Workaround for the 32 vs 64 bit dll incompatibility issue

August 13, 2013

The dll Windows library responsible for fast integration in GSE_ADA/ATREX IDL is only available in 32bit version. IDL environment can be installed in 32 or 64 bit version, the latter will not be compatible with the dll and will cause an error message when attempting to integrate a diffraction image.

1. If you have 32 bit IDL installation, there should be no problems with the dll.
2. In case if your installation is 64 bit it includes 32 bit components as well. The binary .sav files are executed using the free IDL Virtual Machine. The Windows executable for the VM is "idlrt.exe" and should be located in the "\bin\bin.x86\" subdirectory of the IDL directory. For example on my computer (Windows8, IDL 8.0 64bit) the location of the VM 32bit executable is:

   C:\Program Files\ITT\IDL\IDL80\bin\bin.x86\idlrt.exe

   If you use this 32bit VM executable, instead of the default 64bit the dll file should work correctly.

   An easy way to implement this is:

   - Create a desktop shortcut to the 32bit VM executable. Mine is pointing to the location above.
   - Edit the properties of this shortcut (right mouse click on the shortcut icon and select "Properties" from the menu)
   - In the "Start in" field specify the location/directory of the GSE_ADA program on your computer. In my case it is:

     E:\Dropbox\software\NASA_ADA\GSE_ADA

   - Edit the "target" field. After you created the shortcut, this field contains the directory of the 32bit VM executable in quotes:

     "C:\Program Files\ITT\IDL\IDL80\bin\bin.x86\idlrt.exe"

     You can add a parameter that will tell IDL VM which .sav file to open at the start by specifying the file name (w/o directory) in the same "target" field, after a white space. In my case the modified target is:

     "C:\Program Files\ITT\IDL\IDL80\bin\bin.x86\idlrt.exe" gse_ada.sav

     Save the changes (click OK in the Properties window).

     Test if the integration works correctly. The program can now be started by double-clicking the new shortcut.