

VisAD

Getting Native Code

The VisAD native code can be obtained from:

ftp://ftp.ssec.wisc.edu/pub/visad/visad_native.jar

Building Native Code for Applications

Although VisAD is a pure Java system, applications of VisAD may include native code. The reality is that most science code is still written in Fortran.

The applications in *visad/paoloa*, *visad/paoloa/spline*, *visad/aune* and *visad/benjamin* also include native code in both C and Fortran.

Edit the Makefile in the *visad/paoloa*, *visad/paoloa/spline*, *visad/aune* and *visad/benjamin* to change the path:

```
JAVADIR=/opt/java
```

to point to the appropriate directory where you installed Java.

On systems that support Unix make, change to each of the directories *visad/paoloa*, *visad/paoloa/spline*, *visad/aune* and *visad/benjamin* run *make*. This will create the shared object files (i.e., file names ending in ".so") containing native code. To run these applications make sure that your `LD_LIBRARY_PATH` includes ".", change to one of these directories:

```
/parent_dir/visad/paoloa  
/parent_dir/visad/paoloa/spline  
/parent_dir/visad/aune  
/parent_dir/visad/benjamin
```

and run the appropriate *java ...* command.

Note that the applications in *visad/paoloa* require data files available from:

```
ftp://ftp.ssec.wisc.edu/pub/visad/paoloa-files.tar.Z
```

Building Native Code for the HDF-EOS and HDF-5 File Adapters

Although VisAD is a pure Java system, it does require native code interfaces in its adapters for HDF-EOS and HDF-5 file formats. We believe that the need for these will disappear as the organizations supporting these file formats develop Java interfaces.

The HDF-EOS and HDF-5 file adapters include native interfaces (JNI) to file interfaces written in C. To make the HDF-EOS VisAD native library on systems that support Unix make, change to the *visad/data/hdfeos/hdfeosc* directory and run *make all*.

Note that the native code in *visad/data/hdfeos/hdfeosc* does not include NASA/Hughes' HDF-EOS C file interface code; it only includes our C native code for creating a Java binding to their HDF-EOS C file interface. You must obtain the HDF-EOS C file interface code directly from NASA and NCSA. To do this, please follow the instructions in:

`visad/data/hdfeos/README.hdfeos`

We have successfully linked these libraries on Irix and Solaris.

Native interfaces can be obtained from:

<http://www.hdfeos.org/software/library.php> <http://www.hdfgroup.org/hdf-java/html/JNI/>

Before you can run applications that use the HDF-EOS and HDF-5 file adapters, you must add:

`/parent_dir/visad/data/hdfeos/hdfeosc`

and:

`/parent_dir/ncsa/hdf/hdf5lib`

to your *LD_LIBRARY_PATH*.

Problems

If you have problems, send an email message to the VisAD mailing list at:

visad@unidata.ucar.edu

Join the list by filling out the subscribe form at:

<http://www.unidata.ucar.edu/support/maillinglist/mailling-list-form.html>

Please include any compiler or run time error messages in the text of email messages to the mailing list.