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Migrating from the "Speed (Closed Loop) vs Station (Deprecated)" Screen

This Technical Memo provides instructions for migrating from the deprecated browser screen and library **Control: Speed (Closed Loop) vs Station (Deprecated)** to its replacement **Control: Speed (Closed Loop) Using Target Speed** in CarSim, TruckSim, and BikeSim.

> **Note** The library **Control: Speed (Closed Loop) vs Station (Deprecated)** was removed in version 2021.0. To migrate data from this screen, you will have to work from version 2020.1 or older.

From time to time, the addition of new features or support for more detail in existing features causes the introduction of new library screens with substantially similar function (though most often with new, additional capabilities). The older, less capable screens are retained in the product to ensure backward compatibility and support updates of older databases. However, after a time the older screens are removed.

With the release of Version 2020.0, the **Control: Speed (Closed Loop) vs Station (Deprecated)** screen and library has been deprecated (i.e., marked for retirement). Normal policy is to retain a deprecated screen for two releases before removal. In other words, this deprecated screen will be carried in the 2020.0 and 2020.1 scheduled releases, and no longer appear in Version 2021.0.

Differences Between the Libraries

Figure 1 shows a **Control: Speed (Closed Loop) Using Target Speed** screen and Figure 2 shows the deprecated **Control: Speed (Closed Loop) vs Station (Deprecated)** screen.

The **Control: Speed (Closed Loop) vs Station (Deprecated)** provides for the definition of a target speed as a function of vehicle (or moving object) station. The new **Control: Speed (Closed Loop) Using Target Speed** screen adds the capability to define a target speed as a function of time and to optionally combine both targets by adding or multiplying their values. Both screens allow automatic or manual assignment of an ID for the target dataset, and both provide for the definition of control gains and other parameters for the closed loop speed controller.

For brevity, the screens will be called **Deprecated** and **New** in most of the remainder of this document.

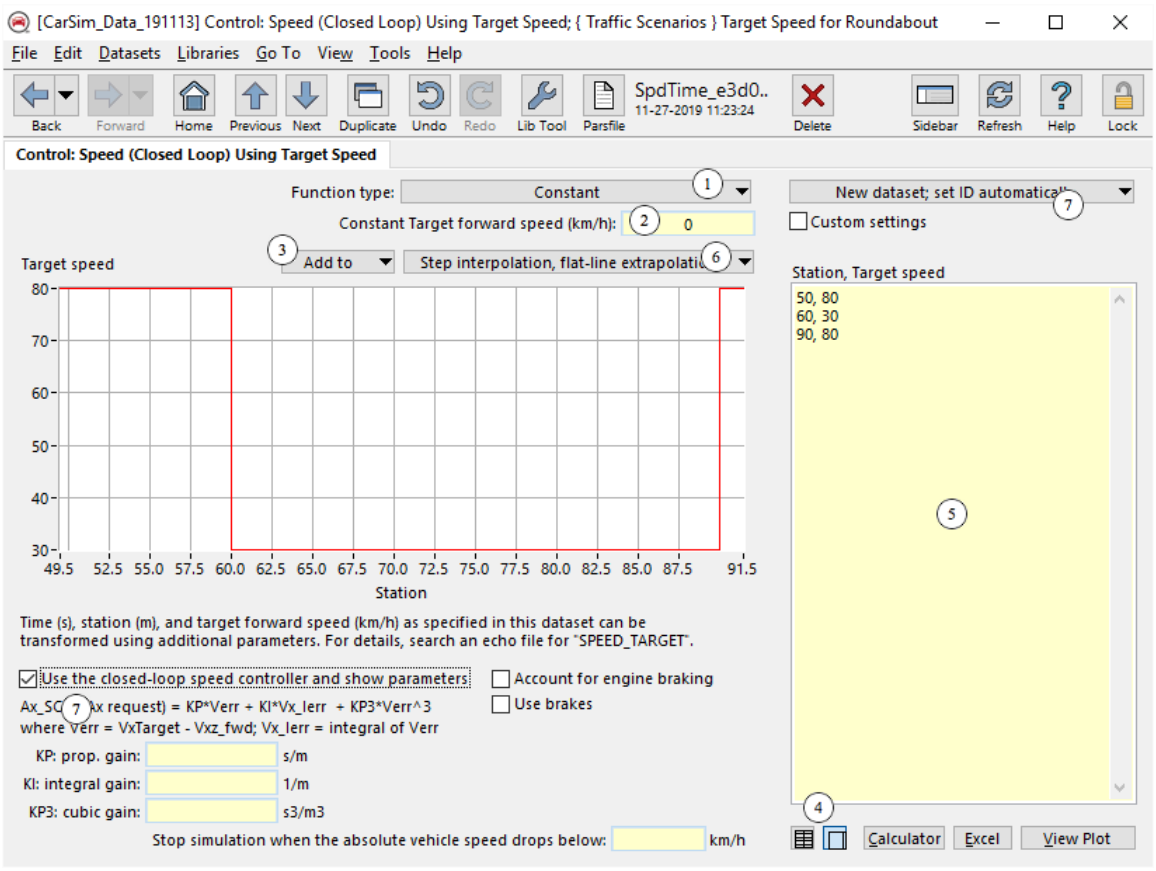

Figure 1. Control: Speed (Closed Loop) Using Target Speed screen

Migrating the Data – Preparing a Screen

To assist you in moving to the newer screen, it's a good idea to first navigate to the **Deprecated** screen (Figure 2) for the dataset you want to replace. Click the blank radio button ⑧ to change from spreadsheet view to text edit view, if necessary. Use the **View** menu item and select "Additional Window (Read-Only)". This opens a copy of the screen you can refer to while building its replacement in the **New** screen**.** Note that in the read-only copy you can navigate among screens and copy data to the clipboard, but you cannot change the contents of any screen.

In the read-write copy that you have open, use the **Libraries** menu item to navigate to **Control: Speed (Closed Loop) Using Target Speed.** You will create a dataset in this library for each dataset you need to transfer from the **Control: Speed (Closed Loop) vs Station (Deprecated)**. To do this, Use the **File** menu item and select "New Dataset (Empty)". In the dialog that opens, type in the category name and title from the read-only copy. (Remember you are creating a replacement in a different library, so the same category and title is a good idea). Note that all the fields in the new screen are empty.

On the **New** screen you just created, set the pull-down ① to "Constant", set the value in the Constant Target Forward Speed field ② to zero, and set the mode control ③ to "Add". The data you are transferring is for speed vs station only, so these settings disable effects that are functions of time. Select the blank radio button ④ if necessary, to put the data field into text edit mode.

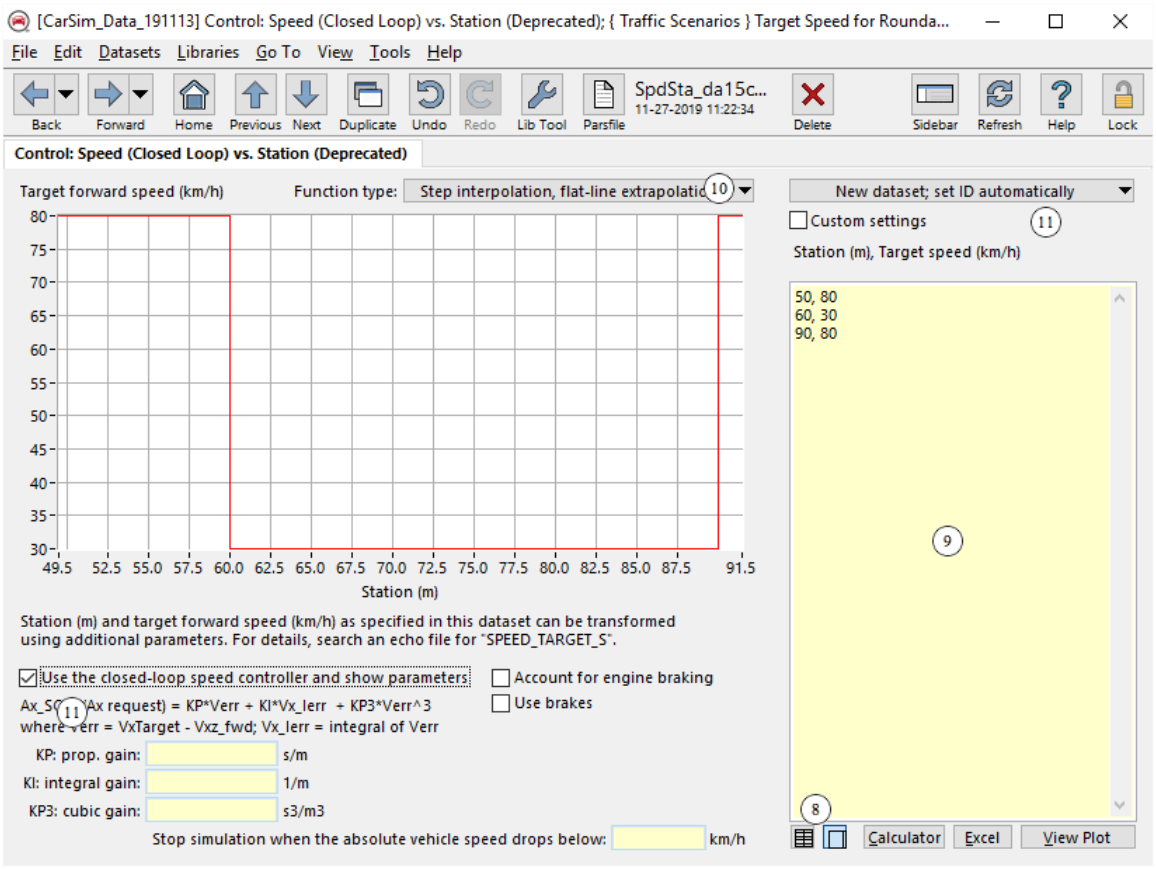

Figure 2. Control: Speed (Closed Loop) vs Station (Deprecated) screen

Migrating the Data

On the **Deprecated** screen (open in read-only mode) select the entire contents of the table field (9) using Ctrl-A.

Use Ctrl-C to put the contents on the clipboard.

On the read-write copy, use Ctrl-V to paste the table data into the **New** screen (5).

Set the Interpolation / Extrapolation control (6) on the **New** screen to the same option as the corresponding pull-down (10) on the **Deprecated** screen.

One by one, change all the remaining controls (7) as necessary on the **New** screen to have the same settings (11) as the **Deprecated** screen.

Copy and paste any data in the remaining data fields to the **New** screen.

Finishing Up

After creating the new datasets in **Control: Speed (Closed Loop) Using Target Speed**, close the read-only window and navigate to the **Control: Speed (Closed Loop) vs Station (Deprecated)**

library again. For each dataset, use **Tools** from the menu and choose **Find All References to This Dataset** to find the places that linked to it. One by one, double-click the listed items to go to the screen where the **Deprecated** dataset is linked, and change that link to the **New** dataset just created.

Complete the above steps for each dataset in the **Control: Speed (Closed Loop) vs Station (Deprecated)** library. Once you are sure the data has been transferred correctly and is linked to the datasets that use it, it's a good idea to delete the **Control: Speed (Closed Loop) vs Station (Deprecated)** datasets so you won't use them in the future. Remember, when the screen is retired any data still there will be lost.