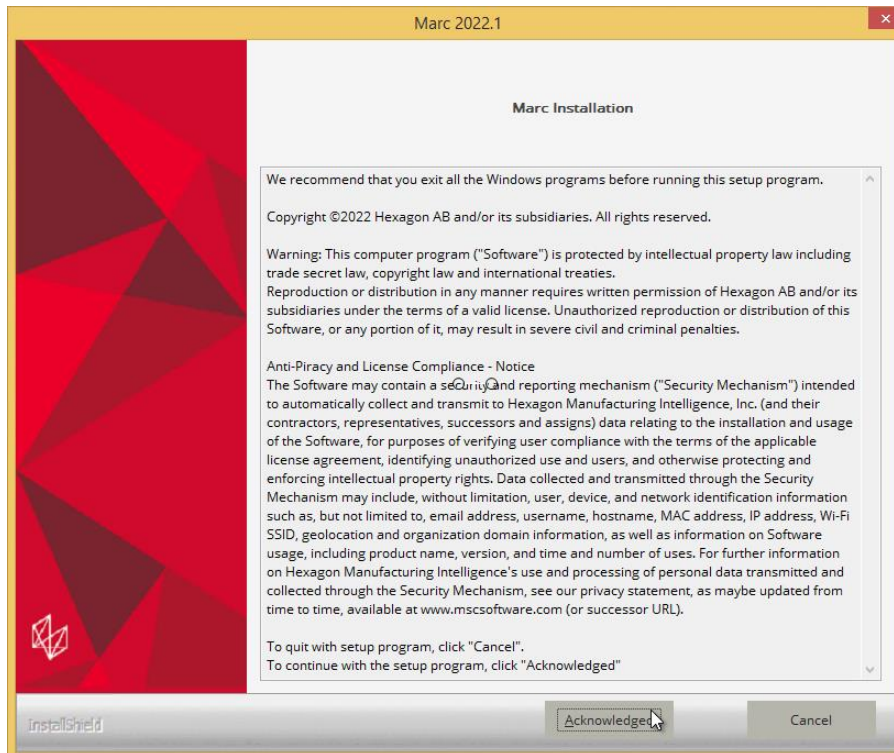
3.2. Install Marc

Run the Marc 2024.1 installation with administrator privileges.

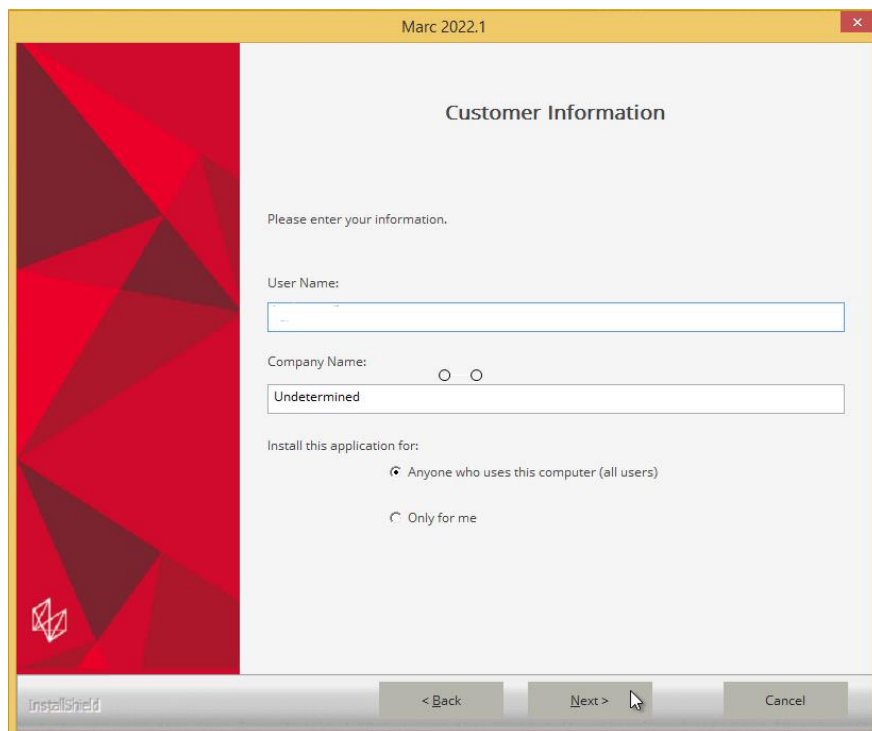
First select the language:



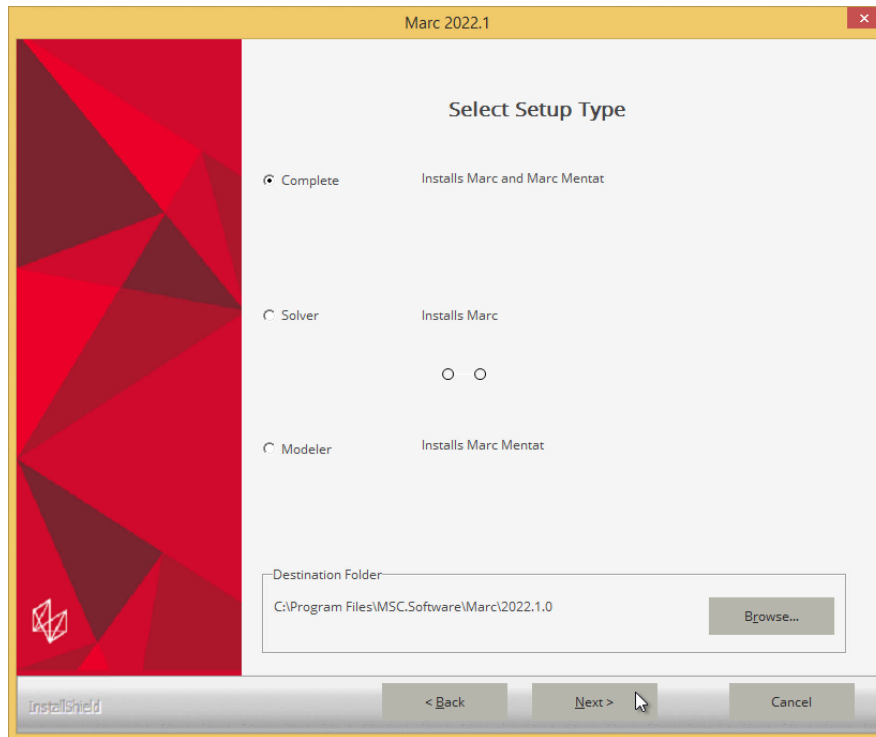
A welcome screen will appear, please accept to consent and continue with the Setup program:



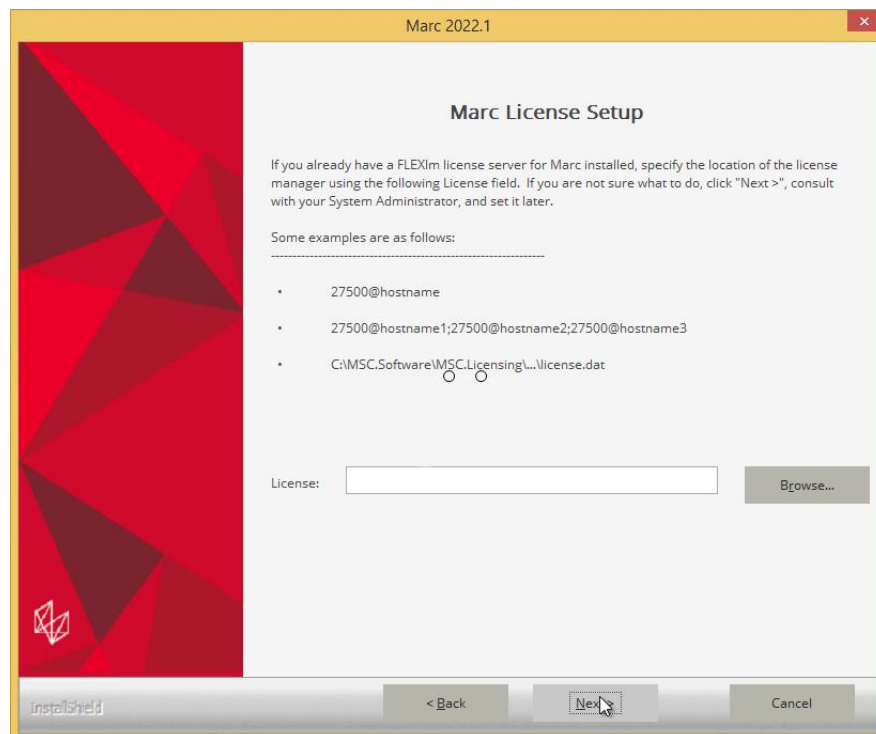
- Select the user/s that will be able to use the installed application:



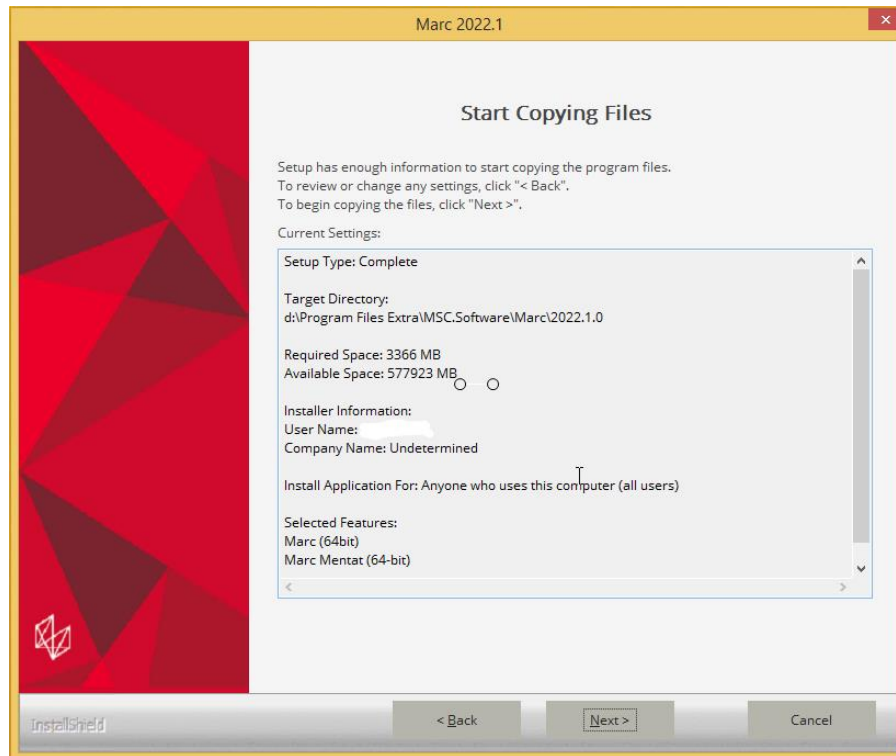
- Select “complete” for the installation type as Marc and Mentat are required by CivilFEM to solve and mesh. Keep track of the installation directory, as it will be needed later on to configure CivilFEM solver and mesher. We recommend to leave default values:



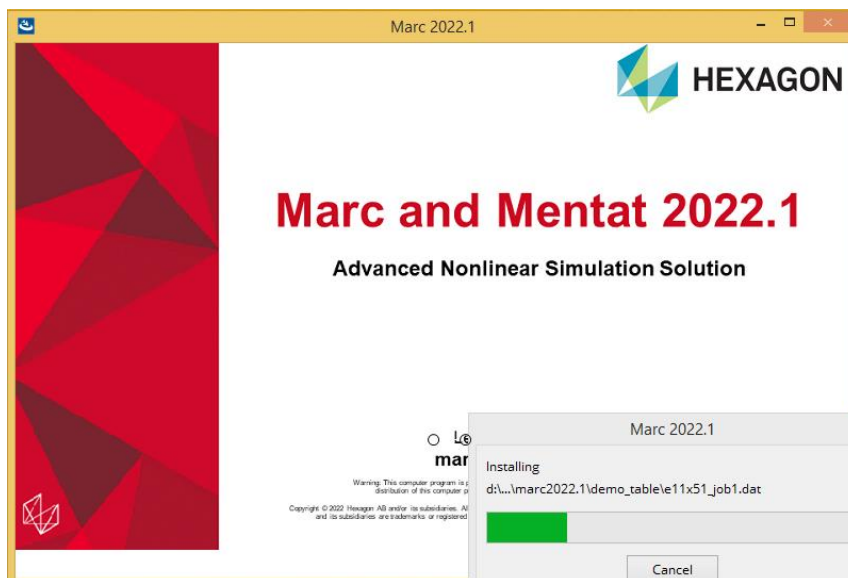
- Then you will need to configure the license.
- If you installed the MSC licensing software, provide the server and port number where you installed it.
 - If you have a nodelocked license file, browse and select that file now.



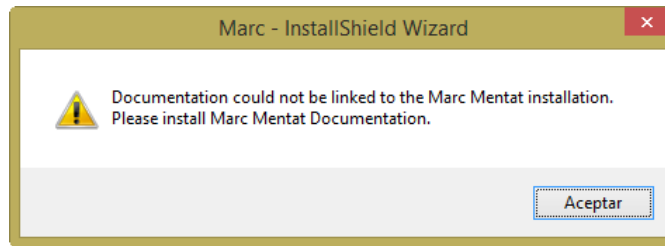
- Now the software is ready to install. Check the information provided and proceed with the installation if everything is fine:



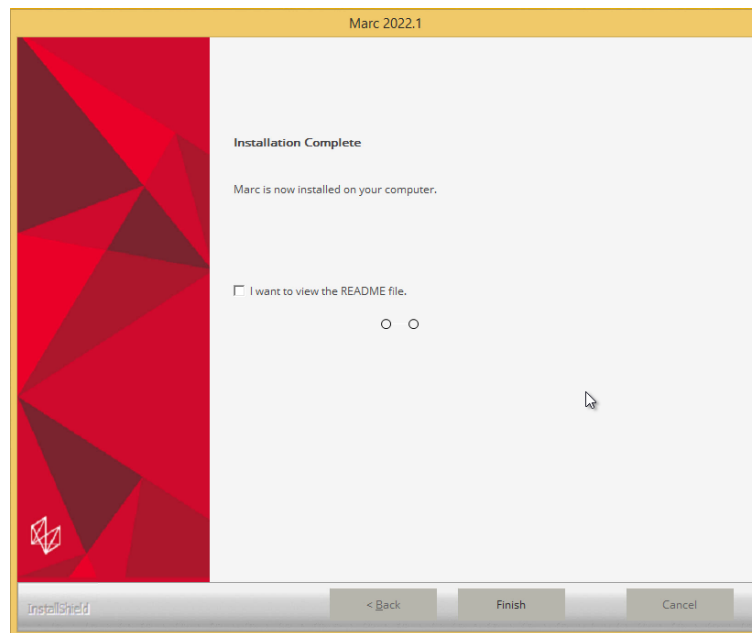
- Now program files will start to copy, just wait until Setup ends:



- A message about Marc Documentation will appear but this is not important as documentation is not needed to be installed, just accept and continue:



- The installation will show a completion message:



Please, refer to the original MSC installation guide for more information: **“Marc and Mentat for Microsoft Windows Installation and Operations Guide”**.

4. Installation of CivilFEM

4.1. License file

You need the licenses of CivilFEM powered by Marc. For **commercial licenses**, Ingeciber provides you the licenses with the information of your computer. There are these kinds of licenses:

- **Local license**, which requires a node-locked license file (intended for the usage in one specific local computer). Local licenses cannot be accessed remotely!
- **Network Floating License**, which requires a license server installation (intended for the usage in computers of a local network).

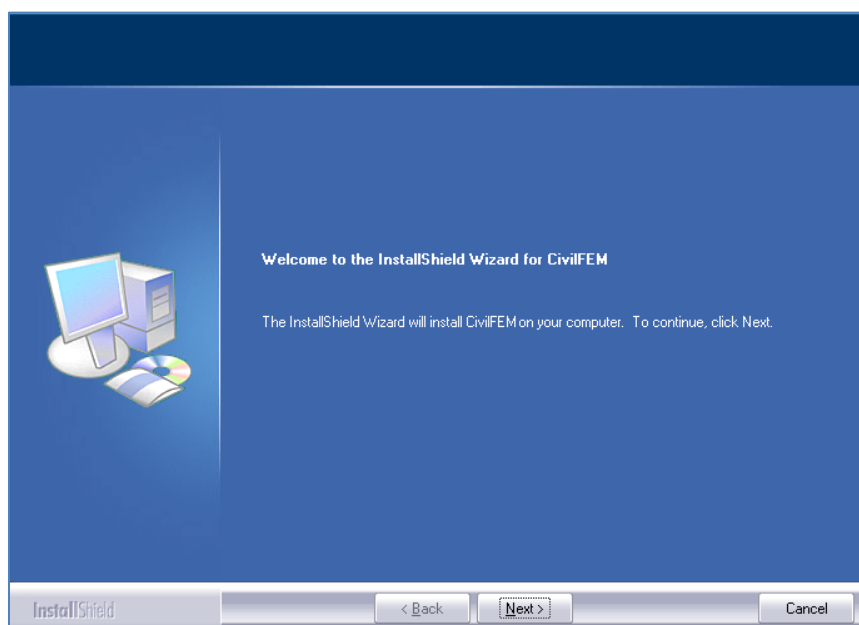
For virtualized environments a security dongle is required, please contact your distributor for more information.

In order to attach your license to a specific computer (for a local license) or to a specific server (for a network floating license), please download the [CivilFEM Get Host ID Tool](#) (click on this [link](#)), or alternatively the [LM-X Config Tool](#) (click on this [link](#)), and run the tool in the machine in which you will have your CivilFEM license, and generate the **Host-Id information file** with it. Then, send the generated file to secretariat@ingeciber.com and the CivilFEM license file will be sent back to you.

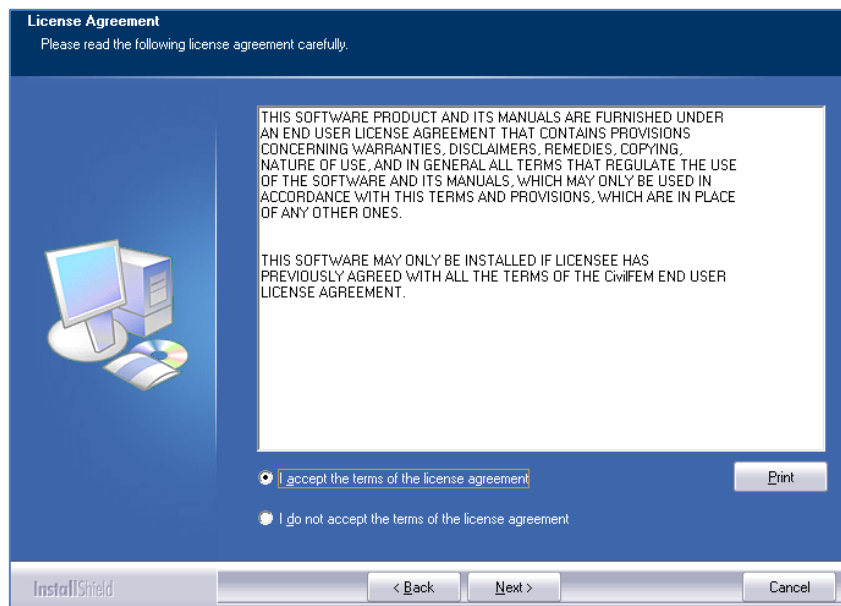
4.2. CivilFEM Installation

Please download CivilFEM and then run the installation file.

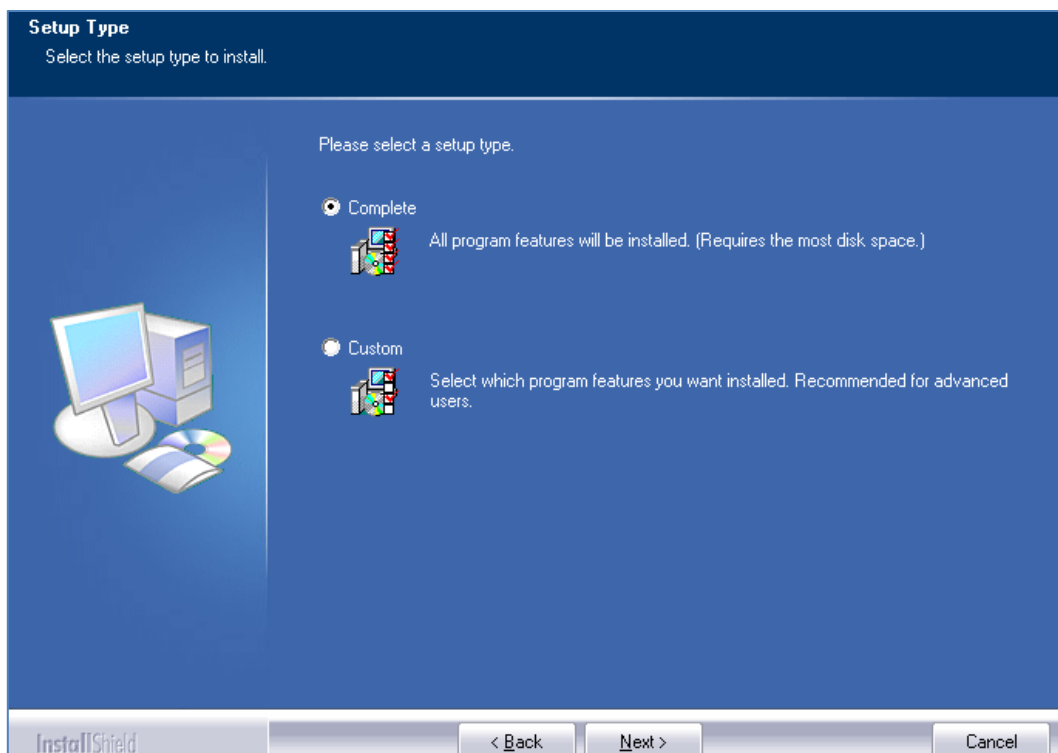
- a) Begin installation and click **Next**.



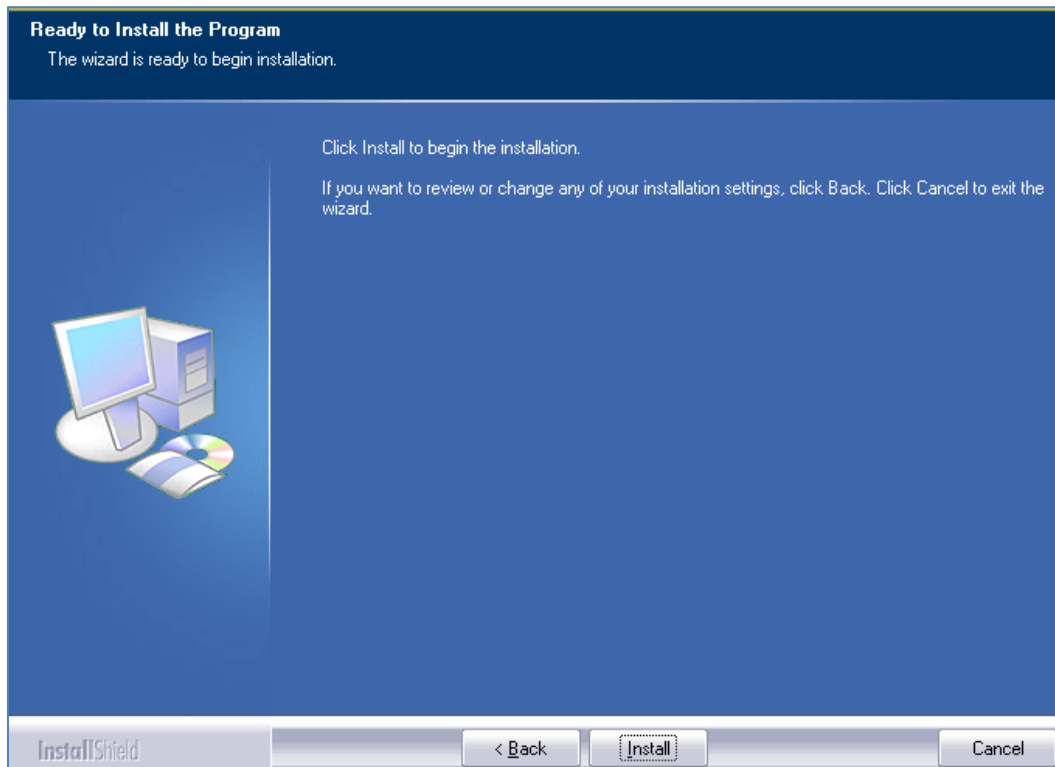
- b) **Accept** the License Agreement and click **Next**.



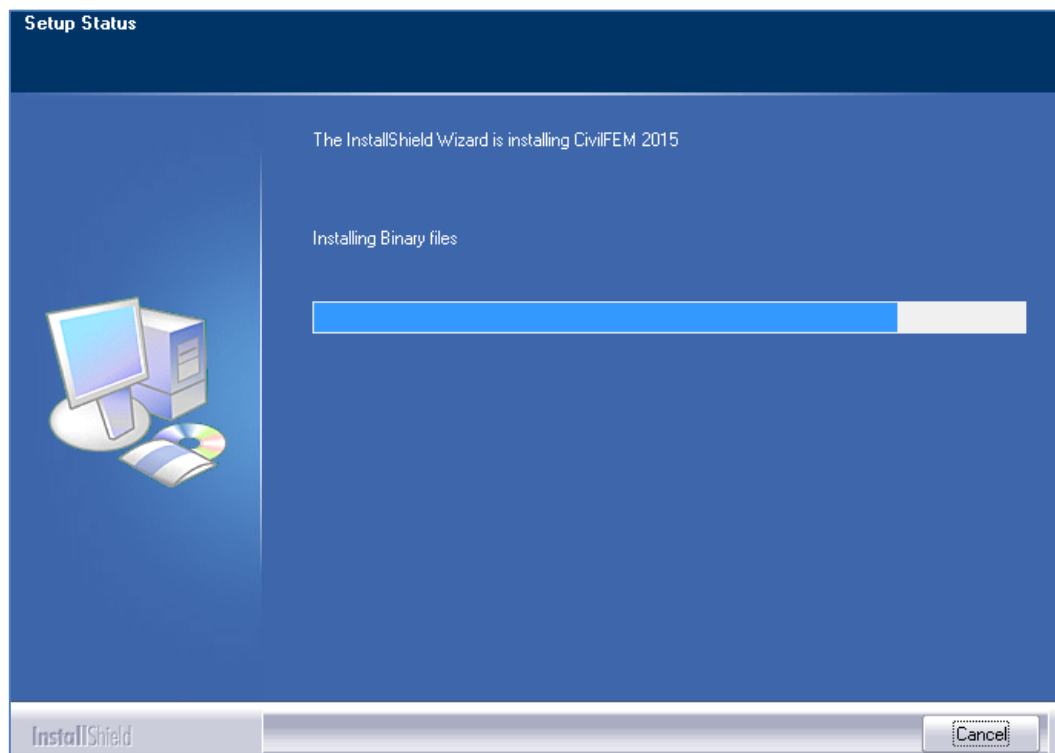
- c) Select a setup file: **Complete** (full components installed), **Custom** (options for installation folder, include or not software documentation will appear and borrow license utility). Then click **Next**.



- d) Click **Install** to begin the installation.

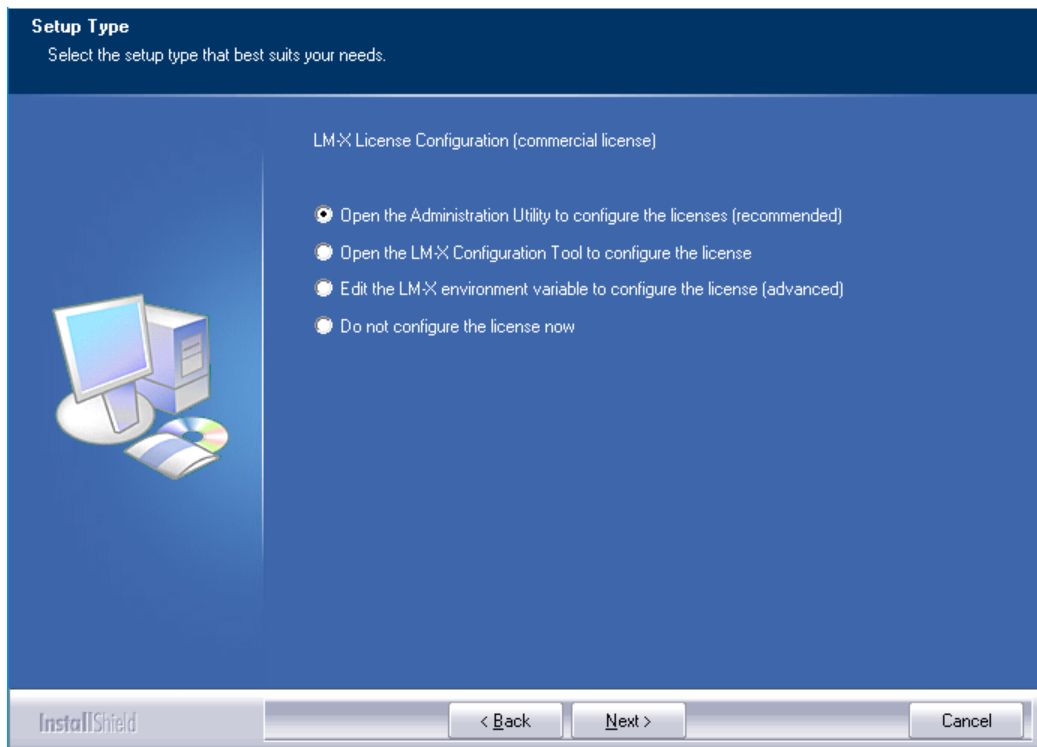


- e) **Wait** until installation progress finishes.

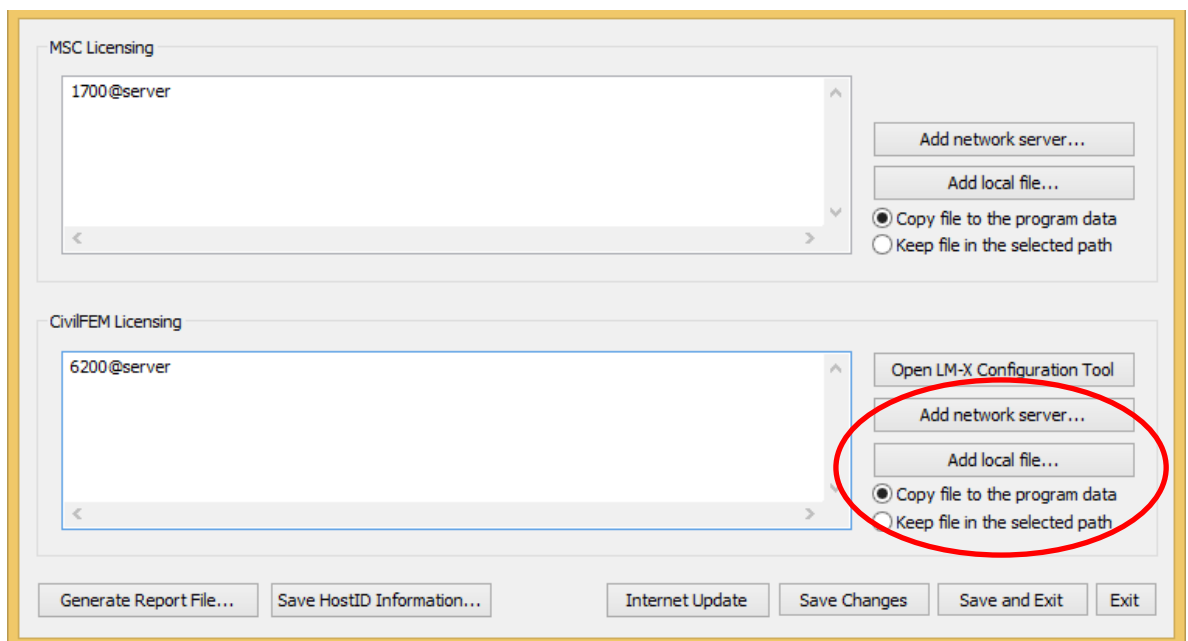


- f) Choose the **license configuration** option. Unless you don't want to configure the license now or you are setting-up an unattended installation, **choose the default**

option to open the Administration Utility to configure the licenses:

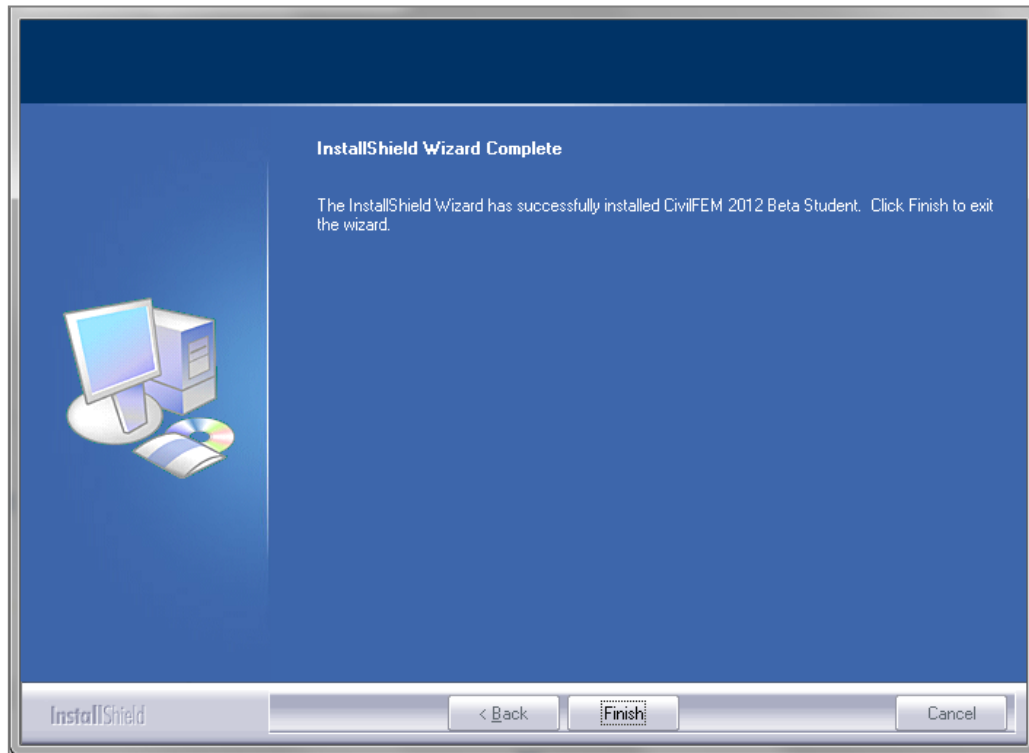


- g) The **Administration Utility** will be automatically opened in order to select a local license file or to configure the license server name. Push “Add Network Server” or “Add Local File” button, depending on the type of license you have. Select your local license file or write the name of your server, and push **Save Changes**.



When selecting a local license file, you may choose to copy the file into the program data so you don't need to keep it on the selected path.

- h) **Close the tool.**
- i) When installation is complete click ***Finish***.



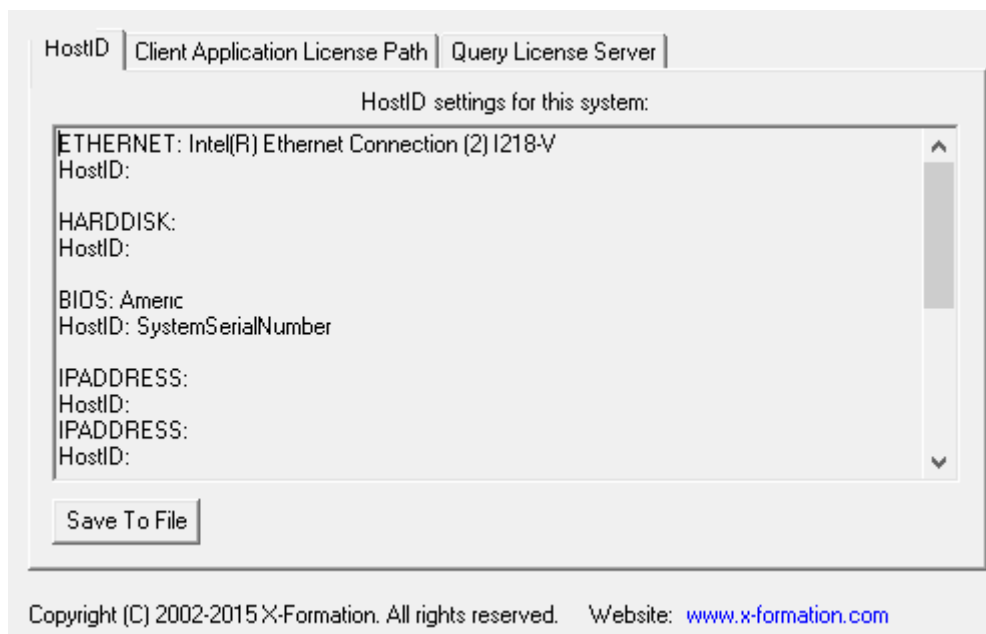
5. CivilFEM Licensing

5.1. How to Obtain Your License File

There are two types of license files: the **local license files** and the **network floating license files**. The installation process is different for each type:

- For a **local license file**, the license file should be attached to the local computer where CivilFEM will be used. That license will be available only for that local computer.
- For **network floating licenses**, the licenses file should be attached to a server computer and installed with the license server. Those licenses will be available for any computer of the local network that has access to the license server.

In both cases, it is necessary to provide some required machine information to Ingeciber, in order to generate the license file attached to the proper computer (the local computer or the server computer, depending on the type of license). In order to provide that information to Ingeciber, please, run the **LM-X Configuration Tool**. Select the “HostID” tab and click on “Save to File”:



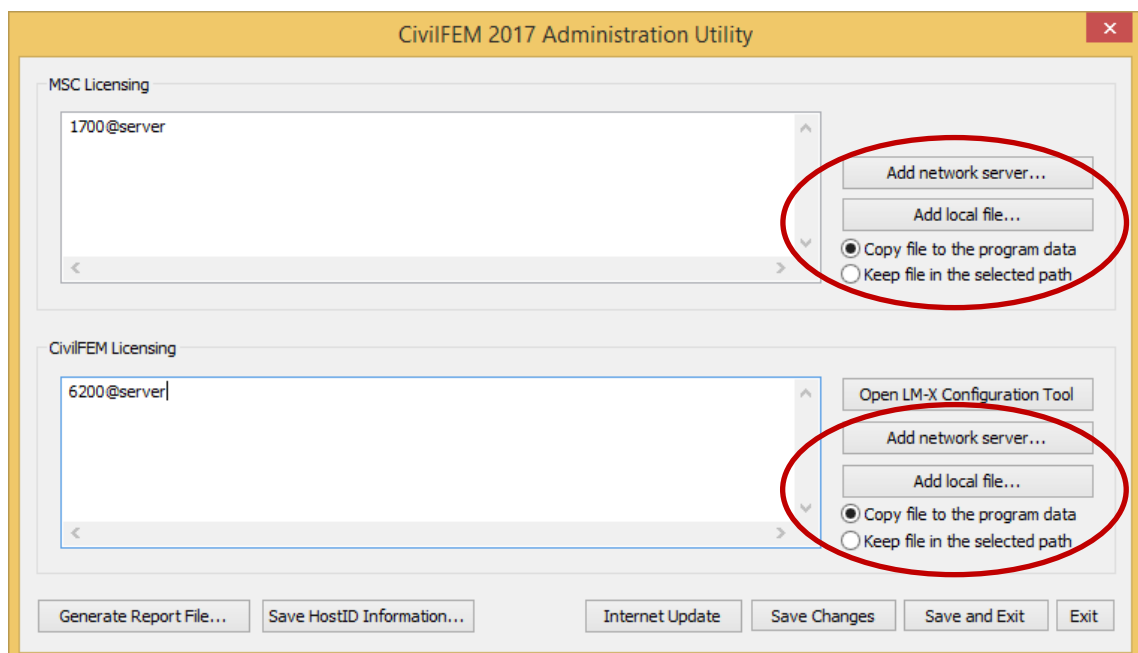
Once we receive at Ingeciber your HostID information file, we will generate and send you two different license “.lic” files: one for CivilFEM and another for MSC Marc. Check the next two sections on how to use that license.

5.2. Client Computers and Local Licenses

Client computers (where you want to use CivilFEM) can be configured to use network licenses (from a license server) or local licenses (node-locked) depending on your license type. There are two possible methods to configure them:

1. **Method 1:** During the installation process, the installers will ask for the licenses. For local licenses (node-locked) select the local license files for the MSC Marc installer and the CivilFEM installer. For network licenses (floating), point to the license server where you installed the CivilFEM LM-X License Server and the MSC Licensing.
2. **Method 2:** Using the **Administration Utility**.

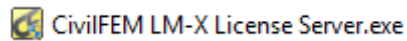
Run the **Administration Utility** in the client computer (where you want to use CivilFEM). There are two license files, one for MSC Marc and another for CivilFEM. For each one, click on the respective “Add local file...” to select the node-locked license file for local installations, or click on the respective “Add network server...” for network floating licenses (specify the name of your license server). With this utility local license files may be copied into the program data, so there is no need to keep the file in the selected path. After that **Save Changes**.



For both methods, you may close the configuration utility and run CivilFEM in order to check the available licenses (that will be shown in the combo box).

5.3. License Server Installation

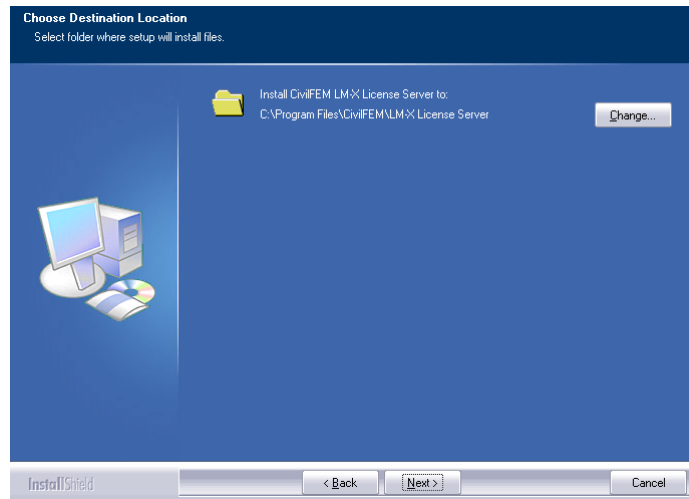
This is relevant for **commercial CivilFEM version only**. The CivilFEM LM-X License Server is required for CivilFEM **floating network licenses** to work. It is included in the Commercial installer of CivilFEM, but can also be downloaded as a stand-alone installer from the CivilFEM Customer Portal:



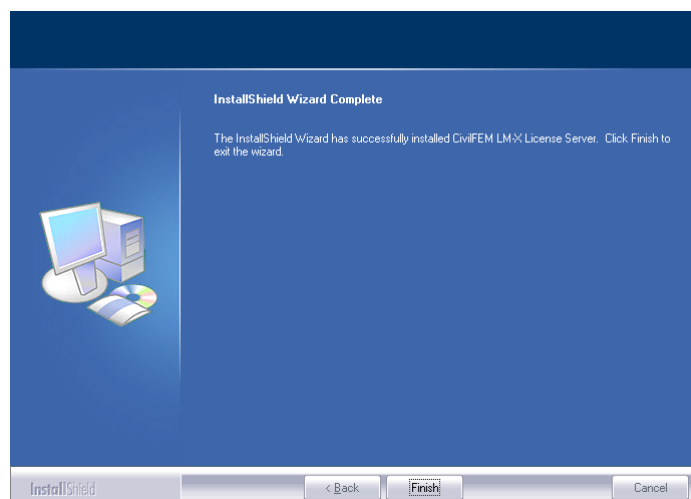
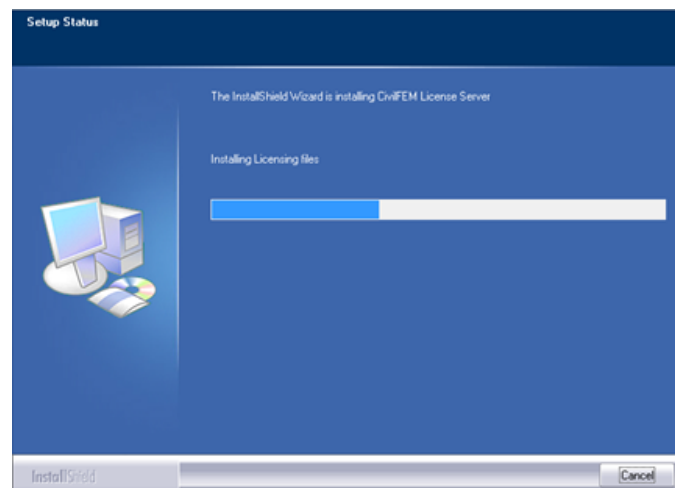
Welcome and agreement screens:



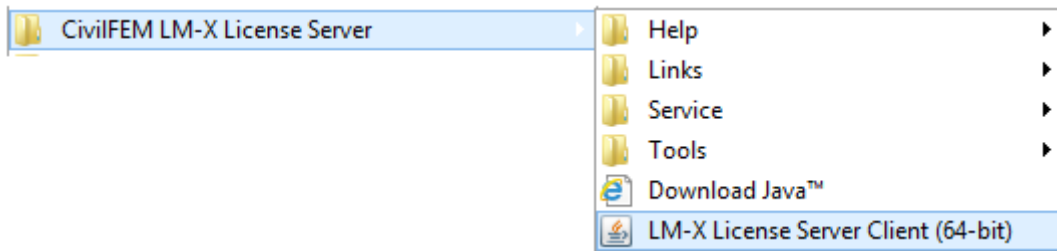
Installation directory selection:



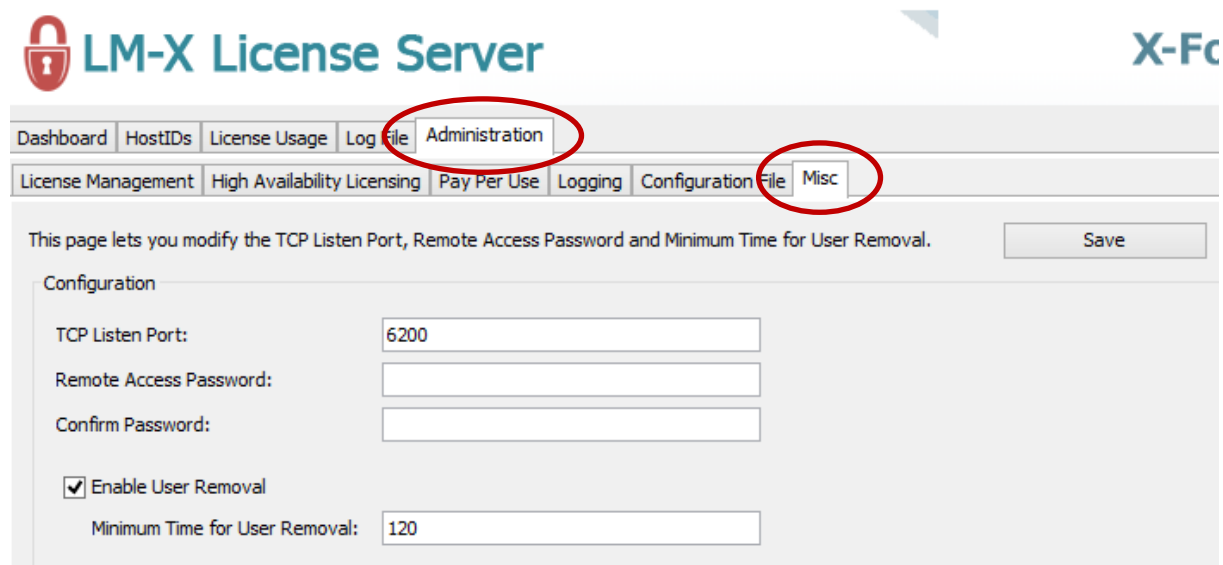
Further installation process:



After the installation of the CivilFEM License Server, some new items will be available on the **Start Menu**:



Use the **LM-X License Server Client** tool to install or update the **network license keys** (the default Admin password is: **MyPassword123**). To change the default password, select the Administration tab and Misc second level tab. Then set the new password and save (you may be asked to restart the server).



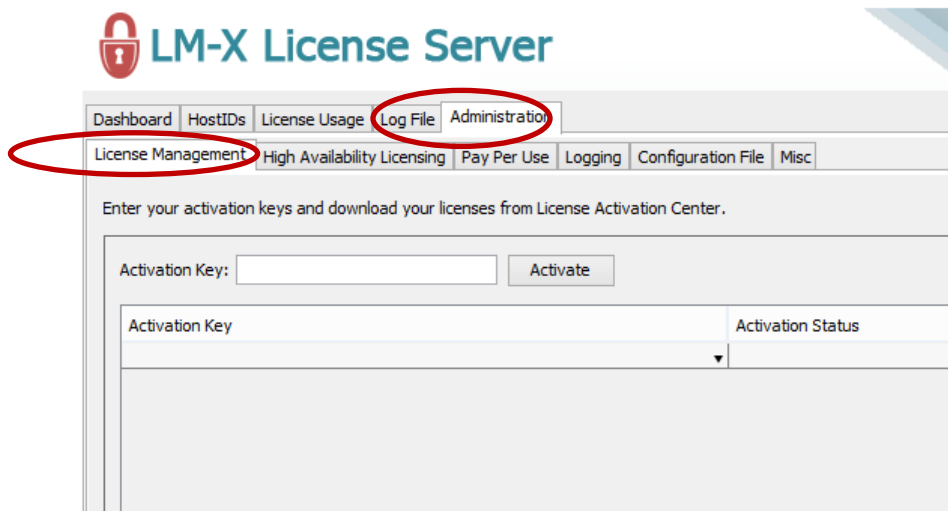
Note: The UI needs Java 8 installed.

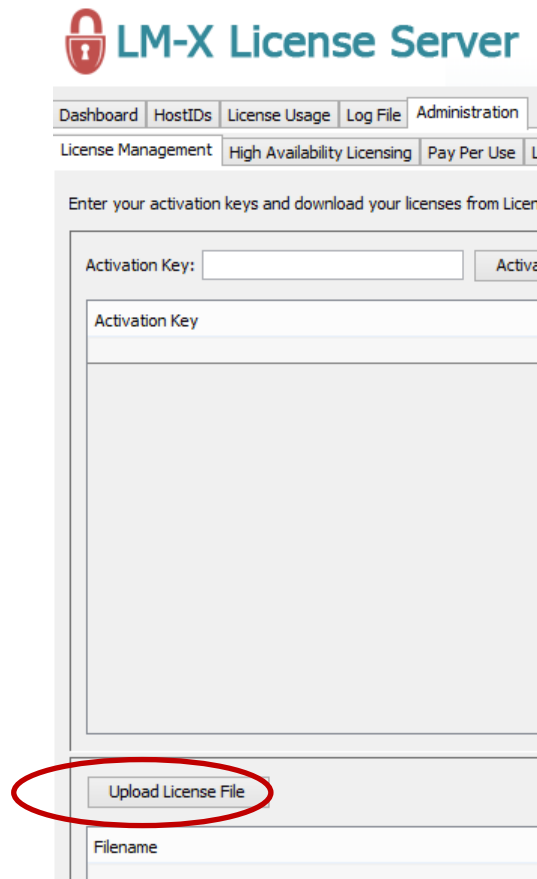
Note: LM-X Server uses port 6200 by default. This port must be open.

5.4. Floating Licenses on a License Server

The **LM-X License Server Client** is a Java-based application (requires Java to be installed), used to administer CivilFEM **floating network licenses**. It can be accessed from the Start Menu. The default administrative password is: *MyPassword123*

To add a license, select the “Administration” tab and the “License Management” secondary tab. Then click on the “**Upload License File**” button:



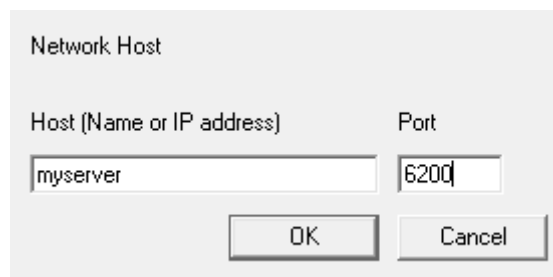
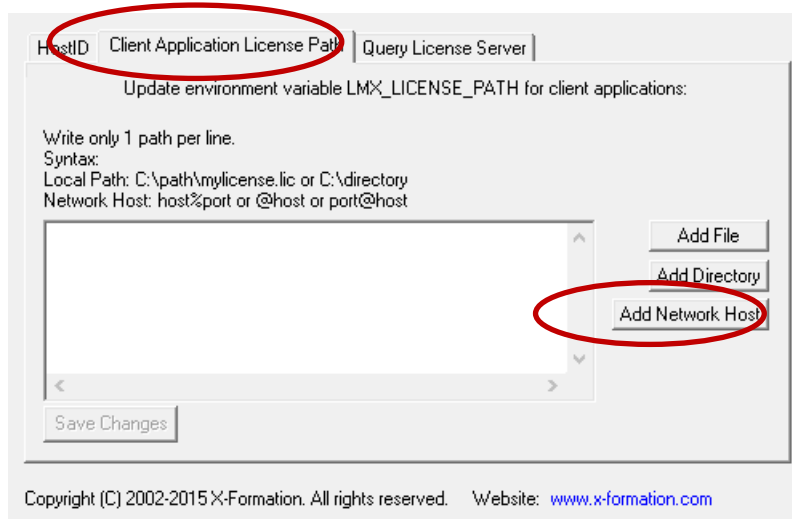


You will be asked to restart the license service (it will take a second, but users working with CivilFEM may lose their license). After doing that, you will see the available licenses by selecting the “*License Usage*” tab, and the “*Features*” option on the “*View*” drop down:

The screenshot shows the LM-X License Server web interface with the 'License Usage' tab selected. The 'View' dropdown menu is open, and the 'Features' option is circled in red. The table below displays the license usage statistics.

Feature	Version	Vendor	Start Date	Expire Date
Advanced_Addon_FreeOfCharge_until_Oct_2015	0.91	INGECIBER	2015-03-13	2015-03-16
CivilFEM_Advanced_2015_4_Cores	0.91	INGECIBER	2015-03-13	2015-03-16
CivilFEM_Advanced_2015_8_Cores	0.91	INGECIBER	2015-03-12	2015-12-31

In order to use these licenses, you may configure the client computers to use your license server. On each client computer (where you want to use CivilFEM), run the **LM-X Configuration Tool** utility, click on the “*Add Network Host*” button, and specify the name of your license server:



IMPORTANT NOTE: This setup process is necessary only if you acquired a floating network license and installed a **license server**.

5.5. Borrowing Licenses

IMPORTANT: Unfortunately, MSC Licenses cannot be borrowed. It is possible to work with CivilFEM by borrowing a CivilFEM License, but it is not possible to neither mesh nor solve the model without a MSC license.

Before borrowing a CivilFEM license, connect the computer to the same network of the **LM-X License Server**. After that, go to the CivilFEM's folder in the Start Menu, and run the **"Borrow License"** shortcut. CivilFEM will open a License Borrow menu:

Hours to borrow	6
Product	CivilFEM Advanced 2015 8 Cores
Advanced Addon FreeOfCharge until Oct...	☐
License Information	
License type	Commercial
Product	CivilFEM Advanced 2015 8 Cores
Expiration date	2015-12-31 23:59
Addons	No Addons used
Addons expiration dates	-
Number of elements	Unlimited
Number of beams	Unlimited
Number of Licensed CPU Cores	8

License Information
The information of the selected license

Ok Cancel

The user can specify the number of hours and the product to borrow. After clicking *Ok*, the license will be attached to that machine, and the computer may be disconnected from the network, being perfectly functional due to the borrowed license.

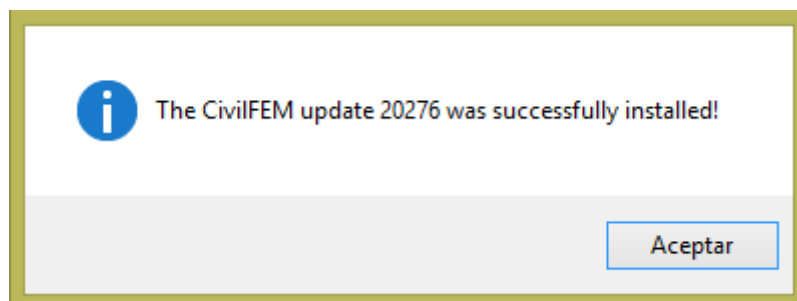
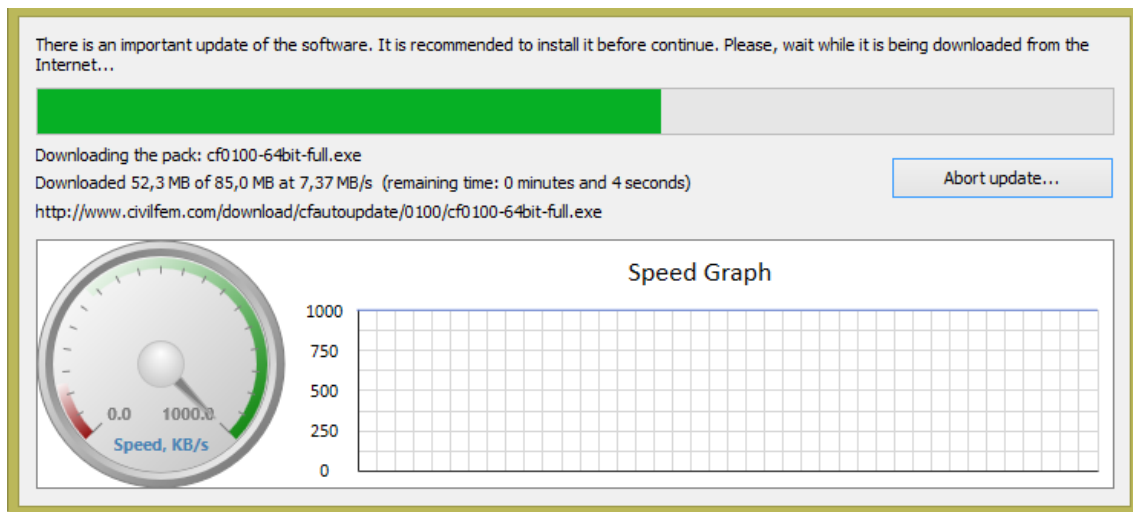
To return the borrowed license before the selected number of hours, first connect the computer to the network again. Then, go to CivilFEM's folder in the Start Menu, and run the ***"Return Borrowed License"*** shortcut.

6. Running CivilFEM

Now CivilFEM can be launched. Some configuration options must be set before calculation getting started.

6.1. Software Updates

If there is any important update and internet connection is available then it will be automatically downloaded and installed.



6.2. Selecting the License with the Product Launcher

Go to Home > Program Files > CivilFEM and open the application.

The **Product Launcher** appears when opening CivilFEM. The first time, set the product to use (these settings will be remembered by the software).

The window shows available product licenses and also **add-on** products if any. Select one main product from the drop down, then, check add-on options for extra capabilities of the

product. (The word *capability* here means the same as *features* in Admin Control Center)
Finally, click Accept to start CivilFEM.

For more information of the selected product and add-ons, expand the drop list. However, this is a reference chart and settings cannot be modified here.

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