

Multi-level BOMs & Sub-Assemblies

Modified by Phil Loughhead on Feb 17, 2016

Multi-level BOMs & Sub-Assemblies


Multi-level BOMs are now supported for “Pro” database subscriptions. A multi-level BOM can be realised through the use of sub-assemblies. A sub-assembly in Ciiva is simply a product version that is related to another product version with a parent child relationship. A product version may have many sub-assemblies. For each sub-assembly, a quantity and description can be specified.

With the introduction of this feature, the management of products containing multiple BOMs become very straight forward, and the visualisation of BOM structure has been made simple through the use of product relationship maps.


In the following tutorial we will use our demo database (which you can select to include when you create your database) to illustrate the ways to add, edit and remove sub-assemblies.

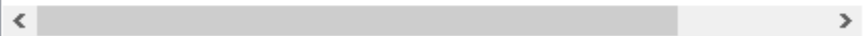
Add a Sub-Assembly

Sub-assemblies can be added through the Product Navigator. Select a product version (in this example we use the Toradex Apalis Evaluation Board 1.0A.004), and you will see the Sub-Assemblies section in the Product / Product Version Properties window on the right.

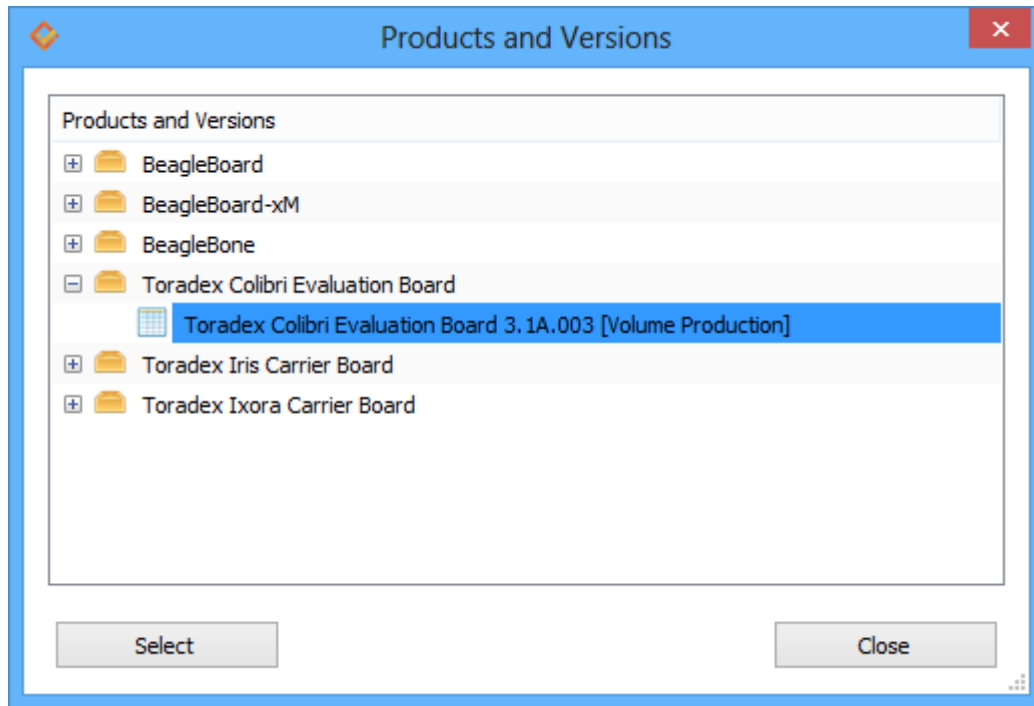
Sub-Assemblies 

Sub-Assembly	Quantity	Comment
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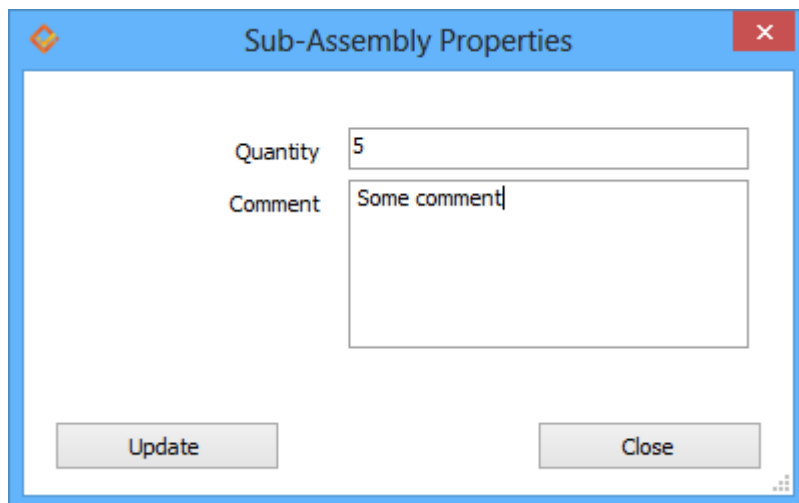




Click the Add button to select a product version to be added as a sub-assembly.



After selecting the product version, specify the quantity and, optionally, a comment.



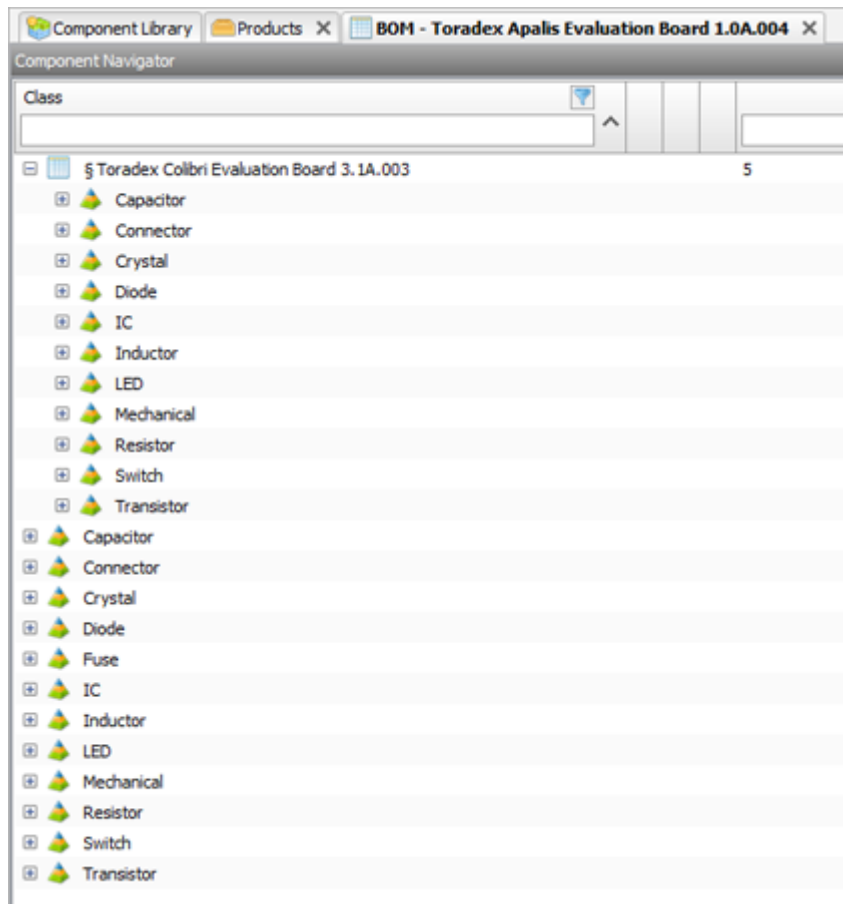
When this is done, a new entry is created in the Sub-Assemblies table.

Sub-Assemblies

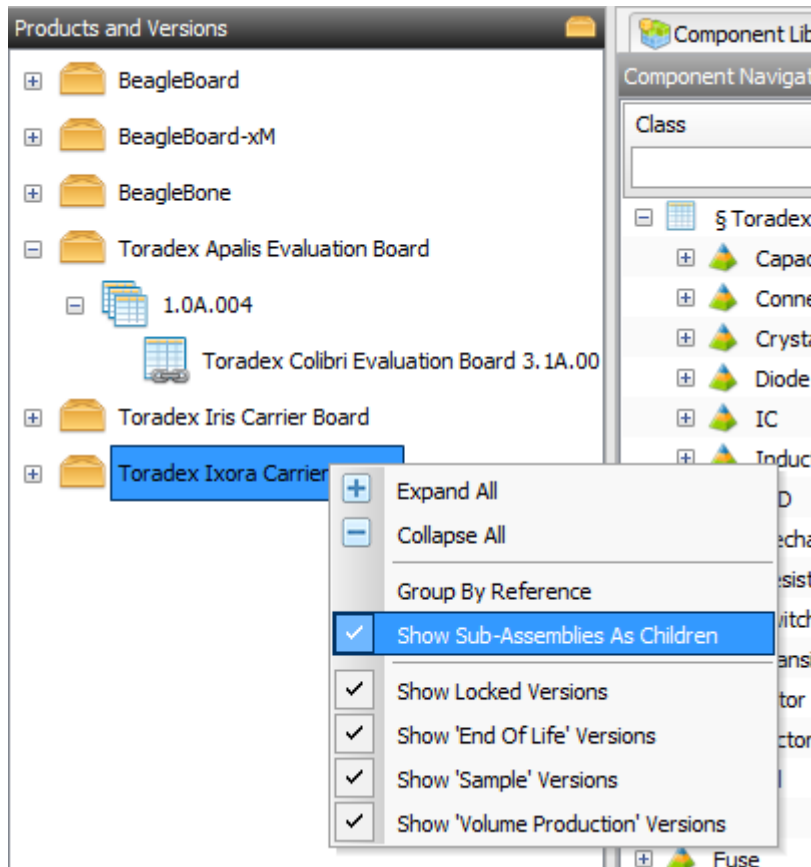
Sub-Assembly	Quantity	Comment
Toradex Colibri Evaluation Board 3.1A.003	5	Some comment

When you open the BOM for the product version Toradex Apalis Evaluation Board 1.0A.004, you will see the sub-assembly appears at the top of the navigator, with the components belonging to its parent BOM shown below. You can expand the sub-assembly to view the components contained

within the sub-assembly. If you click the Lifecycle or Purchase toolbar buttons, components contained in all sub-assemblies will be included.



The Product and Versions tree view on the left hand side can be configured to show sub-assemblies as children of their parent product version object (i.e. in a hierarchical view) if required. To enable this view, check the Show Sub-Assemblies As Children right-click menu option.



Different icons are used to represent product versions depending on whether they contain sub-assemblies or whether they are a sub-assembly.



Product version containing sub-assemblies



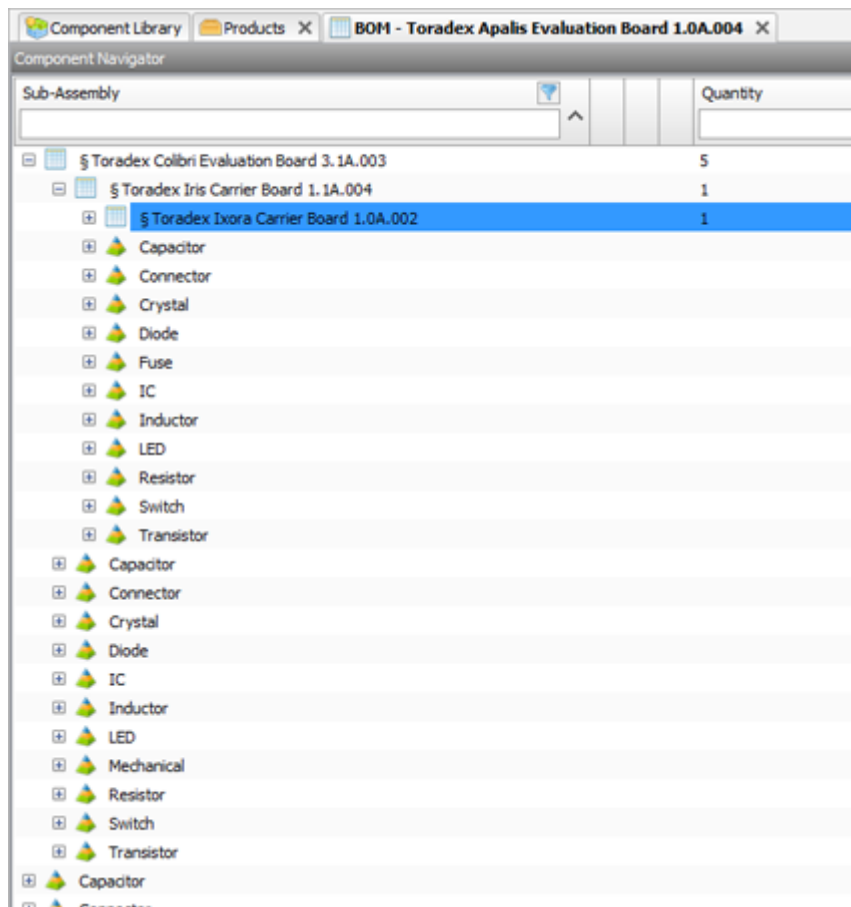
Product version without sub-assemblies



Product version is a sub-assembly

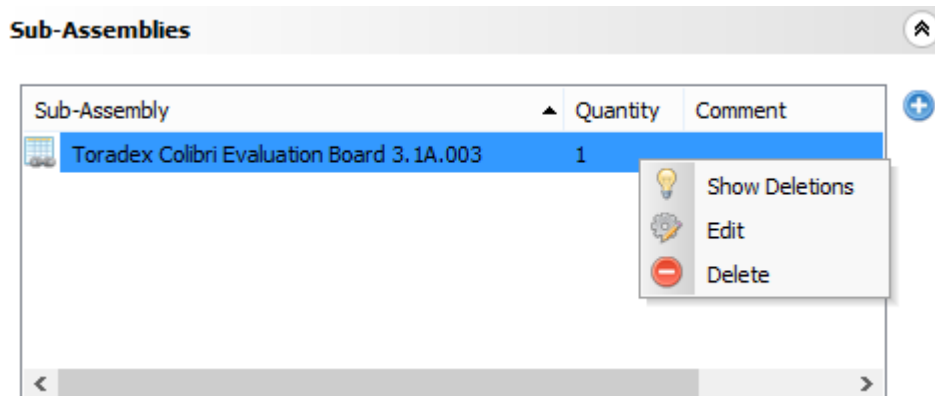
If you want to open a BOM without including any sub-assemblies, right-click on the product version in the Products and Versions navigator on the left, and select Open BOM Excluding Sub-Assemblies. You can change the default double-click behaviour to open the BOM excluding sub-assemblies by changing the user setting Open BOM with sub-assemblies on double-click in the Component Navigators tab.

It is worth mentioning that no limit is imposed on the depth of multi-level BOMs. In other words, you can create a BOM that contains as many sub-assemblies as you want at no matter how many levels. However, no circular reference is allowed so you cannot add a BOM as the sub-assembly if it is already an ancestor assembly of the current BOM. Below is an exemplary four-level BOM tree view, where Toradex Apalis Evaluation Board 1.0A.004 is the great-grandparent.



Edit/Remove a Sub-Assembly

You can right click the sub-assembly in the Sub-Assemblies table to edit or remove a sub-assembly from the product version.



Relationship Map

If you select a product version in the Products navigator, you will see an Assemblies tab next to Properties on the right. You can switch to the Assemblies tab to view and print the relationship map for the current product version. The relationship map of the Toradex Apalis Evaluation Board 1.0A.004 BOM (tree view shown above) is shown as follows:

