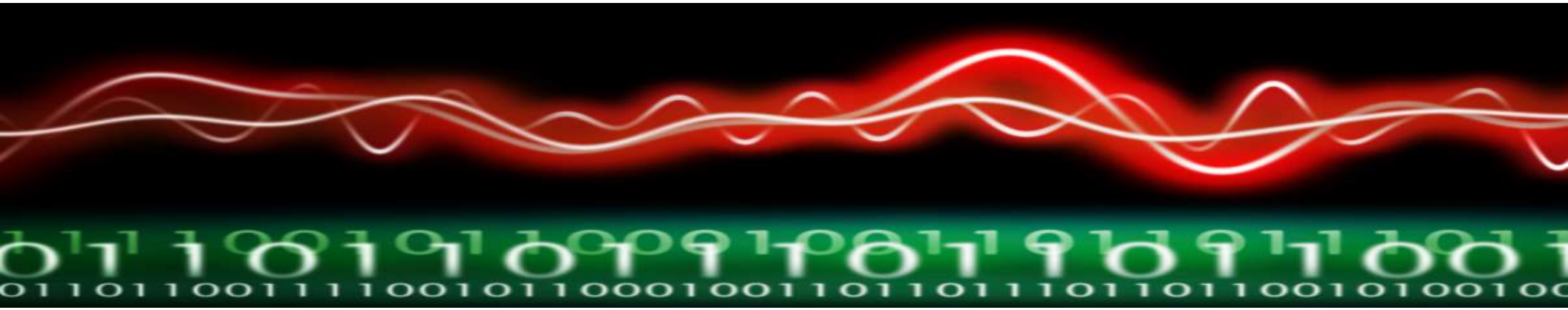
Reactis V2024.2

Released November 21, 2024



Reactive Systems, inc

© 2024 Reactive System, Inc.

Improved Static Analysis and Test Coverage

Improvements to Tester engine

- Identify more unreachable targets
- Exercise more coverage targets

Especially for

- MC/DC and MCC targets
- Conditionally executed subsystems
- Blocks with rounding settings

Reactive Systems, inc

© 2024 Reactive System, Inc.

Performance Improvements for Large Models

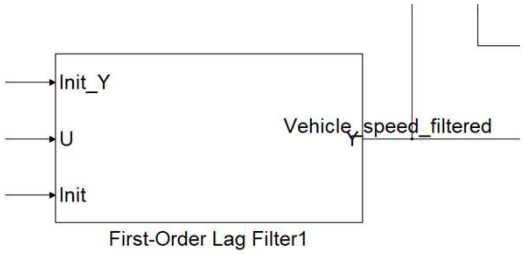
- Some models import 50% faster and use 65% less memory
- MATLAB invocation setting no longer causes slow import for models with large workspaces

Reactive Systems, inc

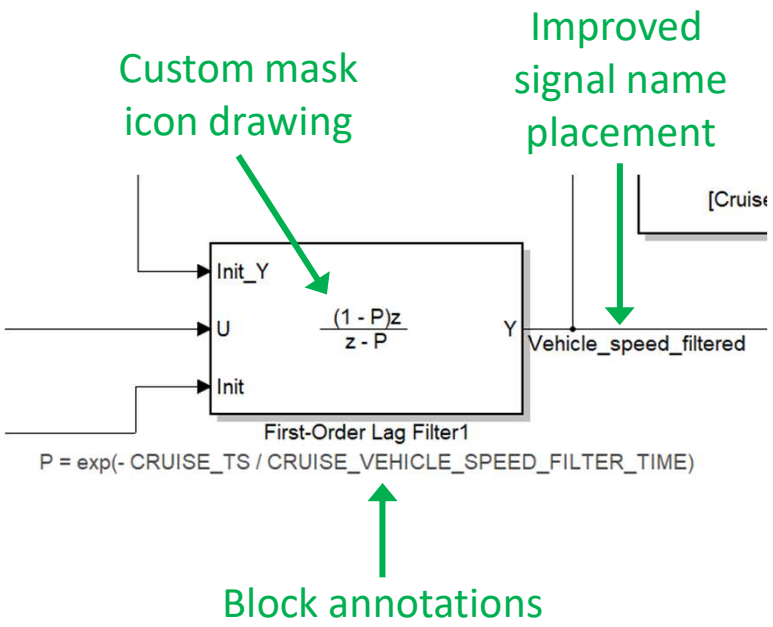
© 2024 Reactive System, Inc.

Improvements to Model Rendering

V2024



V2024.2

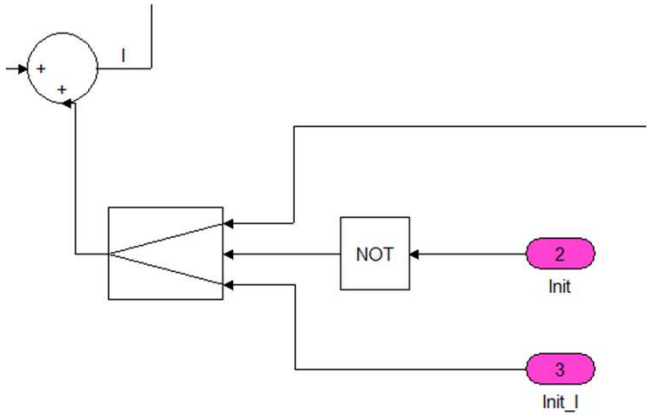


Reactive Systems, inc

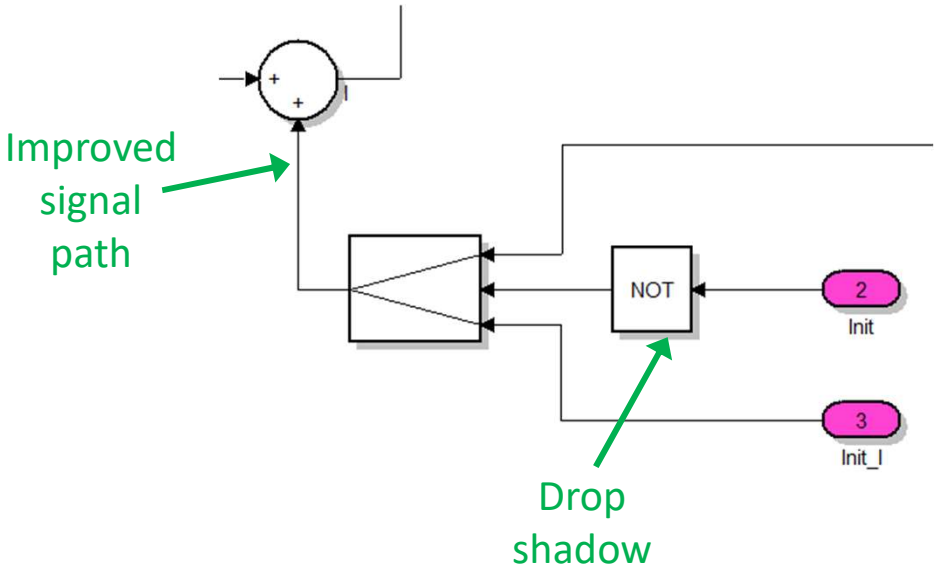
© 2024 Reactive Systems, Inc.

Improvements to Model Rendering

V2024



V2024.2

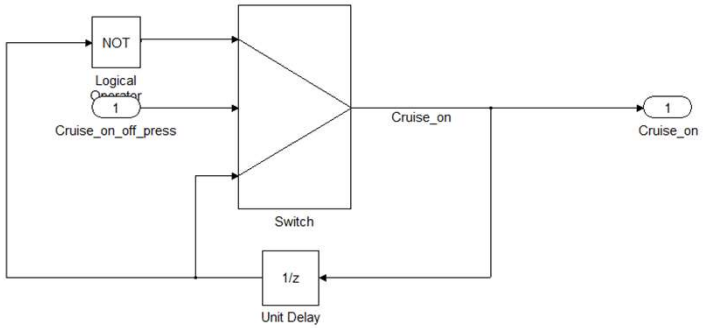


Reactive Systems, inc

© 2024 Reactive Systems, Inc.

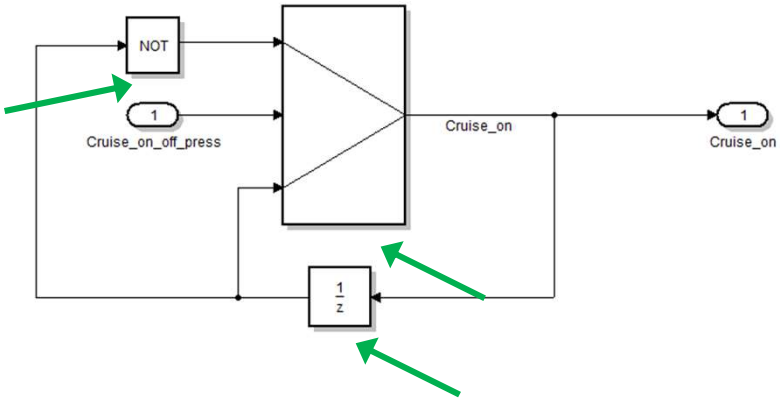
Improvements to Model Rendering

V2024



V2024.2

If **Format > Show Block Name** set to **Auto**, do not display default block name

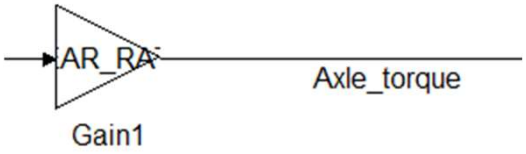


Reactive Systems, inc

© 2024 Reactive Systems, Inc.

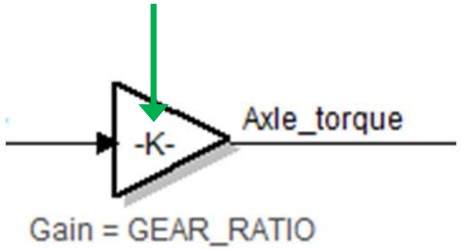
Improvements to Model Rendering

V2024



V2024.2

Don’t display gain value
if it is too long

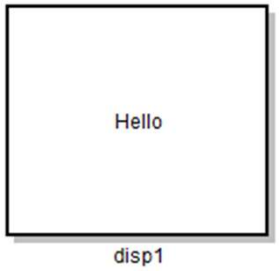


Reactive Systems, inc

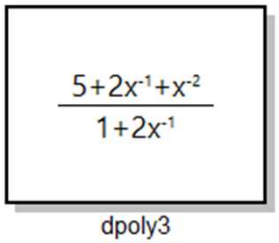
© 2024 Reactive Systems, Inc.

Rendering Improvements: Mask Icon Drawing

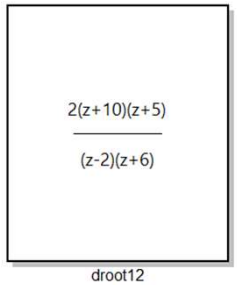
```
disp('Hello')
```




```
dpoly([5 2 1], [1 2], 'x-');
```




```
droots([-10,-5],[2,-6],2,'z');
```




```
image('reactis_logo.jpg');
```

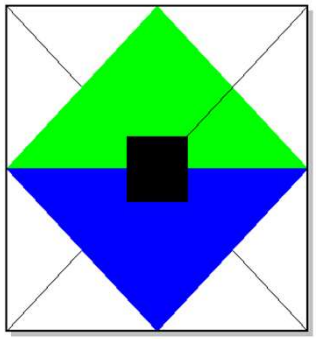
```
text(0.2, 0.2, 'Test');
```

Reactive Systems, inc

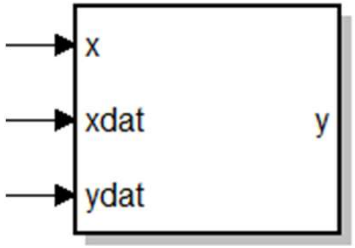
© 2024 Reactive Systems, Inc.

Rendering Improvements: Mask Icon Drawing

```
plot([1 3],[1,-1]);
patch([1,2,3],[0,1,0],[0 1 0]);
plot([1,3],[-1,1]);
patch([1,2,3],[0,-1,0],[0 0 1]);
patch([1.8,2.2,2.2,1.8],[0.2,0.2,-0.2,-0.2]);
```



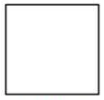
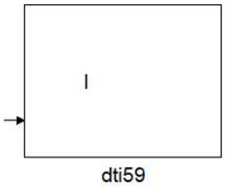
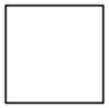
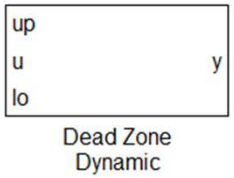
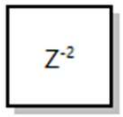
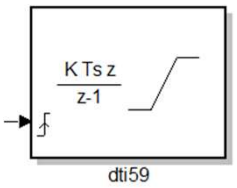
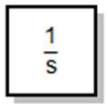
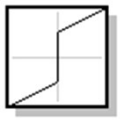
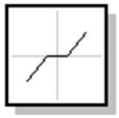
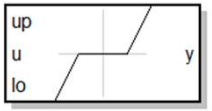
```
port_label('Input',1,'x');
port_label('Input',2,'xdat');
port_label('Input',3,'ydat');
port_label('Output',1,'y');
```



Reactive Systems, inc

© 2024 Reactive Systems, Inc.

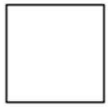
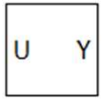
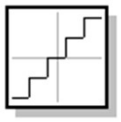
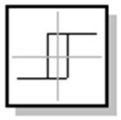
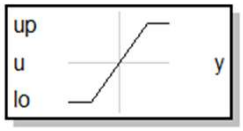
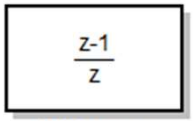
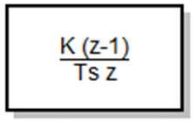
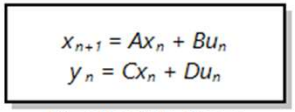
Rendering Improvements: Native Blocks

	Delay	Discrete Integrator	Integrator	Backlash	Coulomb & Viscous Friction	Dead Zone	Dead Zone Dynamic
V2024							
V2024.2							

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

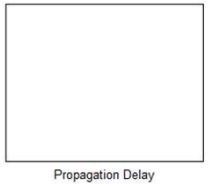
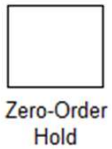
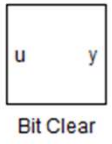
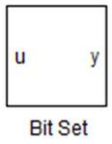
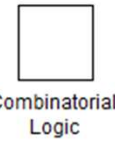
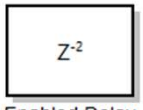
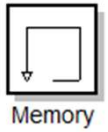
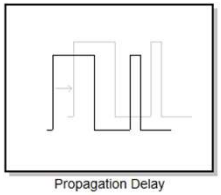
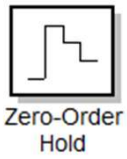
Rendering Improvements: Native Blocks

	Quantizer	Relay	Saturation Dynamic	Wrap to Zero	Difference	Discrete Derivative	Discrete State Space
V2024	Quantizer	 Relay	Saturation Dynamic	 Wrap To Zero	Difference	Discrete Derivative	Discrete State-Space
V2024.2					 Difference	 Discrete Derivative	 Discrete State-Space

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

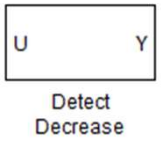
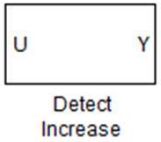
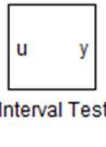
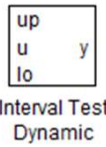
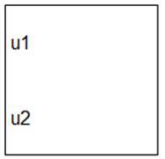
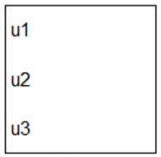
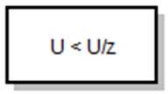
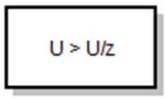
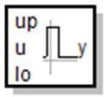
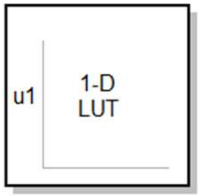
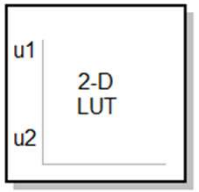
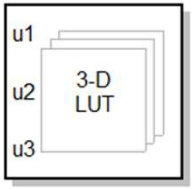
Rendering Improvements: Native Blocks

	Enabled Delay	Memory	Propagation Delay	Zero-Order Hold	Bit Clear	Bit Set	Combinatorial Logic
V2024							
V2024.2							

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

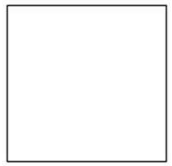
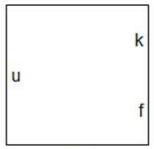
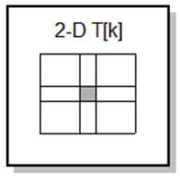
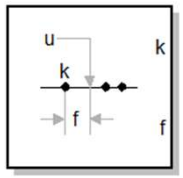
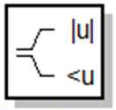
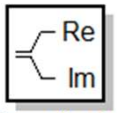
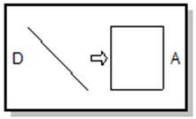
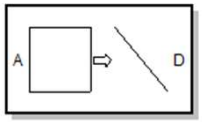
Rendering Improvements: Native Blocks

	Detect Decrease	Detect Increase	Interval Test	Interval Test Dynamic	1-D Lookup Table	2-D Lookup Table	3-D Lookup Table
V2024							
V2024.2							

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

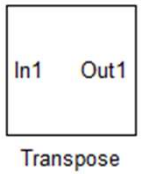
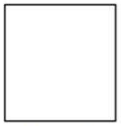
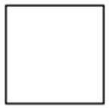
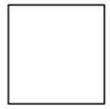
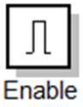
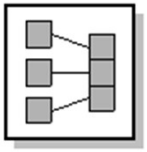
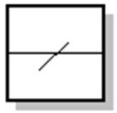
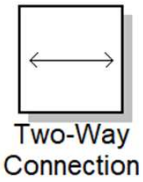
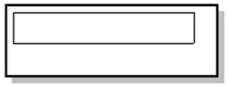
Rendering Improvements: Native Blocks

	Direct Lookup Table	Prelookup	Complex to Magnitude-Angle	Complex to Real-Imag	Sqrt	Create Diagonal Matrix	Extract Diagonal
V2024							
V2024.2							

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

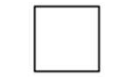
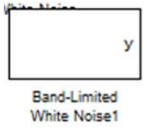
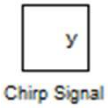
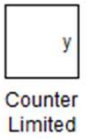
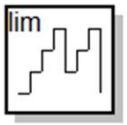
Rendering Improvements: Native Blocks

	Transpose	Enable	Signal Conversion	Width	Two-Way Connection	Display	Stop Simulation
V2024							
V2024.2							

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

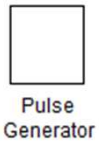
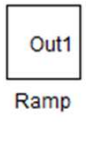
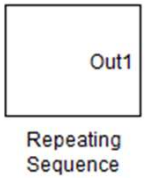
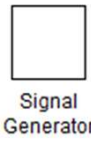
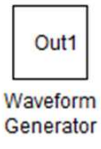
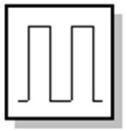
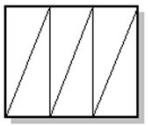
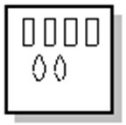
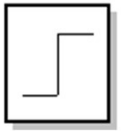
Rendering Improvements: Native Blocks

	Terminator	Band-Limited White Noise	Chirp Signal	Clock	Counter Free-Running	Counter Limited	Ground
V2024							
V2024.2							

Reactive Systems, inc

© 2024 Reactive Systems, Inc.

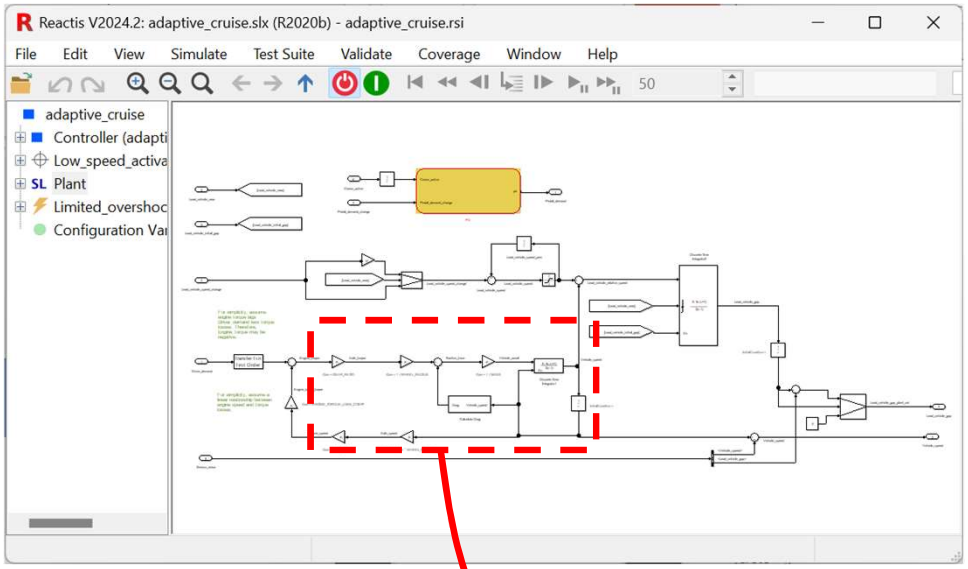
Rendering Improvements: Native Blocks

	Pulse Generator	Ramp	Repeating Sequence	Signal Generator	Step	Waveform Generator
V2024						
V2024.2						

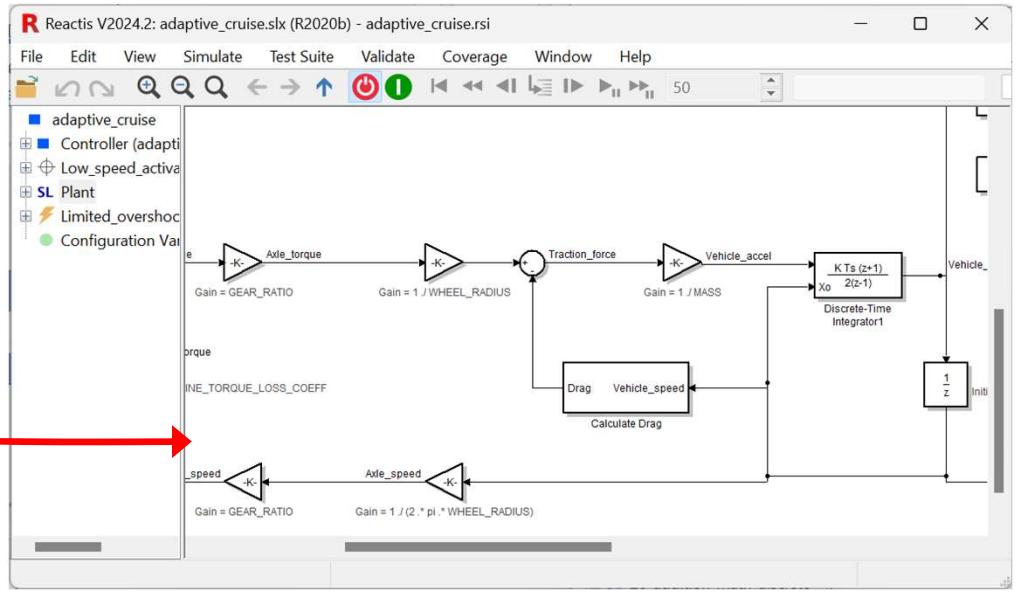
Reactive Systems, inc

© 2024 Reactive Systems, Inc.

Zoom to Region of Interest



Control-click drag
to select region of interest



New Embedded MATLAB (EML) Support

Newly supported functions:

- num2str, str2num, strlength, strcmp, char, exist, isfloat, isinteger, islogical

Reactive Systems, inc

© 2024 Reactive System, Inc.

Newly Supported Simulink Features

- MATLAB R2024b.
- Subsystem Reference blocks
- Outport parameter **Ensure Outport is Virtual**

Reactive Systems, inc

© 2024 Reactive System, Inc.