

## Note for implementing the MiniUART design in Foundation

The MiniUART IPCore can be integrated in a schematic design as a black box.

1. Create or open a schematic design. If you create a new design, select the **schematic** radio button.
2. Copy the four vhd file: miniuart.vhd, txunit.vhd, rxunit.vhd and utils.vhd in the main directory of the project.
3. In the Project manager, click **Project->Add source File(s)**. In the Add document window, select the four vhd files added in 2.
4. For each vhd file, open it with the HDL editor and click **Synthesis->Check syntax**
5. Launch the HDL editor. Select **existing document** radio button. Choose miniuart.vhd in the file dialog box. Click **Synthesis->Synthesize**. This will have the effect to synthesize the miniuart with its corresponding dependencies. You should only see a warning : “The net '/UART/WB\_STB\_I' is a feed through net. (FPGA-CHECK-9)”
6. Click **Project->Create** macro. This will create a macro for the miniuart. You can see it in the Synthesis tab of the Project Manager. You can also see it as a SC symbol in the schematic editor. You can now place it in a schematic and add wires and pads. Then you can implement your design like you used to do with the traditional **Implementation** push button.