

HIGH RESOLUTION DYNAMICS LIMB SOUNDER

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Subject/Title: HIRDLS Level 2
Overview

Description/Summary/Contents

This document details the HIRDLS Level 2 retrieval processor. It contains an overview of the processing flow, but does not go into the details of the retrieval. The retrieval is documented in the HIRDLS Level 2 ATBD and possibly other documentation.

Keywords:

Purpose of this Document:

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EOS

HIRDLS Level 2 Overview

This document details the HIRDLS Level 2 retrieval processor. It contains an overview of the processing flow, but does not go into the details of the retrieval. The retrieval is documented in the HIRDLS Level 2 ATBD and possibly other documentation.

Actual Level 2 routines are designated by either H2RTP_XXXXXX or H2RTP_XXXXXX. The routines which are highlighted are described in further detail in this overview. The routines which are underlined are described on the line that they appear, and do not have any further documentation in this overview.

H2MAIN overview

This is the main program which runs the HIRDLS Level2 processor. It calls the various subsystems based on what the user specified in the USF file (The values in the USF file are placed into the CFG file by the rl2 script during job execution).

Open the diagnostic dataset

Open and read the HIR2CFG namelist file (some data in this file is transferred in from the USF file when the rl2 script is run)

If RunH2GMC then collocate the GMAO data to the HIRRAD time/lat/lon locations –
H2GMC_Driver

If RunH2CLP then collocate the climatology and apriori data to the HIRRAD time/lat/lon locations –
H2CLP_Driver

If RunH2LWP then perform the line of sight gridding – *H2LWP* – *Joe's routine and I've never been in it*

If Retrieval or Simulate

For each retrieval or simulate step

Call the main retrieval processor – *H2RTP_Driver*

Move the snapshot files when routine completes

For the aerosol related variable calculation (RAR)

Call the main aerosol processor – *H2RAR_Driver* – *Hyunah's routine and I've never been in it*

If RunH2BOP then build output (take HIRPROF file on altitude grid and write out HIRDLS2ALL file on pressure grid) – *H2BOP*