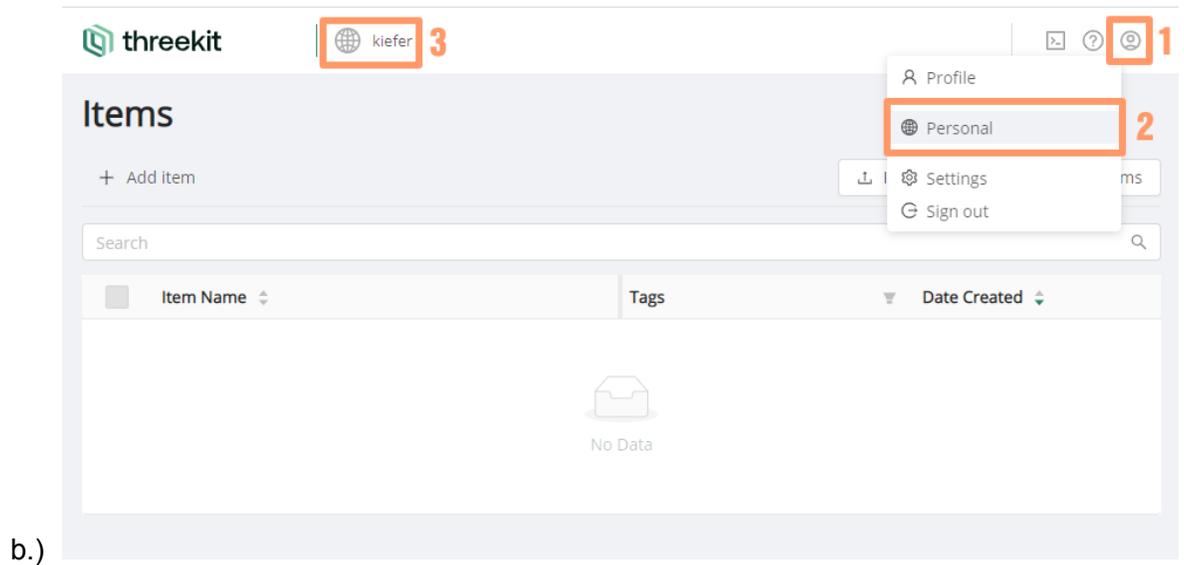


Threekit Platform Self-Guided Training

Last updated: April 14, 2021

Accessing the Threekit Platform

- 1.) **Sign up** via the invitation you received via email
- 2.) Once **signed in**, select **Personal**
 - a.) Confirm the organization you are in by looking at the upper-left globe icon. Your personal one should reflect your username



Exercise 1 - Simple Box Configurator

A.) Navigate to your Personal Org in Threekit

B.) Create the Catalog Item for the Box

Click on "Catalog" in the left-hand sidebar.

NOTE: If you do not see the sidebar, widen your browser window.

Click "Add Item"

Add item



Catalog

Assets

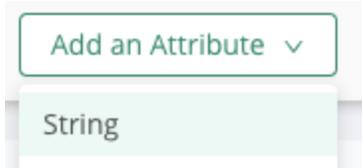
Stages

Name your item "box". No description is necessary for the practice object.

Details ^

Name

Under "Attributes" click "Add an Attribute" and select the option "String"



This will generate a new box with the lines "String" and "Values." Initially you will get a random placeholder in the string field.

String

Values

Think of "String" like the name of the attribute. In the box next to "String" type in "Visible"

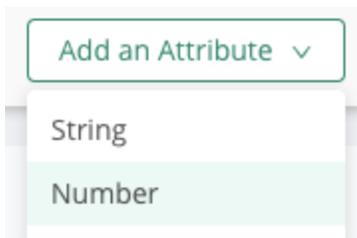
In the box next to "Values" type in "Yes" and press enter (return), then type in "No" and press enter (return). That will give the two different options as values to select from later. By entering the values this way it changes the "string" into a "drop-down" style menu when viewed in the interface. Select a default value of your choice.

String

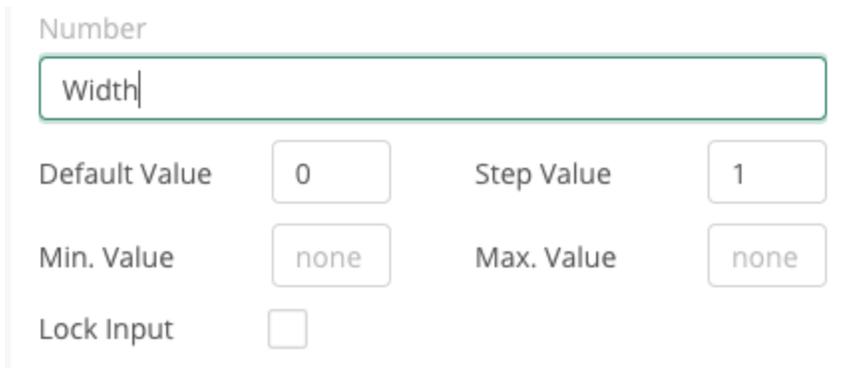
Values

Default Value

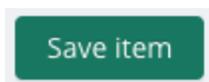
Click “Add Attribute” again to create an attribute with a type of “number”



Name this attribute “width.”

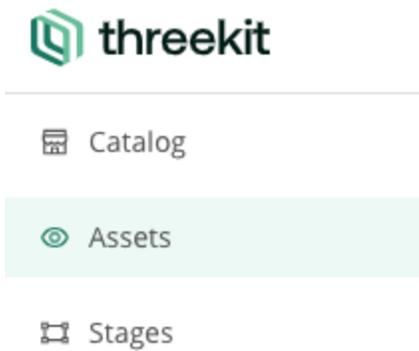
A screenshot of a configuration form for a new attribute. At the top, the word "Number" is displayed. Below it is a text input field containing the word "width". Underneath the input field are four rows of settings: "Default Value" with a text input containing "0", "Step Value" with a text input containing "1", "Min. Value" with a text input containing "none", and "Max. Value" with a text input containing "none". At the bottom, there is a "Lock Input" checkbox which is currently unchecked.

Click “Save Item” at the bottom

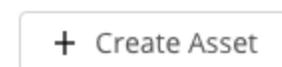


C.) Create corresponding 3D Asset

Click on “Assets” in the left-hand sidebar.

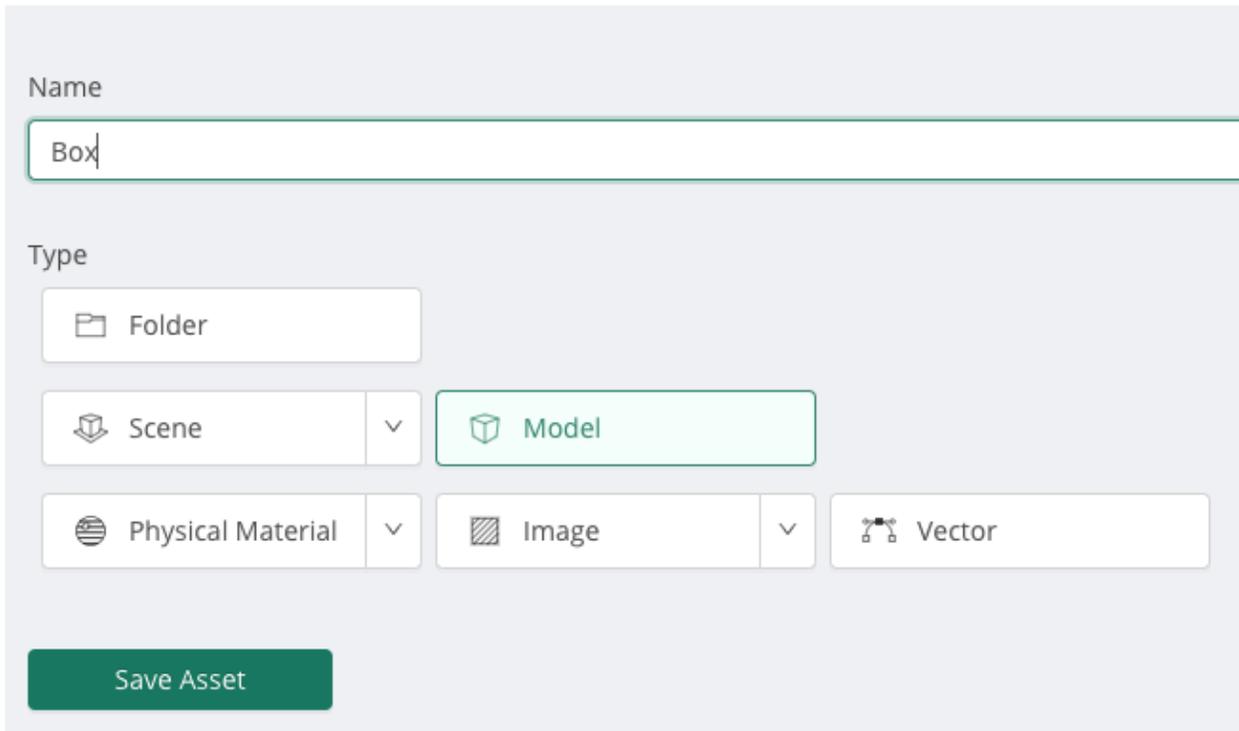


Click “Create Asset”



Name your asset “Box” then select “Model” and click “Save Asset”

Add Asset



Name

Box

Type

Folder

Scene

Model

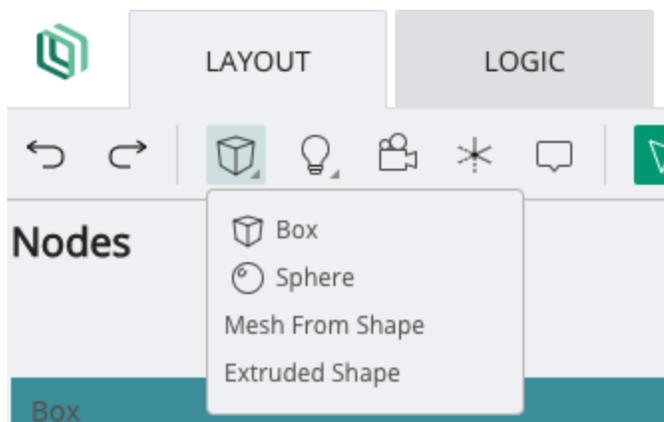
Physical Material

Image

Vector

Save Asset

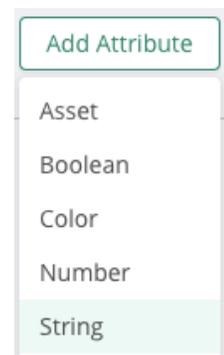
In the upper left, click on the box icon, then select “box” to add a default box to the editor.



Click on the “LOGIC” tab at the top of the screen.

Click “Add Attribute” and select “String.”

Add **exactly** the same attributes as we did when creating the item above.
This field is case sensitive.



Name: "Visible" Values: "Yes" "No" Default Value: "Yes" [or "No", your choice]

Logic Editor

Editing String Attribute done

Name

Visible

Options

Yes × No ×

Default Value

Yes

Click "done"

Click "Add Attribute" again, select "Number", and add the "Width"
"Step" and "Min" are optional.

Logic Editor

Editing Number Attribute done

Name

Width

Step

1

Min

none

Click "Rules" then "Add Rule"

Logic Editor

Attributes Rules

Add Rule

Click “Add Rule” and name it “Visible - Yes”

Click “Add Condition” and set the values: “Visible” “=” “Yes”

Editing Rule done

Name

Visible - Yes

Conditions

Add Condition ▾

Visible ▾ = ▾ Yes ▾

Scroll down if needed and click “Add Action” and select “set visibility”

Actions

Add Action ▾

- set attribute visible
- set attribute enabled
- set attribute value
- set attribute value visibility
- set attribute value enabled
- custom script
- set visibility

Select “Box” from the dropdown and check the box to set the value to *true*.

Actions

Add Action ▾

Set Box × To

Box ✓

Click “done”

Create a second rule setting the opposite condition for when “Visible” is false.

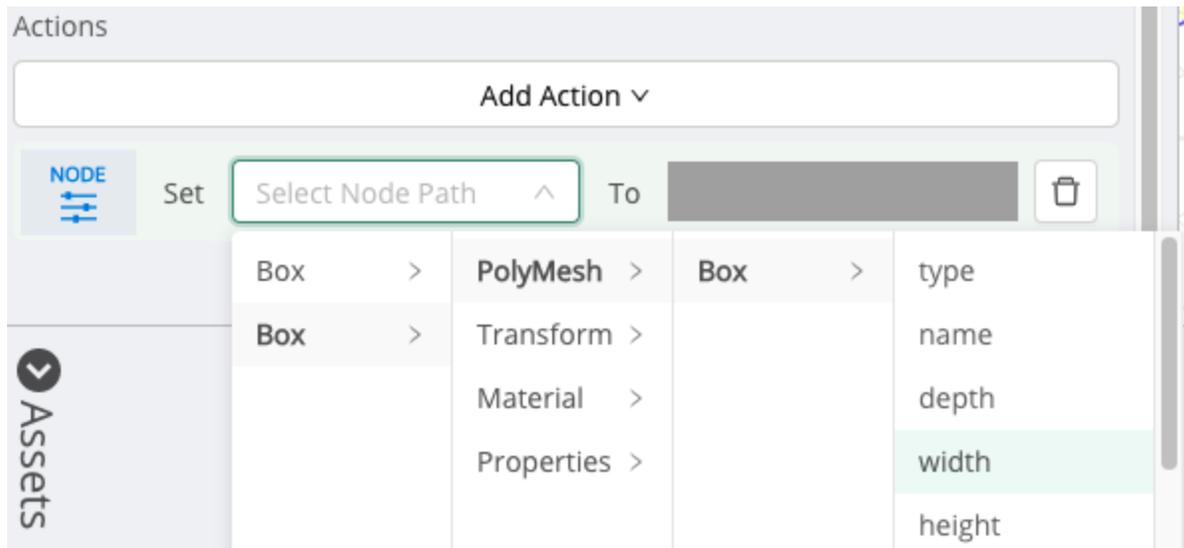
The screenshot shows the 'Editing Rule' interface. At the top right is a 'done' button. The 'Name' field contains 'Visible - No'. Below it is the 'Conditions' section with an 'Add Condition' button. A single condition is listed: 'Visible' (with a dropdown arrow), followed by an equals sign (=) (with a dropdown arrow), and 'No' (with a dropdown arrow). To the right of this condition is a trash icon. Below the conditions is the 'Actions' section with an 'Add Action' button. One action is listed: 'Set' (with a blue eye icon and a 'NODE' label), followed by 'Box x' (with a dropdown arrow), 'To', and an unchecked checkbox. To the right of this action is a trash icon.

Note: To set the action to *false*, leave the box unchecked.

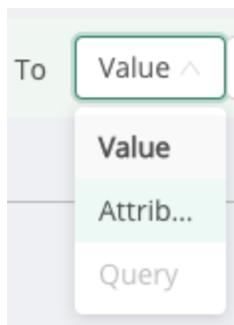
Add another rule for “Width” Under “Add Action” select “set property” (No conditions.)

The screenshot shows the 'Editing Rule' interface for a rule named 'Width'. The 'Name' field contains 'Width'. The 'Conditions' section has an 'Add Condition' button. The 'Actions' section has an 'Add Action' button. A dropdown menu is open, showing a list of actions: 'set attribute visible', 'set attribute enabled', 'set attribute value', 'set attribute value visibility', 'set attribute value enabled', 'custom script', 'set visibility', 'set material', 'set model', 'set property' (highlighted in green), and 'set active camera'.

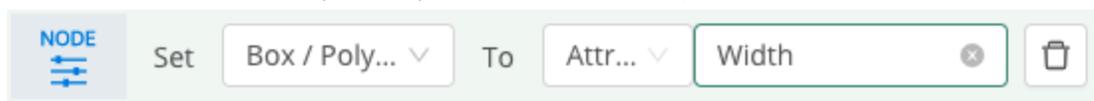
From the left-hand drop-down select the path for *Box -> PolyMesh -> Box -> width*
(You may see two options, but only one will have “PolyMesh” in the second column.)



From the “To” dropdown select “Attribute”



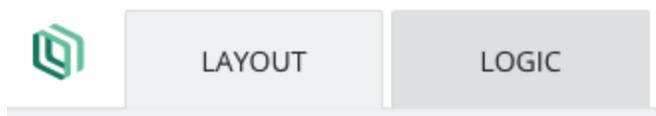
Because we only have one attribute created, it will automatically populate “Width.” If you have more than one attribute, you may select from the dropdown menu.



Click “done.”

D.) Associate 3D Asset to Box Catalog item

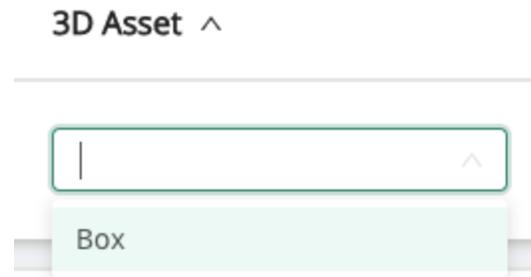
Click the Threekit icon in the upper left corner to return to the “Catalog” view.



Click on the “Box” item. Then click “Edit”



On the right-hand side, in the “3D Asset” box, click the dropdown and select “Box”



Click “Save Item” at the bottom.

E.) Test Configurator in the Box Catalog item

You should now see your box appear in the preview window. Notice how the dimensions change if you change the value of “Width” on the right hand side.

Note: You may need to refresh your browser window to re-initialize the configurator.

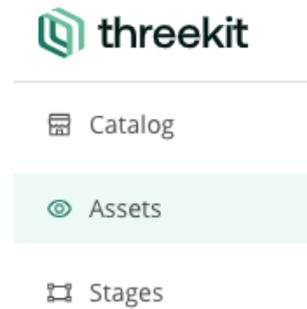


Exercise 2 - Wheel Configurator #1

A.) Import *TrainingAssets* from *Threekit Platform* > *Step B*

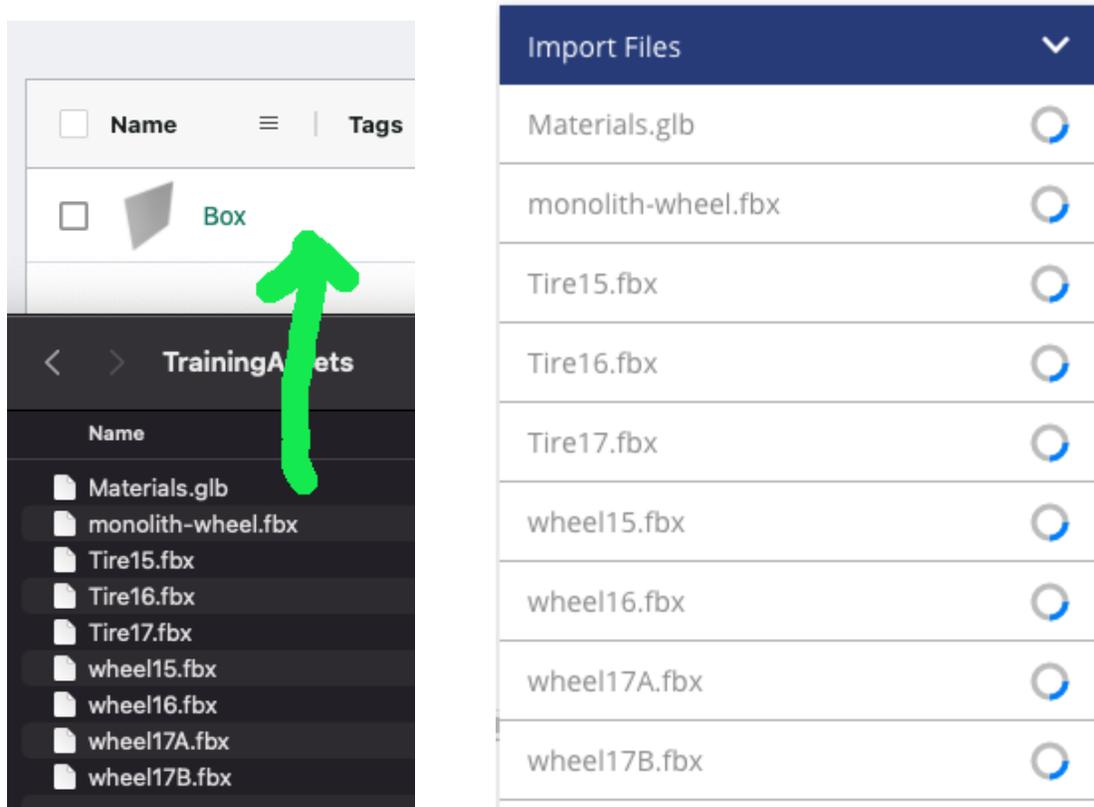
If you haven't already, unzip the assets to your local computer.

Click "Assets" in the left-hand menu.



Click and drag the extracted files from your computer into the "Assets" window. You will see a progress window appear in the lower right corner.

Assets



Notice when you import those 10 files, they will be split into multiple asset objects within Threekit.

B.) Create necessary Catalog Items

Click on “Catalog” in the left-hand menu.

Click “Add Item” and name it “Wheel Configurator #1”

Click “Add Attribute” select type “string” and name it “Style” Assign the values “A” and “B”

Click “Add Attribute” select type “Part Reference” and name it “Metal”

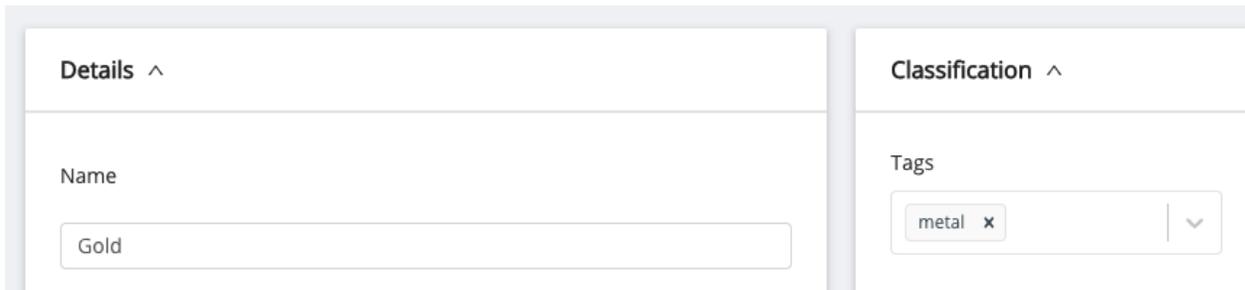
Attributes ^

String	<input type="text" value="Style"/>	
Values	<input type="text" value="A x B x"/>	
Default Value	<input type="text"/>	
Part Reference	<input type="text" value="Metal"/>	
Values	<input type="text" value="Search for parts or #tags"/>	

Save the item.

Add another Item named “Gold”

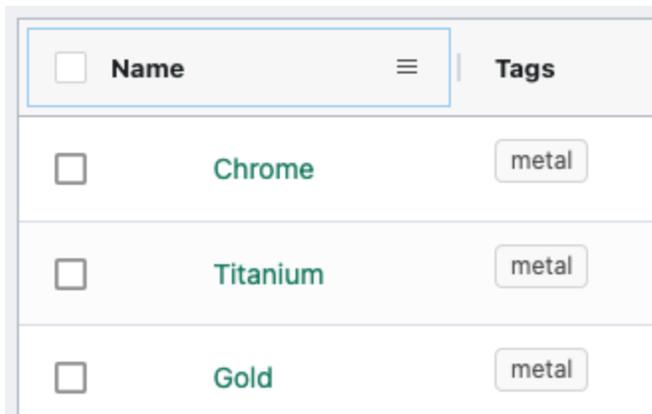
In the edit mode, locate the “Classification” box on the right-hand side. In the tags drop-down type in “metal” and press enter (return).



The screenshot shows a two-paneled form. The left pane is titled "Details" and has a "Name" field containing the text "Gold". The right pane is titled "Classification" and has a "Tags" field with a dropdown menu. The dropdown menu is open, showing "metal" as the selected tag with a small 'x' icon to its right and a downward arrow on the right side of the field.

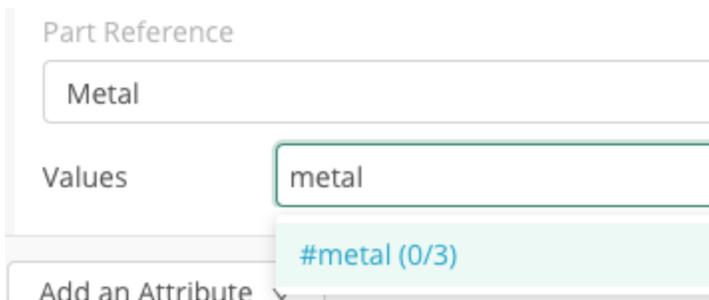
Repeat this process to create item listings for “Titanium” and “Chrome”

Note: Since we’ve created the “metal” tag once, it will now appear in the “Tags” dropdown list.



<input type="checkbox"/>	Name	Tags
<input type="checkbox"/>	Chrome	metal
<input type="checkbox"/>	Titanium	metal
<input type="checkbox"/>	Gold	metal

Click on the “Wheel Configurator #1” item created earlier. Click “Edit” in the upper right corner. In the “Attributes” box, locate the “Part Reference” field created earlier. In the “Values” box, type “#metal”



The screenshot shows a form with two fields. The "Part Reference" field contains the text "Metal". Below it is the "Values" field, which contains the text "#metal". A dropdown menu is open below the "Values" field, showing "#metal (0/3)" as the selected option. At the bottom of the form, there is a button labeled "Add an Attribute".

Notice it will display a total number of objects included in the category when you add the tag, in this case “(0/3)”.

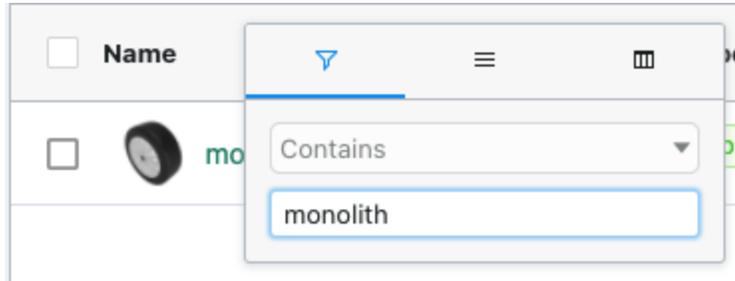
C.) Create Assets to Support the Wheel Configurator #1 Catalog Item

Click on “Assets”

Click the three lines (hamburger icon) next to “Name” at the top.



Type “monolith” into the search.



Click on “monolith-wheel.fbx” in the list. (You may need to click on the filter icon in blue to close the search window first.)

Click “Launch editor”

Assets

monolith-wheel

Launch editor

Clone

Delete

Click the “LOGIC” tab.

Add a string attribute for “Style” set options for “A” and “B” Select a default value of your choice.

Editing String Attribute

done

Name

Style

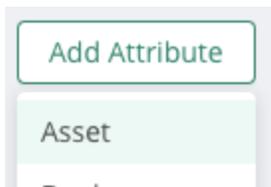
Options

A ×

B ×

Default Value

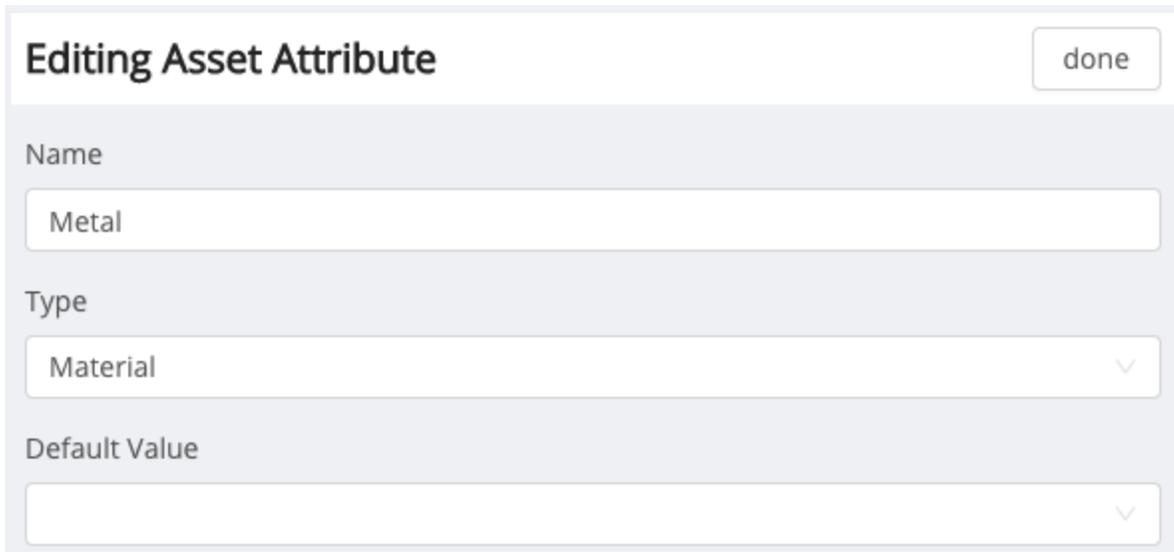
Click “Add Attribute” again and select “Asset”



Add Attribute

Asset

Name the attribute “Metal” and select a type of “Material” from the drop down. Select a default value of your choice.



Editing Asset Attribute done

Name

Metal

Type

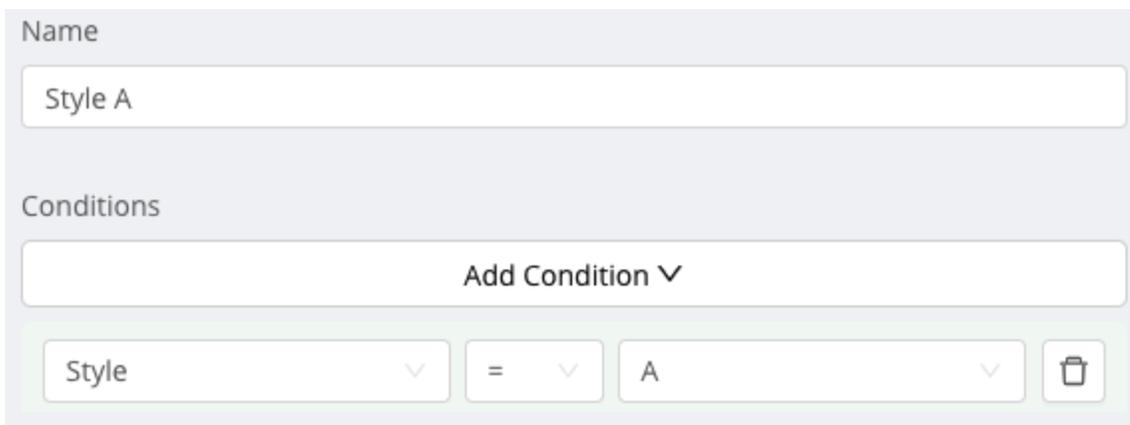
Material

Default Value

Click on “Rules”

Click “Add Rule” and name it “Style A”

Add a condition set: “Style” “=” “A”



Name

Style A

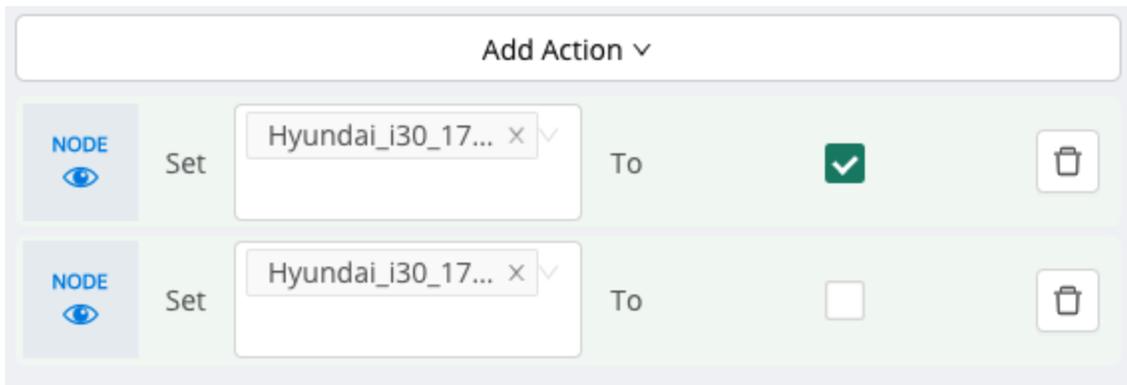
Conditions

Add Condition

Style = A

Add an action “set visibility” “Hyundai_i30_17_inch_A” to true (check the box)
Add an action “set visibility” “Hyundai_i30_17_inch_B” to false (leave unchecked)

Note: If you cannot see the entire name in the drop down, hover over it and a popup will appear.

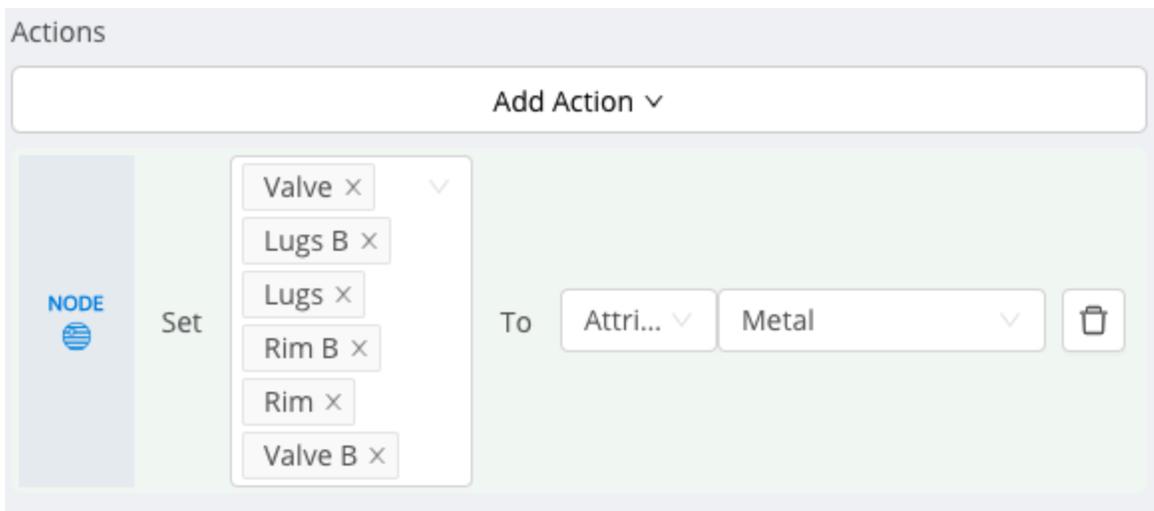


Click “done”

Add another rule named “Style B” for the reverse condition.

Add a third rule named “Set Metal” (No conditions.)

Click “Add Action” and select “set material”. Select Set: “Valve” “Lugs” “Rim” “Valve B” “Lugs B” and “Rim B” To “Attribute” “Metal”



Note: You may use the arrow toggle next to the “Assets” panel at the bottom to hide it so you

have more screen space to view your actions.



D.) Associate Assets to Catalog Items

Click the Threekit Logo to return to the “catalog” view

Click the “Gold” item created earlier. Click “Edit”

In the “3D Asset” window on the right side, select “Metal Gold”
(Hint: If you start typing the name it will filter the list for you.)

3D Asset ^

Metal Gold  

Asset JSON configuration

Repeat this process for “Titanium” and “Chrome”

Click “Wheel Configurator #1” in the item list. Click “Edit”

Select the “monolith-wheel” option in the 3D Asset box.

3D Asset ^

monolith-wheel  

Asset JSON configuration

E.) Test Configurator in Wheel Configurator #1

Exercise 3 - Wheel Configurator #2

A.) Create the Necessary Catalog Items

In the "Catalog" add three items named "Tire 15", "Tire 16", and "Tire 17" (as in 15 inch, 16 inch, and 17 inch). For each, add the tag "tire" and assign the appropriately numbered tire in the "3D Asset" dropdown.

Details ^

Name

Description

Classification ^

Tags

Keywords

3D Asset ^

Metadata *No content*

Return to the “Catalog” and add three more items named “Wheel 17” A”, “Wheel 17” B”, “Wheel 16””, “Wheel 15””.

For each:

Add the tag “wheel”.

In the “3D Asset” box, select the appropriate wheel option from the list (ex. “wheel17A”)

Add an attribute named “Wheel Metal” of type “Part Reference” with the value of “#metal”

Details ^

Name

Description

item description

Classification ^

Tags

wheel x | v

Keywords

Type to add keywords | v

3D Asset ^

wheel15 v

Asset JSON configuration

No Composition +

Pricing ^

To use pricing, first [add a pricebook](#)

Metadata *No content*

Add an Attribute v

Attributes ^

Part Reference

Values

#metal (3/3) x v

Default Value

v

Add a new item with name "Wheel Configurator - Distributed with Nested Config"
Add a "Part Reference" attribute named "Style" with a value "#wheel"
Add a "Part Reference" attribute named "Tire" with a value "#tire"

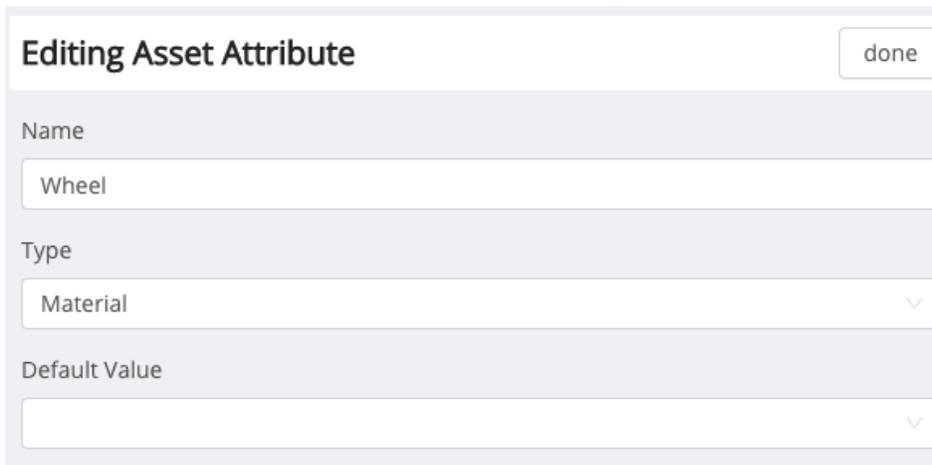
Attributes ^

Part Reference	
Style	
Values	#wheel (1/1) x
Default Value	
Part Reference	
Tire	
Values	#tire (2/2) x
Default Value	

B.) Create Corresponding 3D Wheel Attributes/Rules

Note: If you previously searched (filtered) the results for monolith, you will need to return to the search window to remove your search before all your existing assets will display again.

In assets, **for each** “wheel15”, “wheel16”, “wheel17A”, and “wheel17B”, edit the logic to add “Asset” Attribute with name “Wheel Metal” and type “Material”



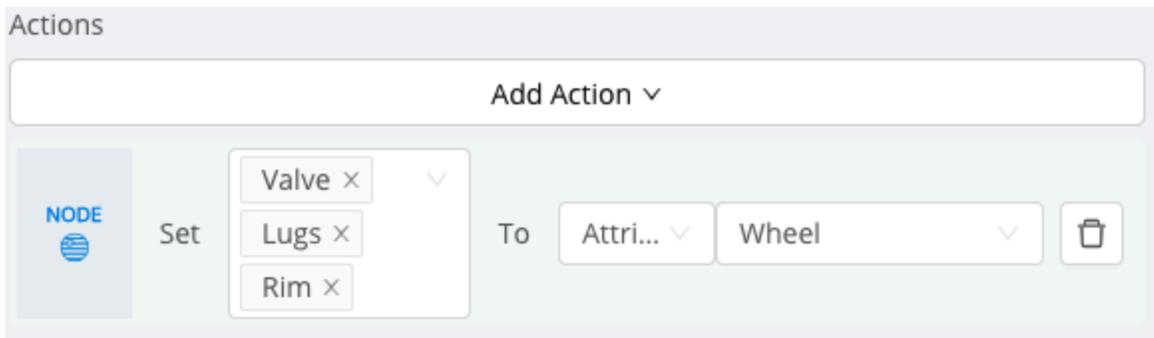
Editing Asset Attribute done

Name
Wheel

Type
Material

Default Value

Rule with name “Set Wheel Metal” and action “set material” for “Valve”, “Lugs”, and “Rim” to “Attribute” “Wheel”



Actions

Add Action

NODE Set Valve x Lugs x Rim x To Attri... Wheel

C.) Validate Wheel Metal is applying appropriately

Navigate to the Wheel 15” Catalog Item

Set varying values in the Wheel Metal Attribute (ie. ‘Chrome’, ‘Gold’, ‘Titanium’)

Repeat validation for ‘Wheel 17” A’, ‘Wheel 17” B’, ‘Wheel 16”

D.) Create the Asset for the Wheel Configurator - Distributed with Nested Config Catalog Item

In assets, create a new asset named "Wheel Configurator #2" of type "Model"

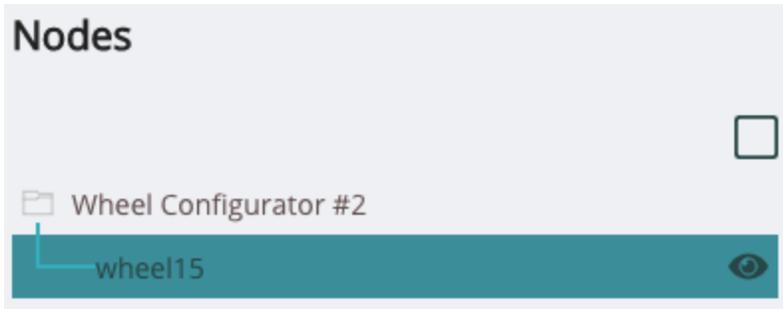
Add Asset

Name

Type

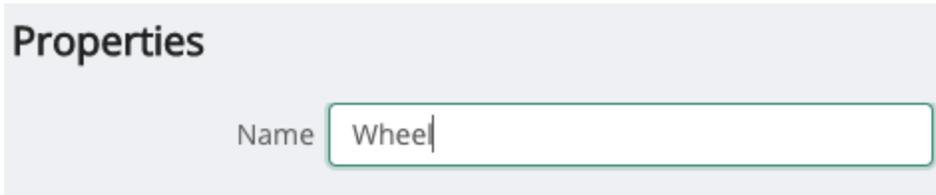
If you previously minimized it, click on the arrow to reopen the bottom “Assets” panel.

From the Asset Panel, drag “wheel15” onto the word “Wheel Configurator #2” in the “Nodes” panel on the left.

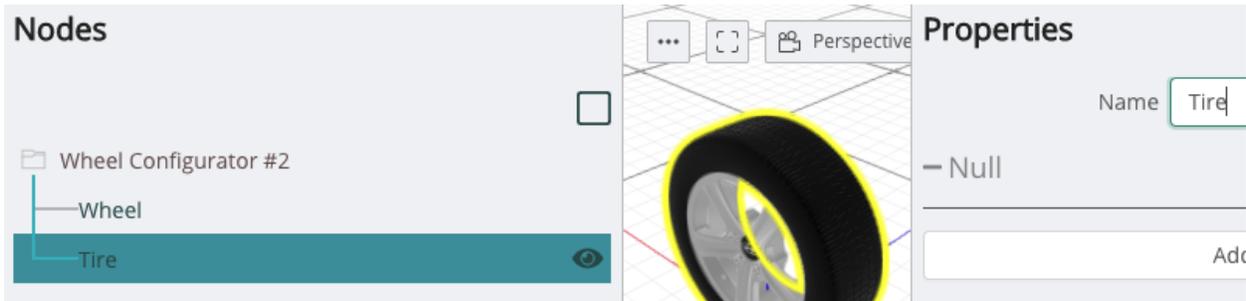


Note: You may need to click on the “Wheel Configurator #2” line to open the tree view.

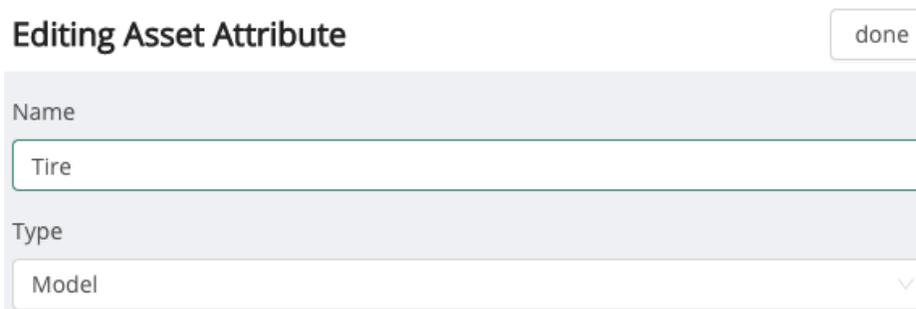
In the Properties Panel on the right, change the name to “Wheel”.



From the Asset Panel, drag ‘tire15’ onto the word “Wheel Configurator #2” in the “Nodes” panel on the left. In the Properties Panel on the right, change the name to “Tire”



In the “LOGIC” tab, add “Asset” attributes for “Style” and “Tire” of the type “Model”



Create rules:

“Style” with action “set model” and values: “Wheel” “Attribute” “Style”

“Tire” with action “set model” and values: “Tire” “Attribute” “Tire”

Editing Rule

done

Name

Tire

Conditions

Add Condition ▾

Actions

Add Action ▾



Set

Tire ▾

To

Attri... ▾

Tire ▾



E.) Ensure the appropriate Tire is present based on Selected Wheel Style

Navigate to the “Wheel Configurator - Distributed with Nested Config” (In “Catalog”)

Click “Edit” and locate the “Rules” box on the bottom left hand side.

Click “Add Rule”.

Click on the line called “New rule”

Name it “15” Tire”.

Add condition: “Style” “=” “Wheel 15””

Add action “set attribute value”: Set “Tire” to “Value” “Tire 15”

Click “done”

Editing Rule

done

Name

15" Tire

Conditions

Add Condition ▾

Style ▾

= ▾

Wheel 15" ▾



Actions

Add Action ▾

ATTR.
#

Set

Tire ▾

To

Value ▾

Tire 15 ▾



Add rules with the appropriate conditions and actions for “Wheel 16””, “Wheel 17” A”, and “Wheel 17” B” using the above for guidance.

F.) Associate Asset to Catalog Item

In the “3D Asset” box for the Wheel Configurator - Distributed with Nested Config, select “Wheel Configurator #2”.

G.) Test the Configurator by Toggling some Values