IPS SDK

The IPS SDK provides frame acquisition and image processing (future release) functionality.

IPS SDK Installation

1) Install the IPS SDK by running IPSSDK.exe
2) Install the Visual C++ runtime if prompted – it is a prerequisite

The IPS SDK installation package will install the required IPS header files, libraries, and DLLs to the location chosen by the user when running the installer. Both x86 and x64 DLLs and .lib files are included in the installation package. DLL Files can be found under the <Install Dir>\Bin directory. The DLL import libraries can be found under the <Install Dir>\Lib directory. Header files can be found in the <Install Dir>\Include directory.

The IPS library requires the Visual Studio 2010 SP1 runtime DLLs. The installer will include the Visual Studio runtime installers (both x86 and x64) in the <Install Dir>\Redistributables directory.

The IPS SDK installer sets the following environment variables:

- $(IPS_SDK_DIR)

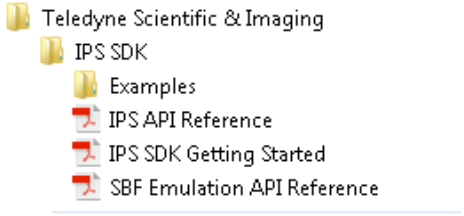
  Set to the IPS SDK install directory (e.g. "C:\Program Files\Teledyne Scientific & Imaging\IPS SDK". This environment variable can be used when compiling and linking to reference the installed header and library files. It is used by the Visual Studio example projects.

- $(IPS_SDK_DATA_DIR)

  Set to the IPS SDK data directory (e.g. "<user> \Documents\Teledyne Scientific & Imaging\IPS SDK". This environment variable is used by the IPS library and the SBF SDK Emulation library when attempting to load the WinIR.ini configuration file (see *IPS Configuration Files*) and the license file (*see IPS License File)*

IPS SDK Documentation

SDK documentation can be accessed through the Start menu:



IPS Configuration Files

The IPS library loads camera and frame grabber configuration from a file called winir.ini. For convenience, this file shares the same format and content as the winir.ini file that is used by the WinIR program (developed by Santa Barbara Focalplane). The SBF Emulation library attempts to load the winir.ini file from the directory which the currently executing library (i.e. sbfem.dll) was loaded. If the winir.ini file cannot be found, the library will look in $(IPS_SDK_DATA_DIR)\Config. Likewise, the IPS SDK example program tries to load the WinIR configuration file using this path: "$(IPS_SDK_DATA_DIR)\Config\winir.ini".

Similarly, the camera configuration file (i.e. the .ccf file) is expected to be located in $(IPS_SDK_DATA_DIR\Config. When using the SBF SDK Emulation library, the path can be changed by editing the winir.ini file (located in $(IPS_DATA_DIR)\Config) and changing the "FrameGrabberFile" setting.

IPS License File

IPS libraries require a license file to unlock functionality. The example programs and the SBF Emulation Library expect will attempt to load the license file using this path: "$(IPS_SDK_DATA_DIR)\license.lcx".

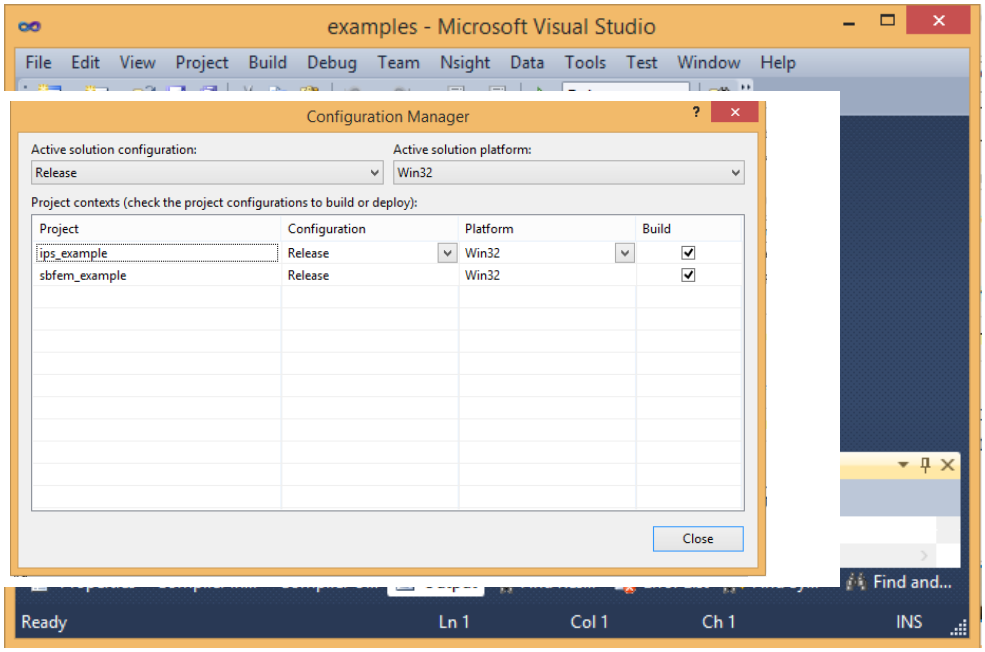
To change the license file path used by the SBF Emulation library, edit the winir.ini file located in $(IPS_SDK_DATA_DIR)\Config" and change the "LicenseFile" setting.

IPS SDK Examples

Visual Studio example projects are installed that demonstrate how to use the IPS library and the SBF Emulation library. The example projects are installed in the current user's documents directory : *<user>\Documents\Teledyne Scientific & Imaging\IPS SDK\Examples*. Visual Studio 2010 and Visual Studio 2015 project files are provided. When building the software be sure to select the correct target platform (i.e. Win32 vs. x64) before building (explained below).

Building the Visual Studio 2010 examples

1) Load the solution file located in: "<user>\Documents\Teledyne Scientific & Imaging\IPS SDK\Examples\vs2010_build\examples.sln".

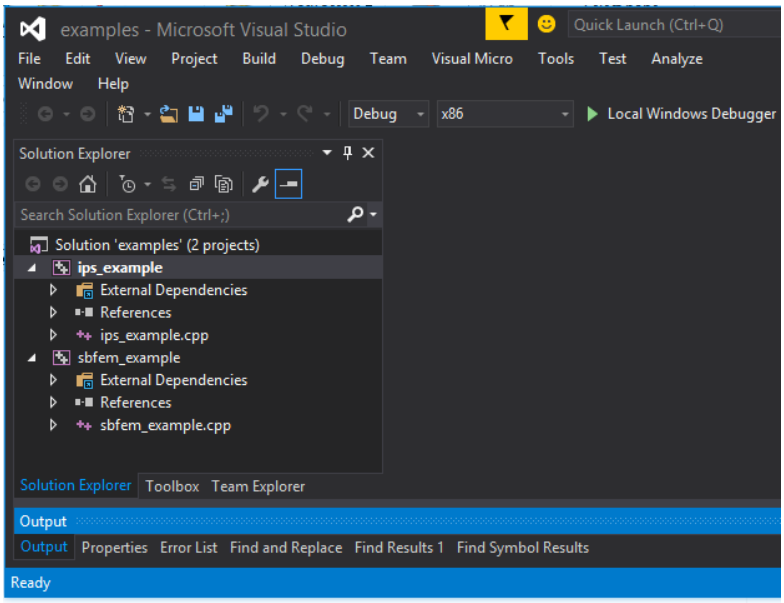


2) Set the desired target platform (i.e. Win32 or x64) through the "Build|Configuration Manager…" menu. Choose the target plat form from the "Active solution platform" dropdown list:

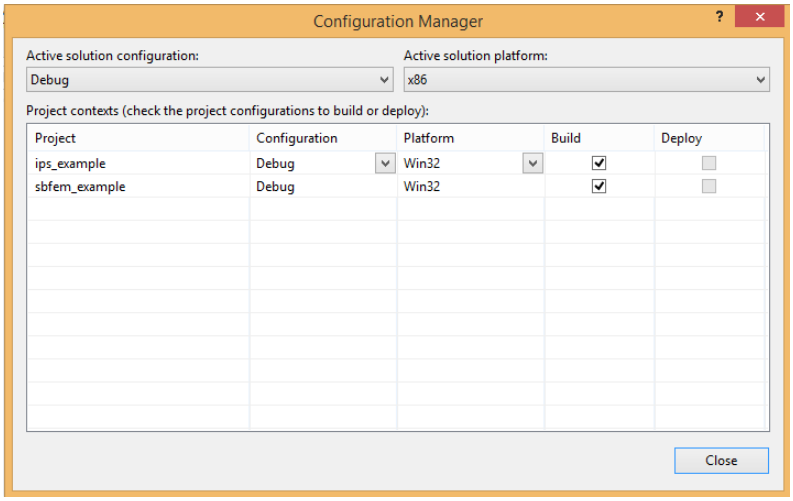
3) Build the solution using the "Build|Build Solution" menu
    - Output is placed in the vs210_build\<Platform>\<Configuration> directory

Building the Visual Studio 2015 examples

1) Load the solution file located in: "<user>\Documents\Teledyne Scientific & Imaging\IPS SDK\Examples\vs2015_build\examples.sln".



2) Set the desired target platform (i.e. x86 or x64) through the "Build|Configuration Manager…" menu. Choose the target plat form from the "Active solution platform" dropdown list:



3) Build the solution using the "Build|Build Solution" menu
   - Output is placed in the vs2015_build\<Platform>\<Configuration> directory