Avalon-MM Slave

Avalon-MM is an Altera-developed memory-mapped bus, which allows you to easily create peripherals for your CPU-based system.

1. Start **Platform Designer**.
2. Create a new component: **File** -> **New Component…**
3. On the **Files** tab, add the avalon_mm_slave.v into **Synthesis Files**.
4. Click the **Analyze Synthesis Files** button.
5. The tool will deduce that the signals describe an **Avalon-MM** slave interface.
6. Fix the warnings (associate the reset and clock signals with the bus.)
7. Observe the waveforms of read and write transactions on the **Signals & Interfaces** tab.
8. Design your logic inside the avalon_mm_slave.v according to the waveforms.
9. Export the component and connect it into your Platform Designer system.
10. In the SDK, #include "system.h", which will contain the assigned base address and other useful parameters of your component.
11. You can, for example, use the IORD(BASE_ADDRESS, OFFSET) and IOWR(BASE_ADDRESS, OFFSET, VALUE) macros from io.h to access the component.