

# WEST

## Installation Guide 2020 Update 1



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# 1 Introduction

This installation guide covers the installation of WEST 2020 and required 3<sup>rd</sup> party software.

WEST 2020 is available as:

1. 32-bit version
2. 64-bit version, requiring the installation of an external compiler

This guide describes the installation process for all the different deployment patterns and required associated 3<sup>rd</sup> party software.

**Important information:** Please be aware that all MIKE software (including the DHI License Manager) on the same computer must be installed with the same version. This is due to the dependencies between MIKE software products and our wish to use the latest and technically most advanced development systems.

## 2 Installation Prerequisites

WEST 2020 depends on some prerequisites as listed below:

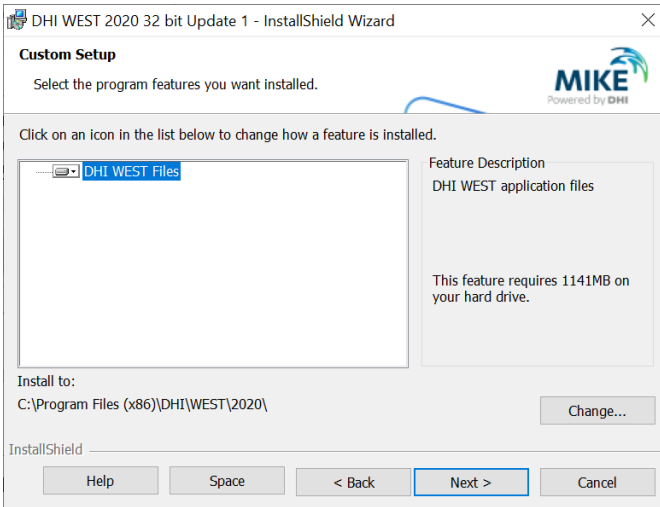
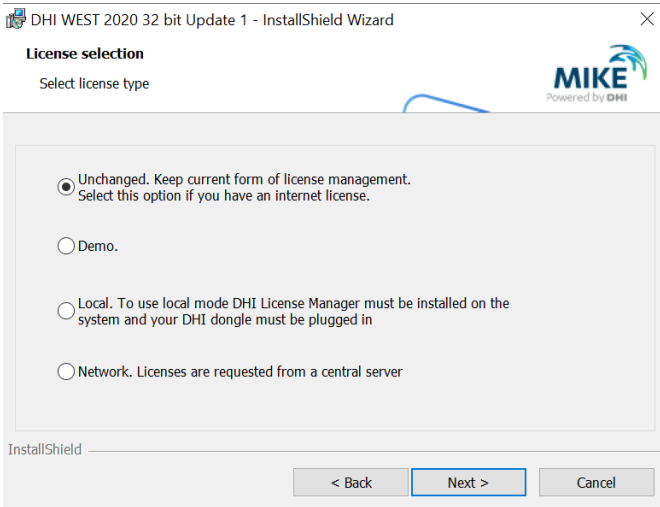
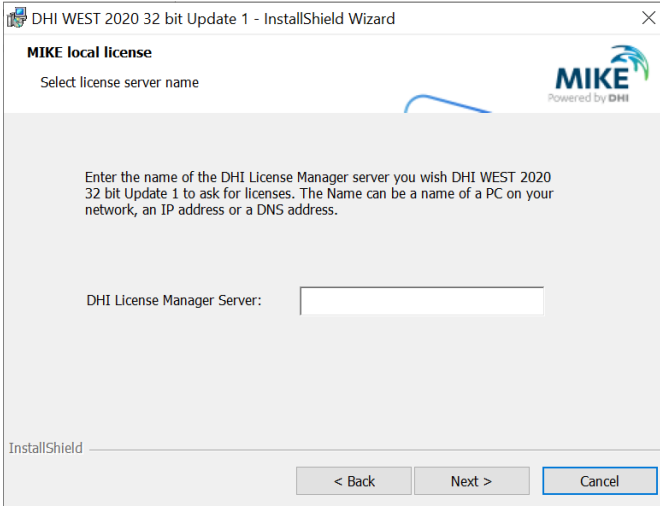
1. Fully supported Windows operating systems:
  - Windows 10 Pro, version 1909 (64 bit)
  - Windows Server 2016 Standard (64 bit)
  - Windows Server 2019 Standard (64 bit)
2. The DHI License Management application, to be downloaded and installed separately. Only required if local license mode (physical dongle) is used.
3. Microsoft .NET framework 4.7.2 or later

### 3 WEST Installation/Upgrade

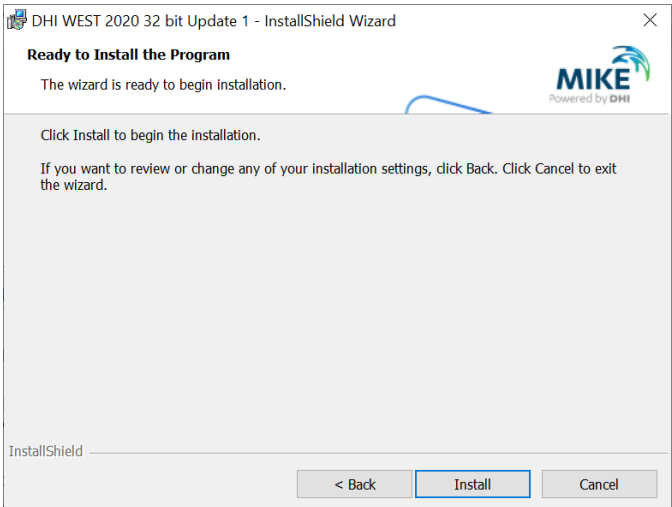
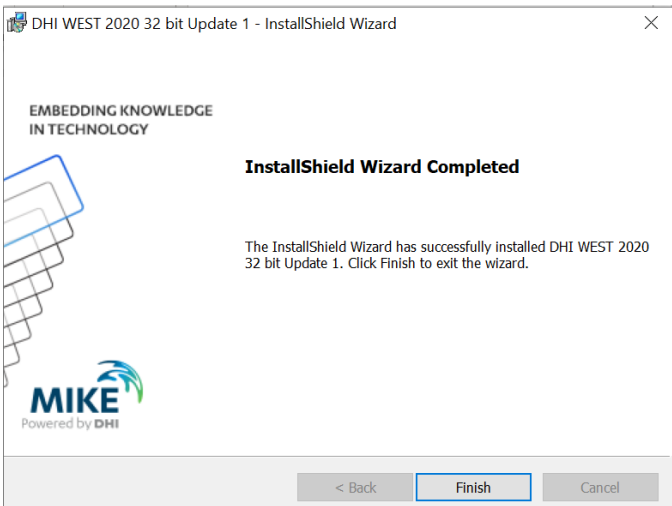
WEST 2020 is installed by running the *Setup.exe* program included in the installation package. The installation process is the same for both 32-bit and 64-bit versions of WEST.

The installation of the WEST is simple and requires no user interactions beyond accepting the license conditions and specifying the installation folder. The following table outlines the installation steps for WEST 2020 (Update 1).

Installation step	Screen
<p>Run the setup.exe file from the installation media/download folder.</p> <p><i>Note: Refer to the installation guide of the DHI License Manager for more information about features and license configuration.</i></p> <p><b>Click Next</b></p>	
<p><b>Accept the license agreement</b></p> <p><b>Click Next</b></p>	

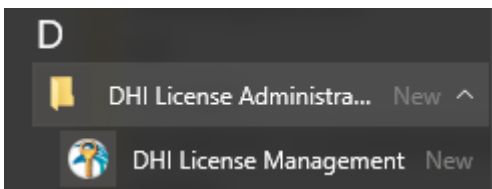
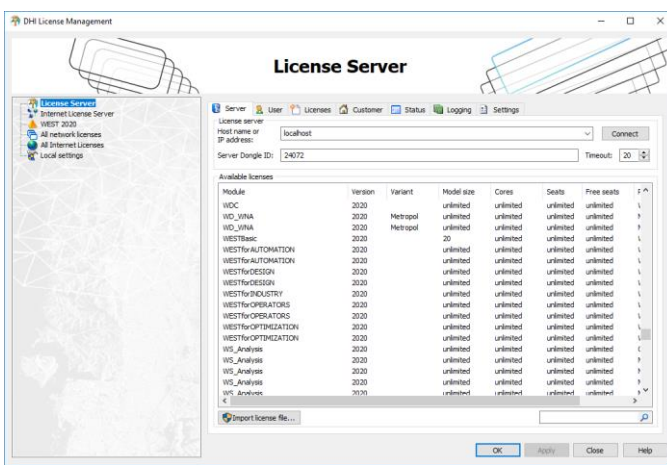
Installation step	Screen
<p><b>Select</b> the components to install.</p> <p><i>Note: If desired, the user can select a different destination folder than the default one by clicking “Change”</i></p> <p><b>Click Next</b></p>	
<p><b>Select</b> the type of license available</p> <p><i>Unchanged:</i> if the installation relies on the pre-existing license, or on Internet-based license</p> <p><i>Demo:</i> for testing of the software without a license</p> <p><i>Local:</i> if license is based on physical dongle</p> <p><i>Network:</i> if the license to be used is installed on a remote license server or IP number of the license server.</p> <p><b>Click Next</b></p>	
<p><b>Only if ‘Network’ is selected:</b> provide IP address or DNS address of the license server.</p> <p><b>Click Next</b></p>	



Installation step	Screen
<p><b>Launch the installation</b></p> <p><b>Click Install</b></p>	
<p><b>Click Finish</b></p>	

## 4 DHI License File

The DHI license is handled through the DHI License Management software, which can be found under DHI License Administration in the Start Menu.

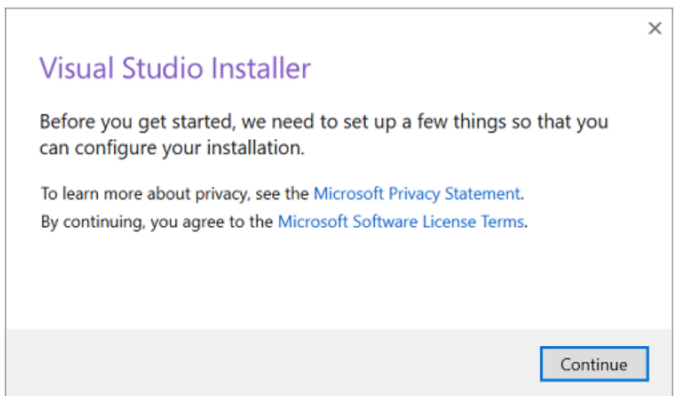
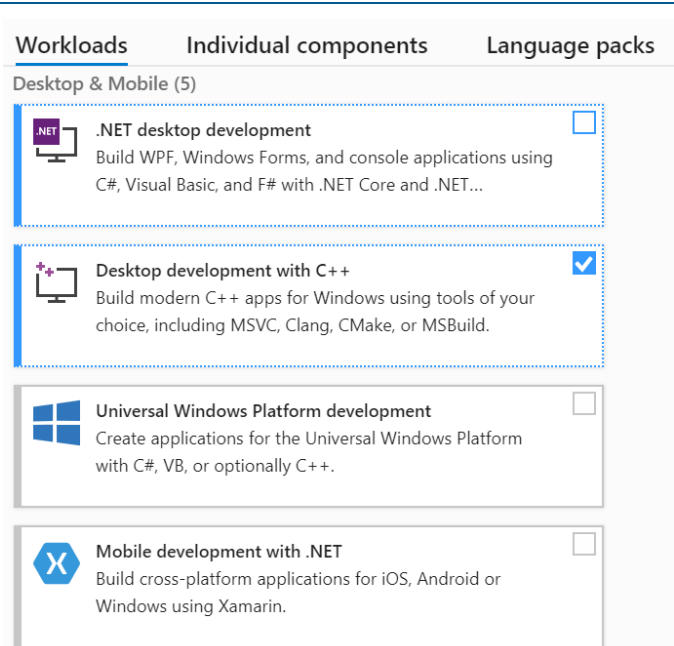
Installation step	Screen
<p><b>Open</b> the DHI License Management program in the start menu as <b>administrator</b> (right click and select the option 'Run as Administrator')</p>	
<p>There are three options:</p> <ul style="list-style-type: none"> <li>• Internet License</li> <li>• Network License</li> <li>• Local License (dongle)</li> </ul> <p>Click the <b>Help</b> button, for more information or contact your local MIKE Sales representative.</p>	

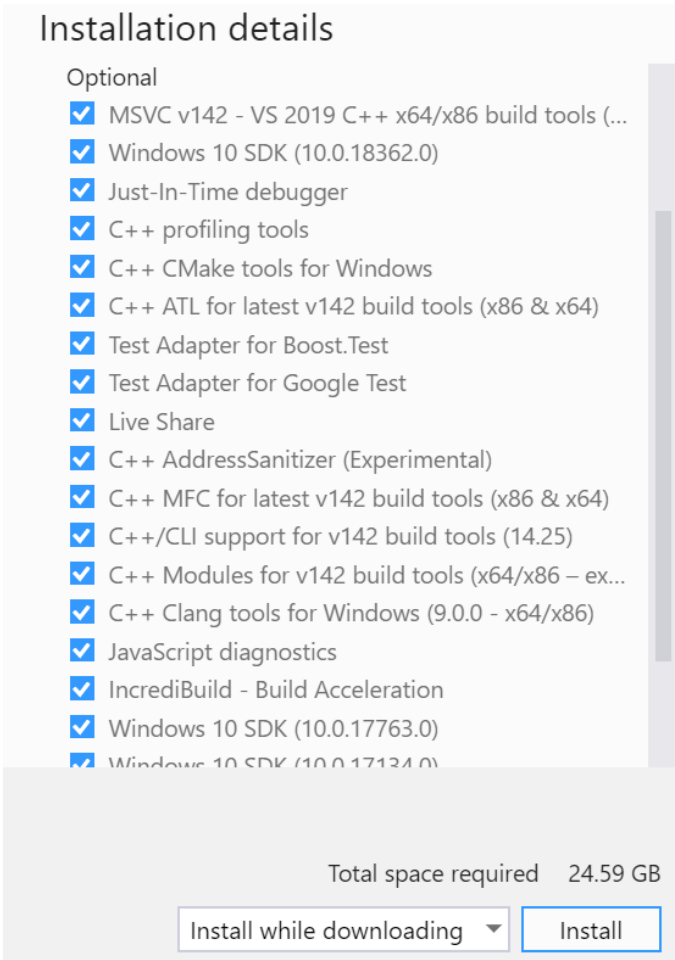
## 5 Installation and use of external compiler

Depending on the version of WEST installed, the user is required to install and activate an external compiler. **Use of an external compiler is required for WEST 64-bit, while it is optional for WEST 32-bit.** The recommended compiler in this Installation Guide is Microsoft Visual C++ (VC++) compiler, which is available as part of Visual Studio Community 2019 suite.

### 5.1 Visual Studio Community 2019 Installation

Download Visual Studio Community from <https://visualstudio.microsoft.com/downloads/> and launch the installation by running `vs_community.exe`.

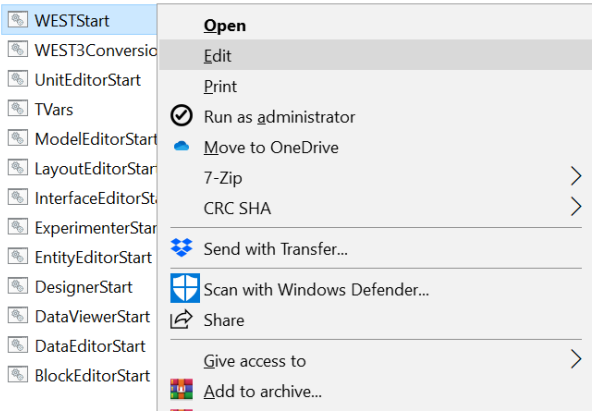
Instructions	Screen
<p>Read Privacy Statement and accept License Terms.</p> <p><i>Disclaimer: by accepting Microsoft Software License Terms, the user confirms to comply with terms of use of Visual Studio Community products as 3<sup>rd</sup> party components.</i></p> <p><i>License terms can also be found here:</i>  <a href="https://visualstudio.microsoft.com/license-terms/mlt031819/">https://visualstudio.microsoft.com/license-terms/mlt031819/</a></p>	
<p>Select the workload <b>Desktop development with C++</b></p>	

Instructions	Screen
<p>In the Installation Details (right hand panel) <b>select all</b> Optional features available to ensure installation of build tools and Windows SDK</p> <p><b>Click Install</b></p>	 <p><b>Installation details</b></p> <p>Optional</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> MSVC v142 - VS 2019 C++ x64/x86 build tools (...)</li> <li><input checked="" type="checkbox"/> Windows 10 SDK (10.0.18362.0)</li> <li><input checked="" type="checkbox"/> Just-In-Time debugger</li> <li><input checked="" type="checkbox"/> C++ profiling tools</li> <li><input checked="" type="checkbox"/> C++ CMake tools for Windows</li> <li><input checked="" type="checkbox"/> C++ ATL for latest v142 build tools (x86 &amp; x64)</li> <li><input checked="" type="checkbox"/> Test Adapter for Boost.Test</li> <li><input checked="" type="checkbox"/> Test Adapter for Google Test</li> <li><input checked="" type="checkbox"/> Live Share</li> <li><input checked="" type="checkbox"/> C++ AddressSanitizer (Experimental)</li> <li><input checked="" type="checkbox"/> C++ MFC for latest v142 build tools (x86 &amp; x64)</li> <li><input checked="" type="checkbox"/> C++/CLI support for v142 build tools (14.25)</li> <li><input checked="" type="checkbox"/> C++ Modules for v142 build tools (x64/x86 – ex...</li> <li><input checked="" type="checkbox"/> C++ Clang tools for Windows (9.0.0 - x64/x86)</li> <li><input checked="" type="checkbox"/> JavaScript diagnostics</li> <li><input checked="" type="checkbox"/> IncrediBuild - Build Acceleration</li> <li><input checked="" type="checkbox"/> Windows 10 SDK (10.0.17763.0)</li> <li><input checked="" type="checkbox"/> Windows 10 SDK (10.0.17134.0)</li> </ul> <p>Total space required 24.59 GB</p> <p>Install while downloading ▼ Install</p>

Once the installation is completed, all components can be retrieved in the folder  
*C:\Program Files (x86)\Microsoft Visual Studio\2019\Community*

## 5.2 Use of external compiler in WEST 32-bit (optional)

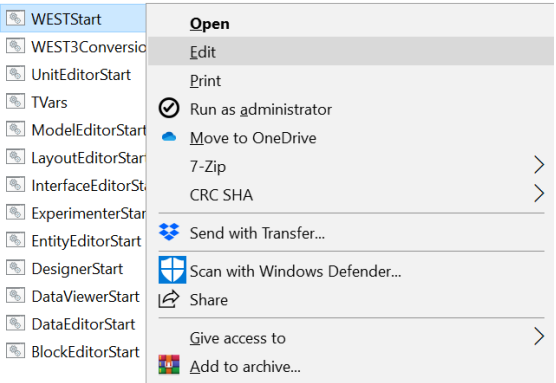
If you want to use the C-compiler with a 32-bit version of WEST (optional), you need to modify the automatically generated batch file **WESTStart.bat** located in the folder ...\\Public\\Documents\\DHI\\WEST\\bin.

Instructions	Screen
<p>Right click on <b>WESTStart.bat</b> and <b>Edit</b></p>	
<p>Set <b>TORNADO_CC_PLATFORM</b> to <b>win32-msvc</b></p>	<pre> SET INCLUDE=%INCLUDE%;C:\Program Files (x86)\DHI\WEST\2020\include SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib\win32-msvc SET PATH=C:\Program Files (x86)\DHI\WEST\2020\bin;C:\Program Files (x86)\DHI\WEST\2020\third_party\bcc5.5\Bin;%PATH% <b>SET TORNADO_CC_PLATFORM=win32-msvc</b> SET TORNADO_CC_PATH=C:\Program Files (x86)\DHI\WEST\2020\third_party\bcc5.5 SET TORNADO_DATA_PATH=C:\Users\Public\Documents\DHI\WEST SET TORNADO_ROOT_PATH=C:\Program Files (x86)\DHI\WEST\2020 SET OPENMODELICAHOME=C:\Program Files (x86)\DHI\WEST\2020\third_party\omc START DHI.WEST.exe %* EXIT </pre>
<p>Add the following statement as first line:</p> <p><b>CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\A uxiliary\Build\vcvars32.bat"</b></p> <p>Mind the use of " " quotes.</p> <p><i>Note: The path to vcvars32.bat file may differ depending on the version of Visual Studio installed (in this case, it refers to 2019 version)</i></p>	<pre> <b>CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Auxiliary\Build\vcvars32.bat"</b> SET INCLUDE=%INCLUDE%;C:\Program Files (x86)\DHI\WEST\2020\include SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib\win32-msvc SET PATH=C:\Program Files (x86)\DHI\WEST\2020\bin;C:\Program Files (x86)\DHI\WEST\2020\third_party\bcc5.5\Bin;%PATH% SET TORNADO_CC_PLATFORM=win32-msvc SET TORNADO_CC_PATH=C:\Program Files (x86)\DHI\WEST\2020\third_party\bcc5.5 SET TORNADO_DATA_PATH=C:\Users\Public\Documents\DHI\WEST SET TORNADO_ROOT_PATH=C:\Program Files (x86)\DHI\WEST\2020 SET OPENMODELICAHOME=C:\Program Files (x86)\DHI\WEST\2020\third_party\omc START DHI.WEST.exe %* EXIT </pre>
<p>If necessary, replace the line</p> <p><b>SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib\win3 2-msvc</b></p> <p>with the line</p> <p><b>SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib</b></p>	<pre> CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Auxiliary\Build\vcvars32.bat" SET INCLUDE=%INCLUDE%;C:\Program Files (x86)\DHI\WEST\2020\include <b>SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib</b> SET PATH=C:\Program Files (x86)\DHI\WEST\2020\bin;C:\Program Files (x86)\DHI\WEST\2020\third_party\bcc5.5\Bin;%PATH% SET TORNADO_CC_PLATFORM=win32-msvc SET TORNADO_CC_PATH=C:\Program Files (x86)\DHI\WEST\2020\third_party\bcc5.5 SET TORNADO_DATA_PATH=C:\Users\Public\Documents\DHI\WEST SET TORNADO_ROOT_PATH=C:\Program Files (x86)\DHI\WEST\2020 SET OPENMODELICAHOME=C:\Program Files (x86)\DHI\WEST\2020\third_party\omc START DHI.WEST.exe %* EXIT </pre>

Instructions	Screen
<b>Save</b> WESTStart.bat and launch WEST	

## 5.3 Use of external compiler in WEST 64-bit (required)

In order to enable WEST 64-bit to use the C-compiler, you need to modify the automatically generated batch file **WESTStart.bat** located in the folder ...\\Public\\Documents\\DHI\\WEST\\bin.

Instructions	Screen
<p>Right click on <b>WESTStart.bat</b> and <b>Edit</b></p>	
<p>Add the following statement as first line:</p> <p><b>CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Auxiliary\Build\vcvars64.bat"</b></p> <p>Mind the use of " " quotes.</p> <p><i>Note: The path to vcvars64.bat file may differ depending on the version of Visual Studio installed (in this case, it refers to 2019 version)</i></p>	<pre>CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Auxiliary\Build\vcvars64.bat" SET INCLUDE=%INCLUDE%;C:\Program Files (x86)\DHI\WEST\2020\include SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib\win64-msvc SET PATH=C:\Program Files (x86)\DHI\WEST\2020\bin\x64;C:\Program Files (x86)\DHI\WEST\2020\bin;%PATH% SET TORNAO_CC_PLATFORM=win64-msvc SET TORNAO_CC_PATH= SET TORNAO_DATA_PATH=C:\Users\Public\Documents\DHI\WEST SET TORNAO_ROOT_PATH=C:\Program Files (x86)\DHI\WEST\2020 SET OPENMODELICAHOME=C:\Program Files (x86)\DHI\WEST\2020\third_party\omc START DHI.WEST.exe %* EXIT</pre>
<p>If necessary, replace the line</p> <p><b>SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib\win64-msvc</b></p> <p>with the line</p> <p><b>SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib</b></p>	<pre>CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Auxiliary\Build\vcvars64.bat" SET INCLUDE=%INCLUDE%;C:\Program Files (x86)\DHI\WEST\2020\include SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib SET PATH=C:\Program Files (x86)\DHI\WEST\2020\bin\x64;C:\Program Files (x86)\DHI\WEST\2020\bin;%PATH% SET TORNAO_CC_PLATFORM=win64-msvc SET TORNAO_CC_PATH= SET TORNAO_DATA_PATH=C:\Users\Public\Documents\DHI\WEST SET TORNAO_ROOT_PATH=C:\Program Files (x86)\DHI\WEST\2020 SET OPENMODELICAHOME=C:\Program Files (x86)\DHI\WEST\2020\third_party\omc START DHI.WEST.exe %* EXIT</pre>
<p>Optionally, if faster compilation at the expense of slower simulation is desired, add the following to WESTStart.bat:</p> <p><b>SET TORNAO_CC_OPTIMIZE=no</b></p>	<pre>CALL "C:\Program Files (x86)\Microsoft Visual Studio\2019\Community\VC\Auxiliary\Build\vcvars64.bat" SET INCLUDE=%INCLUDE%;C:\Program Files (x86)\DHI\WEST\2020\include SET LIB=%LIB%;C:\Program Files (x86)\DHI\WEST\2020\lib SET PATH=C:\Program Files (x86)\DHI\WEST\2020\bin\x64;C:\Program Files (x86)\DHI\WEST\2020\bin;%PATH% SET TORNAO_CC_PLATFORM=win64-msvc SET TORNAO_CC_PATH= SET TORNAO_CC_OPTIMIZE=no SET TORNAO_DATA_PATH=C:\Users\Public\Documents\DHI\WEST SET TORNAO_ROOT_PATH=C:\Program Files (x86)\DHI\WEST\2020 SET OPENMODELICAHOME=C:\Program Files (x86)\DHI\WEST\2020\third_party\omc START DHI.WEST.exe %* EXIT</pre>

Instructions	Screen
<b>Save</b> WESTStart.bat and launch WEST	