
Subject: java-idl connector & memory issues

Posted by [Jelle](#) on Sat, 10 May 2008 19:36:19 GMT

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Hi All,

Currently I am working on a processing line for eumetsat MPE data, which comes in the very userfriendly -ahum- adjusted GRIB2 format. I managed to find a java library that reads the files, and gives me an array of raw doubles. I use the idl-java bridge to export this data to IDL, where I project, subset, warp and save my data subsets.

The java retrieval in itself (without actually calling IDL) runs fine. The IDL script in itself run fine. Combined.. They run fine for 20-30 files. Then the scripts starts to tos me errors:

Caught an error

```
e:\MSG1-SEVI-MSGMPEG-0100-0100-20070421184500.000000000Z-907 242-9.grb
com.idl.javaidl.JIDLException[iErr=-1 sMsg=Could not get IDL error
information.]
```

```
    at com.idl.javaidl.JIDLPAL.nativeThrowJIDLException(Native
Method)
```

```
    at com.idl.javaidl.JIDLPAL.throwSpecificException(JIDLPAL.java:
1039)
```

```
    at com.idl.javaidl.JIDLPAL.throwJIDLException(JIDLPAL.java:
1068)
```

Caught an error

```
    at com.idl.javaidl.JIDLPAL.setIDLVariable(JIDLPAL.jav
a:702)
```

```
    at com.idl.javaidl.JIDLObject.setIDLVariable(JIDLObject.java:
588)
```

```
    at GMPE.arrays_example.arrayManipulation(arrays_example.java:
54)
```

```
    at GMPE.arrays_example.main(arrays_example.java:137
```

```
e:\MSG1-SEVI-MSGMPEG-0100-0100-20070421190000.000000000Z-907 242-9.grb
)
```

```
com.idl.javaidl.JIDLException[iErr=0 sMsg=]
```

```
    at com.idl.javaidl.JIDLPAL.nativeThrowJIDLException(Native
Method)
```

```
    at com.idl.javaidl.JIDLPAL.throwSpecificException(JIDLPAL.java:
1039)
```

```
    at com.idl.javaidl.JIDLPAL.throwJIDLException(JIDLPAL.java:
1068)
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    at com.idl.javaidl.JIDLPAL.setIDLVariable(JIDLPAL.java:702)
```

```
    at com.idl.javaidl.JIDLObject.setIDLVariable(JIDLObject.java:
588)
```

```
    at GMPE.arrays_example.arrayManipulation(arrays_example.java:
54)
```

at GMPE.arrays_example.main(arrays_example.java:137)

At that point java just continues reading files, but skips the IDL bridge. I am running this in windows, and in my memory overview I see that when I include the IDL processing, memory fills a little more with each file. I am not sure what specifically could be going wrong.

The function called to do the IDL work:

```
=====>
private void arrayManipulation(String TheName, float[] Data)
{
    try {
        String a = "dataarray";
        String b = "envi";
        String d = "filename";
        String g = "D:\\_software\\IDL_libraries\\MyScripts\\
\\Grib_javaIDLbridge\\_SettingsFiles";
        String c = "doprestimate, dataarray, '"+TheName+"', '"+g
+""";
        ostock.setIDLVariable(a, new JIDLArray(Data));
        ostock.executeString(b);
        ostock.executeString(c);
    }

    catch ( JIDLException e ) {
        System.out.println( "Caught an error" );
        e.printStackTrace( );
    }
}
<=====
```

The way I call this function from the .main() routine:

```
=====>
for(int j=0; j<children.length; j++)
{
    // Get filename of file or directory
    String filename = children[j];

    try {
        progInstance.SetCreateFileIndex(true);
        progInstance.SetInFile(dir+filename);
        float[] theData = progInstance.GetData();
        example.arrayManipulation(filename, theData);
        theData = null;
    }
    catch (IOException ex) {
```

```
Logger.getLogger(arrays_example.class.getName()).log(Level.SEVERE,  
null, ex);  
    } catch (NotSupportedException ex) {
```

```
Logger.getLogger(arrays_example.class.getName()).log(Level.SEVERE,  
null, ex);  
    }  
}  
<====
```

Am I missing something crucial & simple to fix to make this run? I
have 14000 (!) files to run, so just running 20 files at a time and
adjusting the loop is no option..

Thanks so much,

Jelle
