



Ulyssix Software Development Kit

Introduction:

The Ulyssix Software Development Kit (SDK) includes everything needed to write a custom software application to interface with Ulyssix telemetry hardware. The Ulyssix SDK contains the Ulyssix Windows Driver, Ulyssix DLL, programming language interface files, and the Ulyssix API Documentation with example code.

The Software Application sends high level commands to the Ulyssix DLL. The Ulyssix DLL translates the high-level commands from to low level hardware commands and sends them via the Ulyssix Windows Driver to the Ulyssix Hardware. Telemetry data is sent from the Ulyssix Hardware to the Software Application using DMA.

Software Application

Ulyssix DLL

Ulyssix Windows Driver

Ulyssix Hardware PCIe cPCI PCI

Ulyssix Driver:

The Ulyssix Driver supports Windows XP, Windows 7 32-bit, Windows 7 64-bit, and Windows 10 64-bit operating systems. The Ulyssix driver implements direct register read / write to the Ulyssix Hardware as well as a DMA channel for each channel of frame synchronized data.

Ulyssix DLL:

The Ulyssix DLL is a compiled C/C++ library available for 32-bit and 64-bit applications. It provides an easy to use API for higher level programming languages to setup and read data from the Ulyssix Hardware. The API uses structures to send all pertinent information to setup one hardware element (Bit Sync, Frame Sync, etc) in a single software function call. The Ulyssix hardware triggers an event in the Ulyssix DLL when the time stamped frame synchronized data is ready. A Ulyssix DLL function call transfers the data from the hardware to the software via DMA.

Programming Language Interface Files:

1. C++ Header files and DLL LIB File
2. C# Wrapper Files
3. Delphi Wrapper Files