

LifeCheck Technical Note

ID: TN003
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Description: Use of Part Classes in Chassis Templates

Overview

Part classes are provided to group together parts which have different part numbers but which perform the same function and/or are interchangeable. They are typically used in conjunction with Chassis Templates to define a single chassis template which is flexible enough to handle multiple different configurations of the car. For example, you may use a number of different specifications of torsion bar but the torsion bars themselves can be swapped for one another depending on the particular setup being used.

If a specific set of torsion bars were defined in the chassis template, the use of any other torsion bars would mean that the chassis template might not match the chassis build. Using Part Classes avoids this issue as the chassis template can be built requiring 2 instances of the 'Torsion Bars' part class without mentioning specific part numbers. Now any member of the 'Torsion Bars' part class can be added to the chassis and so long as the correct number is present, the chassis build will match the template.

This document details the steps required to modify a Chassis Template to utilize Part Classes.

1. Create the Part Class

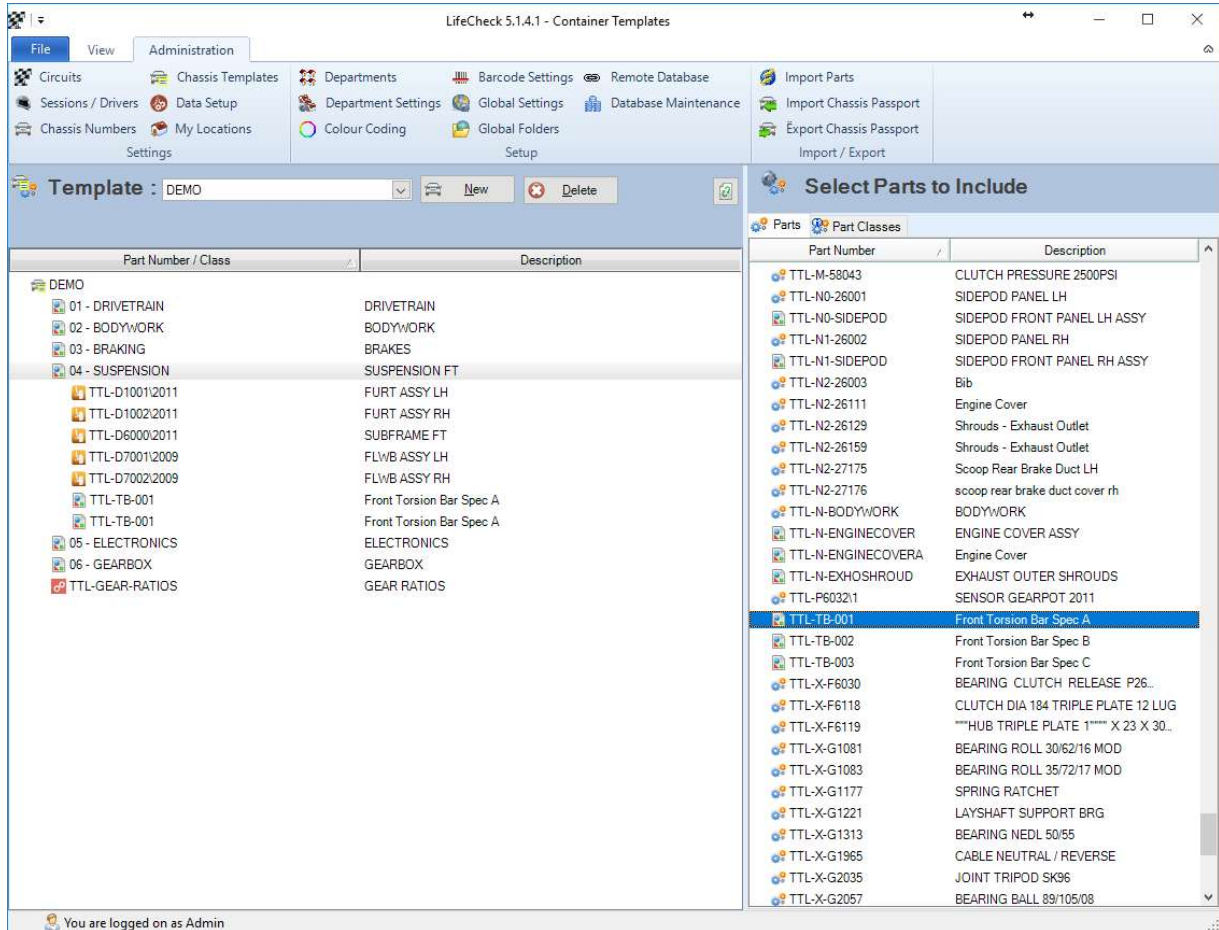
The first step in the process is to actually define the Part Class. Part Classes are defined under Administration>Data Setup. Click **Add** to the right of **Part Classes** and enter a descriptive name for the new entry – for example 'Torsion Bars'



2. Update the Chassis Template

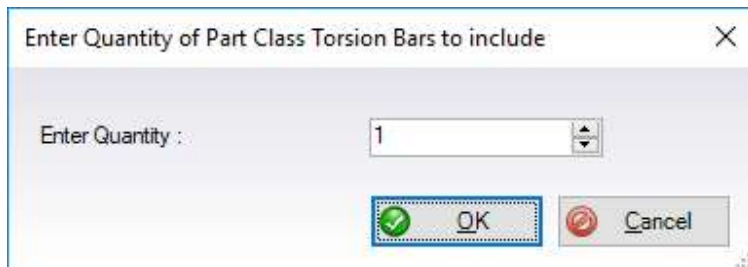
Switch to Administration > Chassis Templates and select the Chassis Template to be modified. Now identify the part(s) to be replaced with the new Part Class. In this case we will select the 2 front torsion bars as we have 3 different specifications of Torsion Bars, 'Spec A', 'Spec B' and 'Spec C'. Although the Chassis Template specifically includes 2 'Spec A' torsion bars, other specifications may be used.

If we do not change the Chassis Template, putting a 'Spec B' torsion bar on to the chassis will result in failure of the chassis to match the template.

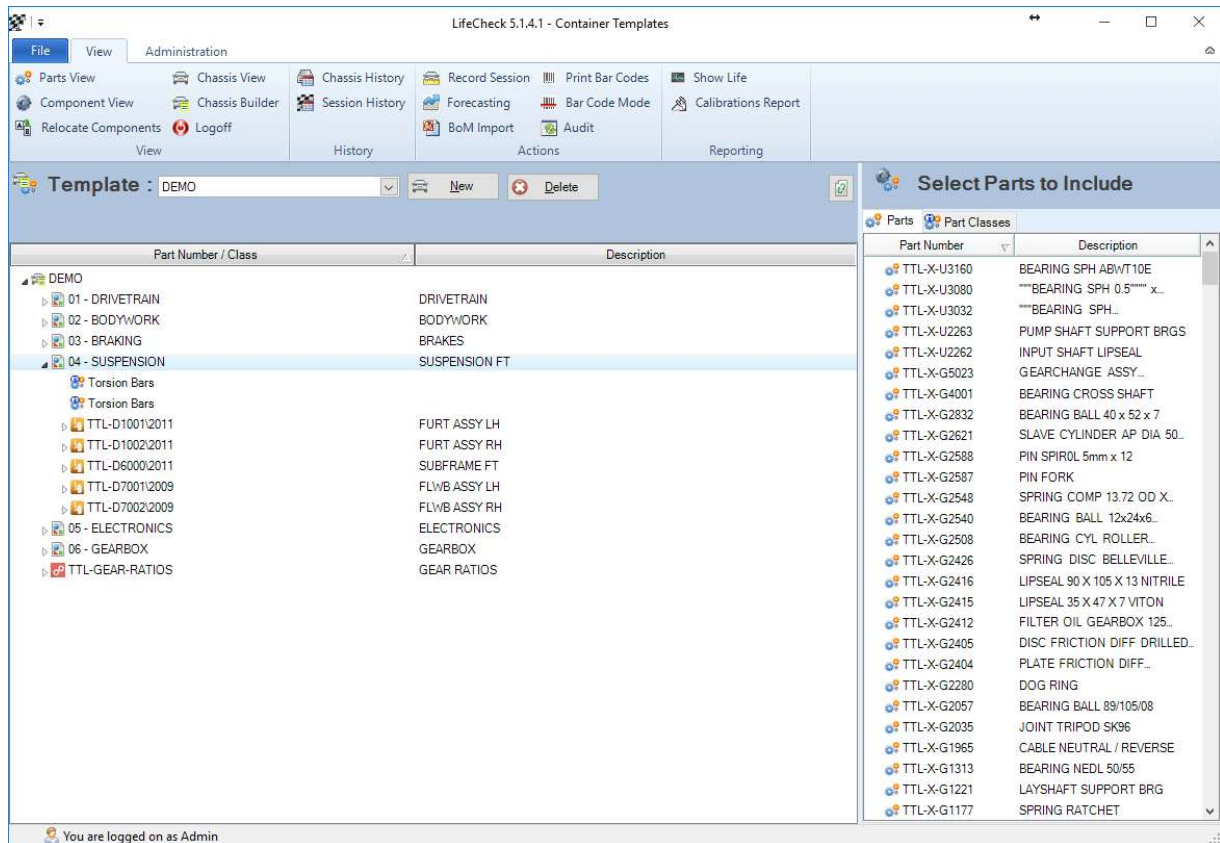


Select the 2 torsion bar entries and right-click on them to display the context specific menu. From this menu select 'Delete Node' to remove these items from the Chassis Template. Now select the 'Part Classes' tab in the right hand pane. The available Part Classes will be displayed.

Select the 'Torsion Bars' part class in the right hand pane and drag to the node which was the parent of the torsion bars just removed – in the above window this is the '04 - SUSPENSION' node. The following window will be displayed :-



As we originally had 2 torsion bars, enter a quantity of 2 and click 'Ok'. The Chassis Template will be updated to show 2 torsion bar entries but the icon will depict a part class as below :-



3. Assign Part Classes to Parts

At this stage the chassis template itself has been updated but there are no parts associated with the 'Torsion Bar' part class. To correct this, select **View > Parts View** from the main menu.

In the left hand pane, which lists the parts defined within LifeCheck, select the parts which are to be associated with the Part Class. To select multiple items, hold the shift key to select a range or Ctrl key to select individual items. Right click on the items and from the context menu displayed, select 'Set Part Class > Torsion Bars'.

You can also select a part class from the 'Part Properties' window using the appropriate drop-down list.

That's it! Your Chassis Template will now allow any 2 torsion bars to be specified on the chassis and still match the template. Many chassis templates will include a large number of part classes to ensure that they can match many different chassis setups.