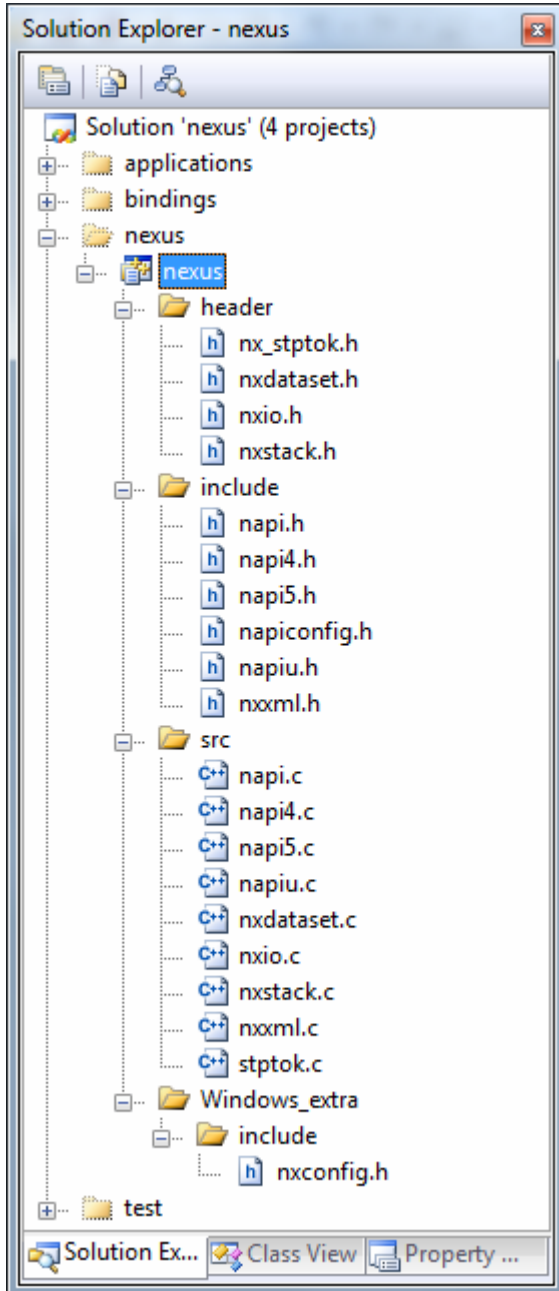


RFC: NeXus API porting for Microsoft Visual Studio

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This is Part 1 (Solution layout) of a Request for Comments (RFC) series of documents regarding a porting of the NeXus API for the Microsoft Visual Studio 2008 IDE.



1 Introduction

This document presents a proposal for a porting of the NeXus API for the Microsoft Visual Studio 2008 Integrated Development Environment (IDE). Features like a code editor supporting IntelliSense as well as an integrated debugger make Visual Studio a tool of choice for many developers.

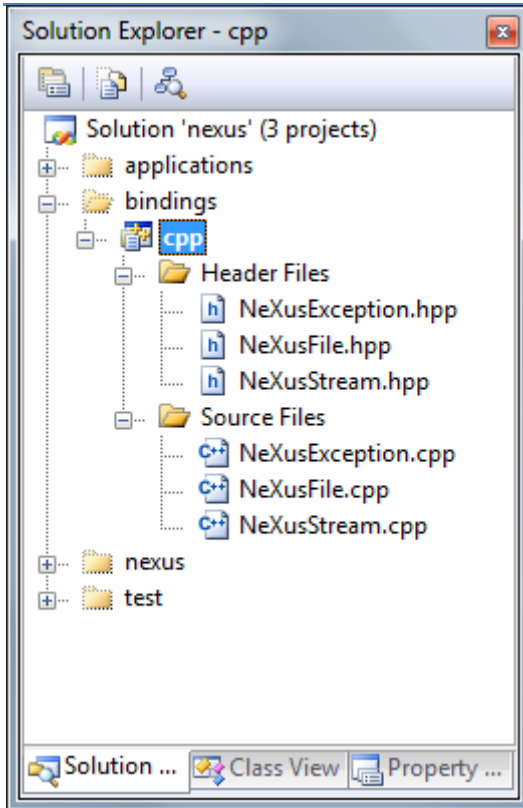
2 Layout

The solution layout is shown in the figure in the left, a Visual Studio solution with 4 folders: applications, nexus, bindings and test.

2.1 nexus folder

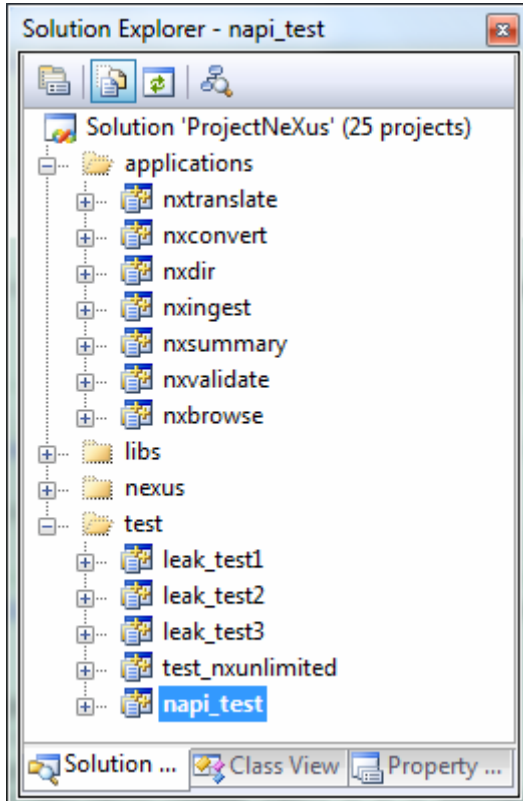
The folder nexus contains a project named nexus that contains the C source code for the NeXus API. The folder contains 4 subfolders named 'header', the C header files currently located in /src of the NeXus distribution, 'include', the C header files currently located in /include of the NeXus distribution, 'src', the C source files currently located in /src of the NeXus distribution and 'Windows_extra/include' that mimics a folder with the same name in the NeXus distribution. The 'Windows_extra/include' folder contains the 'nxconfig.h' file, that contains several Visual Studio system dependent macros for use in the NeXus API. Unlike the UNIX systems, this file is not generated automatically by the configure process in those systems.





2.2 bindings folder

The bindings folder contains a project named 'cpp' that contains the C++ binding of the NeXus library.



2.3 applications folder

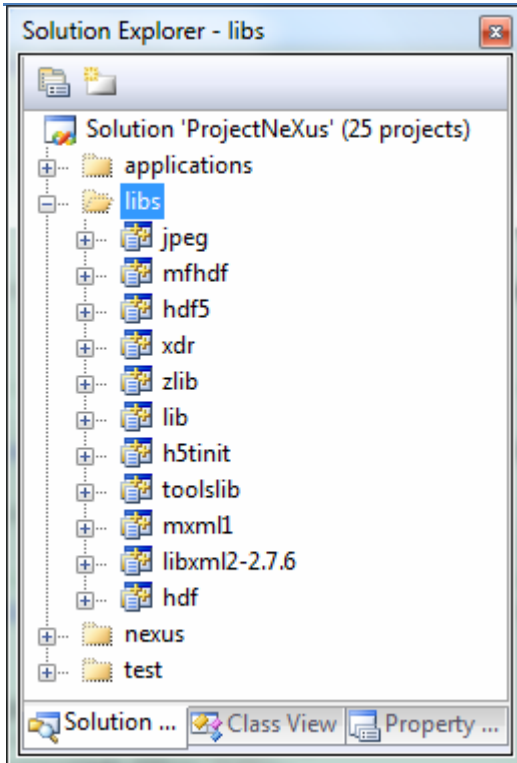
The figure on the left contains the projects regarding the applications and test folders. For applications the projects are nxtranslate, nxconvert, nxdir, nxingest, nxsummary, nxvalidate and nxbrowse.

2.4 test folder

For the test folder, the projects are leak_test1, leak_test2, leak_test3, test_nxunlimited and napi_test.

These names duplicate the programs currently built for the UNIX systems.





3 Add additional libraries

A feature of the Visual Studio IDE is that it allows to insert and delete projects by means of a GUI interface. Thus, it is possible to include in the solution projects for the base libraries that NeXus depends, such as HDF5 (and its dependencies SZLIB and ZLIB), HDF4 (and its dependency JPEG), and the XML libraries. This allows advanced developers to have direct access to the code of the underlying libraries, for debugging purposes, for example. Since these external libraries are not distributed with NeXus, these projects are not proposed to be included in the Visual Studio Solution, but can be made available for interested developers.

