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# Find and Replace Tool

FindReplaceTool helps to search a string in a Simulink model and also replace it with another string.

Developed by: Sysenso Systems, <https://sysenso.com/>

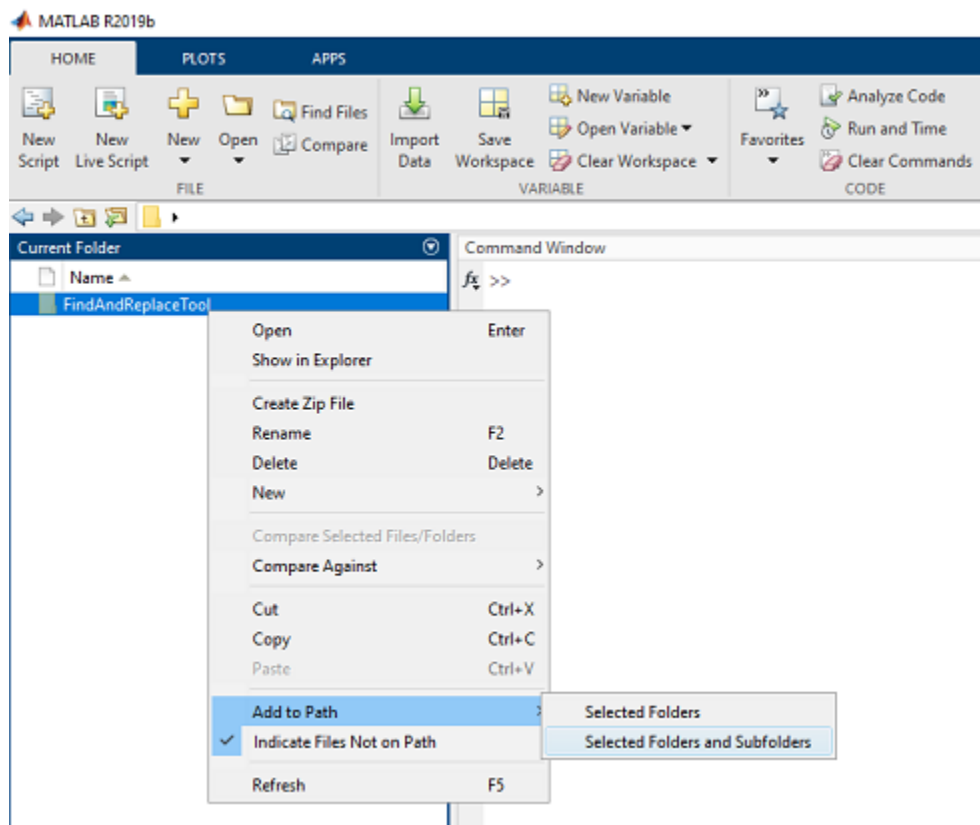
Contact: [contactus@sysenso.com](mailto:contactus@sysenso.com)

Version:

- 2.0 - Added support to do Find and Replace for block dialog parameters. Extended Replace action inside model reference blocks.
- 1.0 - Initial Version.

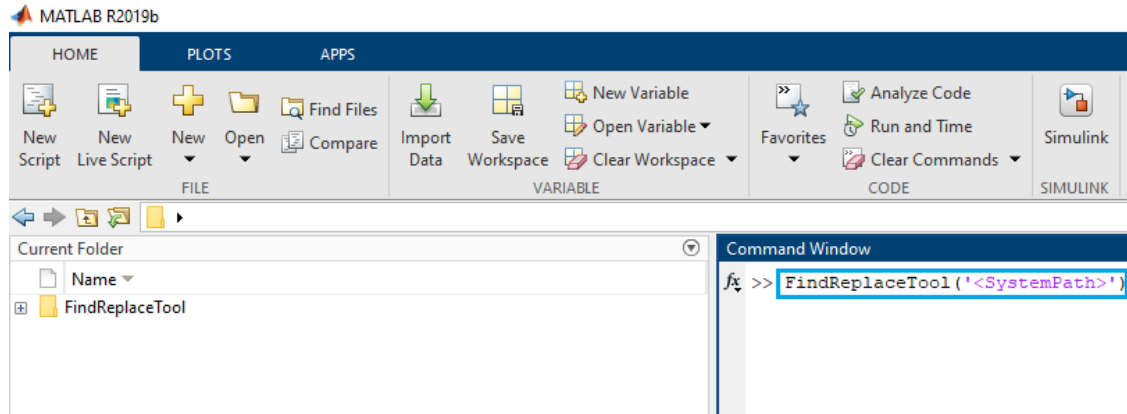
## Launching the tool

- Before launching the tool, add the FindReplaceTool folder to the MATLAB path.

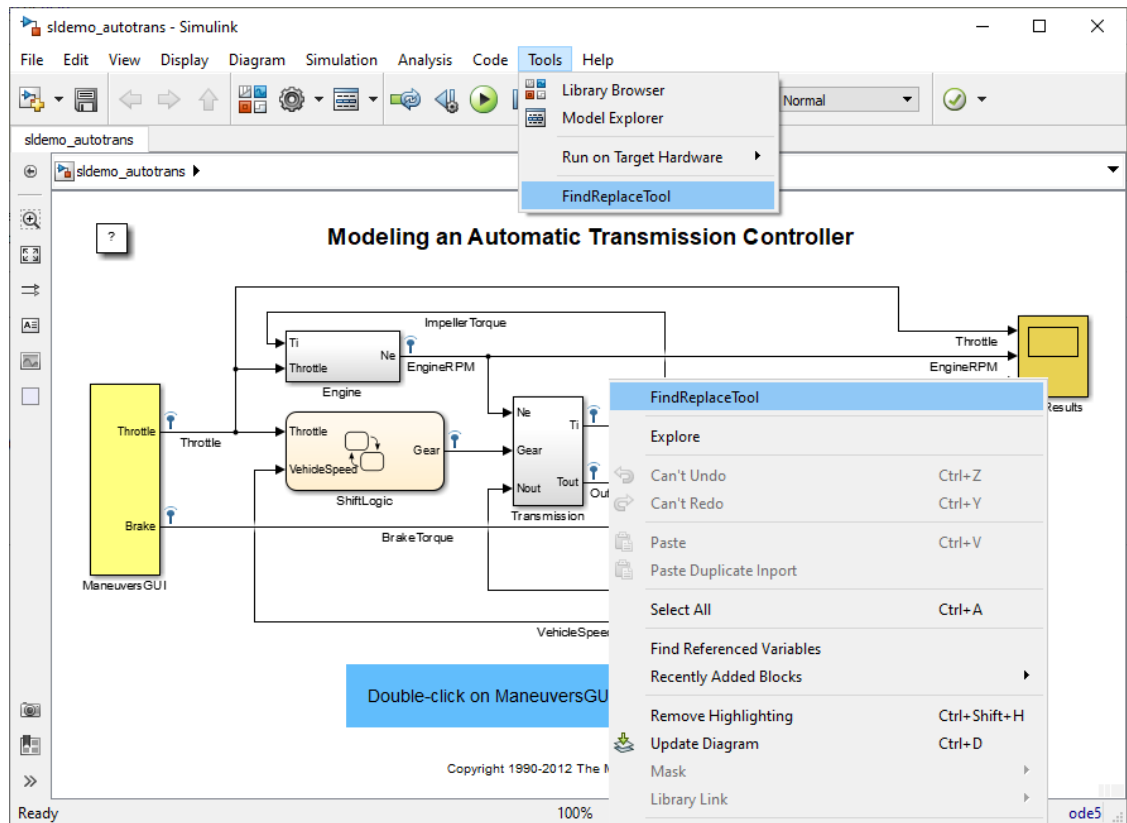


- The tool can be launched by typing following the command as below in the MATLAB command window.
- `>> FindReplaceTool('<SystemPath>')`
- `>> FindReplaceTool`

## Find and Replace Tool

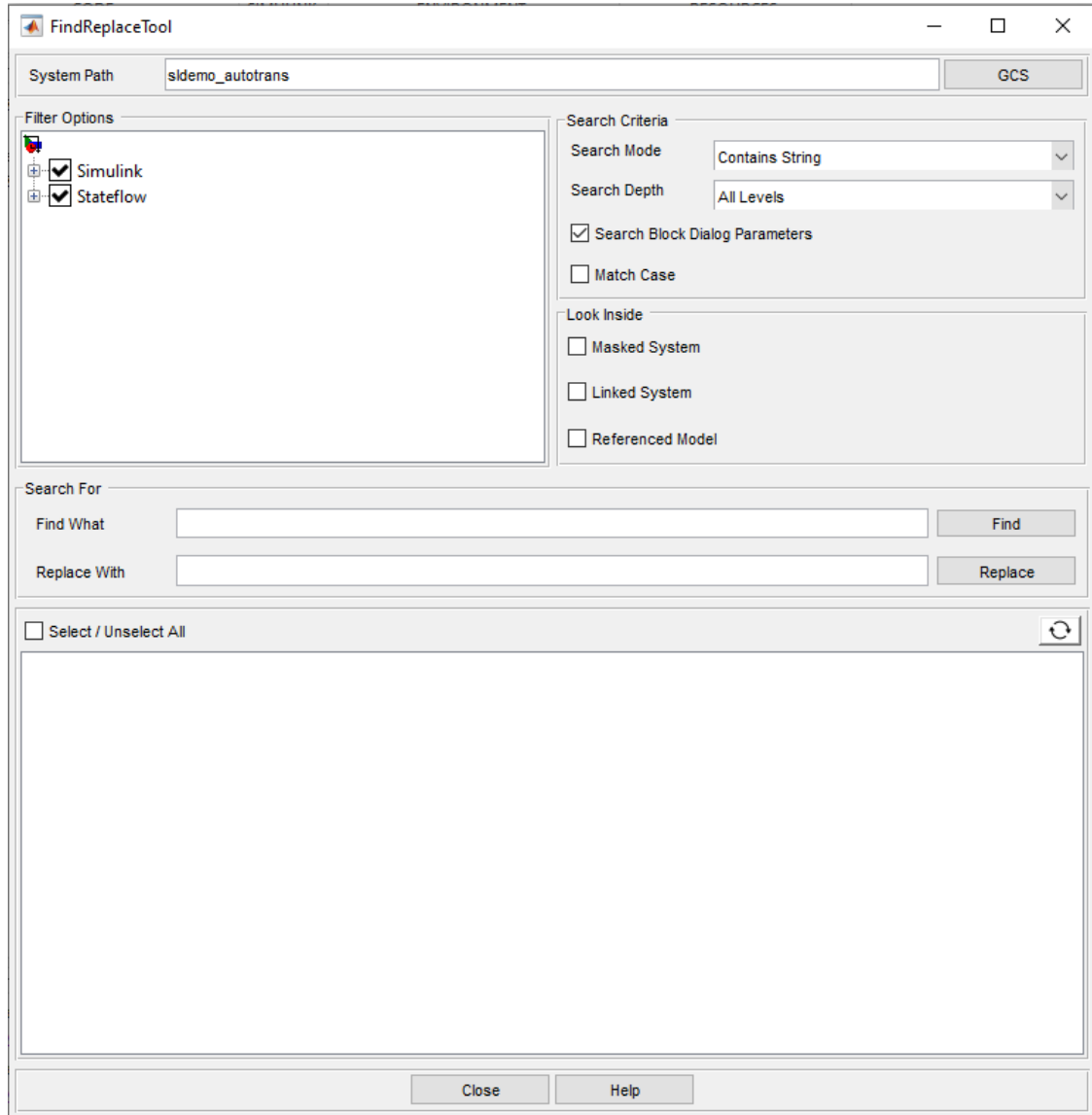


- FindReplaceTool can be launched from Tools/FindReplaceTool menu or from the model context menu. If the menu is not available, run the following command in the MATLAB command window and then start using Simulink. `>> sl_refresh_customizations`



- Find and Replace Tool GUI launches with the current system path

## Find and Replace Tool

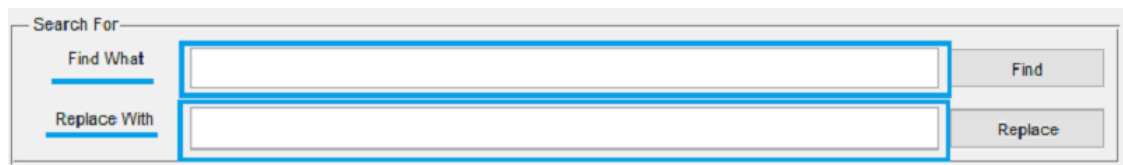


### Find

- On clicking the GCS button on top of the GUI, it sets the full path name of the current Simulink system.



- Enter the word or a regular expression that you want to search in the Find what field and a replacement string in the Replace with field.



## Find and Replace Tool

- On clicking the Find button near the Find what field, a table at the bottom of the GUI will be populated with all the Simulink and Stateflow objects that matches the search string.

Search For

Find What: Transmission

Replace With:

Find

Replace

☐ Select / Unselect All

	Select	Type	Name	Path	LabelString	Source	Destination	Status
1	<input type="checkbox"/>	Annotation	Transmission Gear Ratio	sidemo_autotrans/Transmi...				<input type="checkbox"/>
2	<input type="checkbox"/>	Annotation	Transmission	sidemo_autotrans/Transmi...				<input type="checkbox"/>
3	<input type="checkbox"/>	Annotation	Modeling an Automatic Tra...	sidemo_autotrans				<input type="checkbox"/>
4	<input type="checkbox"/>	Line	TransmissionRPM			Vehicle	Transmission	<input type="checkbox"/>
5	<input type="checkbox"/>	Block	Transmission	sidemo_autotrans				<input type="checkbox"/>
6	<input type="checkbox"/>	Block	TransmissionRatio	sidemo_autotrans/Transmi...				<input type="checkbox"/>

- To replace the specific object from the table, select the checkbox in the first column corresponding to the object to be replaced.

☐ Select / Unselect All

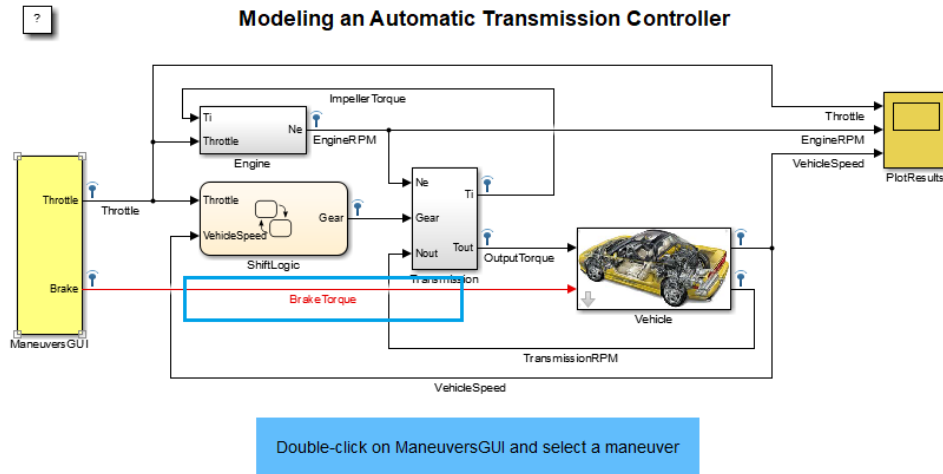
	Select	Type	Name	Path	LabelString	Source	Destination	Status
1	<input type="checkbox"/>	Line	TurbineTorque			TorqueConverter	TransmissionRatio	<input type="checkbox"/>
2	<input type="checkbox"/>	Line	BrakeTorque			ManeuversGUI	Vehicle	<input type="checkbox"/>
3	<input type="checkbox"/>	Line	OutputTorque			Transmission	Vehicle	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	Block	EngineTorque	sidemo_autotrans/Engi...				<input type="checkbox"/>
5	<input checked="" type="checkbox"/>	Block	TorqueConverter	sidemo_autotrans/Transmi...				<input type="checkbox"/>

- Select/Unselect All checkbox near the top of the table, is used to select/Unselect all the checkbox in the first column of the table.

☒ Select / Unselect All

	Select	Type	Name	Path	LabelString	Source	Destination	Status
1	<input checked="" type="checkbox"/>	Line	TurbineTorque			TorqueConverter	TransmissionRatio	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	Line	BrakeTorque			ManeuversGUI	Vehicle	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	Line	OutputTorque			Transmission	Vehicle	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	Block	EngineTorque	sidemo_autotrans/Engi...				<input type="checkbox"/>
5	<input checked="" type="checkbox"/>	Block	TorqueConverter	sidemo_autotrans/Tra...				<input type="checkbox"/>

- On clicking any cell in the table, the object corresponding to the cell will be highlighted in the model.



	Select	Type	Name	Path	LabelString	Source	Destination	Status
1	<input type="checkbox"/>	Line	TurbineTorque			TorqueConverter	TransmissionRatio	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	Line	BrakeTorque			ManeuversGUI	Vehicle	<input type="checkbox"/>
3	<input type="checkbox"/>	Line	OutputTorque			Transmission	Vehicle	<input type="checkbox"/>
4	<input type="checkbox"/>	Block	EngineTorque	slidemo_autotrans/Engi...				<input type="checkbox"/>
5	<input type="checkbox"/>	Block	TorqueConverter	slidemo_autotrans/Tra...				<input type="checkbox"/>

## Replace

- On clicking the Replace button, the objects in the table with checkbox selected will be replaced.
- Checkbox in the status column of the table will be marked for the objects that are replaced.

Search For

Find What: Torque Find

Replace With: TQE Replace

☐ Select / Unselect All

	Select	Type	Name	Path	LabelString	Source	Destination	Status
1	<input type="checkbox"/>	Line	TurbineTorque			TorqueConverter	TransmissionRatio	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	Line	BrakeTQE			ManeuversGUI	Vehicle	<input checked="" type="checkbox"/>
3	<input type="checkbox"/>	Line	OutputTorque			Transmission	Vehicle	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	Block	EngineTQE	slidemo_autotrans/Engi...				<input checked="" type="checkbox"/>
5	<input type="checkbox"/>	Block	TorqueConverter	slidemo_autotrans/Tra...				<input type="checkbox"/>

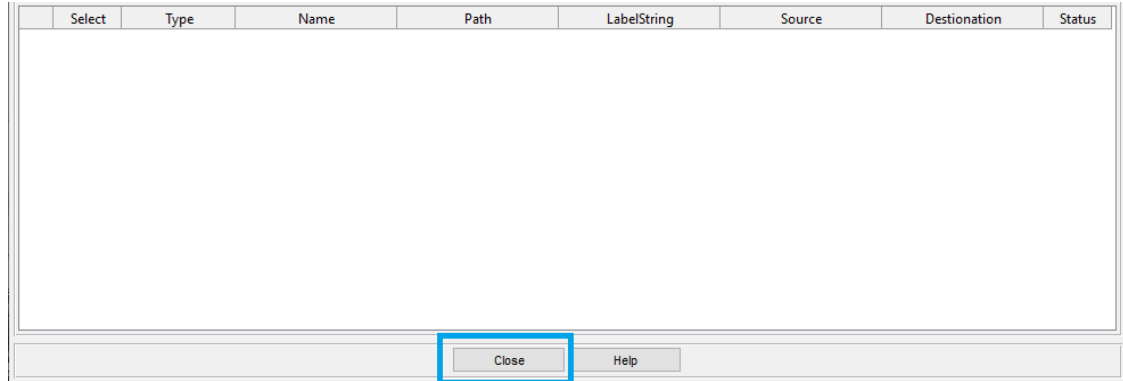
- The Refresh button on top of the table is used to remove the replaced objects from the table.(Refresh Table Data)

☐ Select / Unselect All

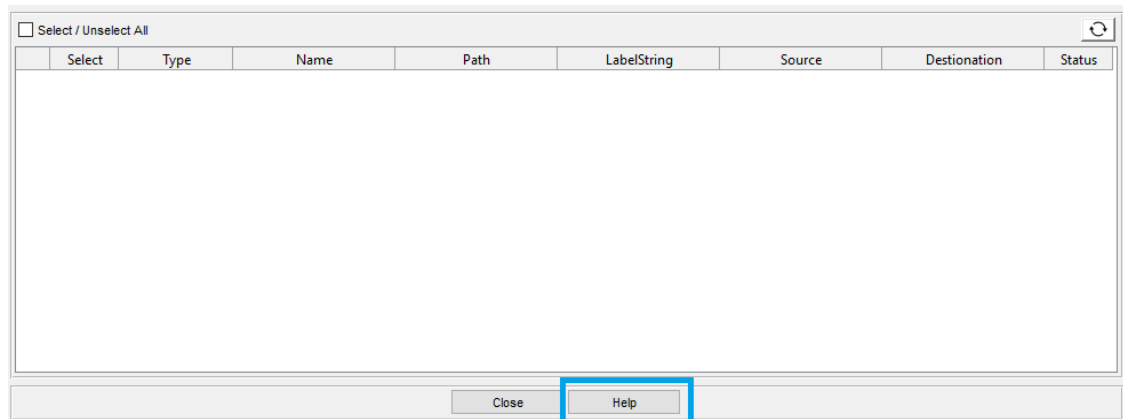
	Select	Type	Name	Path	LabelString	Source	Destination	Status
1	<input type="checkbox"/>	Line	TurbineTorque			TorqueConverter	TransmissionRatio	<input type="checkbox"/>
2	<input type="checkbox"/>	Line	OutputTorque			Transmission	Vehicle	<input type="checkbox"/>
3	<input type="checkbox"/>	Block	TorqueConverter	slidemo_autotrans/Tra...				<input type="checkbox"/>

- The Close button on bottom of the table is used to close the FindReplaceTool GUI.

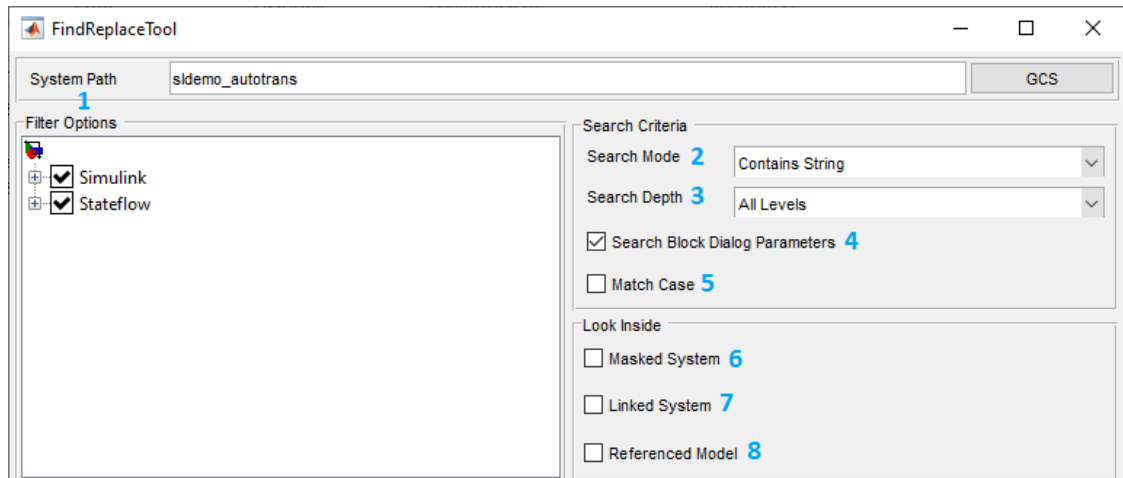
## Find and Replace Tool



- On clicking the Help button on bottom of the table, the user guide document for the FindReplaceTool GUI opens.



## Options



1. **Filter Options** - Filter options is used to limit the search of within the selected Simulink/Stateflow objects.

2. **Search Criteria\Search Mode** - Search Mode is a drop-down menu with 3 options. Matches String - Matches the whole word given in the "Find What", in an object property. Contains String - Searches

the given word present in an object property. Regular Expression - Considers the given word as a regular expression and searches it.

3. **Search Criteria\Search Depth** - Search Depth is a drop-down menu with 2 options. All Levels(default) - Searches under given system path to all the levels available. Current Level - Searches for all objects in the system path and excludes its children levels.

4. **Search Criteria\Search Block Dialog Parameters** - If this checkbox is selected, then the specified Find string is searched inside the block dialog box parameters as well.

5. **Search Criteria\Match Case** - If the Match case box is checked, then Find and Replace becomes case-sensitive. For example, checking the Match Case button and then searching for 'Transmission' will find 'Transmission' but NOT 'transmission' and so on.

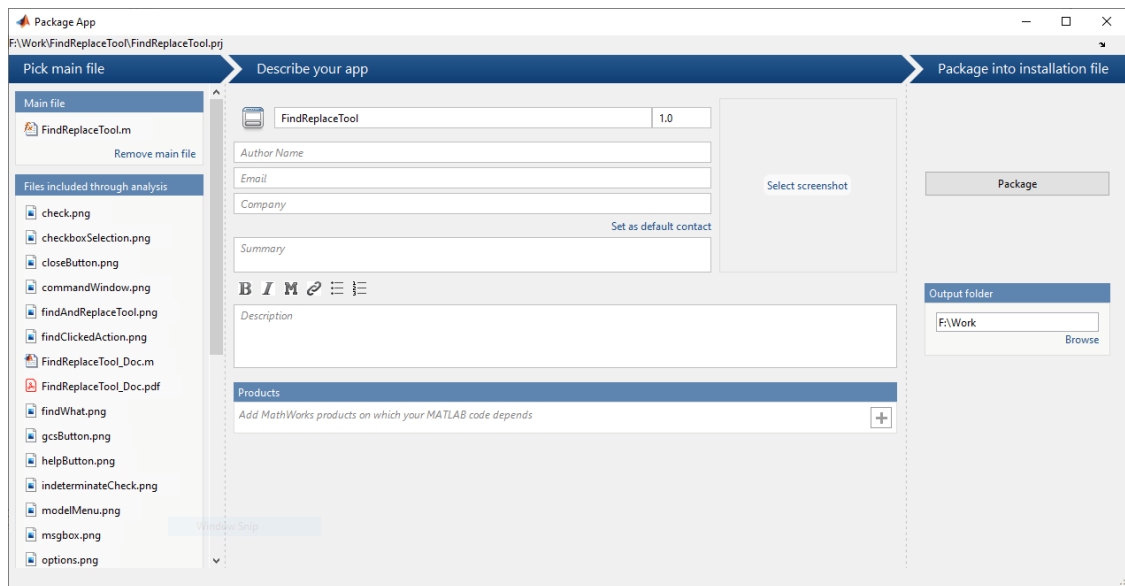
6. **Look Inside\Masked Systems** - If the Masked System checkbox is checked, then the tool has the access to look inside the masked system in the model.

7. **Look Inside\Linked Systems** - If the Linked System checkbox is checked, then the tool has the access to look inside the library linked system.

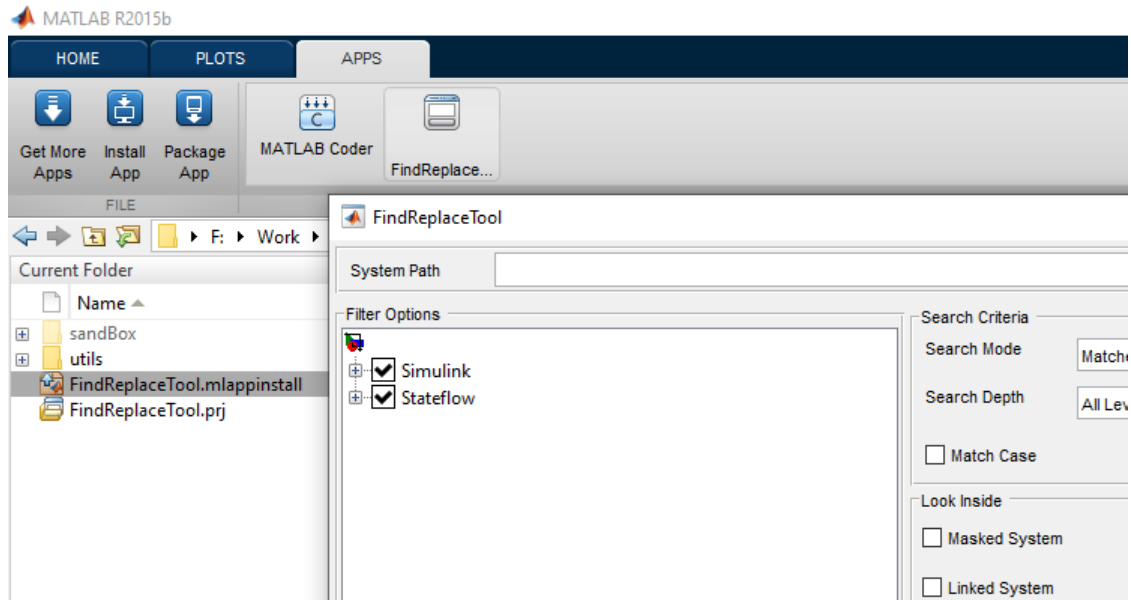
8. **Look Inside\Referenced Systems** - If the Referenced system checkbox is checked, the tool has the access to look inside the referenced models. Note: Replace action is not supported within the referenced models.

### Application Development - FindReplaceTool

To avoid "adding FindReplaceTool to MATLAB path" before launching it, this code can be packaged as a MATLAB App and install within MATLAB. Refer Help> Package and Share Apps



Apps can be launched from Apps Toolstrip.

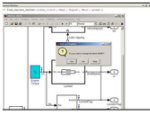


## API Support - find\_replace\_system

Refer the file exchange submission: `find_replace_system` which can be considered as an equivalent API for this tool.

In fact with this API, the user can replace almost any property in the Simulink model.

[https://mathworks.com/matlabcentral/fileexchange/41404-simulink-api-find\\_replace\\_system](https://mathworks.com/matlabcentral/fileexchange/41404-simulink-api-find_replace_system)



### Simulink API: find\_replace\_system

version 2.0.0.0 (5.15 KB) by Sysenso Systems

Searches any block/annotation/signal property in a model and replaces with the new value.

★★★★★ 0 Ratings

2 Downloads

Updated 02 May 2018

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"find\_replace\_system" will search and replace almost anyblock/annotation/signal property in Simulink.  
Ref: Simulink API documentation "find\_system".  
Please refer the syntax and examples below.

Syntax:

```
>>find_replace_system('<model name/subsystem name>','<find_system property value-pairs if required>','<Find Property Name>','<Find Property Value>','<Replace Value>','prompt')
>>find_replace_system('<model name/subsystem name>','<Find Property Name>','<Find Property Value>','<Replace Value>','prompt')
>>find_replace_system('<model name/subsystem name>','<Find Property Name>','<Find Property Value>','<Replace Value>')
```

- <find\_system property value-pairs if required> Refer help  
find\_system of all different types of properties can be used to  
narrow down the search, 'LookUnderMasks', 'RegExp', 'SearchDepth',  
'FollowLinks', etc..  
- 'prompt' is an optional keyword.

**Requires**

[MATLAB](#)  
[Simulink](#)

**MATLAB Release Compatibility**

Created with R2010b  
Compatible with any release

**Platform Compatibility**

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**Categories**

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