IDL routine to convert DOMINO HDF-EOS5 to HDF4

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The IDL program below converts a DOMINO HDF-EOS5 file into HDF4. The DOMINO data is currently being provided in both HDF-EOS5 as well as HDF4 formats, but the HDF4 format will be phased out on 01-01-2009. With this conversion tool, users can convert the HDF-EOS5 files into HDF4 so that their read in programs may remain unchanged. The decision to transfer file formats to HDF-EOS5 is mainly driven by OMI data format requirements. But we will keep supporting the HDF4 data format for consistency with the GOME, SCIAMACHY, and GOME-2 data products available through www.temis.nl.

The code below has been tested in IDL version 6.4.1. Compile the code by first starting IDL, and then typing:

```
IDL> .com convert_hdfeos_hdf
```
(you should see a number of messages now confirming that various modules have been compiled)

Now run the code by typing:

```
IDL> convert_hdfeos_hdf
```

A menu will appear that will prompt you to select a set of orbits that you want converted into HDF4. The program will group the orbits belonging to one and the same day into a single, daily file. This holds regardless of whether we select orbits for just one day, two days, a week, or any other period. The Figure below illustrates the menu and selection of one day worth of data.
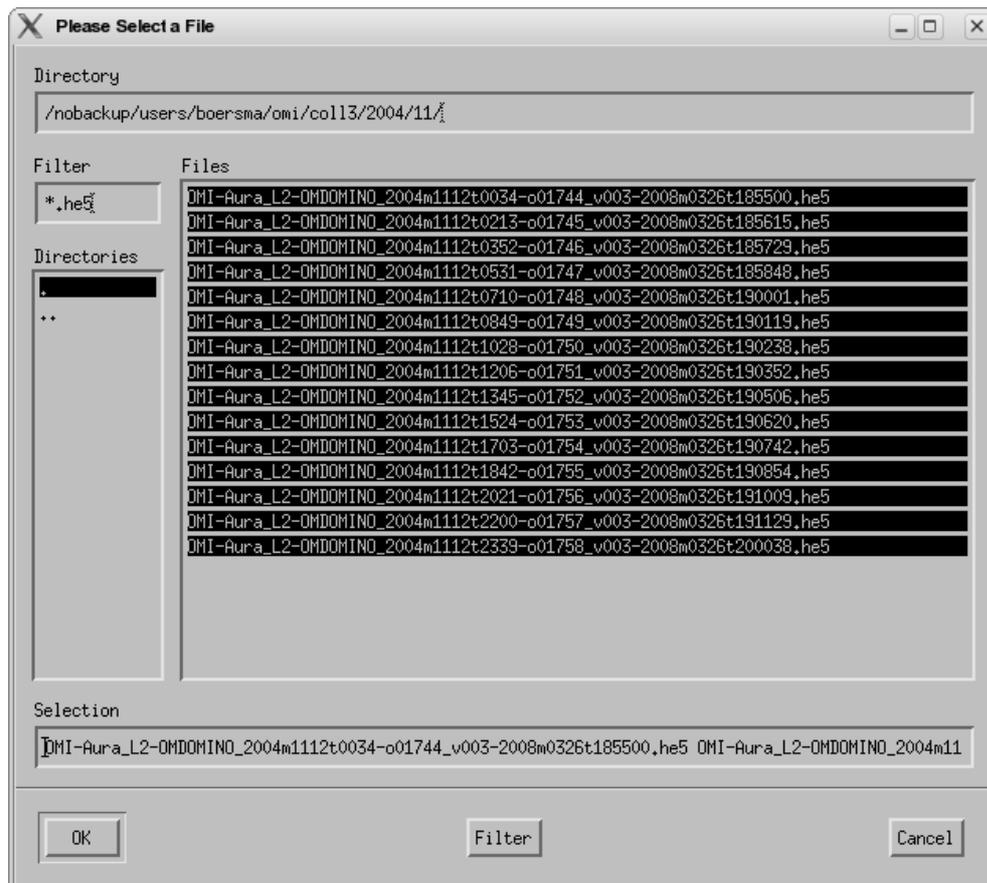

Figure. Menu that pops up when running convert_hdfeos_hdf.pro. All 15 orbits for this particular day (12 November 2004) have been selected. Clicking 'OK' on the lower left button continues the program.

The runtime for our example day, with 15 orbits, was 2 minutes, 25 seconds. So converting a complete year of HDF-EOS5 data is expected to take ~15 hours of runtime.

IDL sample code to convert from HDF-EOS5 to HFD4

The code below (download as ascii-file convert_hdfeos_hdf.pro from www.temis.nl) is an excerpt of the stand-alone program, and does not need external routines. Note that a user needs to specify a filename and path himself in the function user_inputs. The filepath shown in the software below is just for illustration. All else should be self-explanatory.

```
; Program: convert_hdfeos_hdf
; Author:  Ruud Dirksen
; Date:    22 April 2008
; Goal:    convert DOMINO hdf-eos5 files back to old hdf4 format
;
; To start the program type at the idl prompt:
;
; .com convert_hdfeos_hdf
; convert_hdfeos_hdf
;

function user_inputs

;###########User input section#######################
;
; The program looks for the input files in the path below,
; the output files will be stored in this directory as well.

path='/nobackup/users/boersma/omi/coll3/2004/11/'

;##########End of user input section###################

  return,path
end
```