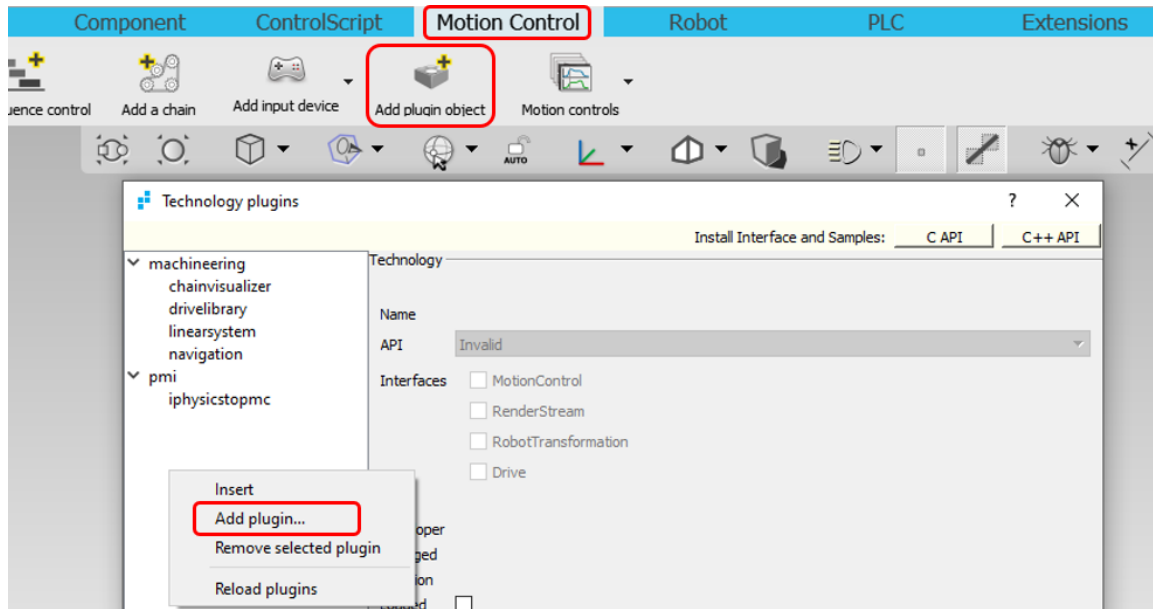



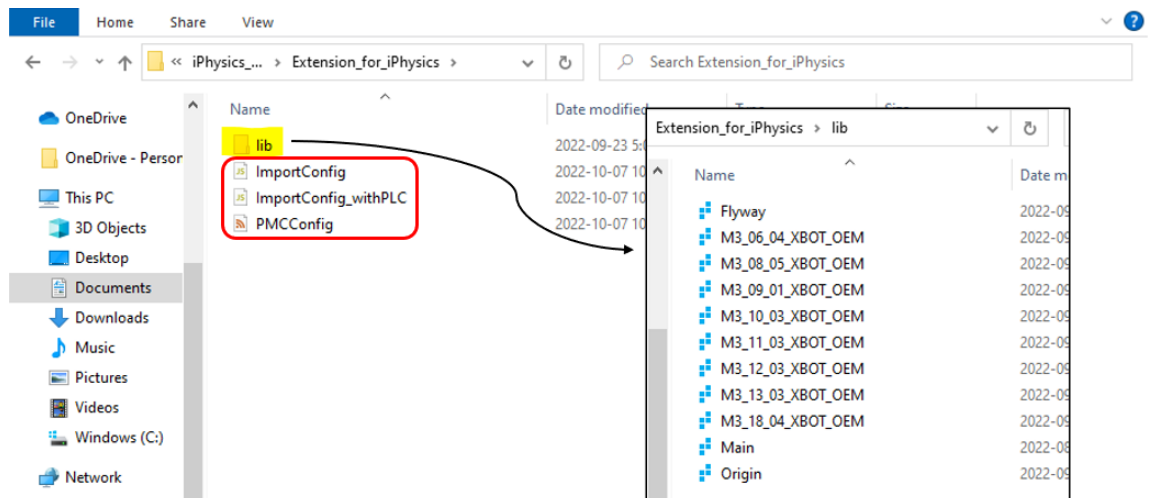
Loading Configuration into iPhysics

1. To install the motion plug-in, go to Motion Control tab and click on Add plugin object. The Technology plugins window will appear. Right-click in the left column and select Add plugin.... Browse to *iPhysicstoPMC.dll* and upload it.

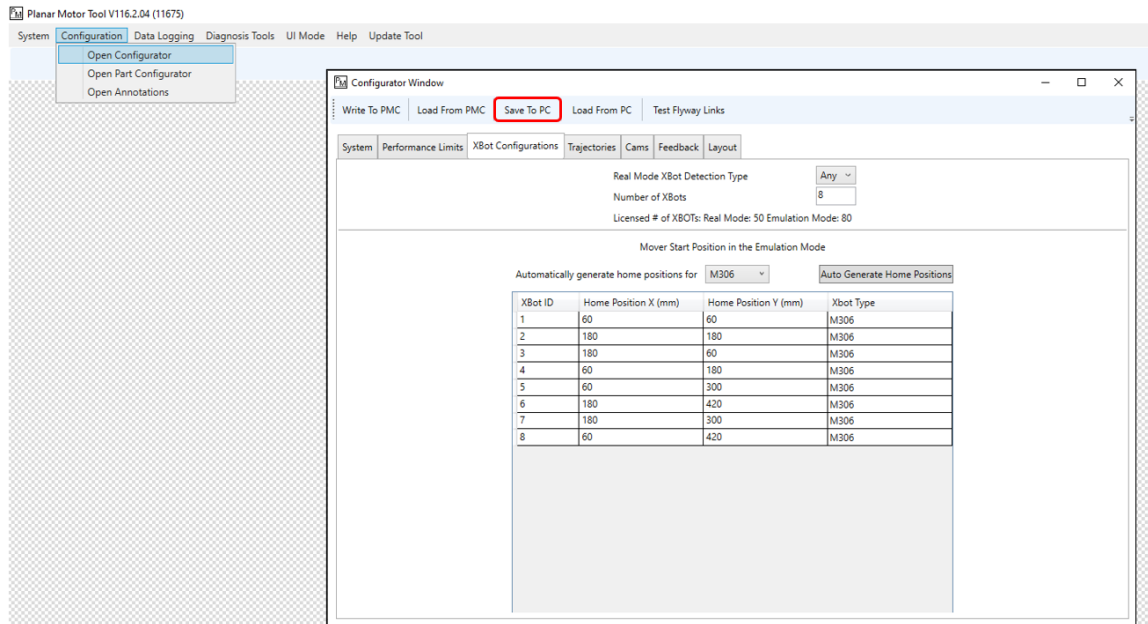


Rebuild  the simulation.

2. Save the file *PMCCConfig.xml* in the **same location** as the *lib* folder and the script *ImportConfig.js*.



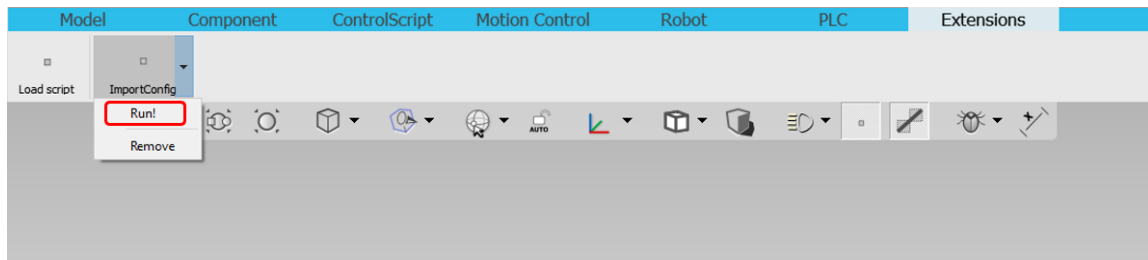
PMCCConfig.xml is obtained through the Planar Motor Tool. Go to Configuration > Open Configurator. Once desired configuration is selected, click Save To PC.



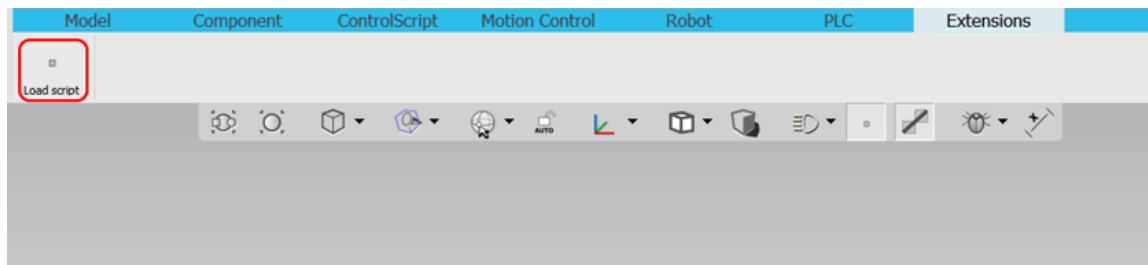
Note: Do not rename the file. Regenerate/replace the config file each time the layout is changed or a different PMC is used.

Note: Running the extensions in step 3 will create a new document. If an already opened iPhysics simulation needs to be used, please refer to [Importing Configuration in an Already Opened Simulation](#).

- Run ImportConfig under the Extensions tab in iPhysics.



If ImportConfig is not already available, click on Load script. Browse and select *ImportConfig.js*.

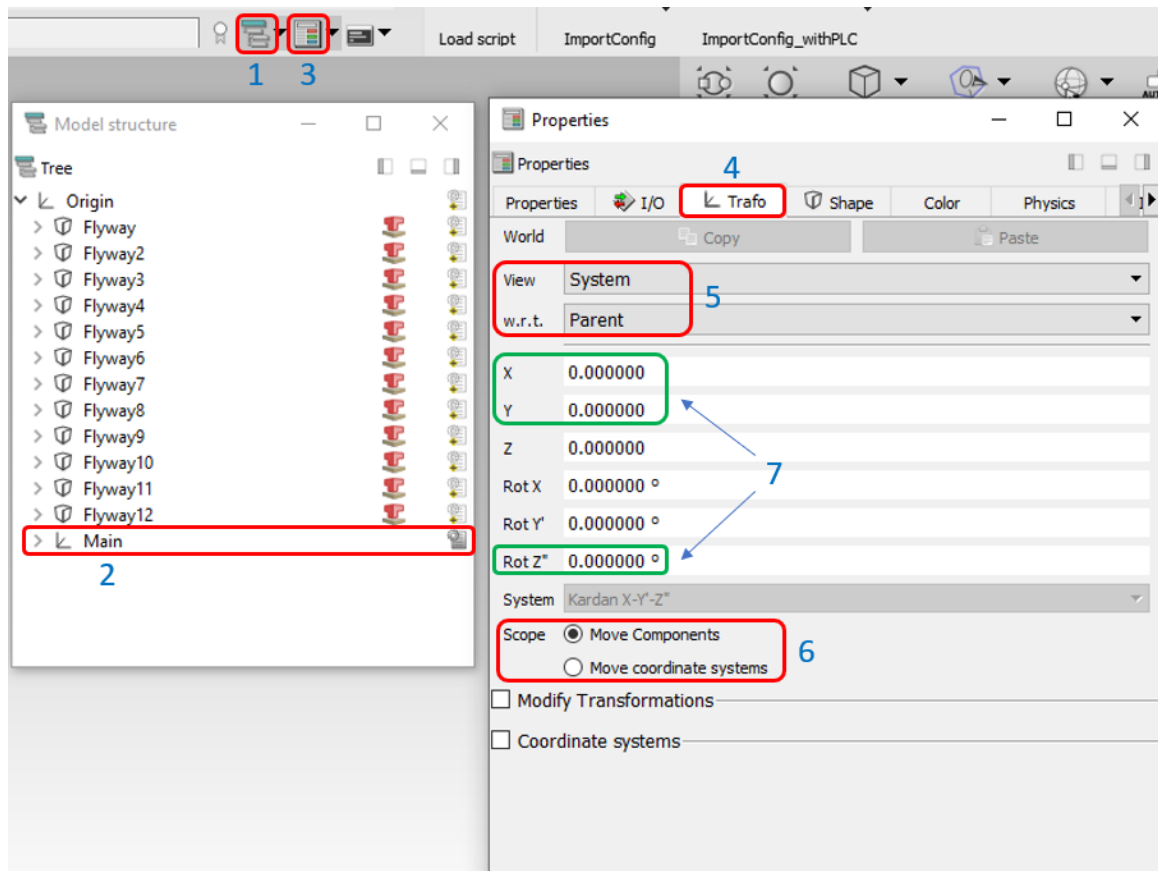


If the extension did not appear after the above step, **close and restart iPhysics**.

Modifying User Origin in iPhysics

There are 2 options to change the user origin in iPhysics:

- a. Automatically through the ImportConfig extension. **This will typically create a new document and current changes will not be transferred, unless [Importing Configuration in an Already Opened Simulation](#) is executed first.**
 1. Open the Configurator in the Planar Motor Tool
 2. Save the layout to PC (replace the previous *PMCCConfig.xml* file)
 3. Run ImportConfig in iPhysics from the Extensions tab
- b. Manually in the properties window in iPhysics. **The current document will continue to be used.**
 1. Open the Model structure window
 2. Select Main
 3. Open the Properties window
 4. Navigate to the Trafo tab
 5. Make sure the View is System w.r.t. Parent
 6. Select the scope to be Move Components
 7. Enter the same values (in meters and degrees) as in the Configurator



Modifying the Extension

Importing Configuration in an Already Opened Simulation

Running the extensions will create a new document every time they are run. To be able to load the PMC configuration in an already opened iPhysics simulation,

1. Open the file *ImportConfig.js*.
2. Comment the following lines.

```
1  application.newDocument();  
363 document.save("Layout.iphz");  
364 view3D.setBackground("0.0:#222;0.5:#ccebff;1.0:#222");
```

3. The configuration will load in the top-most level of the model tree (its parent is the world trafo). To modify that, change the boxed text with the path of the desired parent.

```
46 //select initial root for the config  
47 var parentpath = "Physics://physics"
```


4. Save the file.

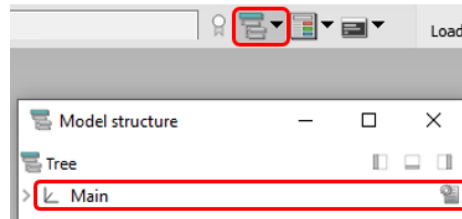
Note: If there is already an instance of the configuration which was loaded in the simulation beforehand, **delete it first**, and then run the extension again.

Troubleshooting

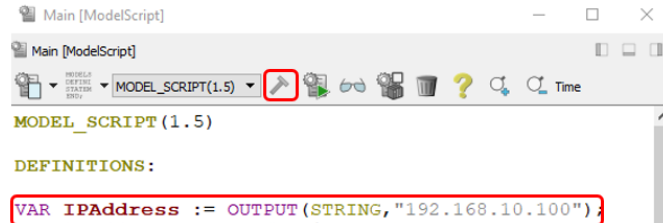
Go through the steps in order until one of them solves the issue. If none of them worked, restart iPhysics and run ImportConfig again.

Movers are not synchronized with PMT or physical system

1. Make sure that the simulation is actually running.
2. Verify that the IP Address in the script of Main matches that of the PMC.
 - a. Open the script by double-clicking on  from the Model structure

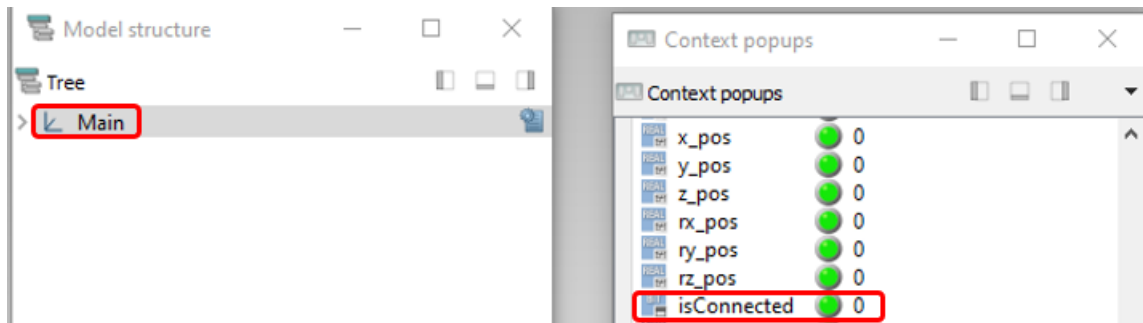




- b. Check the IP Address, change its value if needed and click on Compile



- c. Close the script, rebuild  the simulation and click play 
3. Unload and reload the motion plug-in.

Note: The status of the connection between iPhysics and PMC can be known by looking at the *isConnected* property of Main. An active connection is indicated by 1.




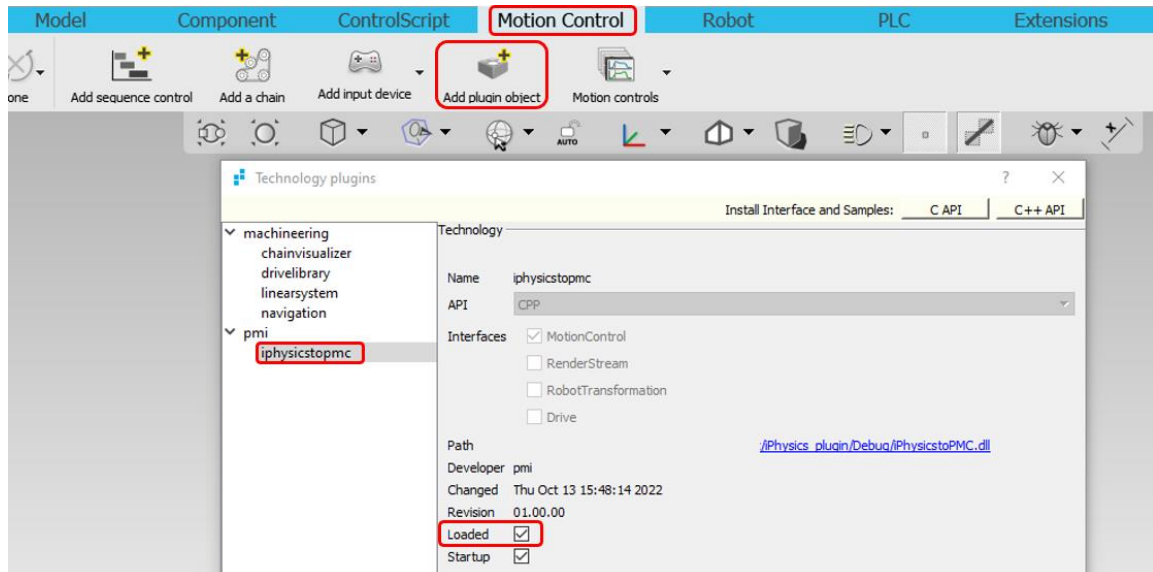
Verify that when rebuilding , *isConnected* changes to 0, and clicking play  brings it back to 1. Repeat this around 3 times. If its value stays 0 throughout, restart iPhysics and run ImportConfig again.


Nothing happens when running the extension

1. Make sure the config file obtained from the Configurator of the Planar Motor Tool is in the **same location** as the *ImportConfig.js* file.
2. Make sure that file is named *PMConfig*.

Unloading and Reloading the Motion Plug-in

1. Rebuild  the simulation. **DO NOT skip this step.**
2. Go to Add plugin object from the Motion Control tab. Click on *iphysicstopmc* and unload it.



3. Right-click in the left column of the Technology plugins window and select Reload plugins.
4. Rebuild  the simulation. This will reattach the plug-in to the components.