



WEC-Sim Training Course



Online Training Materials

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Installation Guide

Installation Steps

- **Check MATLAB requirements**
- **Download WEC-Sim**
- **Add WEC-Sim to MATLAB path**
- **Verify WEC-Sim path**
- **Add WEC-Sim library to Simulink**
- **Test WEC-Sim installation**

Install MATLAB and Download WEC-Sim

Check MATLAB Requirements

Verify that the MATLAB required toolboxes are installed by typing `ver` in the MATLAB Command Window:

```
>> ver
-----
MATLAB Version: 9.9.0.1592791 (R2020b)
-----
MATLAB                Version 9.9      (R2020b)
Simulink              Version 10.2   (R2020b)
Simscape              Version 5.0    (R2020b)
Simscape Multibody    Version 7.2    (R2020b)
```

Required packages include:

MATLAB, Simulink, Simscape, Simscape Multibody

Versions supported:

2020b and later

If you want to contribute to WEC-Sim development, go to this link:

https://wec-sim.github.io/WEC-Sim/master/developer/getting_started.html#dev-getting-started

Download WEC-Sim

A. Install WEC-Sim using git:

```
>> git lfs install
>> git clone https://github.com/WEC-Sim/WEC-Sim
```

B. Install WEC-Sim from the latest tagged WEC-Sim Release.

Install WEC-Sim

1. Add WEC-Sim to MATLAB Path

Option 1. Automatically add the WEC-Sim source on MATLAB startup.

Open `$WECSIM/source/addWecSimSource.m` and copy contents to a new file called `startup.m`. Set the WEC-Sim path to the local `$WECSIM/source` directory, e.g. `wecSimSource = 'C:/User/Documents/GitHub/WEC-Sim/source'`. Save `startup.m` to the **MATLAB Startup Folder**. Restart MATLAB, and the `$WECSIM/source` directory will automatically be added to the MATLAB path.

```
% This script adds the WEC-Sim source to the MATLAB path.  
  
% Define WEC-Sim source and add to MATLAB path  
wecSimSource = fullfile(pwd, 'source');  
addpath(genpath(wecSimSource));  
  
% Allow opening of Simulink models saved in a newer version  
set_param(0, 'ErrorIfLoadNewModel', 'off')  
  
clear wecSimSource
```

2. Verify the path

WEC-Sim should be contained on the MATLAB path. Type “path” in the MATLAB Command Window:

```
>> path  
  
MATLABPATH  
  
C:/User/Documents/GitHub/WEC-Sim/source
```

https://wec-sim.github.io/WEC-Sim/master/developer/getting_started.html#dev-getting-started

Install WEC-Sim

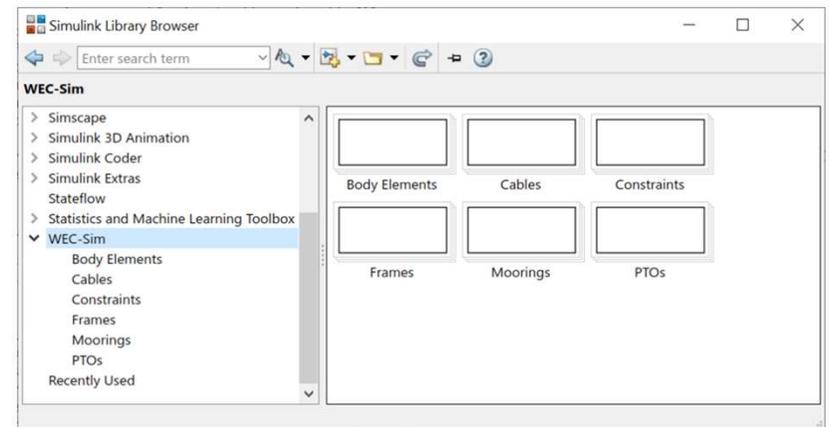
Add WEC-Sim library to Simulink

Step 3. Add WEC-Sim Library to Simulink

Open the Simulink Library Browser by typing `sLibraryBrowser` in the MATLAB Command Window:

```
>> sLibraryBrowser
```

Once the Simulink Library Browser opens, [refresh the Simulink Library](#). The WEC-Sim Library should now be visible, as shown in the figure below. The WEC-Sim Library will now be accessible every time Simulink is opened. For more information on using and modifying library blocks refer to the [Simulink Documentation](#).



https://wec-sim.github.io/WEC-Sim/master/developer/getting_started.html#dev-getting-started

Install WEC-Sim

WEC-Sim Installation

Go to `$WECSIM/examples/RM3/hydroData` Run `bemio.m`

Go back to `$WECSIM/examples/RM3` and type `wecSim` in the command window

This should run an example case using the Reference Model 3 (RM3) point absorber. A Mechanics Explorer window will open within the MATLAB window, and figures will be generated displaying simulation outputs.

https://wec-sim.github.io/WEC-Sim/master/developer/getting_started.html#dev-getting-started

Thank you

For more information please visit the WEC-Sim website:

<http://wec-sim.github.io/WEC-Sim>

If you have questions on this presentation please reach out to any of the WEC-Sim Developers on GitHub:

<https://github.com/WEC-Sim/WEC-Sim>



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