Switching Between MATLAB/Simulink Versions

Starting with version 2016.1 of VehicleSim products, you can select the MATLAB version with the **Tools->Select MATLAB Version** drop-down menu. However, if you installed MATLAB with a Service Pack, e.g. R2015aSP1, then the menu option may not work. Instead, you must use the legacy process, as described in this memo. This document explains how to use the `regserver` command to switch between different instances of MATLAB/Simulink for use with CarSim, TruckSim, and BikeSim.

Note	This document was written using CarSim 2018.0 with MATLAB R2016b and R2016a as examples. Please substitute your MATLAB versions and target paths as necessary.

1. Navigate to the windows location of your MATLAB application, shown in blue in Figure 1. Right click on **matlab.exe** ① and create a new desktop shortcut for MATLAB R20xxa, naming it `MATLAB R20xxx reg.` where "`xx`" is the year/version of MATLAB used, and the last "`x`" designates the a/b revision. (Figure 2).

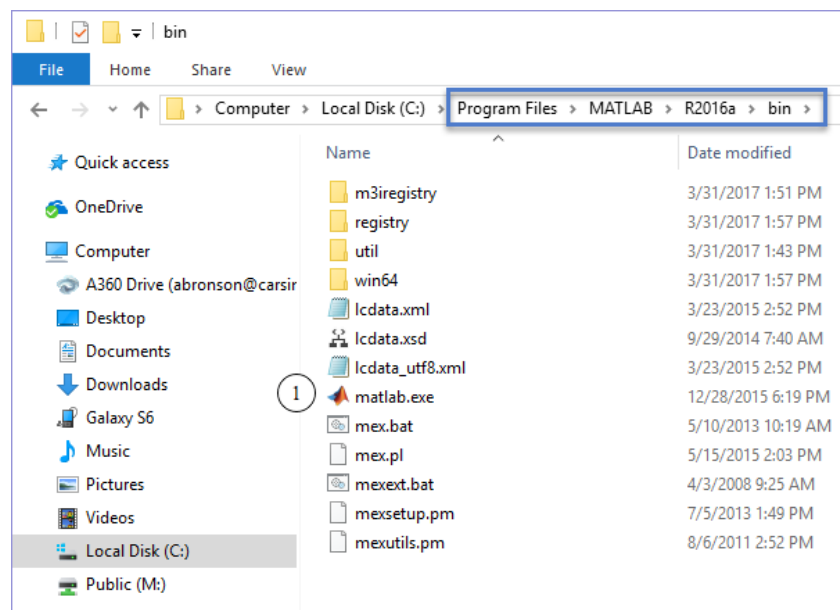|	
Note	Do not use old/previous MATLAB shortcuts.

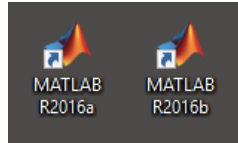*Figure 1. MATLAB executable location.*

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Figure 2. MATLAB desktop icons.

2. Right click on the new shortcut and click on **Properties** at the bottom of the list.

3. On the **Shortcut** tab in the Target path, type the following directory path ① (Figure 3):

`"C:\Program Files\MATLAB\R20xxa\bin\matlab.exe" /regserver`

Note   Include the quotes if you have a space in the path name (i.e., Program Files)

There is a space after the "…exe"

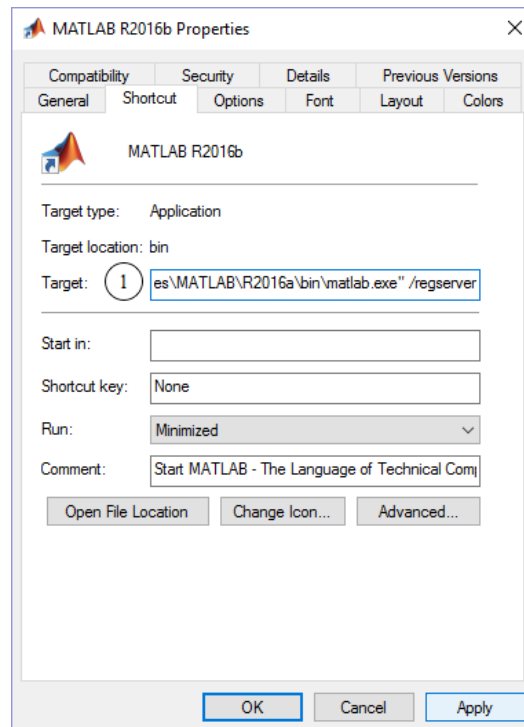Click OK when you are done. See.

Figure 3. MATLAB general properties.

4. Repeat the above process for any remaining MATLAB installations you'd like to use with Vehicle Sim products.

5. Launch CarSim, TruckSim, or BikeSim.

6. Use the Datasets menu and select a Simulink example.

7. On the Run Control screen click **Send to Simulink**.

8. Click the **Run** arrow in Simulink to make sure the model runs.

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9. In the MATLAB Command Window type `ver` ① to see what MATLAB version is running ②. It should be the most recent version of MATLAB that was installed on your computer. See Figure 4.
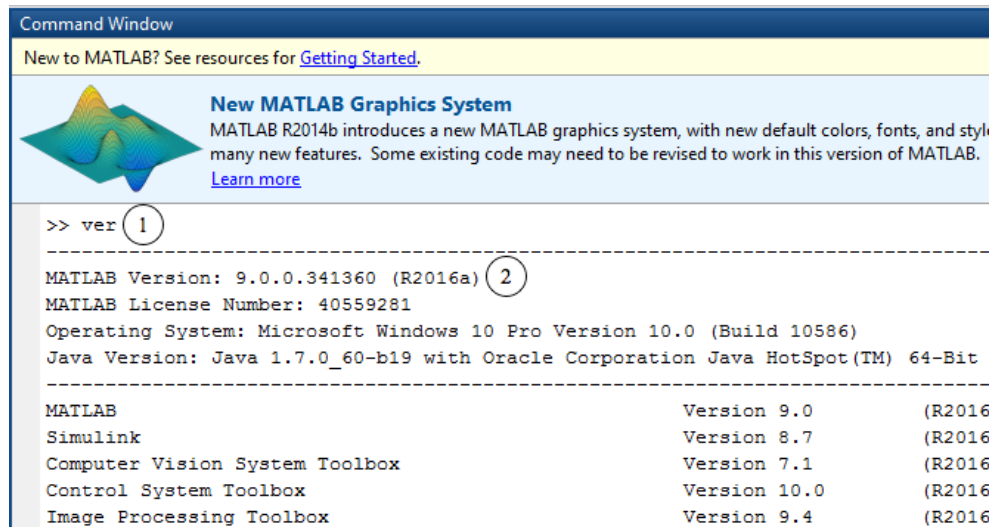

Figure 4. Command Window with MATLAB and a Simulink dataset.

10. Close that instance of MATLAB/Simulink either by typing `exit` in the Command Window or click the X in the upper right corner of the MATLAB Command Window.

Note   When asked if you want to save the Simulink model, select **No.** (Figure 5).
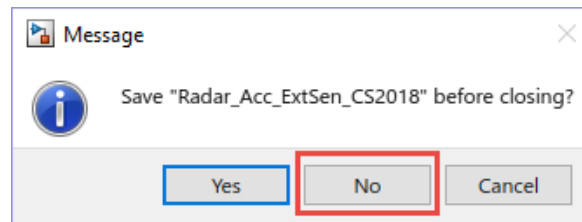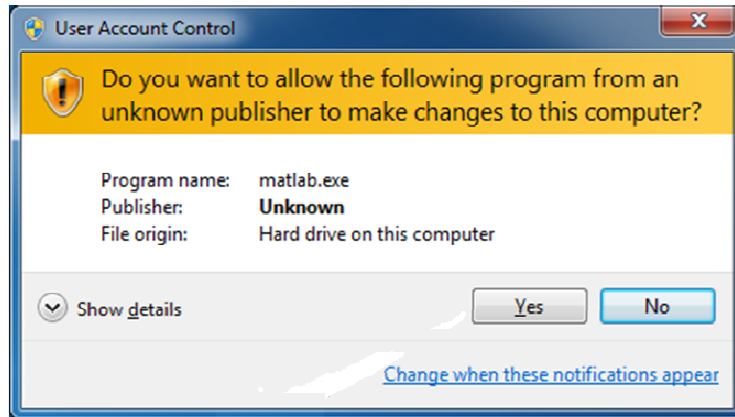

Figure 5. Simulink save dialog window.

11. On your computer's desktop, double click on the second MATLAB instance you wish to run.

Note   If you get a message saying you need Administrator Privileges, close any instance of MATLAB that starts to open, right click on the new shortcut and select **Run as administrator**.

Depending on your User Account Control settings, you may be asked if you want to continue. Select **Yes**. See Figure 6.

Figure 6. User account control settings.

12. A MATLAB Command Window will open. Repeat steps 9-10 for the newer instance (see Figure 4).

13. Repeat steps 5-8, triggering a new Simulink model to run.

14. Check the Command Window to verify the correct version of MATLAB has launched (see Figure 4).

15. Perform your simulations. When you are done, close MATLAB/Simulink.

16. Repeat this procedure either to switch back to the initial MATLAB version, or to select a third, fourth, etc. instance of MATLAB.

Known Issues

1. Not all versions of MATLAB show up in the drop down menu in VehicleSim products.

2. This method doesn't work if you have both 32-bit and 64-bit versions of MATLAB installed. This is due to how MATLAB interacts with the Windows Registry; versions of the same release of MATLAB share registry keys between 32-bit and 64-bit systems.

If you have any questions, please contact us at tech@carsim.com.