How to Tri-state CPLD Pins

Table of Contents

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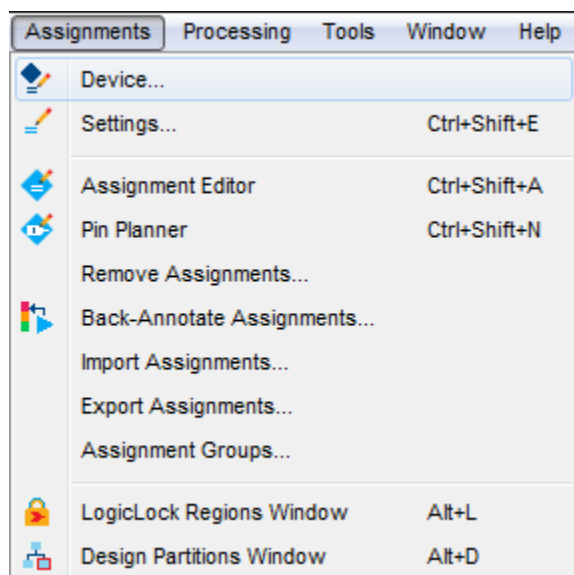Electronics and Robotics LLC   ootbrobotics.com

Procedure

By default, Altera CPLDs set unused i/o pins to outputting GND. This is not ideal for many reasons. Therefore, it is desirable to set all unused pins as input tri-stated.

Step 1: Open or Create a Quartus Project

Unused pin assignments can only take effect inside of a project.

Step 2: Locate the Device Assignment Menu

How to locate the menu is shown below.

Step 3: Select Device and Pin Options

From the device menu, and specifically the device tab, select the button "Device and Pin Options"

Step 4: Set Pins as Input Tri-stated

Select the category "Unused Pins". Use the dropdown menu as shown below to select "As input tri-stated".

Reserve all unused pins:	As input tri-stated ▾
	As input tri-stated
	As input tri-stated with bus-hold circuitry
	As input tri-stated with weak pull-up
	As output driving an unspecified signal
	As output driving ground

After completing the selection press "OK" in the "Device and Pin Options", followed by "OK" in the "Device" menu.