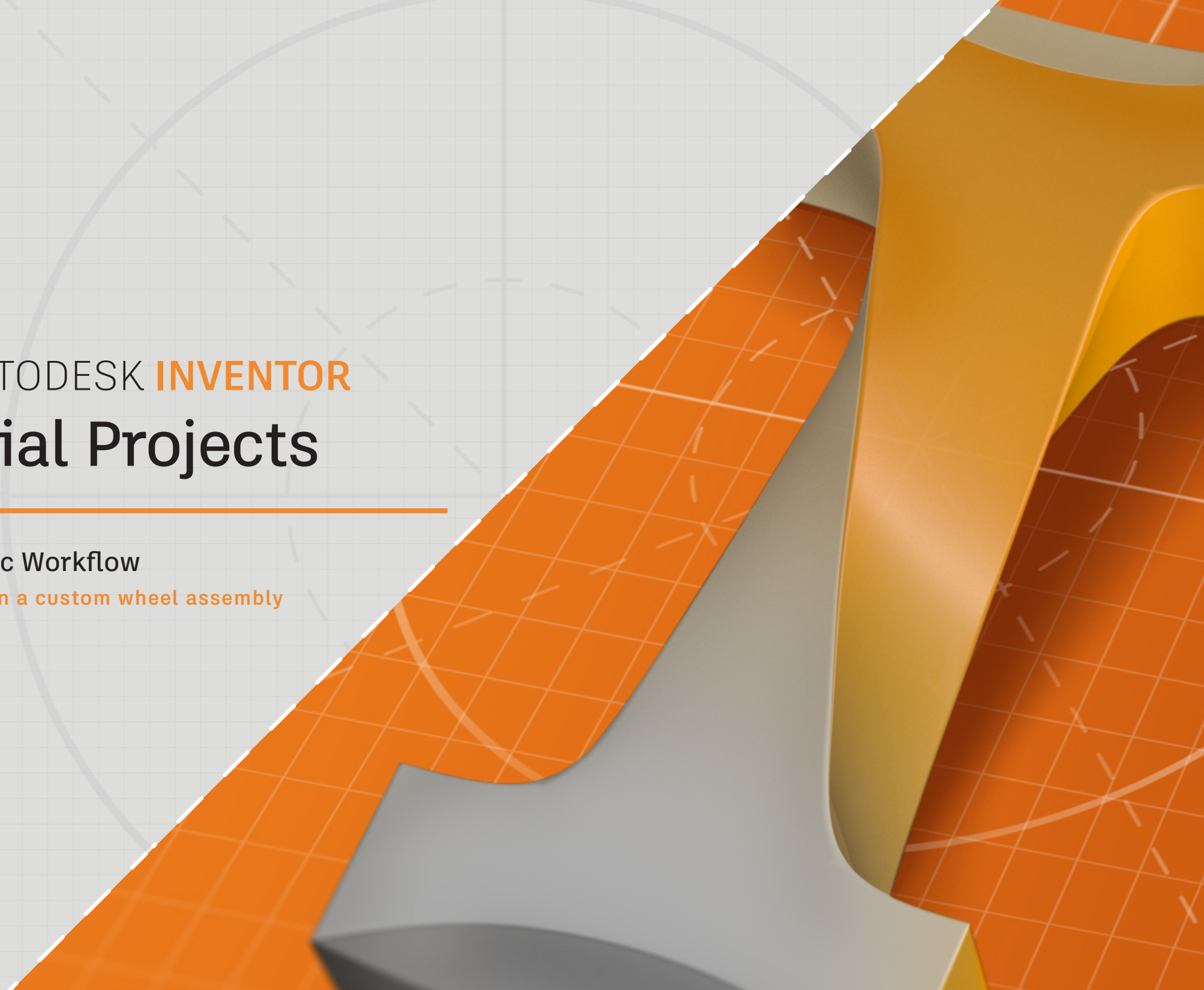
AUTODESK **INVENTOR**

Trial Projects

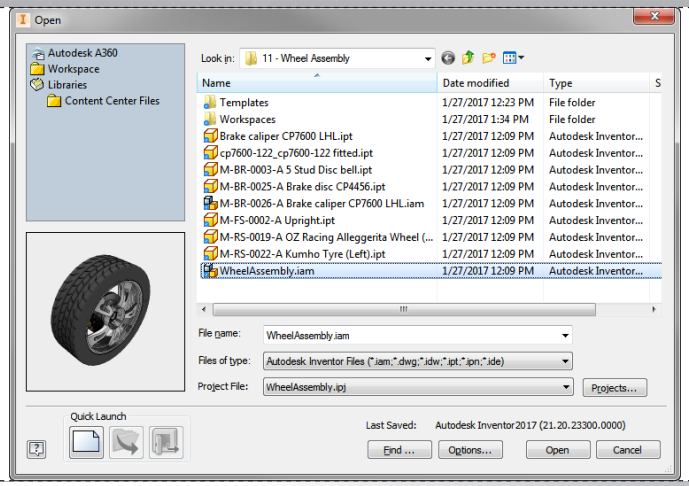
iLogic Workflow

Design a custom wheel assembly



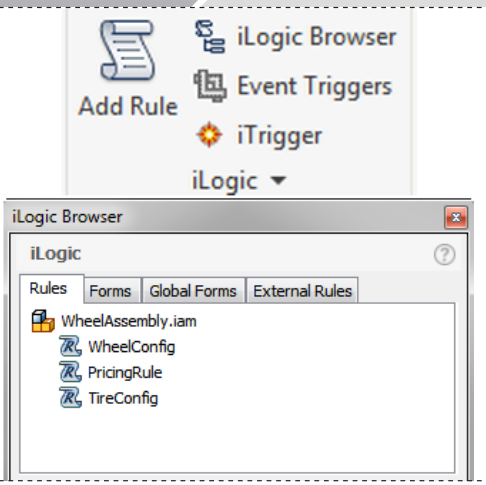
PART 1: ILOGIC WORKFLOW

1.



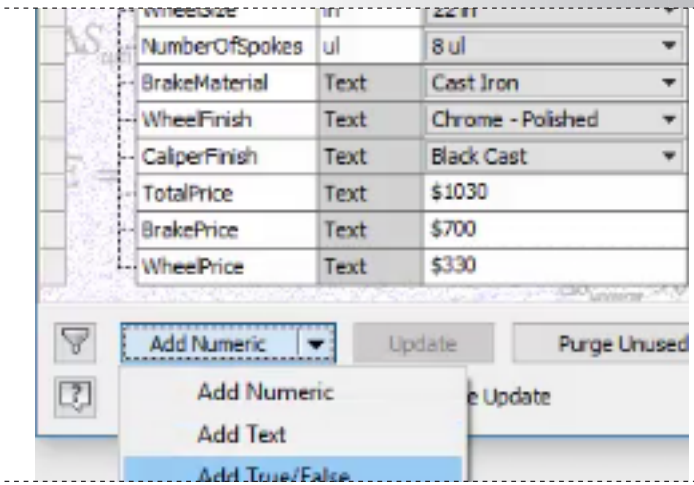
In Inventor, click the 'Projects' icon in the ribbon. Navigate to where you saved the project files and select ***WheelAssembly.ipj***. Then open ***WheelAssembly.iam***.

2.



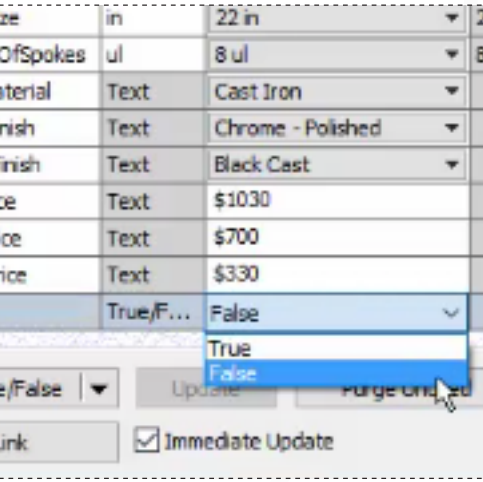
Start by activating the iLogic Browser, located in the iLogic pane on the ribbon's 'Manage' tab.

3.



Select 'Parameters' from the 'Manage' pane. Select A'dd True/False' from the drop-down in the dialog to create the new parameter.

4.



Name the parameter ***Slot***, and then set it's equation to 'False' using the drop-down.

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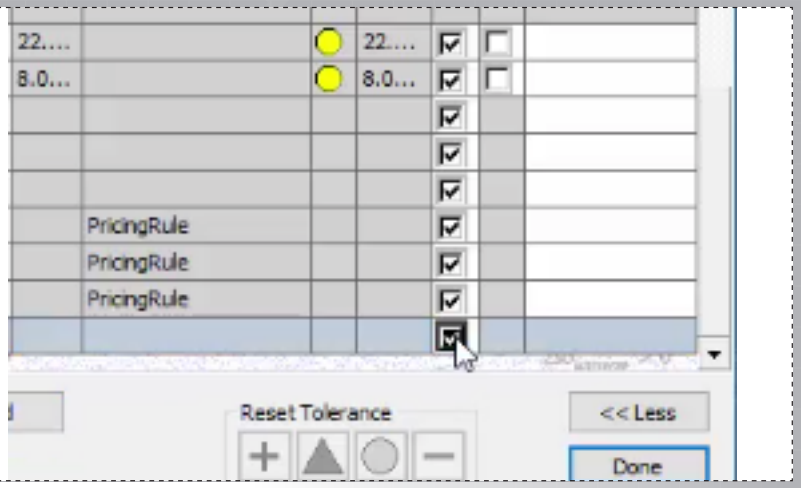
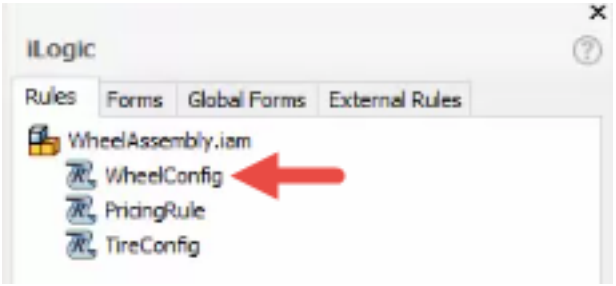
5.



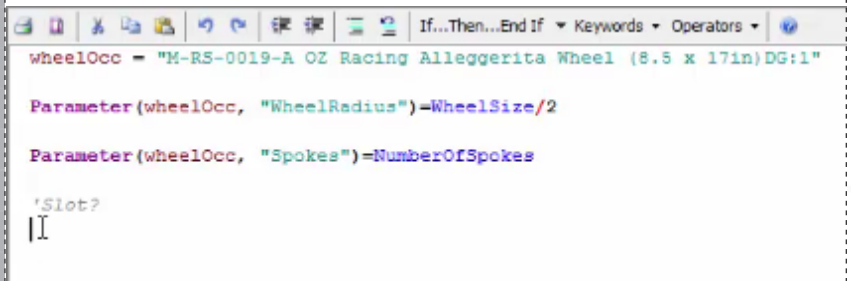
Ensure the parameter is defined as a ‘Key Parameter’, and then click ‘Done’ to exit the dialog.

6.



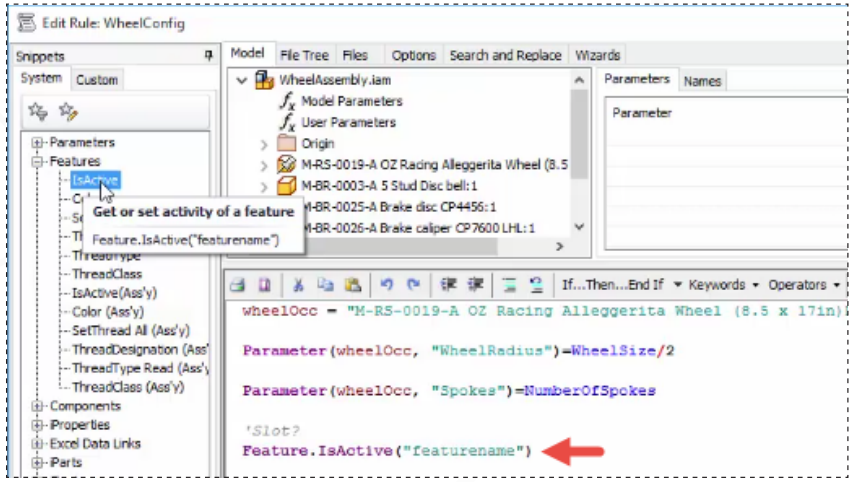
Double-click the ‘WheelConfig’ rule in the iLogic browser to edit it.

7.



Click below the ‘Slot? note in the edit window to begin defining a new rule adding a slot feature option for the wheel spokes.

8.



Double-click the ‘IsActive’ system snippet, within the ‘Features’ category, to add the logic to the window.

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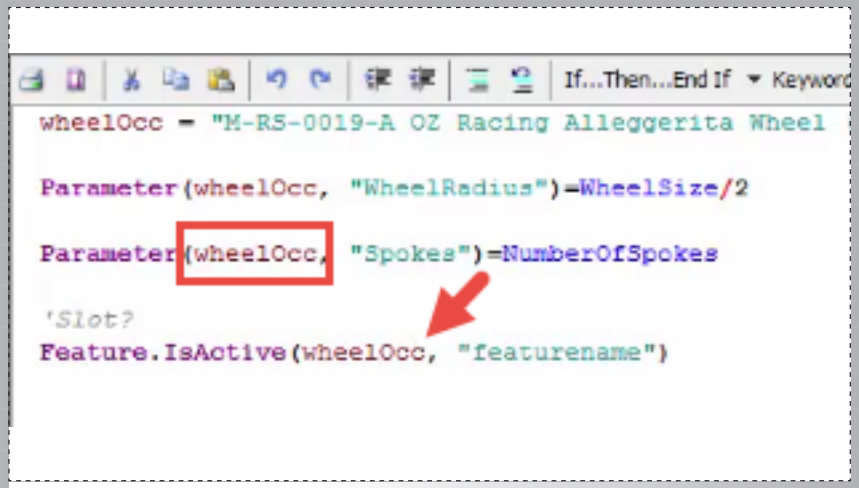
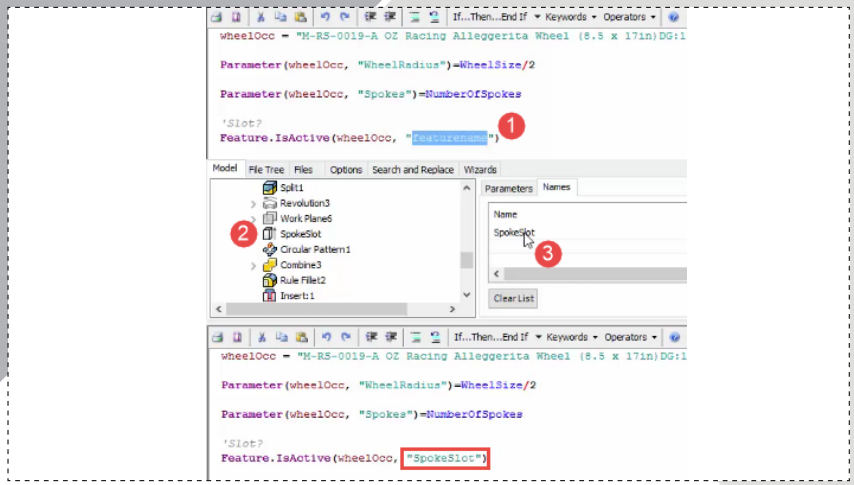
9.



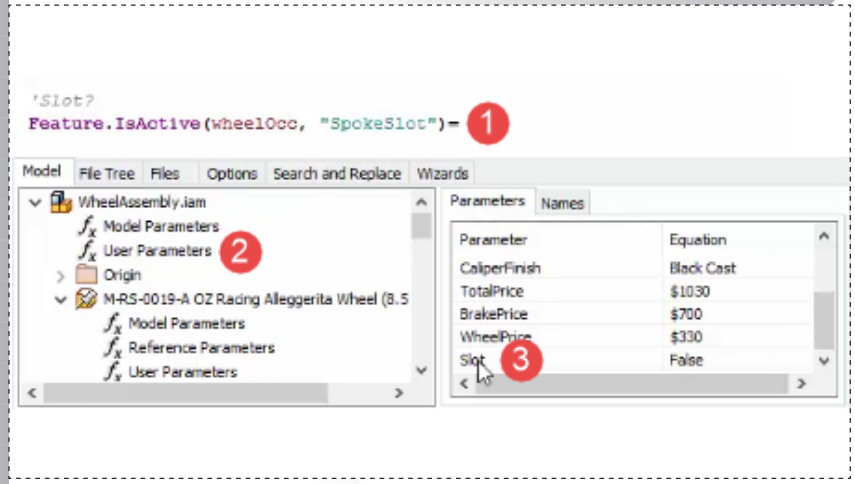
Copy the **wheelOcc** definition from the existing snippet, and then paste it inline with the new snippet as shown, ensuring a comma is used to separate the text.

10.



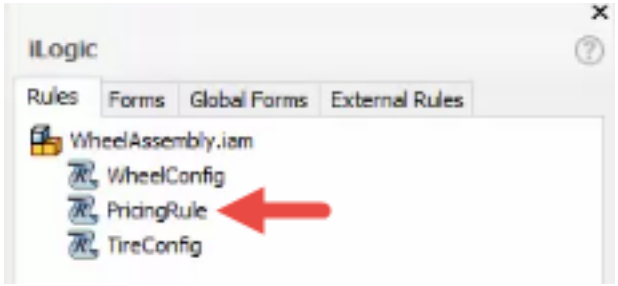
Highlight the **featurename** text, select the wheel part's **SpokeSlot** feature from the 'Model' tab, and then double-click the feature in the 'Names' tab to ensure the correct reference is inserted.

11.



Add an equal sign (=) to the end of the snippet text, access 'User Parameters' from the 'Model' tab, and then double-click the Slot parameter to insert it.

12.



Click 'Save', then 'Close' to complete the rule edit and close the dialog. Double-click the 'PricingRule' in the iLogic browser to edit it next.

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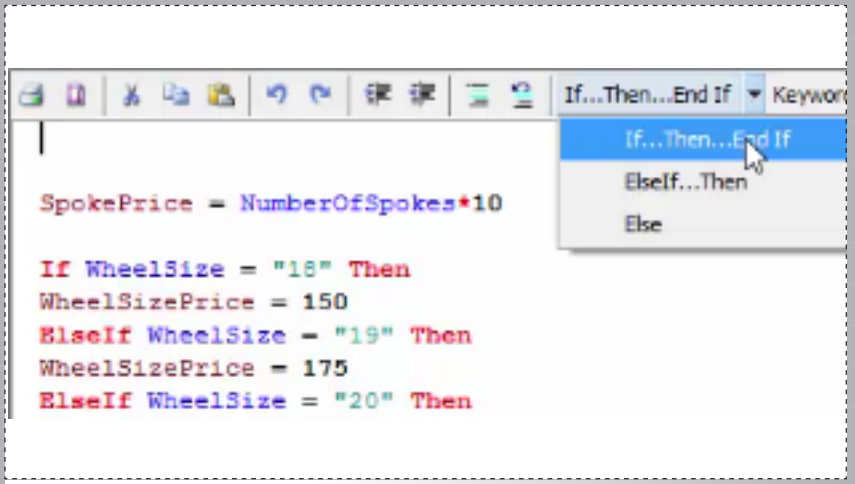
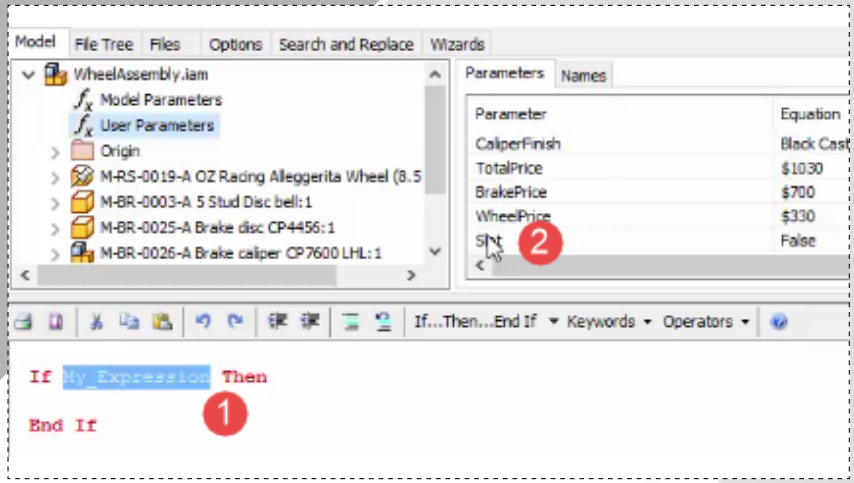
13.



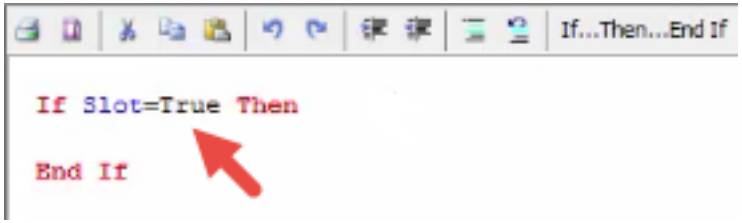
Place your cursor at the beginning of the edit window, and then insert the start of an if-then statement by selecting it from the drop-down.

14.



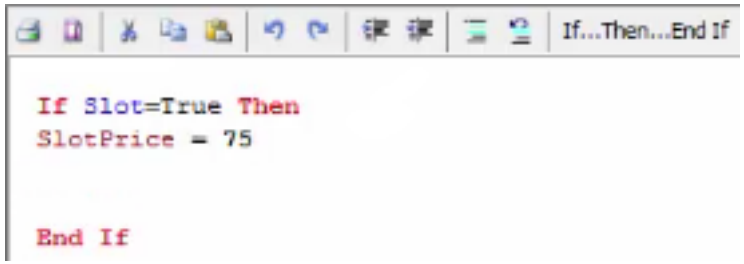
Highlight the My_Expression logic in the edit window, and then double-click ‘Slot User Parameter’ to replace the definition.

15.



Update the ‘If’ statement by typing **=True** after the parameter.

16.



Move your cursor to the end of the string, press ‘Enter’, and **type SlotPrice = 75** to start the ‘Then’ statement.

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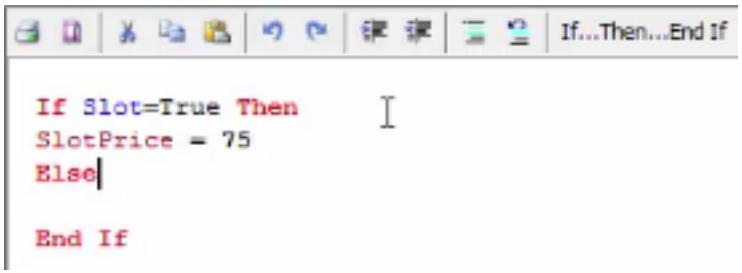
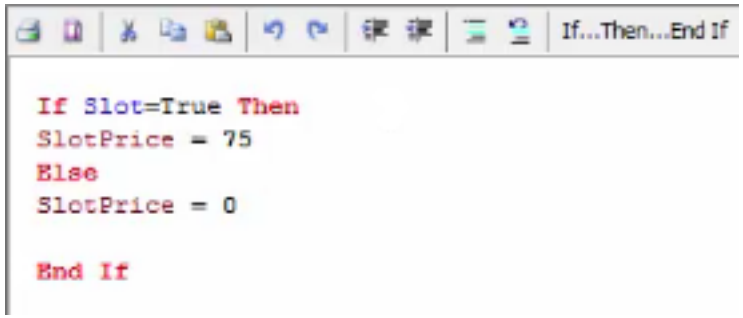
17.



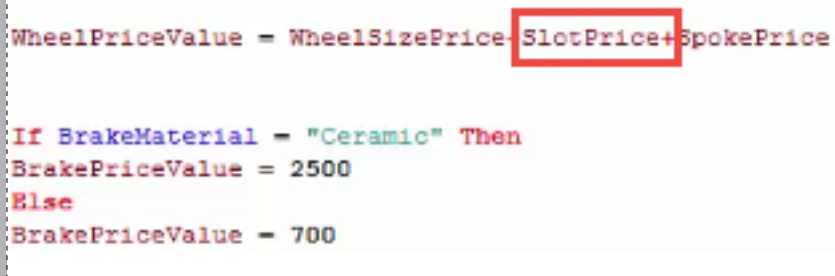
Press ‘Enter’, and then type **Else**.

18.



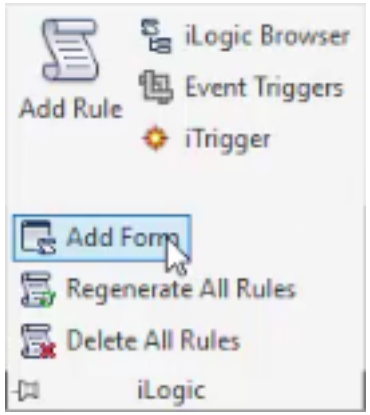
Press ‘Enter’ again, typing **SlotPrice = 0** (zero).

19.



Finish the rule by inserting the text **SlotPrice+** into the price definition as shown.

20.



Click ‘Save’, then ‘Close ‘to complete the rule and exit the dialog. Save your progress to continue. Expand the iLogic panel in the ribbon and select ‘Add Form’.

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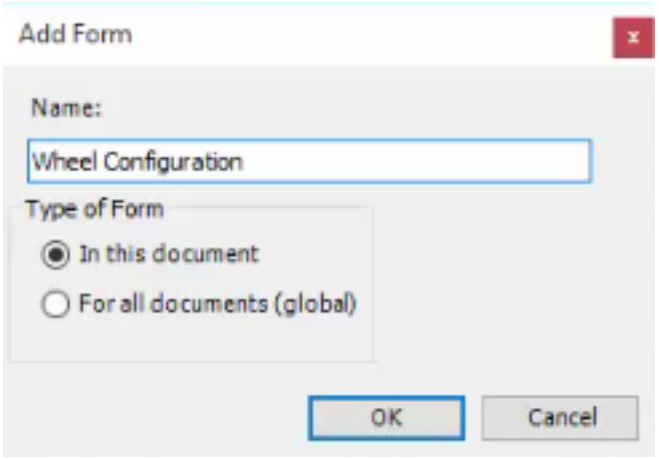
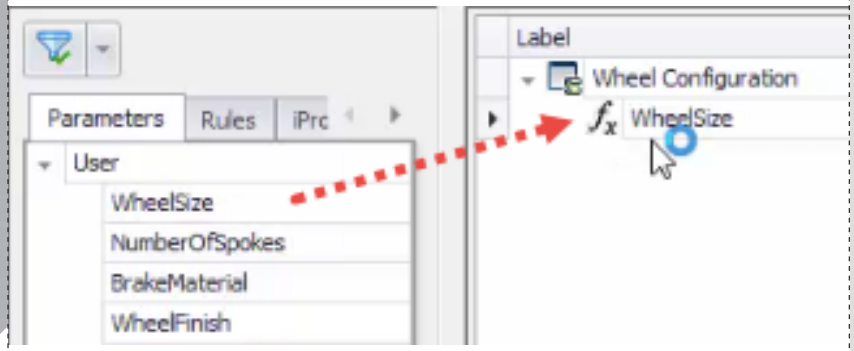
21.



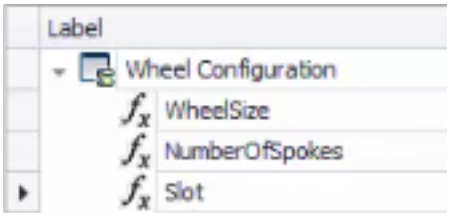
Name the new form ‘Wheel Configuration’ and click ‘OK’.

22.



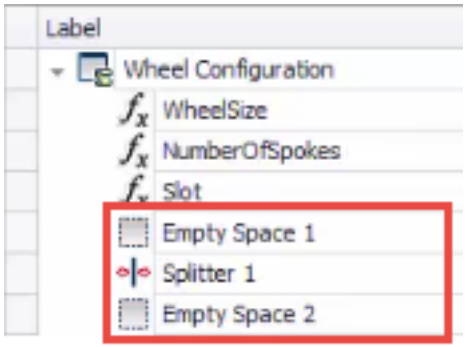
Begin the form by dragging the ‘WheelSize’ Parameter into the configuration.

23.



Then drag both the ‘NumberOfSpokes’ and ‘Slot’ Parameters into the configuration.

24.



Continue defining the form by dragging an ‘Empty Space’, a ‘Splitter’ and another ‘Empty Space’ into the configuration from the ‘Toolbox’.

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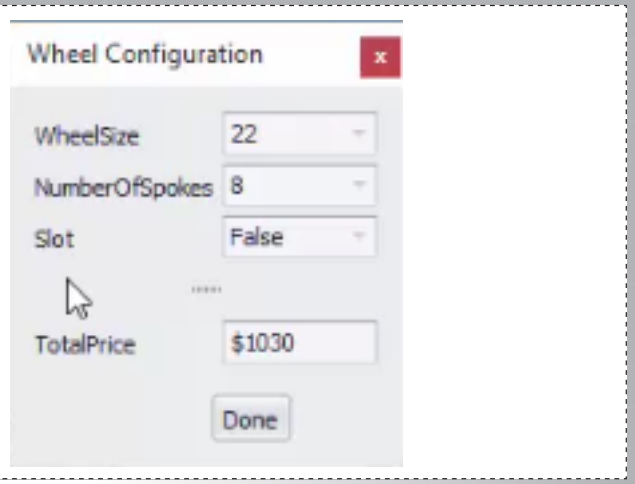
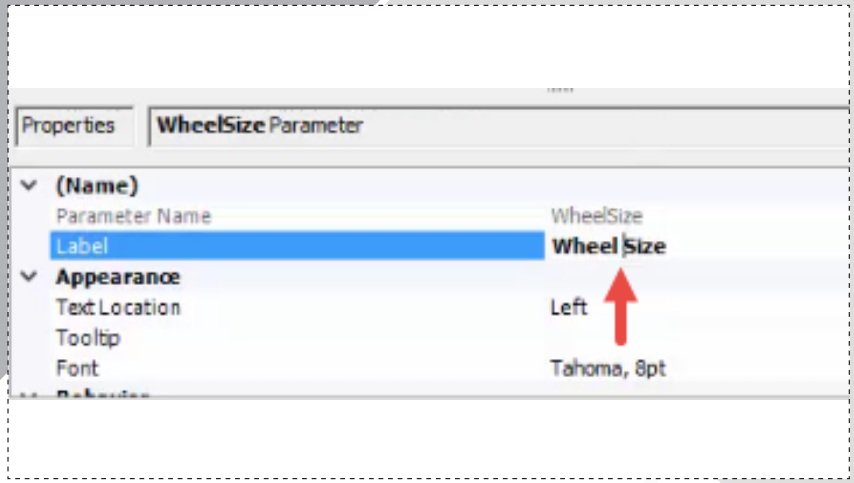
25.



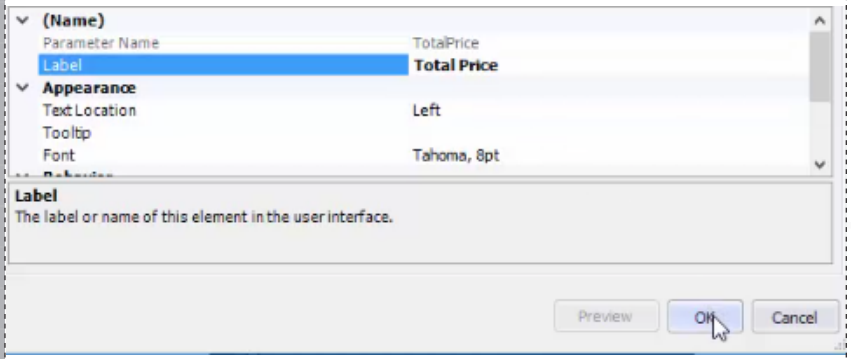
Complete the form by dragging over the 'TotalPrice' Parameter.

26.



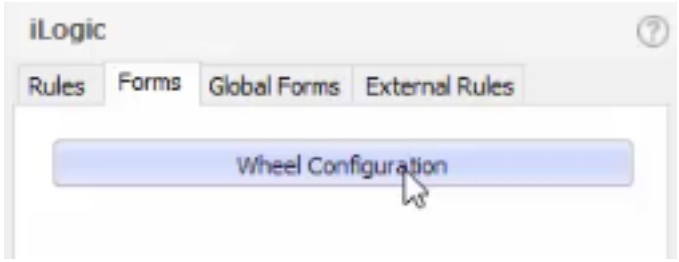
Select the 'WheelSize' listing under Inventor Name, and then add a space to the corresponding 'Label' listing within 'Properties'.

27.



Repeat the prior step for the remaining Inventor names, and then click 'OK' to complete the form.

28.



Open the new form by selecting it in the 'Forms' tab in the iLogic browser.

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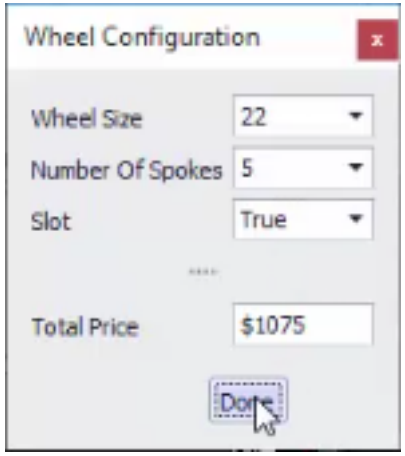
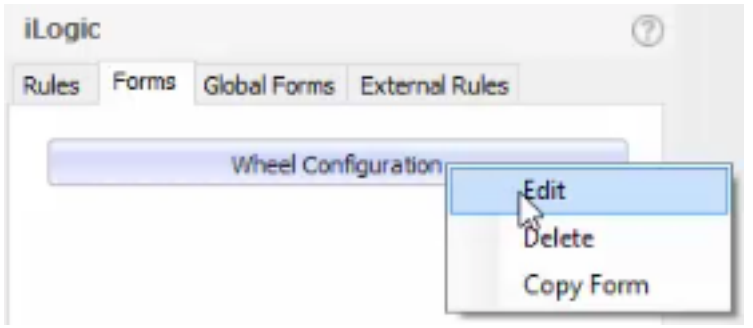
29.



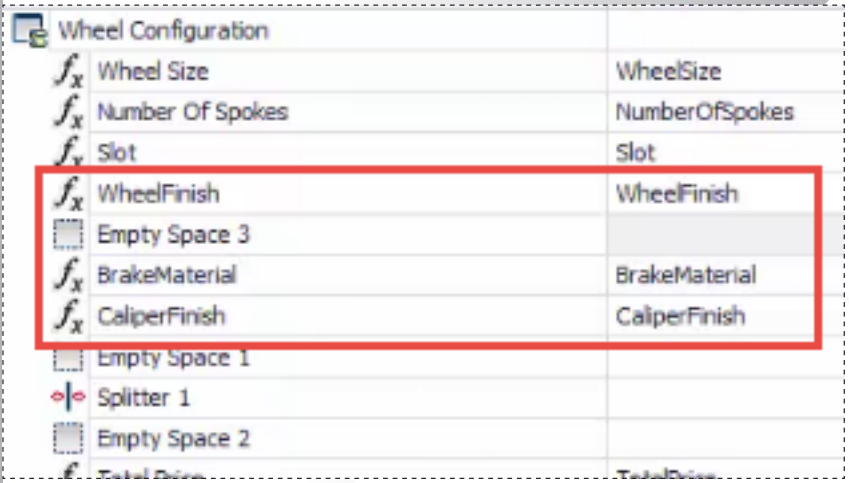
Apply '22' for the 'Wheel Size,' '5' for the 'Number of Spokes', 'True' for the 'Slot' and then click 'Done' to update the assembly.

30.



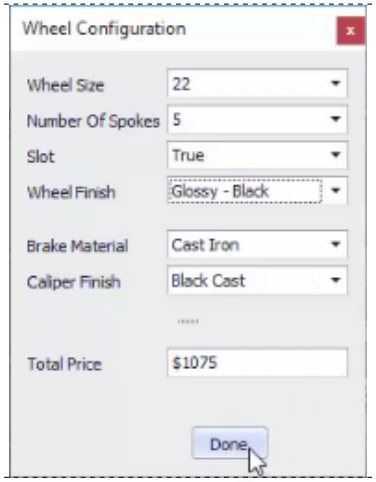
Begin making a change to the form by right-clicking it in the iLogic browser and selecting 'Edit'.

31.



Add the 'WheelFinish', 'BrakeMaterial' and 'CaliperFinish' parameters to the form as shown, ensuring an 'Empty Space' divides the wheel and break items.

32.



Ensure the label for each new parameter is updated to include a space, and then click 'OK' to complete the edit. Open the form again and change the 'Brake Material' to 'Glossy – Black'. Save all your files to complete the project.

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