

# Memo

To: Record  
From: John Gipson  
Date: January 26, 1999  
Re: EOP Utilities

## **spl2hfeop**

Source: leo://users/jmg/utills/spl2hfeop

This program reads in a spool file, extracts the estimated HF-EOP, and writes out the results to a HF-EOP file which can be used by solve. If it doesn't find HF-EOP within 10,000 lines, it dies with an error message. It asks the user for the input and output spool files.

## **makhfeop**

Source: leo://users/jmg/utills/makhfeop

This program reads in a high-frequency EOP file in GSFC format, and writes out hourly values and rates for the EOP. It prompts the user for an input hfeop file, and output file. It then asks for a starting date and time, and the number of days to do. The first few lines from a sample output are:

High frequency EOP based on input file: hfraya95

Date	Time	X	Y	UT1	dX_dt	dY_dt	dUT1_dt
		micro-asec	micro-asec	micro-sec	nano-asec/sec	nano-asec/sec	nano-sec/sec
01/01/94	01:00	362.855	27.577	20.124	-59.69	14.51	-1.98
01/01/94	02:00	124.043	58.464	12.387	-70.82	2.09	-2.20
01/01/94	03:00	-126.698	40.707	5.228	-66.26	-11.89	-1.68
01/01/94	04:00	-334.559	-23.670	.982	-47.49	-23.20	-.63

The directory makhfeop also contains a number of HF-EOP models in the GSFC format. These include various models from Richard Ray and Ben Chao, from Tom Herring, from Richard Eanes, and Markus Rothacker.

## **comp\_hf**

Source: leo://users/jmg/utills/comp\_hf

This file will read in different EOP models in the Goddard HF\_EOP format, and compare them with each other to calculate the RMS difference of the coefficients. It prompts the user for a file containing a list of models to compare, and an output file to store the comparisons. In doing a comparison between different models, it will only compare components which are common to both. The source directory contains several HF-EOP files, a file *hf\_model* suitable for input, and a file *hf\_comp* which is the result of using *hf\_model* as the input.