

RTC TOOLBOX

RTC stands for Real-Time Calculus. It is an extension of Network Calculus for system-level performance analysis of the distributed real-time and embedded systems. RTC Toolbox is based on Java and Matlab.

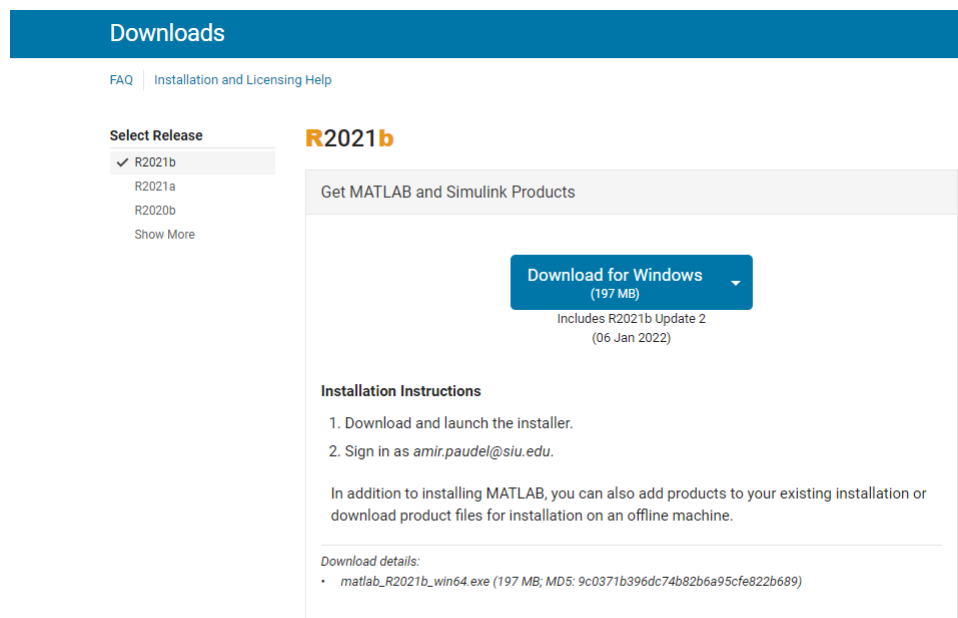
This documentation provides insight into installation of RTC Toolbox and its configuration:

1.Download MATLAB

- Download the latest version of MATLAB from the given link.

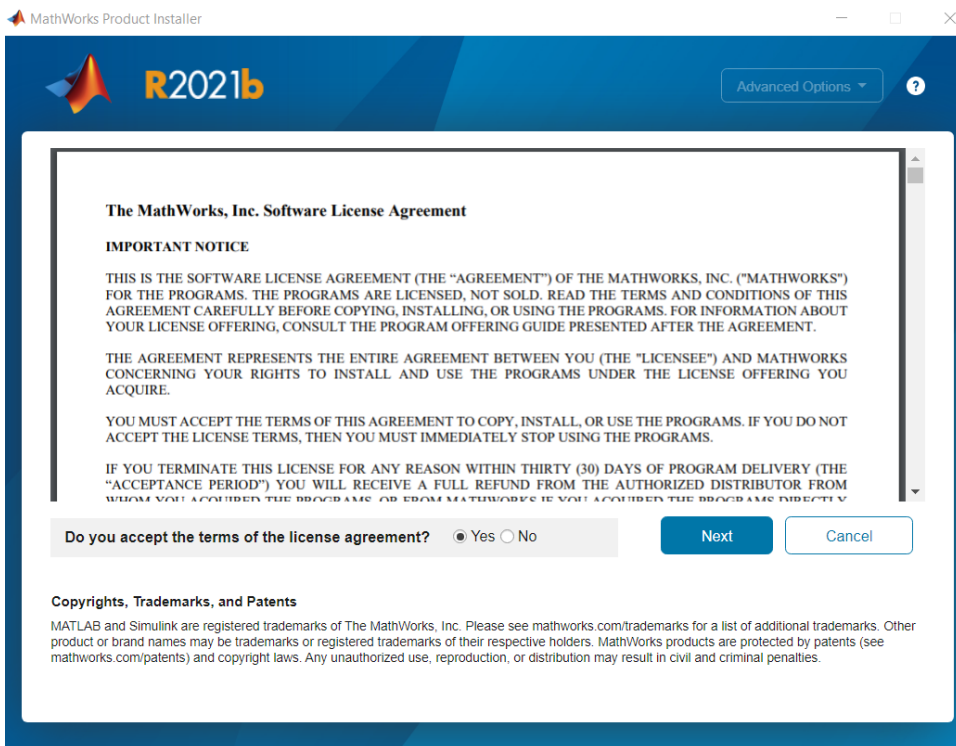
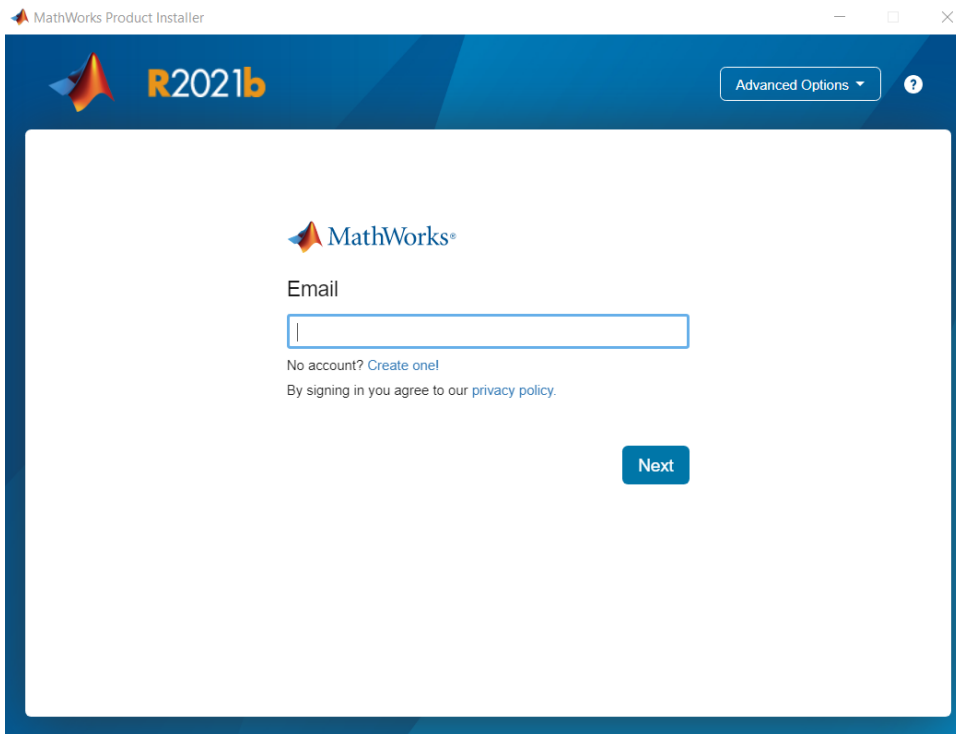
Link: [Matlab Download](#)

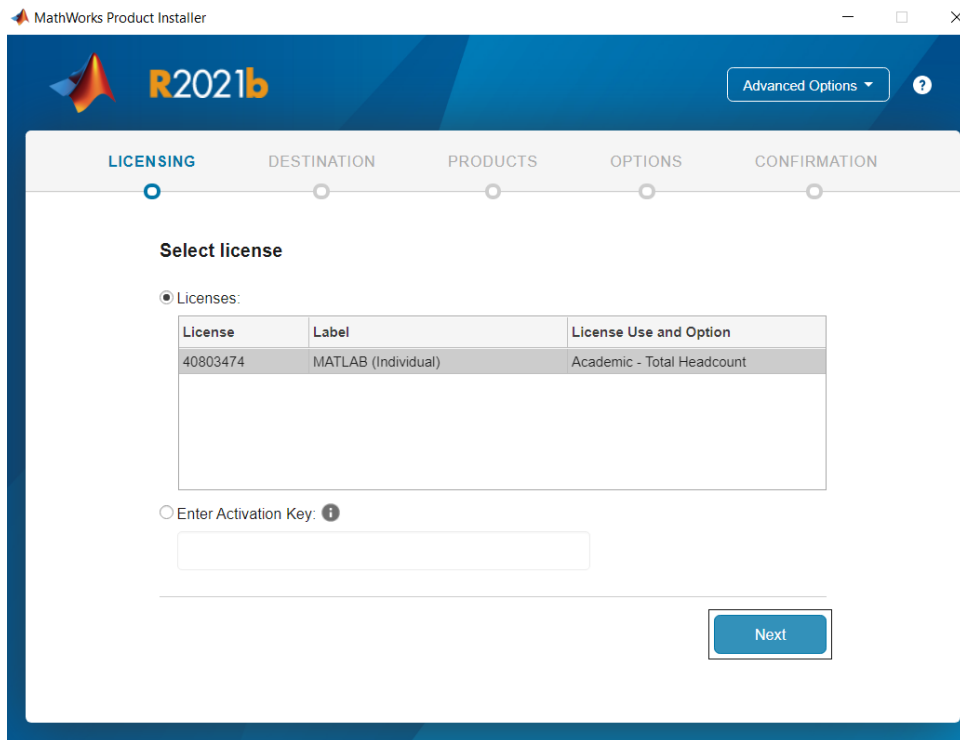
- You will be required to create a MathWorks account before downloading.
- After creating an account, download an installer.



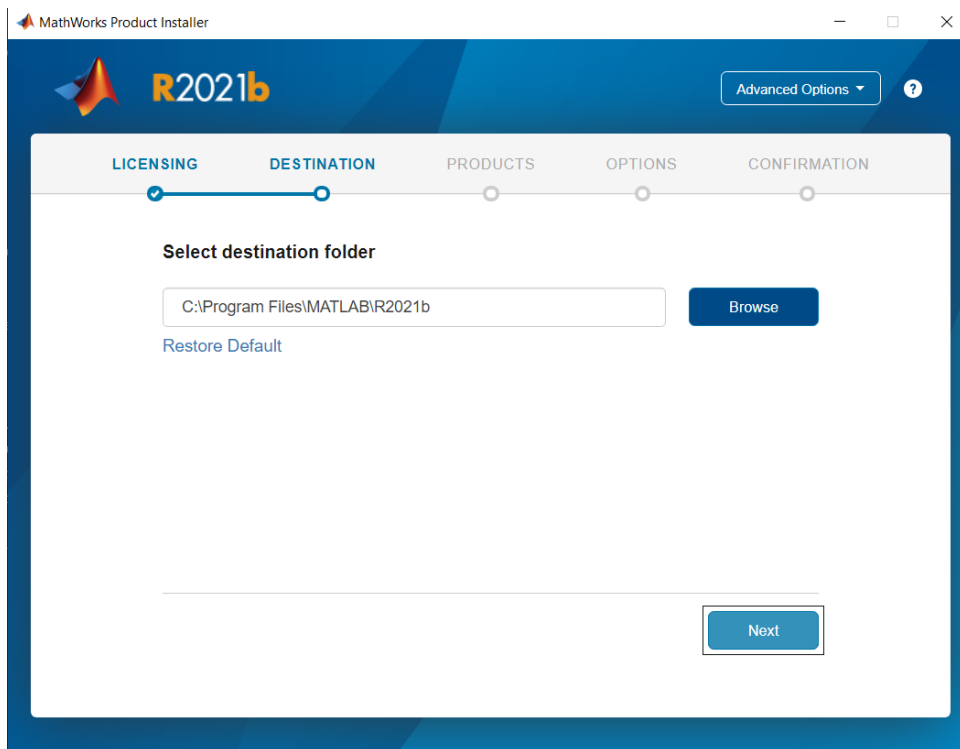
2. Install the MATLAB into the desired directory.

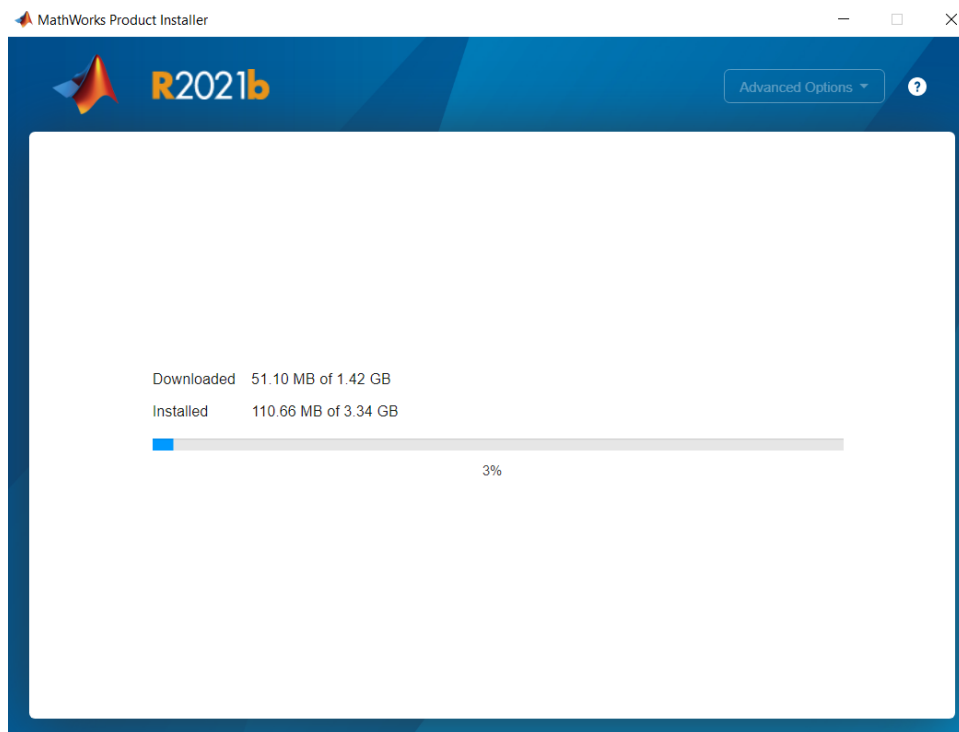
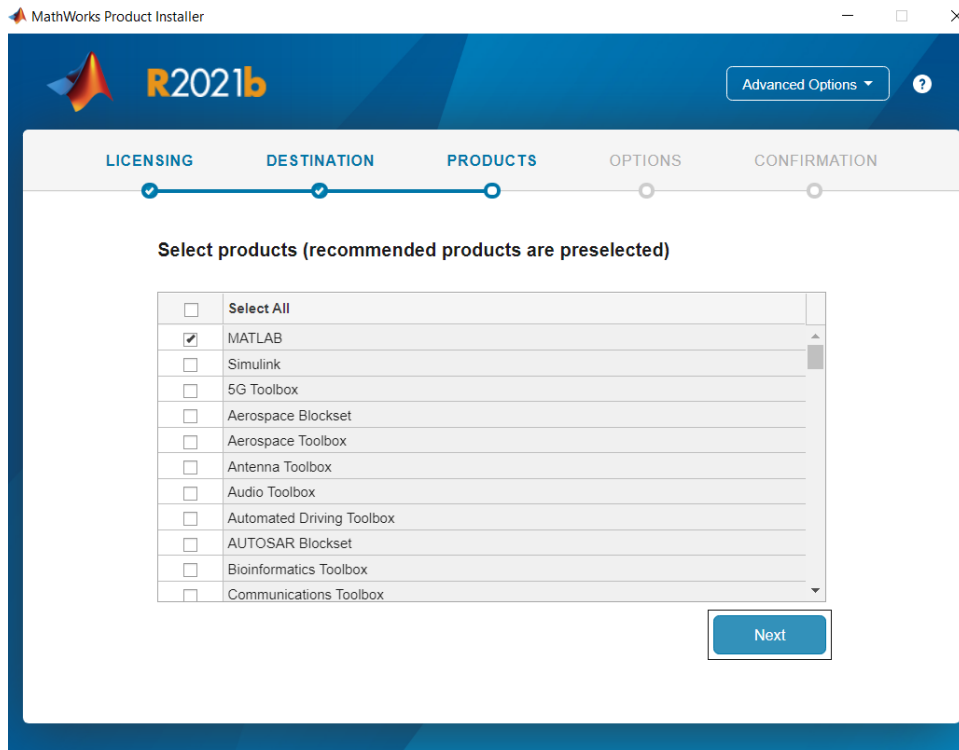
- Launch the Matlab Installer
- Login using your MathWorks email



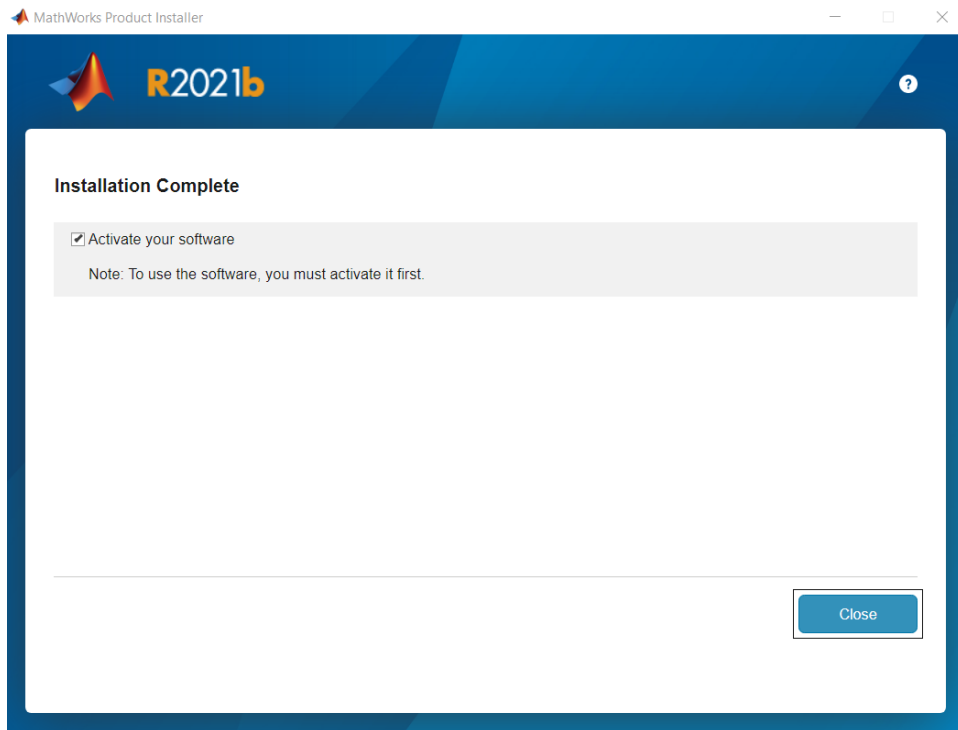


- Select the destination folder





- After installation is complete, launch the MATLAB

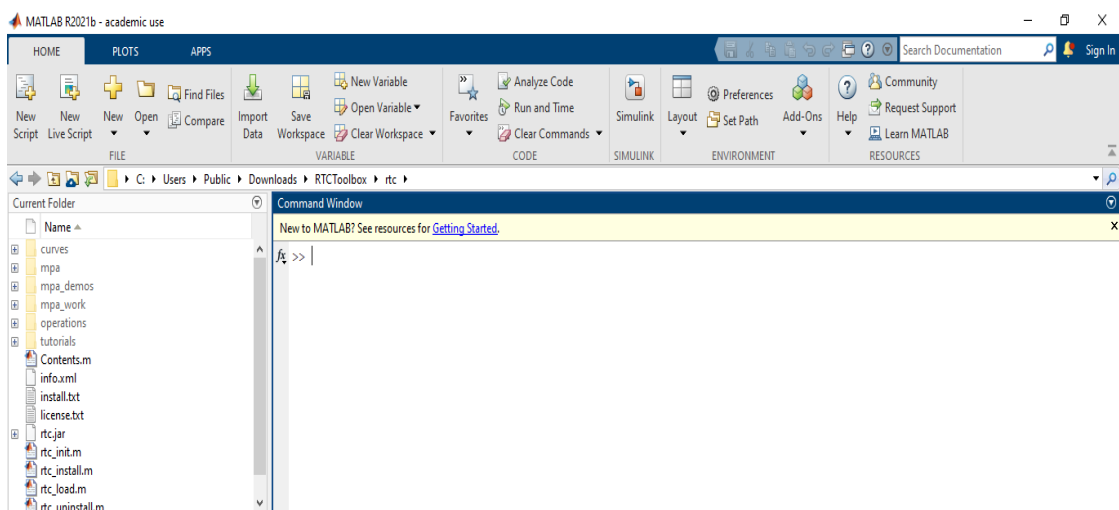


3. Download and Install RTC Toolbox

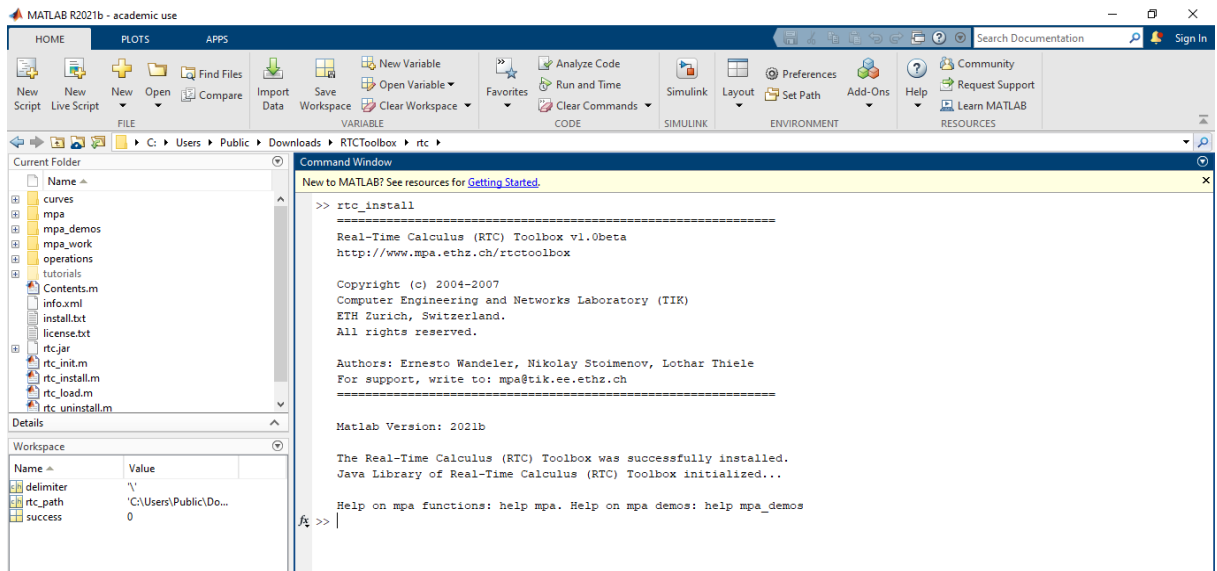
- Download the latest release of the toolbox

Link : [RTC Toolbox](#)

- After download, extract the downloaded zip package.
- Copy the folder **rtc** to its installation destination.
- Open the Matlab and change to the **rtc** directory.



- Now run the following code to install RTC Toolbox



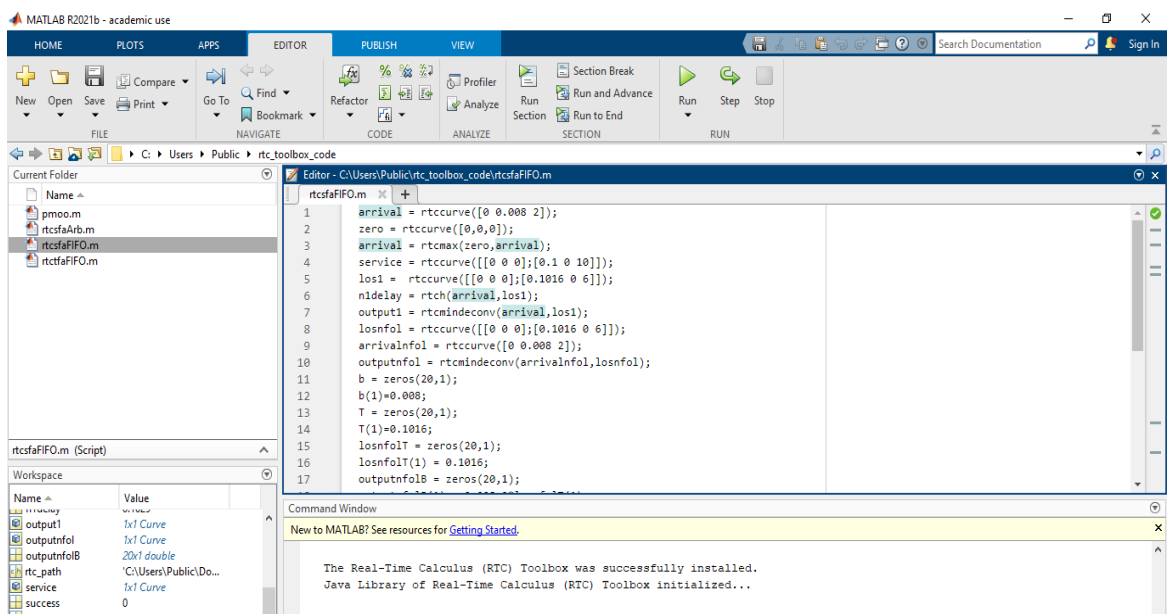
- Now the RTC toolbox is completely installed.

4. Running the Code

- Download the code from the portal for network analysis.

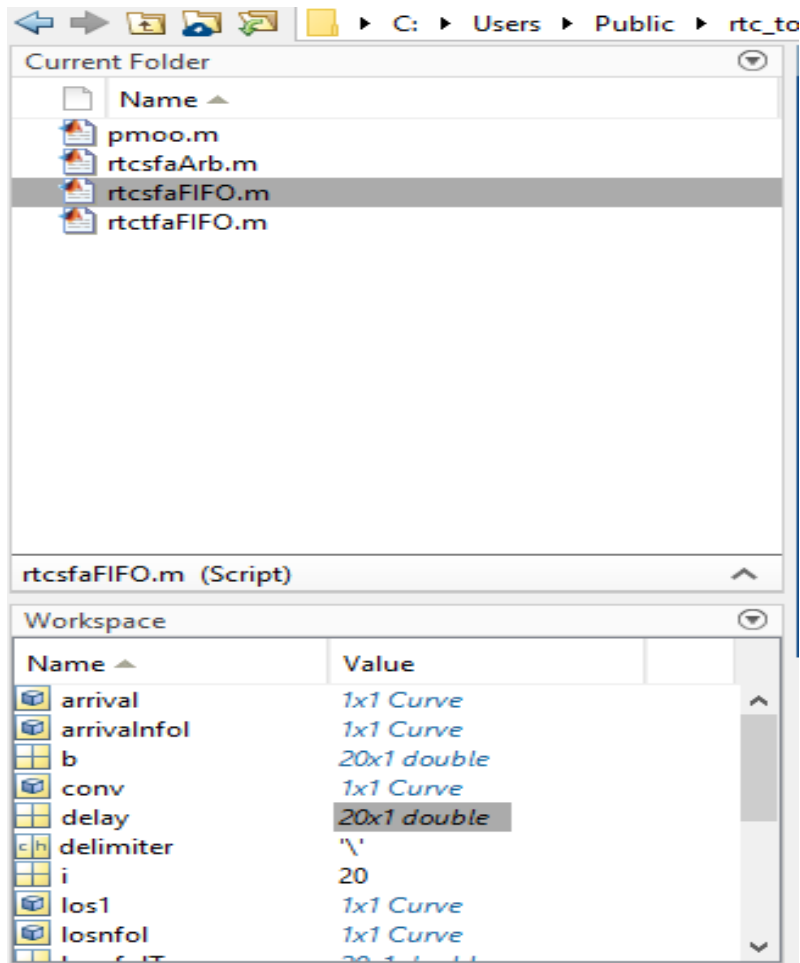
Link:

- Import the code into the Matlab.



- Run the code to get the delay estimate.

- After the code is run, we will have the result on the left bottom panel of the Matlab as shown in image below:



- Open the delay variables. It displays all the values of the delays in a new window.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|----|--------|---|---|---|---|---|
| 1 | 0.1029 | | | | | |
| 2 | 0.2249 | | | | | |
| 3 | 0.3508 | | | | | |
| 4 | 0.4817 | | | | | |
| 5 | 0.6176 | | | | | |
| 6 | 0.7587 | | | | | |
| 7 | 0.9053 | | | | | |
| 8 | 1.0575 | | | | | |
| 9 | 1.2156 | | | | | |
| 10 | 1.3798 | | | | | |
| 11 | 1.5503 | | | | | |
| 12 | 1.7273 | | | | | |

- Plot the delays to get a graph using any visualization technique.

