Nios II SBT Tutorial

1. Start Nios II SBT for Eclipse.

2. Select File > New > Nios II Application and BSP from Template.

3. In the new project wizard, where it says SOPC Information File name, browse to the *sopcinfo* file created in the Altera Qsys tutorial.

4. In the new project wizard, where it says Project Name type *de1_ucosii_tutorial*.

5. In the new project wizard, select Hello MicroC/OS-II as the template then click Finish.

6. In the project explorer expand de1_ucosii_tutorial and delete *hello_ucosii.c.*

7. Drag and drop the files from *de1_tut_src* into de1_ucosii_tutorial; select to copy the files.

8. Ensure that the PIO base addresses in *producer_consumer_enums.h* are the same as the addresses copied from Qsys.

9. Right-click de1_ucosii_tutorial_bsp, point to Nios II, and click BSP Editor; the Nios II BSP Editor opens.

10. In the BSP Editor Main tab, locate the expandable tree of settings, expand Advanced, and then expand and select ucosii. You can see that the BSP settings for MicroC/OS-II are highly configurable. The settings determine which MicroC/OS-II options are included in the binary image. The Nios II SBT also saves the setting values to the *system.h* file; to see descriptions of the settings, expand and select each setting.

11. Expand the Common settings, expand and select hal, and ensure that stderr, stdin and stdout are all set to jtag_uart_0.

12. If you make any changes, save the BSP and click Generate to recreate the BSP files; click Exit to close the BSP Editor.

13. Select Project > Build Project.

14. Right click *de1_ucosii_tutorial* and select Run As > Nios II Hardware.