TechTip: Behavior of manual saddle jumpers

Since Version 2.5 manual jumpers can be created between different levels.
This is required for jumpers within a multi-level terminal and for jumpers between different terminal types with a different level counting method.

Old behavior

In older versions manual saddle jumpers were controlled via the "Manual, start of jumper" and "Manual, end of jumper" settings at terminals. The jumper length resulted automatically within a level of a terminal with the "Start of jumper" setting to a terminal with the "End of jumper" setting. By inserting terminals between two manually jumpered terminals located next to each other the saddle jumper was "stretched".

Current behavior

Since Version 2.5, the jumper is defined at the jumper start. At the first jumpered terminal the jumper length and the location (internal or external) are stored. The editing of other terminals of the terminal strip does not change the jumper length.
Therefore the behavior is now device-oriented. The jumper length is specified directly suitable to the jumper part at the terminal. Through the insertion of terminals between two manually jumpered terminals a different target is assigned to the saddle jumper.

Workflow

In the **Edit terminal strip** dialog a manual saddle jumper can be created or deleted by using the buttons.
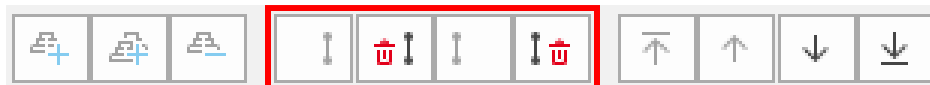
Example

If you want to jumper the selected terminals 1 and 2 on the internal side, you can do so by using the activated button ⌶. (An external saddle jumper cannot be formed since the terminals in this example have no external saddle jumper connection points.)

With **[OK]** the jumper length at the terminal 1 is saved through the value 1/0 in the property **Manual saddle jumpers (internal)**.

Row	Saddle jumpers (internal)	Terminal designation	Level	Preview
1		1	0	
2		2	0	
3		3	0	

If the terminal 2 is deleted, the terminal 1 still has a jumper of the length "1".
In this case terminal 1 is jumpered with terminal 3.

Row	Saddle jumpers (internal)	Terminal designation	Level	Preview
1		1	0	
2		3	0	

If terminal 3 is deleted as well, the check run 001033 reports that the jumper end is missing:

Number	DT	Message text
001033	=A+O-X100:1	The manual saddle jumper cannot be generated. No terminal exists at the jumper end.

Part for jumper material

The part for the saddle jumper can be entered as an accessory at the first jumpered terminal. This way you can determine jumper part and jumper length at a common spot.

Simple saddle jumpers

The 1/0 value in the **Manual saddle jumpers** property means the terminal is jumpered with the next terminal on the same level. The 2/0 values means that the terminal is jumpered with the terminal after that on the same level.

Jumper combs

The jumper comb jumpers several terminals. A jumper comb that jumpers three terminals located next to each other, is saved as `1/0;1/0` at the first jumpered terminal.

Saddle jumpers between multi-level terminals

Different levels of multi-level terminals can now also be jumpered.

Row	Saddle jumpers (internal)	Terminal designation	Level	Preview
1,2,3		1	3	
		1a	2	
		1b	1	
4.5		2	2	
		2a	1	

A jumper that jumpers the different levels of multi-level terminals, is saved at the first jumpered terminal through the `1/-1` value. The `1/-1` values means that the terminal is bridged one level number lower with the next multi-level terminal.