Creating User Interface mockups for the stopwatch model

Magic Model Analyst allows you to use the MagicDraw's User Interface (UI) Modeler to create user interface mockups that will be displayed during model execution. This session shows you how to create a user interface for the stopwatch model. The user interface will be in the form of a panel with buttons to send signals to the runtime object of the stopwatch during model execution. A label will be used to show the runtime time value.

To create user a interface mockup

- 1. Right-click the Model node and select New Element > Package to create a new package for the UI Elements.
- 2. Name the created package "ui".



- 3. Click the button on the Custom Diagram toolbar to create a new User Interface Modeling Diagram. The Create Diagram dialog will open.
- 4. Name the diagram "StopWatchUI" and select the ui package as the owner of the diagram.

🛚 Create Diagram
Create a new User Interface Modeling Diagram Type diagram name and select package in which a new diagram will be created.
Type User Interface Modeling Diagram name:
StopWatchUI Select owner for diagram: Image: Signals Image: System Image: System <tr< td=""></tr<>
Create Owner Clone
OK Cancel Help

6. Create a new frame for the UI mockup by clicking Frame on the User Interface Modeling Diagram toolbar.

Selection	package ui[📄 StopWatchUI]	_
Tools		
요 🚔 🛣		
Common		
🖻 Note 👻		•
abe Text Box 👻		
,		
{} Constraint -	•••	•
_,⊕ Containment 🗸 🗸		
Abstraction		
Pependency		
🗻 Image Shape		
🖹 Diagram Overview		•
📰 Diagram Legend		
Horizontal Separator 🔹		
Containers	•••	•
Frame		
🚰 Group Box		
Tabbed Pane		
回 Tool Bar		
Panel		•
🔜 Scroll Pane		
C Dutters		

7. Create a label to show the runtime time value by clicking Label on the diagram toolbar.



- 8. Create five buttons to send the signals to the runtime object of the stopwatch model by clicking Button on the diagram toolbar.
- 9. Name the buttons: Start, stop, split, unsplit, and reset.

Common	package ui [📻 StopWatchUI]
Containers	
Buttons	
📂 Close Toolbar 🔻	
🔤 OK Button 🔹 🔻	
🔲 Buttop	Label
Check Nox	
Radio Button	
抑 Text	
🔢 Other	
•	start stop
	unsplit reset split

10. Create a UI Prototype by dragging the StopWatch Class from the containment browser to the created UI frame on the diagram.

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Selection	package ui[StopWatchUI]		
Tools			
요 🚔 🛣	Create UI Prototype		
Common	Create Class StopWatch Symbol		
🖻 Note 🛛 👻 📥			
abe Text Box 👻 🗐	Label		
, [□] Anchor			
🕘 Constraint 🗸 💌			
Containers			
Frame 🔺			
Group Box			
Tabbed Pane			
🖅 Tool Bar			
Buttons			
🖆 Close Toolbar Button 🛛 👻 📥			
🔤 OK Button 🛛 👻 🗏	Start		
Button			
Check Box	unsplit reset split		
Text			
🖉 Hyperlink 🔺			

11. Create a Runtime Value Prototype by dragging the time property of the StopWatch Class from the containment browser to the created label on the diagram.

StopWatch	- • ×
Assign Property	
start	stop
unsplit reset	split

12. Create a Signal Instance Prototype by dragging the Signal from the containment browser to each of the buttons. The buttons will send the dragged signals to the runtime object when you click them during the execution. Therefore, each signal in the stopwatch model will be dragged to each button that has a corresponding name. For example, the start signal will be dragged to the **start** button, and the stop signal will be dragged to the **stop** button.

StopWatch	- • •	
time		
unc		• •
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	ſ	
Assign Signal (drop to see	available command	s)
star	stop	
unsplit reset	split	

- 13. Open the Specification window of the **SilentStopwatch** Simulation Configuration to add the ready user interface mockup for the stopwatch to the SimulationConfig for the StopWatch.
- 14. Edit the **UI** field by clicking the button. The **Select «UI** » dialog will open.

15. Select the created Frame in the ui package and click OK.

💽 Select UI	
Select, search for, or create elements Search for an element by using list or tree views. To find an e "Search by Name" input field. Search elements by their qualifi searching if the appropriate mode is enabled.	element type text or wildcard (*,?) into the ied names or use camel case when
Image: Contract of the second system Image: Contrel system	Selected elements: 1 GUT mockup [Stopwatch::user interface] +
	OK Cancel Help

The modified SilentStopwatch is now ready to run the stopwatch with the UI mockup. Next, you need to run the SilentStopwatch Simulation Configuration.

To run the SilentStopwatch Simulation Configuration



Right-click the SilentStopwatch Simulation Configuration and select Simulation > Run. A simulation session will be created to execute the StopWatch class.

2. Click the **RunSimulation** button on the **Simulation** window toolbar. The execution of the **StopWatch** class will start with the designed UI mockup. The time value displayed in the label is now zero (0).

StopWatch		- • •
time		
start		stop
unsplit	reset	split

You can click the **start** button to start the stopwatch. You can use the buttons on the UI mockup to send the signals to the runtime object of the **Stop Watch** class. The time value displayed on the label of the UI mockup will increment by one every second.

StopWatch		
3		
start		stop
unsplit	reset	split

Click the stop button to stop the execution and click it again to go to the final stage, which is the termination of the execution.