

# Common Tasks: Working with Objects

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## 1. Overview

You can create, edit, and delete Objects using the Object Editor in Workbench. To learn more about modeling and using Types and Objects, it's suggested that you start with the [Project Builder tutorial](#).

### Note:

The Project Builder tool makes it easier to create types and their objects. It also walks you through the process of putting together an end-to-end build and deployment process. It is highly recommended that you use Project Builder to get started.

## 2. Add an Object

To add an Object, navigate to the Type from which you want to create the new Object and select the Objects tab. Then select the add Object button.

### Note:

When you are in Object Editor view the background will be grey. When you are in Type Editor view the background is white

Figure: Add Object button

Figure: Add Object Dialogue

Legend:

- 1 -Enter a name and a description for the new Object
- 2 -Enter a value for the new Object's attributes (as determined by the Object's Type). In this example, the attribute names "catalina\_base" and "cataline\_home" are set in the constraints tab of the Type.
- 3 -Tags are an experimental feature for resource matching and are for advanced usage only

## 3. Copying Objects

Copying Objects is similar to adding Objects, but there is an extra step that lets you choose if you want to copy the original Object's Resource and Referrer relationships as well. Copying objects is useful when you need to duplicate objects with complex relationships.

Figure: Button to copy Object

Figure: Copy Object dialogue that lets you select which dependency relationships to copy.

## 4. Add/Edit Child Dependencies

Resource dependencies allow you to create assemblies of Objects in order to represent how things in your environment are assembled. They also provide a way to navigate through your information by following dependency relationships.

**Note:**

Only Objects of Types that are Subtypes of Assembly can have child dependency relationships. Objects of Types that are Subtypes of Setting can be Child Resources of other Objects but cannot have Child Resources of their own.

Figure: Select change children link in the Dependencies tab of the Object Editor view:

Select which Child Resources you want to associate with this Object. The highlighting indicates Objects that are the current Child Resources.

Figure: Child Resource selection screen

**Note:**

The list of potential Child Resources to add is limited by the constraints set in the Object's Type definition. The allowed-types constraint act as a filter, limiting the objects presented. If you select the Add Resource button and no objects are listed as potential child resources, that means there were no matching objects for the specified allowed-types constraint.

## 5. Add/Edit Parent Dependencies

Parent resources are those Objects that have a Child Dependency link to the current Object ("Parent" is the reverse, or upstream, view of a child dependency relationship). If Object A has Object B as a Child Resource, then Object A is a Parent Resource of Object B. When you modify a Parent relationship you are essentially modifying a Child Resource relationship at the same time. They are the same action and the name only refers to the point of view when viewing the relationship in Workbench.

Figure: Toggle the Parent Relationship under the Dependencies tab and then select the change parents link

Figure: Modify Object's Parents Dialogue. The highlighting indicates Objects that are the currently Parents of this Object.

## 6. Graphing Objects

Workbench has a built in graphing tool that will draw a directed graph of Objects and their Parent/Child Relationships. To use the Graph Tool you must first select an Object that you wish to use as the graph's target. The target is necessary because Workbench passes only a select amount of information to the Graph Tool. By clicking on various parts of the graph you can navigate the model using this graphical view.

Figure: Select Graph Button to render Graph for Object

Figure: Graph with staging (HNTomcat Type) Object in focus

Legend:

- 1** -Returns the tabular Object Editor view of the Object
- 2** -Launches the graph controls in a pop-up window
- 3** -Saves the current Graph context as a Pattern. Patterns are currently an unsupported experimental feature
- 4** -Object in current focus. If you click on this shape it will reverse the "view" of the graph (showing parent relationships rather than child relationships, or vice versa).
- 5** -Settings attached (child dependencies) to Object currently in focus

Figure: Graph Controls

Legend:

- 1** -Chose the proximity from the Object in focus (scope of graph). Determines how many degrees away from the target the Graph Tool should graph

**2** -Determines which direction from the Target graphing should go (internal = follow child relationships. external = follow parent relationships).

**3** -Criteria for which Objects the graph will display

**Note:**

By clicking on the various shapes in the graph you can "navigate" through the model. Clicking on the shapes in the Graph can have different effects based on if the shape is in focus or not (i.e. whether or not the object is the graph's target). If the shape is currently in focus (green), clicking on that object will reverse the direction of the graph. If direction was set to internal then it will switch to external (and vice versa), but the target will remain the same. If you click on an object that is not in focus, the graph will redraw with that object as the new target (it will then be green). The rest of the graph parameters will remain the same.

You may also graph the entire project at once by selecting the Graph All button from the main start page in Workbench (which you can always get to from the ControlTier logo in the upper left corner of each screen). This graph can be quite large and appear messy to the human eye since it has no target on which to focus. Once you click on a particular Object in that graph it will make that Object the target and behavior as the Graph Tool does under normal circumstances.

Figure: Graph all (show all of current Project in Graph at once)

## 7. Locking Objects

You can lock the current Object so that further changes to the Object cannot be made until the Object is unlocked. Only the user that created the Object or a user with the administrator role can unlock the Object. There is a confirmation step before the Object is locked or unlocked.

Figure: Button to lock Object