

Sweeni

HELIOS PROGRAM DOCUMENTATION GUIDE

July 12th, 1988

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QBOFIX
REDO

references missing

where/which on flow diagram

1.0 Program Name: LIBGEN

Function: Helios library generator program, updates EDR library tape data base and the cross-reference catalog. Distribution mode 7 (DM7) data times are corrected to actual spacecraft event time, the clock updates used to correct DM7 data, and a temporary dataset is created with EDR tape numbers, files, times, and format.

1.1.1 Source Dataset:

- SB#HL.PLIBGEN.SOURCE(LBMAIN)

1.1.2 Library Dataset(s)

-

1.1.3 Run Dataset(s)

JCL ---	CLIST -----
SB#HL. LIB. CNTL(LGINA) SB#HL. LIB. CNTL(LGINB)	SB#HL. LIB. CLIST(LIBGEN)

1.1.4 Compile and Link Datasets

JCL ---	CLIST -----
SB#HL. PLIBGEN. SOURCE(BUILD1) (not tested)	

where is current load module made from?

1.1.5 Backup Location

- Tape - ICBK03 - file 161
- LIBMAN - SB#HL.Z.PLIBGEN.SOURCE.V0383130

1.1.6 Program Documentation

Document -----	User's Guide -----
Name: Helios User's Guide	Data Processing and Programmer's Guide
Author: R. Cuddapah, CSC	John Broomhall, CSC
Location: Bldg. 1 room 261	Bldg. 1 room 261
Last Revised: 1978	July 15, 1983
Pages:	87

1.2 Program Name: HELDRP

Function: The program performs data reduction, as well as quality and synchronization control. a time-ordered series of every readout rate and PHA data on a specified set of tape volumes. Updates of various cataloged disk data sets that maintain the tapes contained in the data bases, and maintain records of the processing performed.

1.2.1 Source Dataset:

- SB#HL.HELD RP.SOURCE

1.2.2 Library Dataset(s)

-

1.2.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(DRPPROC)	SB#HL. LIB. CLIST(HELD RP)

1.2.4 Compile and Link Datasets

JCL - Helios-A	JCL - Helios-B
-----	-----
SB#HL. HELDRP. SOURCE(\$BLDAAC\$)	SB#HL. HELDRP. SOURCE(\$BLDBAC\$)
SB#HL. HELDRP. SOURCE(\$BLDARJ\$)	SB#HL. HELDRP. SOURCE(\$BLDBRJ\$)

1.2.5 Backup Location(s)

- Tape - ICBK03 - file 148
- LIBMAN - SB#HL.Z.LIBMAN.SOURCE.V0183007

1.2.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Ex.	Helios Procedure's Guide
Author: John Broomhall, CSC	Kristin Wortman, CSC
Location: Cosmic Ray library bld 1, rm 261	Bldg.1 room 258
Last Revised: July 15, 1983	Sept. 1983
Pages: p. 91	

*also
Ronish, Cuddapah
document*

1.3 Program Name: FLXDBG

Function: The Flux Data Base Generator (FLXDBG) program creates time ordered sequence of summaries of PHA and RATEs data. A directory of the flux tapes is maintained in the flux summary catalog.

1.3.1 Source Dataset:

- SB#HL.HFLXDBG.SOURCE - dependent routines
- SB#PR.FLXDBG.SOURCE - independent routines

1.3.2 Library Dataset(s)

•

1.3.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(FLUXDBGGA)	
SB#HL. LIB. CNTL(FLUXDBGGB)	

1.3.4 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL. HFLXDBG. SOURCE(\$BUILD\$)	

1.3.5 Backup Location(s)

- TAPE - ICBK03 - file 133
- LIBMAN - SB#HL.Z.HFLXDBG.SOURCE.V0283007

*Location of source
SB#PR source
x00*

1.3.6 Program Documentation

Document	User's Guide
-----	-----
Name: PIONEER/Helios Flux Data Base Generator Maintenance	Data Processing and Program. Guide (Helios)
Author: E. Ronish, R. Cuddapah, CSC	J. Broomhall, CSC
Location: bldg.1 rm. 261	bldg.1 rm 261
Last Revised:	7/15/83
Pages:	p. 92

1.4 Program Name: *HBMATRIX*

Function: The MATGEN program produces line printer PHA matrices and summary listings for specified time periods.

1.4.1 Source Dataset:

-

1.4.2 Library Dataset(s)

- SB#HL.HELIOS.LOAD(HBMATRIX)
-

1.4.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(AMATRIX)	SB#HL. LIB. CLIST(MATRIX)
SB#HL. LIB. CNTL(AMATRIX1)	

1.4.4 Compile and Link Datasets

JCL	CLIST
---	-----

1.4.5 Backup Location(s)

-

1.4.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Ex.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1, romm 261	Bldg. 1 Rm. 258
Last Revised: July 15, 1983	September 1983
Pages: p. 96	Section M

1.5 Program Name: HARTPL

Function: The HARTPL program produces formatted listings of Helios rates contained on Helios rate tapes; subcom data is also listed.

1.5.1 Source Dataset:

- SB#HL.HARTPL.SOURCE

1.5.2 Library Dataset(s)

- SB#PR.ZB2NL.OPIOTEMP.LOAD(HARTPL)

1.5.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(URATLSTA)	
SB#HL. LIB. CNTL(URATLSTB)	

1.5.4 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(URATLSTA) - loader	
SB#HL. LIB. CNTL(URATLSTB) - loader	

1.5.5 Backup Location(s)

- Tape - ICBK03 - file 157
- LIBMAN - SB#HL.Z.HARTPL.SOURCE.V0283070

1.5.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Ex.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1, room 261	Bldg. 1 Rm. 258
Last Revised: July 15, 1983	September 1983
Pages: p. 117	Section M

1.6 Program Name: HAPTPL

Function: The HAPTPL program produces formatted listings of Helios PHA tapes.

1.6.1 Source Dataset:

- SB#HL.HARTPL.SOURCE

1.6.2 Library Dataset(s)

- SB#PR.ZB2NL.OPIOTEMP.LOAD

1.6.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(UPHALSTA)	
SB#HL. LIB. CNTL(UPHALSTB)	

1.6.4 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(UPHALSTA) - loader	
SB#HL. LIB. CNTL(UPHALSTB) - loader	

1.6.5 Backup Location(s)

- Tape - ICBK03 - file 157
- LIBMAN - SB#HL.Z.HARTPL.SOURCE.V0283070

1.6.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Ex.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1, room 261	Bldg. 1, Rm. 258
Last Revised: July 15, 1983	September 1983
Pages: p. 119	Section M

1.7 Program Name: EDRSCAN

Function: The EDRSCAN program scans EDR or EDR library tapes for existence of science data.
mh3.Source Dataset:

- SB#HL.EDRLIST.SOURCE

1.7.1 Library Dataset(s)

- SB#HL.EDRSCAN.LOAD(EDRSCAN)

1.7.2 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(UEDRSCAN)	

1.7.3 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(UEDRSCAN) - loader	

1.7.4 Backup Location(s)

- Tape - ICBK03 - file 159
- LIBMAN - SB#HL.Z.EDRLIST.SOURCE.V0283070

1.7.5 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Exper.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1 room 261	Bldg. 1, Rm 258
Last Revised: July 15, 1983	September 1983
Pages: p. 112	Section M

1.8 Program Name: HAEDR

Function: The HAEDR program produces formatted listings of EDR tapes.

1.8.1 Source Dataset:

- SB#HL.EDRLIST.SOURCE

1.8.2 Library Dataset(s)

- SB#PR.SBCID.OPIONEER.LOAD
- SB#HL.ZBRXD.OHELIOSA.LOAD

1.8.3 Run Dataset(s)

```
                JCL                                CLIST
                ---                                -----
                SB#HL. LIB. CNTL(UEDRLIST)
```

1.8.4 Compile and Link Datasets

```
                JCL                                CLIST
                ---                                -----
                LINKGO - SB#HL. LIB. CNTL(UEDRLIST)
```

1.8.5 Backup Location(s)

- Tape - ICBK03 - file 159
- LIBMAN - SB#HL.Z.EDRLIST.SOURCE.V0283070

1.8.6 Program Documentation

Document -----	User's Guide -----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cos. Ray Exper.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1, room 261	Bldg. 1, Rm 258
Last Revised: July 15, 1983	September 1983
Pages: p. 113	Section M

1.9 Program Name: GRBCPY

Function: The GRBCPY program produces formatted listings of the Gamma Ray Burst data.

1.9.1 Source Dataset:

- SB#HL.GRBLIST.SOURCE

1.9.2 Library Dataset(s)

- SB#HL.ZBRXD.OHELIOSA.LOAD; SB#HL.SBCID.OHELIOS.LOAD;
- SB#PR.SBCID.OPIONEER.LOAD; SB#PR.PLIBGEN.LOAD

1.9.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL.LIB.CNTL(UGRBRUNB)	
SB#HL.LIB.CNTL(UGRBLSTB)	

1.9.4 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL.LIB.CNTL(UGRBRUNB)	
SB#HL.LIB.CNTL(UGRBLSTB)	

1.9.5 Backup Location(s)

- Tape - ICBK03 - file 106

1.9.6 Program Documentation

Document	User's Guide
-----	-----
Name:	Helios Procedure's Guide
Author:	K. Wortman, CSC
Location:	Bldg. 1, Rm 258
Last Revised:	September 1983
Pages:	Section M

1.10 Program Name: *FLXMNT*

Function: The FLXMNT program will initialize, list, add blanks, list the rate table, and delete from specified flux catalog satellites or sources within a satellite.

1.10.1 Source Dataset:

- SB#HL.FLXMNT.SOURCE

1.10.2 Library Dataset(s)

-

1.10.3 Run Dataset(s)

```
          JCL
          ---
SB#HL. LIB. CNTL(FCATINT); SB#HL. LIB. CNTL(FCATDLTA)
SB#HL. LIB. CNTL(FCATLST); SB#HL. LIB. CNTL(FCATADDA) ,(FCATADDB)
```

1.10.4 Compile and Link Datasets

```
          JCL                                CLIST
          ---                                -----
SB#HL. FLXMNT. SOURCE(BUILD)
```

1.10.5 Backup Location(s)

- Tape - HEIBK1 - file 36
- LIBMAN - SB#HL.Z.FLXMNT.SOURCE.V0285294

1.10.6 Program Documentation

```
          Document
          -----
Name: Data Processing and Program. Guide
      for Helios-1 and -2 Cosmic Ray Exper.
Author: John Broomhall, CSC
Location: Bldg. 1 Room 261
Last Revised: July 15, 1983
Pages: p. 100
```

```
          User's Guide
          -----
Helios Procedure's Guide

K. Wortman, CSC
Bldg. 1 Rm, 258
September 1983
Section M
```

1.11 Program Name: TAPSQZ

Function: The TAPSQZ program copies PHA and Rate tapes determined by the DRS catalog and copies them on to a new output tape. The amount of records written to tape is determined by the calculation of feet length.

1.11.1 Source Dataset:

- SB#HL.TAPSQZ.SOURCE

1.11.2 Library Dataset(s)

- SB#HL.ZBJHBLIB.LOAD(TAPSQZ)
-

1.11.3 Run Dataset(s)

JCL

SB#HL. LIB. CNTL(HATPSQP); SB#HL. LIB. CNTL(UTPSQPHA);
SB#HL. LIB. CNTL(UTPSQPHB); SB#HL. LIB. CNTL(UTPSQRTA);
SB#HL. LIB. CNTL(UTPSQRTB)

1.11.4 Compile and Link Datasets

JCL

loader - SB#HL. LIB. CNTL(HATPSQP); SB#HL. LIB. CNTL(UTPSQPHA);
loader - SB#HL. LIB. CNTL(UTPSQPHB); SB#HL. LIB. CNTL(UTPSQRTA);
loader - SB#HL. LIB. CNTL(UTPSQRTB)

1.11.5 Backup Location(s)

- Tape - ICBK03 - file 125
- LIBMAN - SB#HL.Z.TAPSQZ.SOURCE.V0183010

1.11.6 Program Documentation

Document

Name: Data Process. and Program. Guide
for Helios-1 and -2 Cosmic Ray Exp.
Author: John Broomhall, CSC
Location: Bldg.1, room 261
Last Revised: July 15, 1983
Pages: p. 122

User's Guide

Helios Procedure's Guide
K. Wortman, CSC
Bldg.1 Rm, 258
September 1983
Section M

1.12 Program Name: DRSMNT

Function: The DRSMNT program is a utility program that maintains the DRS catalogs. Addition of available tape volume serial numbers, listings, and restoring the DRS catalogs are functions performed by DRSMNT program.

1.12.1 Source Dataset:

- SB#HL.DRSMNT.SOURCE

1.12.2 Library Dataset(s)

-

1.12.3 Run Dataset(s)

JCL - Helios-a	JCL - Helios-b
---	---
SB#HL. LIB. CNTL(DRSADDA)	SB#HL. LIB. CNTL(DRSADDB)
SB#HL. LIB. CNTL(DRSRESA)	SB#HL. LIB. CNTL(DRSRESB)
SB#HL. LIB. CNTL(DRSLSTA)	SB#HL. LIB. CNTL(DRSLSTB)
	CLIST

	SB#HL. LIB. CLIST(LSTCAT)

1.12.4 Compile and Link Datasets

JCL	JCL
---	---
loader: SB#HL. LIB. CNTL(DRSADDA)	loader: SB#HL. LIB. CNTL(DRSADDB)
loader: SB#HL. LIB. CNTL(DRSRESA)	loader: SB#HL. LIB. CNTL(DRSRESB)
loader: SB#HL. LIB. CNTL(DRSLSTA)	loader: SB#HL. LIB. CNTL(DRSLSTB)

1.12.5 Backup Location(s)

- Tape - ICBK03 - file 79
- LIBMAN - SB#HL.Z.DRSMNT.SOURCE.V0183010

1.12.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Exper.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1, room 261	Bldg.1 Room 258
Last Revised: July 15, 1983	September 1983
Pages: p. 99	Section M

1.13 Program Name: FLXLST

Function: The FLXLST program provides formatted listings of the Helios flux tape. The program will list any or all of the eight different record types based on the value or the OPTION input NAMELIST parameter.

1.13.1 Source Dataset:

- SB#HL.FLXLST.SOURCE

1.13.2 Library Dataset(s)

-

1.13.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(UFLXTPL)	

1.13.4 Compile and Link Datasets

JCL	CLIST
---	-----
loader - SB#HL. LIB. CNTL(UFLXLST)	

1.13.5 Backup Location(s)

- Tape - ICBK03 - file 2

1.13.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Expr.	Helios Procedure's Guide
Author: John Broomhall, CSC	K. Wortman, CSC
Location: Bldg. 1, room 261	Bldg. 1 room 258
Last Revised: July 15, 1983	September 1983
Pages: p. 120	Section G

1.14 Program Name: *VERIFY*

Function: The VERIFY program compares the Helios compressed library tape with the catalog and verifies the dataset name for each file is in agreement.

1.14.1 Source Dataset:

- SB#HL.VERIFY.FORT

1.14.2 Library Dataset(s)

-

1.14.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(VERIFY)	

1.14.4 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL. VERIFY. FORT(BUILD)	

1.14.5 Backup Location(s)

- Tape - HEIBK1 - file 51
- LIBMAN - SB#HL.Z.VERIFY.FORT.V0188064

1.14.6 Program Documentation

	Document	User's Guide
	-----	-----
Name:	None	none
Author:		
Location:		
Last Revised:		
Pages:		

1.15 Program Name: HALIB

Function: The HALIB program produces formatted listings of the Helios EDR Library tapes.

1.15.1 Source Dataset:

- SB#HL.EDRLIST.SOURCE(HALIB)

1.15.2 Library Dataset(s)

-
-

1.15.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(ULSTLIB)	

1.15.4 Compile and Link Datasets

JCL	CLIST
---	-----
SB#HL. EDRLIST. SOURCE(BHALIB) - not tested	
LINKGO - SB#HL. LIB. CNTL(ULSTLIB)	

1.15.5 Backup Location(s)

- Tape - ICBK03 - file 159
- LIBMAN -SB#HL.Z.EDRLIST.SOURCE.V0283070

1.15.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide	Helios Procedure's Guide
Author: Kristin Wortman, CSC	K. Wortman, CSC
Location: Bldg. 1, room 261	Bldg. 1 rm 258
Last Revised: July 15, 1983	September 1983
Pages: p. 114	Section M

1.16 Program Name: HSXRMN

Function: Produces line printer and/or SD4060 plots of Helios-a or Helios-b sectored x-ray data from rate tapes.

1.16.1 Source Dataset:

- SB#HL.HSXRMN.SOURCE

1.16.2 Library Dataset(s)

-
-

1.16.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(ASXRPLTA)	
SB#HL. LIB. CNTL(ASXRPLTB)	

1.16.4 Compile and Link Datasets

JCL	CLIST
---	-----

1.16.5 Backup Location(s)

- Tape - ICBK03 - file 61
- LIBMAN - SB#HL.Z.HSXRMN.SOURCE.V0183007

1.16.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Processing and Programmer's Guide	
Author: John Broomhall, CSC	
Location: Bldg.1 Room 261	
Last Revised: July 15, 1988	
Pages: p. 97	

1.17 Program Name: SCANLIB

Function: The SCANLIB program scans the Helios-a and Helios-b catalog data set by year and day (Julian) or by record. It produces a list of all EDR tape files for the given day/record.

1.17.1 Source Dataset:

- SB#HL.SCANLIB.SOURCE

1.17.2 Library Dataset(s)

-
-

1.17.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CLIST(SCANLIB)	

1.17.4 Compile and Link Datasets

JCL	CLIST
---	-----

1.17.5 Backup Location(s)

- Tape - HEIBK1 - file 39
- LIBMAN - SB#HL.Z.SCANLIB.SOURCE.V0286266

1.17.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Processing and Program. Guide for Helios-1 and -2 Cosmic Ray Exper.	
Author: John Broomhall, CSC	
Location: Bldg.1 room 261	
Last Revis: July 15, 1983	
Pages: p.98	

1.18 Program Name: ZEROLOG

Function: The ZEROLOG program is executed only when the 'DRSLOG' dataset is full. The program copies the 'DRSLOG' data set to tape, zeros it out and modifies the current DRS catalog to reflect this reset.

1.18.1 Source Dataset:

- SB#HL.ZEROLOG.SOURCE

1.18.2 Library Dataset(s)

-

1.18.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(UZERLOGA)	
SB#HL. LIB. CNTL(UZERLOGB)	

1.18.4 Compile and Link Datasets

JCL	CLIST
---	-----

1.18.5 Backup Location(s)

- Tape - ICBK03 - file 115
- LIBMAN - SB#HL.Z.ZEROLOG.SOURCE.V0183010

1.18.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Exper.	
Author: John Brromhall, CSC	
Location: Bldg. 1, room 261	
Last Revised: July 15, 1983	
Pages: p. 102	

1.19 Program Name: CLKLST

Function: The CLKLST program lists the spacecraft clock data set 'SB#HL.CLOCKA.CNTL' and 'SB#HL.CLOCKB.CNTL' for the given start through stop days.

1.19.1 Source Dataset:

- SB#HL.TAPEDMPS.SOURCE

1.19.2 Library Dataset(s)

-

1.19.3 Run Dataset(s)

JCL

CLIST

SB#HL. LIB. CLIST(CLKLST)

1.19.4 Compile and Link Datasets

JCL

CLIST

1.19.5 Backup Location(s)

- Tape - ICBK03 - file 158
- LIBMAN - SB#HL.Z.TAPEDMPS.SOURCE.V0183088

1.19.6 Program Documentation

Document

User's Guide

Name: Data Process. and Program. Guide
for Helios-1 and -2 Cosmic Ray Exper.
Author: John Broomhall, CSC
Location: Bldg.1, room 261
Last Revised: July 15, 1983
Pages: p. 104

1.20 Program Name: *HELIOS2T*

Function: The HELIOS2T program lists all the parameters from the Helios-1 and -2 orbit/attitude tapes and is normally not used except by Gamma Ray studies group of the LHEA.

1.20.1 Source Dataset:

- SB#HP.ZBJHB.FORT(HELIOS2T)

1.20.2 Library Dataset(s)

-

1.20.3 Run Dataset(s)

JCL	CLIST
---	-----
SB#HL. LIB. CNTL(TRAJECTB)	

1.20.4 Compile and Link Datasets

JCL	CLIST
---	-----
loader - SB#HL. LIB. CNTL(TRAJECTB)	

1.20.5 Backup Location(s)

- LIBMAN - SB#HP.ZBJHB.FORT.V0183195

1.20.6 Program Documentation

Document	User's Guide
-----	-----
Name: Data Process. and Program. Guide for Helios-1 and -2 Cosmic Ray Exper.	
Author: John Broomhall, CSC	
Location: Bldg. 1, room 261	
Last Revised: July 15, 1983	
Pages: p. 116	