From katen@hansa.gsfc.nasa.gov Wed Jul 19 10:31:16 1995
Date: Wed, 19 Jul 1995 10:26:27 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Day 3 at H-STX
To: Bryant Heikkila <bryant@voy386.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2061

Hello,

I thought you may want to try your hand at some problem solving. :)

1. I can't send e-mail to Charlie Russell for some reason. It keeps bouncing. How about giving him a call and letting him know:
   a. Document storage is handled by Records Management Office, Code 239 located at 286-9594. He will need a GSFC form 22-41. They can probably give him this with the instructions needed to box the paper.
   b. You need to order some tape from Charlie for constructing boxes! We don't have any. Try Linda to find out what kind of tape would be good. You also need to order new, blank, magnetic tape cartridges. Nancy Smith, (286-8987), could give you the part numbers. You are orderring this to use on the IBM mainframe. You may be able to get these through Charlie. If not, use the ordering form we wrote the boxes up on.

2. Don't forget to contact Nancy Laubenthal, (286-5778), to get the letter of justification for your IBM mainframe account!

3. Listed in the file I asked you to read, yesterday afternoon, is a phone number for the Tape Staging and Storage facillity. You should call them and:
   a. Inform them that you are replacing me. Ask for the procedure to transfer boxes in storage over to your name.
   b. Ask for an updated listing of our boxes in storage. NOTE: two of these boxes are in your office! We will need to make sure they have all the tapes they are supposed to, seal the boxes again and return them to the facillity. This will be done when we have adhesive tape for box construction.

4. Go to room 124 and meet Cathy A. Sawa. Ask her if she will give you a copy of the paper storage instructions for future refference. She will not know who you are, of course. You may have to explain that you are new and from THAT GROUP! ;)

5. Don't forget to pick up your library card.

6. Contact me when Ted finally has voynet up and running, CORRECTLY! :)

That should keep you a little busy for awhile! Let me know how things go.

John

From katen@hansa.gsfc.nasa.gov Mon Jul 24 14:43:48 1995
Date: Mon, 24 Jul 1995 14:42:46 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Day 5 report
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1536

On Mon, 24 Jul 1995, Bryant Heikkila wrote:

> Did you already transfer the files? Has Dr. Webber replied to your

No, I haven't transferred anything to him. Go ahead.

> email yet concerning working ftp from his side? I can access to his

He didn't reply. Why not ftp the matrix instead of snale mail?

> I have tried to run the MCP clist to look at a listing of the voyager files
> at JPL (sonic) but it seems to keep crashing. Is there another way to just
> look at the files?

I'm not sure what you mean by look. To look at an EDR file, you could use edrlist but it will expect the file to be on tape. This translates the binary to hex, I think. It's been awhile.

> What is the best way to get printouts of the JCL clists that you have
> created for study purposes. I can look at them via the browse part of
> the IBM TSO but a hardcopy would be nice as well.

Why not ftp them local? You can use sed to get rid of leding or trailing blanks. :)

> Update on the paper storage facility: Cathy Sowa talked with Linda Murray
> who talked with Bob McGuire who told me that Bldg. 99 is full and items
> can no longer be stored there. He suggested using a Federal storage place
> off of Goddard (I do not recall the exact name).

That's exactly what I had in mind. The people I suggested Charlie contact are the ones that handle it, I believe. You need to get the procedures from them and a copy of any forms that should be filled out. Let me know who Bob McGuire suggested you contact.

John

From bryant@voypio.gsfc.nasa.gov Fri Jul 21 16:55:42 1995
Received: from voy386.gsfc.nasa.gov (voy386.gsfc.nasa.gov [128.183.106.56]) by voy
Received: from voypio.gsfc.nasa.gov (voypio.gsfc.nasa.gov [128.183.106.117]) by vo
Received: (from bryant@localhost) by voypio.gsfc.nasa.gov (LHEA9504/950407.s1) id
Date: Fri, 21 Jul 1995 15:11:58 -0400
From: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
Message-Id: <199507211911.PAA00913@voypio.gsfc.nasa.gov>
To: katen@hansa.gsfc.nasa.gov
Subject: Day 5 report
Cc: bryant@voy386.gsfc.nasa.gov
Content-Length: 3042
X-Lines: 74
Status: RO

John,

Just thought I would let you know how things are going here.

Ted Ying is still working on the computer system and currently we can not receive mail (outgoing mail works fine). Hopefully by next week everything will be working fine.

I have been reading the production manuals, primarily Pioneer, and getting familar with the IBM mainframe, your MCP clist, etc. I also processed a request by Dr. Webber, more on that later.

In terms of the list you sent me:

You were not able to send Charlie Russell email because he does not have an account, at least he did not show up via finger. I gave him the information about the document storage.

I asked Linda about the tape for constructing boxes and she gave me four rolls that were under her desk. Why they were under her desk I do not know. She wants back any rolls that we do not use in the near future.

I have asked Nancy Smith about the magnetic tape cartridge part #'s but she has been busy and has not had time to look them up.

I did contact Nancy Laubenthal about my IBM account and she contacted the appropiate people. I am not sure how long it will take to set up my account. By the way your IBM password is going to expire in 16 days.

I have contacted the Tape staging and storage place and an updated listing is on the way.

I have met Cathy Sawa in rm 124 however, she did not know anything about the paper storage. She is going to contact Linda Murray.

I have my library card but I do not yet have my key to this room.

****

Dr. Webber requested the following data on Wednesday:

P-10, V2, V1, and IMP daily avg. rates 1-1-95 to date
P-10 26 day flux summaries daily avg. rates 1-1-95 to date
P-10 26 day matrices daily avg. rates 1-1-95 to date
and PHA summary rates listing

I used the MCP menu clist to do this work. The output went into a hold que on the IBM so Pam showed me how to used the clist FDA to transfer the que into files. We then ftp'd them over to my account on the SUN. The only file

we printed out was the MATRIX listing which I did using the PRINTOFF command.

The files we produced still had the JCL clist listings at the top so I used an editor to remove them. Pam informed me later that the headers can be removed on the IBM. Anyway I think the files are ready to be mailed or ftp'd to Dr. Webber's account if I can remember his password. If you have time could you take a look at the files and naming convention. (I can also email them) The files are located in /home/voy386/bryant/webber.d/emailout.d

I guess Pam has suggested to Dr. Nath during the training period (hopefully it will not last too long) we could swap out driving back and forth. That is fine with me. After the initial round I think many of my questions can be answered over email.

By the way Voy 1 and Voy 2 EDR files are ready to be transferred at least I think that is what the email referred to.

I will send you another email when it appears that our email system here is receiving again. Thanks for your help.

Bryant

From pam@voy386.gsfc.nasa.gov Mon Aug 7 15:27:08 1995
Received: from voy386.gsfc.nasa.gov (voy386.gsfc.nasa.gov [128.183.106.56]) by voy
Received: (from pam@localhost) by voy386.gsfc.nasa.gov (LHEA9504/950407.s1) id PAA
Date: Mon, 7 Aug 1995 15:27:26 -0400
From: Pam Schuster <pam@voy386.gsfc.nasa.gov>
Message-Id: <199508071927.PAA03941@voy386.gsfc.nasa.gov>
To: Bryant@voypio.gsfc.nasa.gov
Subject: Voyager spacecraft clock/time calcs
Cc: pam@voy386.gsfc.nasa.gov
Content-Length: 1447
X-Lines: 30
Status: RO

Bryant, The MOD216, MOD60, and linecount(LC) counters on the Voyagers provide the time base for data events in our experiments. To see how those counters are translated into time as we humans in the USA relate to it, see the local directory

/home/voy386/cfgmgr/voyager/source/IBM/general

The program OVERFLOW is a utility we use to help us establish the exact time at earth when a MOD216 clock rollover occurs. The steps involved with that program do time/counter conversions and refer to the one way light time parameter so it will help you to understand the EDITSCAN time conversions. OVERFLOW calls one other subroutine YDMD which is also in the /general directory.

You probably will want to ask John for a JPL printout he gets periodically which records the counter values, UT, and other information our system uses in tables which ENCYGEN needs to do it's time checking. Refer to that for OVERFLOW study. Also see the /libcntl directory for the OWLTREAD program if needed and the /libclist directory for the JPL and JPL2 clists.

Then check out EPOCHN and subroutine TIMEDT1 for the application to Voyager 'epoch' numbers (the number of MOD216 clock rollovers).

If you have other questions about data times let me know.

Pam

From nitya@lepres.gsfc.nasa.gov Mon Jul 24 15:20:44 1995
Received: from lepres.gsfc.nasa.gov (lepres.gsfc.nasa.gov [128.183.127.57]) by voypi
Received: by lepres.gsfc.nasa.gov (4.1/1.35)
        id AA03962; Mon, 24 Jul 95 15:22:56 EDT
Date: Mon, 24 Jul 95 15:22:56 EDT
From: nitya@lepres.gsfc.nasa.gov (Nitya Nath)
Message-Id: <9507241922.AA03962@lepres.gsfc.nasa.gov>
To: bryant@voypio.gsfc.nasa.gov
Subject: An old list of production work
Status: RO

----- Begin Included Message -----

>From john@voy386.gsfc.nasa.gov Wed Feb 15 08:22:22 1995
Received: from voy386.gsfc.nasa.gov by lepres.gsfc.nasa.gov (4.1/1.35)
        id AA03855; Wed, 15 Feb 95 08:22:18 EST
Received: (from john@localhost) by voy386.gsfc.nasa.gov (LHEA9404/940426.s1) id IAA(
Date: Wed, 15 Feb 1995 08:17:29 -0500
From: John Katen <john@voy386.gsfc.nasa.gov>
Message-Id: <199502151317.IAA05456@voy386.gsfc.nasa.gov>
To: nitya@lepres.gsfc.nasa.gov
Subject: Re: production
Status: RO

Nitya:

Here is that breakdown you asked for.

Production:

Voyager:

JPL

* FTP the EDR data from JPL to the Sun for Voyager. ...Automated.
* Convert the Voyager EDR data file format, (Lrecl, Blksize, etc...) on the SUN and then FTP the EDR data to GIBBS.
* Write the EDR data to tape. ...Automated.
* Assign the tape to the project catalog and TLS. ...Automated.
* Submit EDRsave job for Voyager EDR data. Check results. ...Automated.
* Submit EDITscan job for Voyager. Search printout for indications of bad EDR records. If bad records are found: Kill Library file in catalog. Edit the EDR data to another EDR tape. Submit EDRsave job.
* Submit ENCgen job for Voyager data library files created by EDRsave or EDIT jobs. Check results. ...Automated.
* Submit ENCmrg job for Voyager data work files created by ENCgen. Check results. ...Automated.
* Assign/re-assign tapes and tape cartridges to project catalogs and TLS as required to continue production. ...Automated.
* Hang tapes, tape cartridges in building 28, TLS as required.
* Back up current project catalogs and data base tape cartridges. ...Automated.
* If problems are encountered, trouble shoot and fix. Maintain software as required.

Pioneer:

* FTP the EDR data from Ames to GIBBS for Pioneer. ...Automated.
* Write the EDR data to tape.
* Assign the tape to the project catalog and TLS. ...Automated.
* Submit PIODRP job for Pioneer EDR data. Check results. ...Automated.
* Submit FLUXDBG job for Pioneer RATE/PHA data from PIODRP. Check results. ...Automated.
* Assign/re-assign tapes and tape cartridges to project catalogs and TLS as required to continue production. ...Automated.
* Hang tapes, tape cartridges in building 28, TLS as required.
* Back up current project catalogs and data base tape cartridges. ...Automated.
* If problems are encountered, trouble shoot and fix. Maintain software as required.

Standard Analysis:

* Submit monthly FLUXPLOT jobs. ...Automated.
* Submit monthly PLOT jobs. ...Automated.
* Check listings and plots for data spikes. If data spikes exist, research time frame of the data spike for possible exclude times.
* Modify plot job JCL and CLISTs as required for errors or exclude times.
* Collect monthly plots, matrix and print out listings.
* FAX results if requested.
* Deliver results if requested.
* Stack results in viewing area.
* Correct any faults or errors that have occurred.

for SUN analysis:

* Run FLUXPLOT files through filtering program. Program sets up the data for use with ACE plot package. ...Automated.
* Batch FTP all data from GIBBS to SUN. ...Automated.
* Submit shell scripts in batch mode to print plots and listings. ...Automating.

These are extra steps to the above standard analysis. They would replace the * Submit monthly PLOT jobs above. I think that's it.

John

----- End Included Message -----

From katen@hansa.gsfc.nasa.gov Wed Jul 26 15:15:41 1995
Date: Wed, 26 Jul 1995 15:14:35 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Sparc Stations
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2376

On Tue, 25 Jul 1995, Bryant Heikkila wrote:

> John,
>
> Ted sent out the following email concerning the Sparc 10. I believe that
> the system is stable enough to start some production tutoring. It depends
> of course on your schedule. Thursday would be a good day for me to
> start learning the production in ernest. Let me know what you think.

Let's try this mail thing again! My last message bounced.

You should have 2 EDR files for each voyager space craft to fetch, (4 total). You need to determine what EDR tapes are available to write the files to. You will need one tape per file.

To determine what file is available, gennerate a log listing for Voyager-1 and -2. This can be done from MCP in the IBM. If you would rather use the SUN version, you will have to edit the vlog shell script. I think it's under ~cosmicra/monthly/bin the file name is Vlogs. Where you see john, (in the first case statement), you should substitute bryant.

7

You may then use the SUN local MCP shell. It will prompt you for your local password and the IBM password. The listings will automatically be put in your home directory.

To find the tapes, look in the EDR CONTROL section, just before the LIBRARY CONTROL section. The available tapes will have a tape slot status code of A0, (A zero). Choose the tapes that are the lowest count. Voyager-1 uses GSF001 - GSF010 and Voyager-2 uses GSF011 - GSF020. Make note of these tapes.

You must remove these tapes, (option 1 of the IBM MCP). Then, you must assign them. You will be prompted for a date when assigning the tapes. Use the date the file beggins at. (Remember, a date conversion chart is in your desk drawer.)

1.

Then we fetch the data from JPL. This may mean another modification of a shell script! Read through the instructions for fetching data from JPL.

2.

I would like for you to write a step by step paper of how this is all done in your own words. Start it with recieving the e-mail and write up to copying the EDR file to the EDR tape.

Also, check on the Pioneer data at Ames, (remember pdir?). About

the IBM password. You can go ahead and change it but let me know what it is.

I will be in meetings durring the morning tomorrow. I'll see if I'm free to come over and teach in the afternoon. :) Let me know if you find the reading confusing. The docs are on the SUN.

John

From bryant Thu Jul 27 15:14:32 1995
Date: Thu, 27 Jul 1995 15:14:30 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Production
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 3609

John,

Following is a list of things I can do, think I can do, perplexed on etc. Also a couple of other things I have done and some questions.

Things I Can Do:

Obtain lists of data at JPL (Voyager 1 and 2) and AMES (Pioneer) using both the SUN and the IBM.

Use the IBM to obtain Loglists of Voyager 1 and Voyager 2 using the MCP. I printed these out but realize that future lists need only be examined on line.

Using the listings I have located the EDR control section and slot stat column which indicates which tapes are available (A0) and which ones are not (B0).

Question#1: VOY1 LOGLIST EDR CONTROL section

In this list the "JPL ser" column is made up of a combination of numbers and letters (ie. 07381ARE) and are labeled B0 up until 8/5/94 at which time they are labeled A0 for 10 entries. (The "JPL ser" column form stays the same.) These 10 entries run from 8/5/94 until 10/14/94. The next entry has a "JPL ser" label of GSF001RE like the notes say it should be and is designated B0 again. This pattern holds until 4/14/95 at which time the designation becomes A0 again starting with GSF004RE. I believe the tape slots which need to be removed and assigned are these last ones. Can you confirm this and explain why there is a difference in the "JPL ser" name as well as the addition A0 entries. The same type of patterning is present in the VOY2 LOGLIST.

I believe that the first tape slot which needs to be removed is GSF004RE which is dated 4/14/95. I remove the tapes using option #1 of the IBM MCP program. Is the reassignment part of this option #1 as well or does a different menu clist control the reassignment. I have used the Julienne conversion table to find the dates of the four files ready to be transferred from JPL: Voy1 - June 24 and July 5
Voy2 - June 26 and July 6

No problems there.

I think I under stand how the JPL shell script in /local/cosmicra/wrk1/voyageredrs w
SUN computer, however, I am not sure if the program will continue when it logs

into Gibbs since there your name and password are used.

In a side issue, Marty Bonnefd called this morning inquiring about my account, which has been set up by the way. She wanted to know if your tapes should be released into my name. I told her to wait till I talked with you. I guess in order for me to work on the IBM I need this transfer to take place.

The command structure (ie. user machine interface) for the IBM is still foreign to me but I am picking up pieces of it. More on this at a later time.

In the /local/cosmicra/wrk1/voyageredrs directory I moved the old data files into th or doing things the way Pam has written up in a README file in the same directory which basical does each step individually instead of all at once.

In addition: I ftp'd the files into Dr. Webbers account at NMSU. I am mailing the matrix output since there is not a printer at NMSU that can produce the same style output. When mailing do I still use the 11-50 mail labels which I believe are prepaid postage labels, stamp it with an airmail stamp and put it in a Wallops US Mailbag. By the way where is one of these mailbags located?

There are many more questions but it will be easier for me to take the steps one at a time.

Thanks in advance for your help.

Bryant

From katen@hansa.gsfc.nasa.gov Thu Jul 27 15:59:42 1995
Date: Thu, 27 Jul 1995 15:58:40 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Production
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 4033

On Thu, 27 Jul 1995, Bryant Heikkila wrote:

> Use the IBM to obtain Loglists of Voyager 1 and Voyager 2 using the MCP.
> I printed these out but realize that future lists need only be examined on
> line.

Good, there is currently a paper shortage, world wide, that isn't expected to ease up till about 2000!

> Question#1: VOY1 LOGLIST EDR CONTROL section

> GSF004RE. I believe the tape slots which need to be removed
> and assigned are these last ones. Can you confirm this and
> explain why there is a difference in the "JPL ser" name as
> well as the addition A0 entries. The same type of patterning
> is present in the VOY2 LOGLIST.

The tapes you see using other name/numbers come from when JPL shipped the tapes out instead of pushing the data over the net. These 9 inch reel tapes had to be staged and then physically hung in TLS.
Your observation is correct. The GSF### tapes are now used. They should never need to be physically removed from the slots. The software will assign and remove them from the slot numbers. If a tape is removed from a slot, it should be assigned back to THAT slot! That's why the order of tape removal is important. They should be removed in series order and assigned back in the series order.
Remove GSF001, GSF002 and GSF004, then you must assign them in the order GSF001, GSF002 and GSF004. If you, say, assigned them 004, 001, 002 you would find that they now have different tape slot numbers assigned and you would have to go to building 28 and change tape straps!

> I believe that the first tape slot which needs to be removed is GSF004RE
> which is dated 4/14/95. I remove the tapes using option #1 of the IBM

GSF004 for Voyager-1. GSF011 for Voyager-2. We will discuss the names as they appear in the log tommorow. You are, basically, correct. The user manual I put on the SUN should discuss EDR tape labels. The version in the grey 3 ring binder above the IBM-AT is outdated but will explain some of it.

> MCP program. Is the reassignment part of this option #1 as well or does
> a different menu clist control the reassignment. I have used the Julienne

Further down you will see a sellection to assign edr tapes. Option 5, I think. Read about it in your manual.

> I think I under stand how the JPL shell script in /local/cosmicra/wrk1/voyageredrs
> SUN computer, however, I am not sure if the program will continue when it logs
> into Gibbs since there your name and password are used.

I'll check it out. What's your user login? It has to be added to a case statement further down.

> In a side issue, Marty Bonnefd called this morning inquiring about my account,
> which has been set up by the way. She wanted to know if your tapes should be
> released into my name. I told her to wait till I talked with you. I guess
> in order for me to work on the IBM I need this transfer to take place.

I presume you are talking about tapes in TLS. I didn't know I had any. The answer would be yes, assign them to your account. :)

> directory which basical does each step individually instead of all at once.

It's up to you. If you would like to step through the process, go ahead. I use the automated procedure because I'm lazy! ;)

> mailing the matrix output since there is not a printer at NMSU that can
> produce the same style output. When mailing do I still use the 11-50 mail

I see. When I get there, we will look at how I print these and see if he can make use of them. This sounds fine.

> labels which I believe are prepaid postage labels, stamp it with an airmail
> stamp and put it in a Wallops US Mailbag. By the way where is one of these
> mailbags located?

Correct, on procedure. The bags are just to the left as you face the ellevator on your floor. They are coller coded and you should drop the thing in the bag for off base mail.

More tomorrow.

John

From bryant Mon Jul 31 09:54:58 1995
Date: Mon, 31 Jul 1995 09:54:53 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: EDRSAVE
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 364

John,

Sorry to keep bugging you, but it appears that the EDRSAVE step that we ran on Friday failed for Voyager 1. Voyager2 seems to have finished without immediately noticeable problems. The abend code for Voyager 1 is: 214

It looks like it failed writing to the library tape. Do I just resubmit the job or do I have to go in and edit the library?

Bryant

CRUSH
FAMILY

From katen@hansa.gsfc.nasa.gov Mon Jul 31 10:53:29 1995
Date: Mon, 31 Jul 1995 10:52:50 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: EDRSAVE
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 603

On Mon, 31 Jul 1995, Bryant Heikkila wrote:

> Sorry to keep bugging you, but it appears that the EDRSAVE step

Don't be sorry, it's what I'm here for! :)

> Voyager 1 is: 214

Step 1: Run a cartscan, 'zmjok.lib.clist(cartscn)' on the current library cartridge. We want to see if it's full. If it is, we need to hang a new library cartridge.
Step 2: Contact me with the ressults of the scan. Henry can help.

> It looks like it failed writing to the library tape. Do I just resubmit
> the job or do I have to go in and edit the library?

No, we need to see what is happenning.

John

From bryant Mon Jul 31 11:29:05 1995
Date: Mon, 31 Jul 1995 11:29:04 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: cartscn
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 156

John,

I think I answered part of my own question.

At the promplt (=6 window) I type ex 'zmjok.lib.clist(cartscn)'

Still need the cartridge name.

Bryant

From katen@hansa.gsfc.nasa.gov Mon Jul 31 11:47:17 1995
Date: Mon, 31 Jul 1995 11:46:27 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: EDRSAVE
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 507

On Mon, 31 Jul 1995, Bryant Heikkila wrote:

> Where can I find the cartridge id that cartscn asks for?

In the catalog listing for voyager-1. The LIBRARY BLOCK will tell you what col. is the library cartridge series number, (the one labelled SER, I believe). The tape label format is M1L### with the ### being the library cartridge number. This is number 050, I think. I doubt if it's full but it doesn't hurt to scan it. :) If the scan comes out OK, then re-submit the EDRsave job.

John

From bryant Mon Jul 31 16:13:03 1995
Date: Mon, 31 Jul 1995 16:13:00 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: HELP!
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1596

John,

I ran a 'cartscn' on M1L050 and consulted with Henry concerning the result. Both of us think something is screwed up with this cartridge, although I hope we are mistaken.

The end of the output from 'cartscn' indicates that the TAPEIN is not labeled and that only two files are on the tape:

One with 371 blocks
One with 2 blocks

a third listing shows

One with 0 blocks

The number of bytes read 6,289,684 the number of feet 17, no errs shown.

However, the Voyager 1 LOG under Library Block that I produced last week shows that tape M1L050 contains 6 files. In order to try and understand the connection between what the 'cartscn' was telling us and what the LOG listing was telling us we made a 'cartscn' on M1L049. The Library Block listing shows that M1L049 contains 34 files. The 'cartscn' also showed that M1L049 has 34 files. This tape was also labeled. We resubmitted the 'cartscn' on M1L050 to see if something went wrong with the program and obtained the same result, 2 files. A new Voyager 1 Log listing shows the 6 files that were present on the previous listing plus a 7th file that we worked on on Friday with the following entries under the Processing columns of the Library Block: NO 1, DISP 80, DATE 0/0/0. The WORK column is also 0 (zero).

The EDR Blocks of the same V1 listing under the JPL SER column shows:

GSF004RE A0
GSF005RE 80
GSF006RE 80

The row containing GSF006RE also shows three zero entries for @Lib, No. Rec., and No. err.

Any idea on what is going wrong. If it helps I could fax you the relevant output pages.

Thanks,
Bryant

From katen@hansa.gsfc.nasa.gov Mon Jul 31 17:00:01 1995
Date: Mon, 31 Jul 1995 16:59:22 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: HELP!
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1089

Don't panick! :)

I have looked at the log, M1L050 and the backup for M1L050, (M1LB50). It seems the cartridge "lost" its header information. This should be reported to TAG. The backup and Catalog indicate the cartridge was fine when I last ran it. Production wouldn't have continued if it didn't.

It looks like someone messed up and tried to restore from some unknown source. Security is great on that machine! :\ I want you to go over and exchange M1L050 for a new cartridge. Put the same volume label name on the new cartridge and put the same slot number on it. Mark the face label, in the lower right hand corner with the date. (This can be done tomorrow.)

I send you instructions on how to label the new cartridge and restore the backup to it. We may have to reprocess an EDR. See if TAG can come up with an idea about what happened. Call Marty, (the tape librarian), about it to. She may be able to find out who last accessed it. If it was me, then we are dealing with a tape failure! :) I'll check to see when we can get together on it.

John

From katen@hansa.gsfc.nasa.gov Tue Aug 1 12:58:39 1995
Date: Tue, 1 Aug 1995 12:58:05 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Library tape
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1384

On Tue, 1 Aug 1995, Bryant Heikkila wrote:

> I have been waiting for the instructions on how to label the new
> cartridge and restore the backup to it. I can go over and

Oh, yuck! I forgot. OK, here goes.
In the data set 'ZMJOK.LIB.CNTL(LABLIB)', delete the line with VOL=MULB50 Submit this member. When it completes, look in the hold queue for the printout. (Don't forget to change the user id in the job name on the first line from ZMJOK)
Hopefully, the return codes will be zero, (RC=000). Look at the bottom of the printout. If things REALLY went smoothly, it will say Tape M1L050 labelled SL. Or, something like this. :)
When the tape is labelled, execute 'SB#VG.LIB.CLIST(BACKUPS)' I have set this CLIST up to copy from M1LB50 to M1L050. You can take a look at how it's typed. If this completes successfully, we will have to kill a LIBRARY BLOCK and re-assign an EDR tape for re-processing.

> do the physical change first along with the physical labeling.
> I have not yet set email to TAG. I will later today.

To do the label job, the new tape cartridge MUST be hanging in the tape library before submitting the label job. Let me know how it goes and then we will look into killing a lib. block. You can read about how we are going to do it under DIRFIX in the grey Voyager manual or on the SUN. Just look in the INDEX. :)

John

From katen@hansa.gsfc.nasa.gov Wed Aug 2 15:45:28 1995
Date: Wed, 2 Aug 1995 15:44:55 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Library tape
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 615

Hello,

When you are ready to proceed, let me know. We need to alter the Voyager log before we can proceed with production. We will use the CLIST ALTBLK, (found in the grey, three ring binder or on the SUN as file voyager6), or DIRFIX, (also in the binder or on the SUN as file voyager5).

We need to alter the status for tape GSF004, the LIBRARY CONTROL block and library block 18061. Then we can proceed with the EDRsave for Voyager-1. I'll need to come over there and introduce you to the red three ring binder that tells about the structure of the log file. Let me know what's happening.

John

From bryant Wed Aug 2 16:11:35 1995
Date: Wed, 2 Aug 1995 16:11:31 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Library tape
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 15875

John,

I have been pretty much dormant on production today. I have been working on some things Pam wanted done. I plan on spending tomorrow morning working on production and bringing the Voyager 1 status up to that of Voyager 2. So, far I have only switched the tape cartridges out. I spent close to two hours yesterday afternoon working with Nick Burke on what happened to the M1L050 tape. Most of the results are in:

The tape was not accessed by an outside intruder. The following file shows who accessed the cartridge and when:

****
BRYANT -
HERE ARE THE MOUNTS SHOWN FOR THE ENTIRE MONTH OF JULY FOR TAPE M1L050.

DATE	TIME	JOB#	JOBNAME	JOBSTEP_NAME	COMMENTS
7/10	10:45	7165	ZMJOKSAV	EDRSAVE	RING IN
7/10	11:04	7176	ZMJOKRN2	E	RING OUT
7/10	11:39	7252	ZMJOKENC	ENCGENTIN	RING OUT
7/10	18:39	7317	ZMJOK050	TAPECOPY	RING IN
7/28	18:33	4897	ZMBCHSAV	EDRSAVE	RING IN
7/31	11:51	5284	ZMBCHCSN	FATAR	NOCHANGE
7/31	15:39	5380*	ZMBCHCSN	FATAR	NOCHANGE-LAST GOOD SCAN
7/31	16:38	5407	ZMJOKCSN	FATAR	NOCHANGE

****

So, the tape was corrupted either during the EDRSAVE that we ran on Friday 7/28 or during the TAPECOPY job on 7/10.

Further, Nick Burke was able to determine that the reason the EDRSAVE job crashed was that there was a Block Count Mismatch between the tape control and the DCB. The most probable reason for this mismatch, Nick determined, was that the tape had been overwritten by a Non Labeled Tape. Nick was able to read past the EOT mark and find the rest of the files that were suppose to be on the cartridge. However, some of the files are corrupted due to the overwrite and so it is unlikely that we will be able to use the first few files and thus in the end it will probably be much easier to just copy from the Backup Tape M1LB50. The M1L050 tape cartridge itself is fine and can be used again. Nick sent me the TAPESCN that he performed on the tape which I have included at the end of this email if you are interested. He also said that we should not be using TAPESCN but a program called FATAR? instead. Any thoughts on this? Nick was going to read the first file on the M1L050

cartridge and send me the listing but he has not done so yet.
If the past is any indication I probably will have several questions for you tomorrow when I actually start doing the tape copy job. That it for now.

Bryant

****
> From XRNJB@GIBBS.GSFC.NASA.GOV Tue Aug 1 17:39:00 1995
> Date: Tue, 01 Aug 95 17:37 EDT
> From: "xrnjb@gibbs.gsfc.nasa.gov" <XRNJB@GIBBS.GSFC.NASA.GOV>
> To: bryant@VOYPIO.GSFC.NASA.GOV
> Subject: Fatar Scan of M1L050
> Content-Length: 12315
>
> Bryant - Here's the output. The mailer truncated this to 80 bytes. If
> you need to see all of it, look in dsn=xrnjb.mail.file(fatar1)
> Nick
>
> 1 J E S 2 J O B L O G -- S Y S T E M S 9 3 4 -- N O
> 0
> 17.13.54 JOB05858 IRR010I USERID XRNJB IS ASSIGNED TO THIS JOB.
> 17.17.51 JOB05858 ICH70001I XRNJB LAST ACCESS AT 16:32:28 ON TUESDAY, AUGUS
> 17.17.51 JOB05858 $HASP373 XRNJBFTR STARTED - INIT 10 - CLASS A - SYS S934
> 17.17.52 JOB05858 IEF403I XRNJBFTR - STARTED - TIME=17.17.52
> 17.17.52 JOB05858 *IEF233A M 5B0,M1L050,,XRNJBFTR,FATAR
> 17.17.52 JOB05858 IEC706I DENSITY IGNORED 5B0,TAPEIN,BLP,,NOCOMP,XRNJBFTR,FATA
> 17.18.59 JOB05858 IEF234E K 5B0,M1L050,PVT,XRNJBFTR,FATAR
> 17.19.00 JOB05858 KEC209I VOL=M1L050,UNIT=5B0, TR=000,TW=000,EG=000,CL=000,N=
> 17.19.00 JOB05858 COMPLETED -- XRNJBFTR/FATAR PGM=FATAR RC=0012 <==
> 17.19.00 JOB05858 IEF404I XRNJBFTR - ENDED - TIME=17.19.00
> 17.19.00 JOB05858 $HASP395 XRNJBFTR ENDED
> 0------ JES2 JOB STATISTICS ------
> - 01 AUG 95 JOB EXECUTION DATE
> - 15 CARDS READ
> - 262 SYSOUT PRINT RECORDS
> - 0 SYSOUT PUNCH RECORDS
> - 21 SYSOUT SPOOL KBYTES
> - 1.14 MINUTES EXECUTION TIME
> 1 //XRNJBFTR JOB (K3001,NA91,99),'N.BURKE',TIME=1439,
> // MSGCLASS=X,MSGLEVEL=(1,1),CLASS=A,TYPRUN=HOLD
> //*JOBPARM LINES=9999
> //*----> SCAN A "PROBLEM" TAPE TO THE END-OF-VOLUME
> //*
> 2 //FATAR EXEC PGM=FATAR,PARM='SIZE=6144'
> 3 //SYSPRINT DD SYSOUT=*
> 4 //TAPESUMM DD SYSOUT=*
> 5 //TAPEIN DD UNIT=3480,
> // VOL=(PRIVATE,SER=M1L050),
> // LABEL=(,NL,,IN),
> // DISP=(OLD,KEEP),
> // DCB=DEN=4
> 6 //SYSIN DD *
> DTM1459I 95.213 17:13:55 JOB XRNJBFTR REQUEUED TO CLASS=A PRIORITY=3 HELD
> ICH70001I XRNJB LAST ACCESS AT 16:32:28 ON TUESDAY, AUGUST 1, 1995
> IEF236I ALLOC. FOR XRNJBFTR FATAR

The rest can be seen in the other mail stack from Nick Burke

See Email from John

8/3/95 Label Blank Tape

In ZMJOK.LIB.CNTL (LABLIB)

Changed zmjok to zmbch ← this time only.

deleted EXEC LABEL, VOL=M1LB50, TUNIT=CART, LABEL=SL, DEN=4

since I just want to label the new blank tape.

Submitted: JOB ENDED LABEL 0000
SUCCESSFULLY LABELED SL

8/3/95 Copied Backup tape to New Tape.

EX 'SB#VG.LIB.CLIST(BACKUPS)' (John set up the script correctly)

Finished with TAPECOPY 0000

8/3/95

- Reassign an EOR tape for reprocessing
- Kill a library block

RUN ALTBLK (see Voyager manual)

Write reason for altering block?
Reactivating an EOR tape

			EOR BLOCK# ↓	
Go through twice:	1st	18055	17	80
	2nd	18055	37	80
Kill a library block		18061	33	00

Run FCATBACK to make backup to seperate file.
Error code RC=12 means there was a problem with copy due to roll out to a gellpack which is not there.

Always type FREEALL after fooling with the LOG.

8/3/95

Library Control (of Log List)

Block	LST SER	SERWRT	SEQ
5	80	50	7

↳ need to change this to a 6.
Use DIRFIX.

Use DIRFIX to reset library control.

EX 'SB# VG. LIB . CLIST (DIRFIX)' we also used
EX 'SB# VG. LIB. CLIST (DIRFIX)' 'SB#VG. LOG DATA DEBUG'

&LOC RECORD = 5, WORDS = 1, 16, FUN = 0, &END
(
Edit.

#8 2nd half word 1st half 50 (see red note book.)

8/4/95

Edited SB#VG.LIB CLIST (BACKUPS)

EX ↗ TO BACKUP LIBRARY DATA.

EX SB#HP. LIB. CLIST (INFO) → SB# VG. LIB. CNTL (VIBKINFO)

I ran this for both Vols 1 & 2 to update the log part of INFO

ie. for Vol 1 6 files → 9 files
date 7/11 → 8/4

From bryant Fri Aug 4 10:19:26 1995
Date: Fri, 4 Aug 1995 10:19:24 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Library Control
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1365

John,

I have examined the Voyager 1 log listing I made yesterday following the log corrections and the new EDRSAVE. A comparison of the entries in this listing to the old Voyager 1 log listing and a log listing for Voyager 2 reveals a possible concern. In the last five lines of the Library Block section we see the following lines (excluding the data start and end columns):

BLOCK#	CREATION	SER	SEQ	EDR	NO	DISP	DATE	ATTR	WORK
18049	7/10/95	50	6	18047	1	E0	7/10/95	3	18051
18061	7/28/95	50	7	18055	1	00	0/ 0/ 0	0	0
18073	8/ 3/95	50	7	18055	1	80	0/ 0/ 0	0	0
18074	8/ 3/95	50	8	18056	1	80	0/ 0/ 0	0	0
18075	8/ 3/95	50	9	18057	1	80	0/ 0/ 0	0	0

I understand that the last DATE, ATTR, and WORK columns are zero because I (we) have not finished the processing yet. The 00 in the Disposition column (DISP) indicates that this data has been killed, while the 80 indicates that the data is awaiting disposition. OK, but why does the line containing block 18061 exist, in particular I have found no previous example in the other log listings in which data had been killed that the sequence # repeats (ie. the 7 associated with block 18061 and block 18073). Since the EDR block# is the same (18055) can we simply ignore this?

Bryant

From katen@hansa.gsfc.nasa.gov Fri Aug 4 10:38:30 1995
Date: Fri, 4 Aug 1995 10:38:13 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Sender: John Katen <katen@hansa.gsfc.nasa.gov>
Reply-To: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Library Control
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; CHARSET=US-ASCII
Content-Length: 1634

On Fri, 4 Aug 1995, Bryant Heikkila wrote:

>
> BLOCK# CREATION SER SEQ EDR NO DISP DATE ATTR WORK
>
> 18049 7/10/95 50 6 18047 1 E0 7/10/95 3 18051
> 18061 7/28/95 50 7 18055 1 00 0/ 0/ 0 0 0
> 18073 8/ 3/95 50 7 18055 1 80 0/ 0/ 0 0 0
> 18074 8/ 3/95 50 8 18056 1 80 0/ 0/ 0 0 0
> 18075 8/ 3/95 50 9 18057 1 80 0/ 0/ 0 0 0
>
> I understand that the last DATE, ATTR, and WORK columns are zero because
> I (we) have not finished the processing yet. The 00 in the Disposition
> column (DISP) indicates that this data has been killed, while the 80
> indicates that the data is awaiting disposition. OK, but why does the
> line containing block 18061 exist, in particular I have found no previous
> example in the other log listings in which data had been killed that the
> sequence # repeats (ie. the 7 associated with block 18061 and block 18073).
> Since the EDR block# is the same (18055) can we simply ignore this?

When we killed 18061 we made the information in it irrelevant. It is still listed because we did not de-allocate the record, (18061), and return it to the free pool of records. I don't know of any tools to do that, gracefully.

The reason you don't see the double 7 phenomina is that what happened to you have never happened before! When a tape failed, it was usually AFTER backup and BEFORE the next step in producion. Not DURRING a production step! :) Congratullations. You achieved a first! :D

We may as well ignore it, since the software will. :)

John

From bryant Fri Aug 4 12:11:42 1995
Date: Fri, 4 Aug 1995 12:11:40 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: backups, editscan
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1707

John,

If I remember correctly, you suggested that I update the tape backups before starting the next step in production. To do that I run:
ex 'SB#VG.LIB.CLIST(BACKUPS)'
This clist was edited by you to copy the backup tape onto the new M1L050 tape. I am going to reedit this clist (BACKUPS) and remove the line:

EX 'SB#HP.LIB.CLIST(TCOPY)' 'M1LB50 M1L050 CLASS(A)'

the next line is EXIT which will also be removed and place after the two backup lines:

EX 'SB#HP.LIB.CLIST(TCOPY)' 'M1L050 M1LB50 CLASS(A)'
EX 'SB#HP.LIB.CLIST(TCOPY)' 'M2L074 M2LB74 CLASS(A)'

by executing this clist then the two tapes will be backed up. I of course will wait for confirmation on this before doing it. Do I need to make a log listing backup (FCATBACK) again also?

****

Next, I run a editscan on each of the library tape files that we added to the log (ie 3 for Voyager 1 and 3 for Voyager 2. The editscan can be accessed by your MCP clist menu 2.3. This puts you into an editor in which one must change the inputs to the scan. Example:

```
//                          ↓ Voy 1
// EXEC EDITSCAN,ID=1,SOURCE=LIB,   <== I ONLY CHANGE THE 1 VOY1, 2 VOY2
//              JPLNO=REGSF004,     <== THIS IS THE EDR LABEL
//*             PICK=DISK1,
//*             DSNOU1='SB#VG.LIB.DATA(EDS01)' <== I CHANGED THIS AS SHOWN
//              PICK=DISK                  GSF004
//              DSNOUT='SB#VG.TEMP.DATA'
//*4567890123456789012345678901234567890
//DATA5 DD *
GSF004  07 00000 99999 00000 00080 00000 F T <== I CHANGE THE 1ST TWO NUMBERS
M1L050  500.X  200.                            THE 07 IS THE SEQ NUMBER IN
// EXEC NOTIFYTS                               THE LIBRARY LOG LISTING.
```

after this runs "successfully" I examine the output looking for..?

Bryant

From katen@hansa.gsfc.nasa.gov Fri Aug 4 13:38:25 1995
Date: Fri, 4 Aug 1995 13:38:12 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: backups, editscan
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2990

On Fri, 4 Aug 1995, Bryant Heikkila wrote:

> before starting the next step in production. To do that I run:
> ex 'ZMJOK.LIB.CLIST(BACKUPS)'
SB#V6

Yep!

> EX 'SB#HP.LIB.CLIST(TCOPY)' 'M1L050 M1LB50 CLASS(A)'
> EX 'SB#HP.LIB.CLIST(TCOPY)' 'M2L074 M2LB74 CLASS(A)'

That's it. After the backup jobs are done, you will use the CLIST INFO to update the tape backup list. I think you will find it easy to figure out. Just type info in panal 6 at the command line. It'll ask if you want to edit or brows. You will enter e to edit. Then choose from the menu displayed.

> will wait for confirmation on this before doing it. Do I need to make a log
> listing backup (FCATBACK) again also?

No, this doesn't affect the log at all. (Unless they break the tape!)

> one must change the inputs to the scan. Example:

> //* DSNOU1='SB#VG.LIB.DATA(ED50F)' <== I CHANGED THIS AS SHOWN

Make ED50F GSF004 for THAT tape. GSF005 for THAT tape, etc...

> // PICK=DISK
> // DSNOUT='SB#VG.TEMP.DATA'
> //*45678901234567890123456789O
> //DATA5 DD *
> GSF004 07 00000 99999 00000 00080 00000 F T <== I CHANGE THE 1ST TWO NUMBERS

Here, where you have GSF004, will be M1L050. This is the library tape that has file 7 on it. All this is for Voyager-1, of course. You have to set up for Voyager-2 when you get to those files.

> after this runs "successfully" I examine the output looking for..?

First, do a find on md216. (F MD216) This will put you at the top of the report for the file in question.
Second, do a find on **. (F **) Pam has the program to set up to flag the records that MAY have a problem with the double star. Check the year of the space craft time, (the first collum of times/year). It shouldn't be more than 5.5 to 6 hours different from the next collum of times/year,

(Earth recieve time). The collum of times/dates after that would be the corrected time. If the difference between this corrected time and the space craft send time isn't a matter of hours, (or years), it can probably be ignored.

You are actually looking for patterns of errors. Large blocks of records with years other than the current year indicate a problem. The software will through out the odd occurence of wrong year that may occure here and there. One or two records don't need to be edited. 10 to 20 in a row should be edited out.

At one time, I would edit out anything that was greated than the one way light time for the spacecraft. Then I found out that ENCGEN can handle many of the small problems. The things to watch for are:

The very first record being VERY much earlier or later than the following records.

Patterns of errors occurring in the records. Large blocks of data with other years, consistant time differenced in hours, different line count numbers (the first set of numbers), etc...

Give it a try. We can talk about it once you have had a chance to look over the printout.

John

3 Emails
4 Responses.

From bryant Tue Aug 8 09:29:01 1995
Date: Tue, 8 Aug 1995 09:28:55 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Me Again!
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1156

Hi John,

Hope you are feeling better. I ran the EDITSCAN program yesterday and examined the output in my hold que. After several hours and several clarifications from Pam I think I figured out what to look for in the files. If I am correct the 6 Library tape files are all OK.

Now, if I am not mistaken, I run the ENCGEN program. I do not use ASSIGN which places a Work tape volume in the TLS. Is this correct?

As for the ENCGEN program the clist (MCP 2.4) asks for the spacecraft ID (I assume 1 or 2), then asks for the class at which to run the job (N,A,E,F). Nand is urgently awaiting this data so Pam wants me too run at class N. (By the way when she started talking about "TWICE NORMAL CHARGE" yesterday was when I finally realized that we have to pay for computing time.) Then the ENCGEN clist asks for how many files. Pam was saying yesterday that the program can take up to 10 files, but followed that with each file taking a tape. There is no documentation here about this aspect of the ENCGEN program. Can you clarify? How does the program know which files to process since it does not ask for any block #'s etc.?

Thanks,
Bryant

From bryant Tue Aug 8 09:43:53 1995
Date: Tue, 8 Aug 1995 09:43:51 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 350

Hello,

I found how the ENCGEN program recognizes the files you want to process: It looks for a # less than 4 in column 10 of the library block and an 80 in column 11. However, the notes say that if the processing is successful the work block # of the work tape is entered into the WORK column. Is this work tape automatically generated?

Bryant

From katen@hansa.gsfc.nasa.gov Tue Aug 8 10:35:49 1995
Date: Tue, 8 Aug 1995 10:35:58 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Me Again!
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1571

Hello,

On Tue, 8 Aug 1995, Bryant Heikkila wrote:

> Hope you are feeling better. I ran the EDITSCAN program

A bit. :)

> correct the 6 Library tape files are all OK.

That sounds correct, so far.

> Now, if I am not mistaken, I run the ENCGEN program. I
> do not use ASSIGN which places a Work tape volume in the
> TLS. Is this correct?

Yes, this is correct. ASSIGN should only be used when you need more work tapes in the log for use.

> spacecraft ID (I assume 1 or 2), then asks for the class

Correct.

> time.) Then the ENCGEN clist asks for how many files. Pam

This is how many files YOU plan to process. The maximum number is 10 and the minimum is 1. In this case, you have three library files available for production. 3 would be the number per spacecraft.

> files, but followed that with each file taking a tape.

A blatently false statement! :) If you give 3 library files to produce and they are in time order, then encgen will, most likely, use one tape. It depends on how much actual data is available. If you indicate three files not in time order, encgen will put files on tapes according to the time order it finds. Eg... if file one starts on 95/07/31, file 2 starts on 95/07/01 and file 3 starts on 95/07/21, then two work tapes will be used. The first one will hold the data for library file one. The second will hold the data from files 2 and 3 since they are in order of time.

> program. Can you clarify? How does the program know which

I don't know, did that clarify things at all? ;)

John

From katen@hansa.gsfc.nasa.gov Tue Aug 8 10:40:28 1995
Date: Tue, 8 Aug 1995 10:40:37 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: your mail
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 709

On Tue, 8 Aug 1995, Bryant Heikkila wrote:

> the notes say that if the processing is successful the
> work block # of the work tape is entered into the WORK
> column. Is this work tape automatically generated?

Yes, when encgen makes an encyclopedia file to use, it creates the work tape and enters the work tape block number into the library area. It also writes the library block number in an area in the work block. Then it marks the work block with an 80 for encmrg.

After encgen reports itself as finished, check the log. Sometimes it will skip a library file in order to get files into time order on the target work tape. If it does this, you simply execute another encgen job.

John

From bryant Tue Aug 8 14:40:17 1995
Date: Tue, 8 Aug 1995 14:40:15 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: ENCGEN
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 542

John,

An examination of the Log listings after the ENCGEN program finished showed that only 1 of the 3 voyager 1 files was processed and only 2 of the 3 voyager 2 files were processed. The output from the ENCGEN program says:

FNEXT DISCONTINUE PROCESSING DUE TO TAPE USAGE.

Pam thinks that the ENCGEN program thinks we are still using 9-track tapes and the reason for the stopage is related to the number of feet available on each tape. ???

I guess I should just resubmit the ENCJOBS for the 2 Voy 1 and the one Voy 2 files.

Bryant

From katen@hansa.gsfc.nasa.gov Tue Aug 8 14:44:54 1995
Date: Tue, 8 Aug 1995 14:44:59 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: ENCGEN
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 557

On Tue, 8 Aug 1995, Bryant Heikkila wrote:

> FNEXT DISCONTINUE PROCESSING DUE TO TAPE USAGE.
>
> Pam thinks that the ENCGEN program thinks we are still
> using 9-track tapes and the reason for the stopage is
> related to the number of feet available on each tape. ???

> I guess I should just resubmit the ENCJOBS for the 2 Voy 1
> and the one Voy 2 files.

Could be. You are correct, just re-submit and check the logs after it's finished. Give Marty a call and see if you can find out what the average tape footage is for a cartridge.

John

From bryant Tue Aug 8 16:46:45 1995
Date: Tue, 8 Aug 1995 16:46:42 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: ENCMRG
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 747

John,

Do I need to make a log backup (FCATBACK) or anything similar before submitting a ENCMRG job (MCP 2.5). As for the ENCMRG program, it asks for the spacecraft ID (ie 1 or 2), and the run class. If there are multiple work files to merge does ENCMRG automatically pick them up?

After ENCMRG successfully completes can you briefly go over what needs to be done next in terms of the production BEFORE the next data set at JPL can be downloaded.

The list I have been following shows:

* Assign/re-assign tapes and cartridges to project catalogs and TLS as required to continue production.

* Hang tapes, tape cartridges in bldg 28, TLS as needed.

* Back up current project catalogs and data base tape cartridges.

Thanks,

Bryant

From katen@hansa.gsfc.nasa.gov Tue Aug 8 16:51:05 1995
Date: Tue, 8 Aug 1995 16:51:16 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: ENCMRG
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 706

On Tue, 8 Aug 1995, Bryant Heikkila wrote:

> Do I need to make a log backup (FCATBACK) or anything
> similar before submitting a ENCMRG job (MCP 2.5).

No you don't need to. Barring a catastrofic error, no harm should befall the voyager log.

> ID (ie 1 or 2), and the run class. If there are multiple

One ENCMRG job per work file. It doesn't automatically scan the log for the number of tapes to be processed. You manually have to submit each job. You can submit them one after the other, of course.

> After ENCMRG successfully completes can you briefly go
> over what needs to be done next in terms of the
> production BEFORE the next data set at JPL can be downloaded.

Yep.

John

From katen@hansa.gsfc.nasa.gov Wed Aug 9 10:20:35 1995
Date: Wed, 9 Aug 1995 10:20:49 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: ENCMRG
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1269

On Tue, 8 Aug 1995, Bryant Heikkila wrote:
> After ENCMRG successfully completes can you briefly go
> over what needs to be done next in terms of the
> production BEFORE the next data set at JPL can be downloaded.
>
> The list I have been following shows:
>
> * Assign/re-assign tapes and cartridges to project catalogs
> and TLS as required to continue production.
>
> * Hang tapes, tape cartridges in bldg 28, TLS as needed.
>
> * Back up current project catalogs and data base tape
> cartridges.

I usually do the following after a complete run of Voyager:

1. Back up current LIBRARY tapes and ENCYCLOPEDIA tapes.
This includes enterring the information into the backup record using the CLIST info. In panal 6 at the command prompt, simply type info.

2. Update the standard 26-day averages data sets for Voyager.
This is analysis.

3. Update the EOD file on the SUN and mail it to the alias EOD.

4. Add WORK and ENCYCLOPEDIA cartridges, as needed, to the catalog.

5. Back up the catalog.)L06

That's pretty much it! :) I see that the last day of data for Pioneer-F is DOY 177. Is that where the Pioneer-F flux catalog is?

I also got a voyager update noting that DOY 206 is ready for download. Did you get the forward?

John

From bryant Wed Aug 9 14:47:28 1995
Date: Wed, 9 Aug 1995 14:46:12 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Post production
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1431

Hello,

My mind must be fried since I am struggling with this:

>1) Back up current LIBRARY tapes and ENCYCLOPEDIA tapes

I edit the SB#VG.LIB.CLIST(BACKUPS) clist to include the
encyclopedia tape but what do I use for the backup
tape number?

EX 'SB#HP.LIB.CLIST(TCOPY)' 'M1L050 M1LB50 CLASS(A)'
EX 'SB#HP.LIB.CLIST(TCOPY)' 'M2L074 M2LB74 CLASS(A)'
EX 'SB#HP.LIB.CLIST(TCOPY)' 'M1E159 M1EB?? CLASS(A)' EX 'SB#HP.LIB.CLIST(TC

The ENCYCLOPEDIA TAPES MAY ALSO BE WRONG (159,440). I SIMPLY
USED THE LAST SER NUMBER AT THE END OF THE ENCYCLOPEDIA
BLOCK LISTING IN THE LOG.

By the way, for me to edit the backup record I have to enter
the full command not just INFO (ex 'zmjok.lib.clist(info)'

>2) Update the standard 26-day averages...

I will save this till later, unless it has to be done now.

>3) Update the EOD file on the SUN ...

OK I have copied over your EOD file and will send it out.

~~>4) Add WORK and ENCYCLOPEDIA cartridges, as needed~~ ...

~~To do this I use MCP 1.1.2,3,6,7 to remove and assign
the WORK and ENCY. tapes. 'How do I know which tapes
to remove and assign. I believe in order to assign tapes
I need to first hang some new ones, right? Both Voy I&II
need ENCY tapes since they are on the last available and
VOY II needs work tapes.~~

~~I do believe that the Pioneer-F flux catalog is at DOY 177.~~

~~Yes, I did get the fwd email about DOY 206 being ready.~~

~~Bryant~~

From bryant Thu Aug 10 10:05:34 1995
Date: Thu, 10 Aug 1995 10:05:32 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: ENC BACKUPS
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 170

John,

By looking at the INFO files (SB#VG.LIB.CNTL(V1BKINFO))
I found how you are number the backup tapes. However,
do I have to add backup cartridges in TLS?

Bryant

From bryant Thu Aug 10 11:15:02 1995
Date: Thu, 10 Aug 1995 11:14:59 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Yet another email
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 949

John,

I have obtained a copy of the V1BKINFO and V2BKINFO.
Using Voyager 2 as an example I see that you made
a backup of M2E437 to M2EB58 with 4188 blocks on 7/11/95.
On 7/12/95 you made a backup of M2E438 to M2EB59 with
0174 blocks. Now using TLSREP Pam and I obtained a listing
of the current cartridges in TLS. The only backup tapes
for Voyager 2 are M2EB58 and M2EB59. I am assuming that
you remove these tapes after they are made and place them
in storage.

When I ran ENCMRG and then looked at the LOG listing I found
that M2E437 was listing and then the next tape was M2E440.
M2E438 had vanished from the LOG. Pam said that the tapes
are linked and that it is still there with data on it.

So when I backup tape M2E440 to (I guess) M2EB60 tapes
M2E437, 438, and 439 will also be backed up. Correct?

Do I go to TLS and hang a new tape cartridge, label it as
M2EB60, and perform the backup?

What about removing tape cartridges?

Bryant

From katen@hansa.gsfc.nasa.gov Thu Aug 10 11:53:17 1995
Date: Thu, 10 Aug 1995 11:53:39 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Post production
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 6134

Hi,

Sorry for the dellay. Last minute meeting.

On Wed, 9 Aug 1995, Bryant Heikkila wrote:

> >1) Back up current LIBRARY tapes and ENCYCLOPEDIA tapes

> I edit the SB#VG.LIB.CLIST(BACKUPS) clist to include the
> encyclopedia tape but what do I use for the backup
> tape number?

You would use whatever tape is listed by info, till the source tape is full. This backup tape is already hanging in TLS. You can check by the TLS commands. Did I tell you about them?

No!

As you have guessed, lib tape 50 goes to backup tape lb50, etc. The logs indicate that M1E159 and M2E440 should be backed up onto the current encyclopedia backup tapes.

> By the way, for me to edit the backup record I have to enter
> the full command not just INFO (ex 'zmjok.lib.clist(info)'

OK

info is in 'sb#hp.lib.clist' You would just type info at the command line.

> >2) Update the standard 26-day averages...

> I will save this till later, unless it has to be done now.

1.

Your choice. I do it after a production run because when I send out the EOD notice, someone will think that means the 26-day data sets are up to date. They can't seem to understand that I'm only talking about the encyclopedia!

~~> >4) Add WORK and ENCYCLOPEDIA cartridges, as needed~~ ...

~~> To do this I use MCP 1,1,2,3,6,7 to remove and assign~~
~~> the WORK and ENCY. tapes. How do I know which tapes~~
~~> to remove and assign. I believe in order to assign tapes~~
~~> I need to first hang some new ones, right? Both Voy I&II~~
~~> need ENCY tapes since they are on the last available and~~
~~> VOY II needs work tapes.~~

~~You will find these things in the SUN voyager files 16,17,19,20,34,35.~~
~~When I remove work tapes, I execute a tlsrep job, like this.~~

~~COMMAND > tlsrep userid(sb#vg)~~

See Notes

This is pannel 6 on the IBM mainframe, (gibbs). The job will go to your hold queue. Go to the bottom of the file and then do a search for M1W back. Like this, (pannel 8.s.h):

```
COMMAND > find m1w prev
```

Page up, (F7), till you get to the top of the work tapes. They are listed in numerical order. Write down about 5 of the oldest tapes for Voyager-1. The do a search for M2W forward, like this, (still in pannel 8.s.h):

```
COMMAND > find m2w
```

Write down about 5 of these labels. Now, you have the WORK tapes you are going to remove. Make note of the slot numbers for each tape.

After you have removed them, do the assign for work tapes. Five each. The assign job will list out the new tape labels on your screen with the slot numbers assigned. Note this down on your list. Your list should look, roughly, like this:

obvious asks for 3 digit serial to be removed to end 1

Old label	Slot number	New label
M1W304	106336	M1W355
M1W305	106337	M1W356
.		
.		
.		
M2W129	106400	M2W200
M2W130	106401	M2W201

etc...

In my 'zmjok.lib.cntl' is a member called LABWRK. You can use this to assign the label jobs. VOL=New label and OLDVOL=Old label

When that's done, remove the encyclopedia tapes. This is a more advanced procedure. I usually remove 5 tapes from each space craft. It may not actually remove 5 because there isn't enough free cartridges. Just take what it gives ya! :)

Then assign the ency tapes. This will creat a data set called 'sb#vg.label.cntl'. It will have the label jobs set up for you. You will have to change the UNIT field to CART. At the panal 2 command line, you just type:

```
COMMAND > c '3270' 'cart' all
```

3480

I think the UNIT is set to 3270. Then delete the label jobs above the notifyts line. Move this line to the bottom of the data set. Make a list of the Old and New tape labels. Get the slot numbers for the old tape labels from your TLSREP listing in the hold queue. (panal 8.s.h) Make a list like the work tapes. Here's why.

Go over to the tape library window. Request the person at the window to bring you ALL the tapes in the slot numbers. Mark these as other in the IBM tape library book that Marty has on the counter.

When you get the tapes in your hand, make ONE line through the old label and write the new label on the tape. In the example above, M1W304 will be crossed out and M1W355 will be written on the face label. Make sure the white dot on the side of the tape ISN'T showing. This allows to cartridge to be written to. It's a thumb wheel, just role it so the dot isn't showing.

Do this for all the tapes in your list. Change all the old volume names on the face label to the New volume names. Give the prepaired tapes to the person at the window and ask them to hang them on the ready rack.

When you get back to the office, submit the label jobs. If all goes well, the tape cartridges should end up re-labelled with the NEW volume names. Rember the jobs to submit are the JCL in the member WRKLAB and 'sb#vg.label.cntl'.

LABLWRIC

To recap:

1. Creat a list of Old volume names, (labels), TLS slot numbers and New volume names, (labels).

2. Execute TLSREP to get a listing for the Voyager tapes in the tape library.

3. Pick about of the oldest WORK tapes for each space craft, (M1W??? and M2W???). Enter the Old volume names and slot numbers on your list.

4. Remove the targetted WORK tapes for each space craft.

5. Remove about 5 ENCYLOPEDIA tapes for each space craft. Note the Old volume label listed to the screen and the TLS slot number. (M1E??? and M2E??? and 106???)

6. Assign work tapes, (as many as you removed), for each space craft. Note what New volume label went to what slot number and write the New volume label on your list.

7. Assign encyclopedia tapes for each space craft.

8. Edit JCL for label jobs on the work tapes.

9. Edit JCL for label jobs on the encyclopedia tapes, noting what New volume label goes with what Old volume label.

10. Go to the tape library and change the face label from the old volume label to the corresponding new volume label. Make sure the tape is write enabled by turning the thumb wheel so the white dot doesn't show. (Don't forget to list the tapes you are dealing with in the tape librarians LOG book for the IBM as OTHER)

11. Submit the label jobs. Check ressults! :)

That be it! :)

John

From katen@hansa.gsfc.nasa.gov Thu Aug 10 12:32:00 1995
Date: Thu, 10 Aug 1995 12:32:22 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Yet another email
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 4367

On Thu, 10 Aug 1995, Bryant Heikkila wrote:

> I have obtained a copy of the V1BKINFO and V2BKINFO.
> Using Voyager 2 as an example I see that you made
> a backup of M2E437 to M2EB58 with 4188 blocks on 7/11/95.
> On 7/12/95 you made a backup of M2E438 to M2EB59 with
> 0174 blocks. Now using TLSREP Pam and I obtained a listing
> of the current cartridges in TLS. The only backup tapes
> for Voyager 2 are M2EB58 and M2EB59. I am assuming that
> you remove these tapes after they are made and place them
> in storage.

I just looked. The way I see it is as follows:

M1L050 ==> M1LB50
M1E159 ==> M1EB45
M2L074 ==> M2LB74
M2E440 ==> M2EB59

That should cover it! :) M2EB58 should, probably, be removed from TLS and placed in storage. Note that we keep backing up the CURRENT tape in use to the same backup tape, till the encyclopedia serial number no longer changes and the tape becomes a permanent fixture in the log. This is when you make a FINAL backup of that encyclopedia tape to the existing backup tape. Then you remove the encyclopedia backup tape and place it in storage. You hang a NEW encyclopedia tape in its place, with the NEXT consecutive backup serial number.
Don't forget to make the entries in the "info" data sets! :)

> > When I ran ENCMRG and
then looked at the LOG
listing I found > that M2E437 was listing and then the next tape was M2E440.
> M2E438 had vanished from the LOG. Pam said that the tapes
> are linked and that it is still there with data on it.

When encmrg is through with the tape, it un-assigns the tape from the log but doesn't REMOVE it! Removing a tape means to cancel it's entry in the log and un-assign it from TLS. It's best the human do that! ;)

> So when I backup tape M2E440 to (I guess) M2EB60 tapes
> M2E437, 438, and 439 will also be backed up. Correct?

No, one backup tape per LOG entry! Each encyclopedia tape you see should have an associated backup. We creat a backup of the newly gennerated encyclopedia tape to the CURRENT tape backup serial number,

(label, face label, volume serial number, volume, whatever they happen to be calling the darn thing now! :/) The volume label/serial number of the backup only changes when an encyclopedia serial number becomes permanent in the log. M2E437 is an example of this. It was backed up to M2EB58. Now, M2EB58 is ready to be removed from the tape library and placed in storage. M2EB59 will be the current encyclopedia backup tape till another encyclopedia serieal number becomes "fixed" in the log, as 437 did! Then, you will make a FINAL backup onto M2EB59 using the encyclopedia serial number and hang/label a new current backup tape, (M2EB60), in TLS.

> Do I go to TLS and hang a new tape cartridge, label it as
> M2EB60, and perform the backup?

Not yet. The serial numbers are still "rotating". Only when a serial number becomes "fixed" in the log do you do this. :)

> What about removing tape cartridges?

I pressume you mean M2EB58. You would use the tls command, TLSUPDTE. You need to make note of the tape slot location, and then go and get it from the tape library. Mark it as Remove in the IBM tape log that Marty has on the counter.

When you get back to the office, log into the IBM and profile to voyager like this, (panel 6):

```
COMMAND > profile prefix(sb#vg)
```

This is like the su command in unix. The system now thinks you are voyager! Then execute the command like this, (panal 6):

```
COMMAND > tlsupdte
```

This will put you into the tls tape tools, usually used by Marty and other tape librarians. You will then enter the command:

```
r vol=m2eb58
```

The computer will inform you that the tape has been removed. You then enter the end command, like this:

```
end
```

You should find yourself at the three star thing again, (***).
Hit enter to get back to the panal 6 command prompt. (You do know that you don't type the COMMAND > thing in my examples, don't you?) Just asking.

In panal 6 you will profile back to your user id, like this:

```
COMMAND > profile prefix(zmbyc)
```

(I'm not sure what your user id is.) Then do a freeall, just to be

sure you have set everything loose for the system.

If you are talking about removing the WORK and ENCYCLOPEDIA tapes, the software will do all this for you automatically! Aren't you glad of THAT!? ;)

LUNCH!!!!

~~10645~~
~~M2444~~

From katen@hansa.gsfc.nasa.gov Thu Aug 10 14:39:43 1995
Date: Thu, 10 Aug 1995 14:40:05 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Post production
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1309

Hello,

After you back up encyclopedia tape M1E157 to M1EB45, you should look up the tape slot number for M1EB45. Take a blank tape cartridge and put a face label on it with M1EB46 as it's label. Put the date for today in the lower right hand corner. This is simply the date you hang the tape in the tape library system. On the rear edge, you will put the white strip of paper for the slot number. Write the slot number for M1EB45 on it. Then take it over to the tape library and exchange M1EB46 for M1EB45.

When you get back to the office, you have to modify the TLS catalog with the TLSUPDTE command. From panal 6:

```
COMMAND > profile prefix(sb#vg)

COMMAND > tlsupdte
```

Now, you will use the modify command to replace M1EB35 with M1EB46.

```
m vol=m1eb45,newvol=m1eb46
```

The system should tell you that 46 has been assigned to slot number what_ever_it_is. You may end the session.

```
end
```

At the panal 6 prompt, profile back to your own user id. See is my 'zmjok.lib.cntl(lablab)' member has something in it. You will edit this so that the vol now equals M1EB46. There should be no oldvol statement in this, since we aren't re-labelling the tape.

When the label job has ended, check the ressults. If everything is OK, then you are ready to continue the backup process.

submit

John

From bryant Fri Aug 11 09:41:56 1995
Date: Fri, 11 Aug 1995 09:41:51 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: ENCY label
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 482

John,

The Encyclopedia label job keeps giving me a JCL error.

The output claims that the SYSIN DD statements are missing. Perhaps I am not executing the JCL correctly.

>From TSO panel 6 I have been typing:

ex 'sb#vg.label.cntl'

Do I need to follow that with arguments?

I am on my way up to 28 to exchange labels on the WORK tapes (I did the ENCY tapes late yesterday and would have done the WORK tapes as well except the ASSIGN failed due to an error on my part).

Bryant

From katen@hansa.gsfc.nasa.gov Fri Aug 11 10:41:36 1995
Date: Fri, 11 Aug 1995 10:42:04 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: ENCY label
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1005

On Fri, 11 Aug 1995, Bryant Heikkila wrote:

> The Encyclopedia label job keeps giving me a JCL error.

  Unfortunately, that's not unusual for this system. :\

> The output claims that the SYSIN DD statements are
> missing. Perhaps I am not executing the JCL correctly.

   I think I see the problem! ;)

> >From TSO panel 6 I have been typing:

> ex 'sb#vg.label.cntl'

> Do I need to follow that with arguments?

  One doesn't execute a JCL stream. One submits the job! Try this at the command line in panal 6:

COMMAND > sub 'sb#vg.label.cntl'

  That should get the job done! :)

> I am on my way up to 28 to exchange labels
on the WORK > tapes (I did the ENCY tapes late yesterday and would have
> done the WORK tapes as well except the ASSIGN failed due
> to an error on my part).

  No worries, mate! It'll get done. No one can expect you to walk in and just pick up the tools and start creating. (They can but it only gets them frustration!) You're doing fine, IMHO! :)

John

From bryant Fri Aug 11 12:13:51 1995
Date: Fri, 11 Aug 1995 12:13:48 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Analysis
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 2451

John,

The LABEL jobs completed without error.
I then made a backup of the LOG (FCATBACK)
I am now working on updating the standard 26-day averages data sets for Voyager. Can you clarify some of the inputs asked by the programs. I have included most of the essential questins?

In the ANALYSIS section of your MCP (option 3) you have 3 options that affect the Voyager data.

4 - Submit Monthy Flux Runs
5 - Submit/Print Monthly Spectrum Flux Runs
6 - Append 26 Day Average Plot Data Sets

Option 4 executs MONFLX which the notes say is the first step in the monthly analysis and that in this step the flux data sets are produced.

Is this where the data is extracted from the encyclopedia?

In the execution of MONFLX the following questions are asked:

  Retrieve required data sets? Y/N

  Submit all monthly flux jobs at class X? Y/N
  (where X is N,A,E,F and is entered in the MCP)

  Enter start date for runs.
  Format is YY/MM/DD

  Enter stop date for daily average runs.

  Enter stop date for 26-day average runs.

The MONFLX program then asks for which spacecraft or gives you the option to change run class. The program then goes and does its thing.

My primary question is: Is this the first program that I run and what should the above input dates be?
****

Option 5 (Submit/Print Monthly Spectrum Flux Runs) asks:

  Do you want to delete old data sets? Y/N

If YES then it executes 'SB#VG.LIB.CLIST(CLEAN)'

Is this something I want to do?

The program then asks:

  What series?

  Do Voyager Alpha/Proton Spectrum? Y/N

If YES then:

  If exclude times exist for the year you are working on
  then input a two digit year. If no exclude times then
  input a 00 now. ## ==>

The program then executes the related programs.

The rest of the questions asked by the program refer to
Pioneer which I am currently not doing.

When do I choose this option?

****
Option 6 (Append 26 Day Average Plot Data Sets) asks you:

  What year: YY?

  Do all data sets? Y/N
(If Y then the program executes several APPEND programs,
 If N then you get your choice of which spacecraft to APPEND.)

****

In the list of things that you normally do you said you to
Back up the catalog? Are you referring to the LOG or do I
make a backup of something else?

Bryant

From katen@hansa.gsfc.nasa.gov Fri Aug 11 14:45:10 1995
Date: Fri, 11 Aug 1995 14:45:39 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Analysis
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 3432

On Fri, 11 Aug 1995, Bryant Heikkila wrote:

> averages data sets for Voyager. Can you clarify
> some of the inputs asked by the programs. I have

A new can of worms! :)

> 4 - Submit Monthy Flux Runs
> 5 - Submit/Print Monthly Spectrum Flux Runs
> 6 - Append 26 Day Average Plot Data Sets
>
> Option 4 executs MONFLX which the notes say is the

For the 26-day work, this is what you want.

> Is this where the data is extracted from the encyclopedia?

Yes, it uses FLUXPLOT. A very nasty program! :\

> Retrieve required data sets? Y/N

I put it there becuase sometimes the needed data sets are roled out of the system. It isn't required, anymore.

> Submit all monthly flux jobs at class X? Y/N
> (where X is N,A,E,F and is entered in the MCP).

For JUST the 26-day things, answer N for no.

> Enter start date for runs.
> Format is YY/MM/DD

95/01/01 I always use all data for the current year.

> Enter stop date for daily average runs.

95/12/31 Not really rellivent for 26-day stuff. You could put foo-bar and it wouldn't care!

> Enter stop date for 26 day average runs.

95/12/31 for non leap year data. If 95 had been a leap year it would have been 95/12/30

> The MONFLX program then asks for which spacecraft or gives

> you the option to change run class. The program then
> goes and does its thing.

Change of run class is up to you. You will choose the Voyager space crafts and ONLY the 26-day stuff.

> My primary question is: Is this the first program that I
>   run

If you are just updating the 26-day stuff, yes. If you are doing an end of month thing, the exact sequence of analysis will be up to your own taste. :)

> and what should the above input
>   dates be?

The ones I listed above. :)

> Option 5 (Submit/Print Monthly Spectrum Flux Runs) asks:

This is only done for the monthly analysis. I should be there when you attempt it because it's rather involved. The Pioneer part is a pain! Just pick a date when you want to do it and I'll arrange to be on hand. Give me some notice, though, so I can assign some reading! :D

> Option 6 (Append 26 Day Average Plot Data Sets) asks you:

After the 26-day stuff is done, you would do this. Because pioneer is a pain, I usually check the data sets produced using INFO. We want only 1995 data in these data sets.

>   What year: YY?

95 is the current year.

>   Do all data sets? Y/N

After I have checked the data sets, I execute this. The answer would be Y for yes.

> **********

> In the list of things that you normally do you said you to
> Back up the catalog? Are you referring to the LOG or do I
> make a backup of something else?

I believe I was refering to the Pioneer catalogs, DRS and FLUX. It isn't necessary to back up the Voyager catalog that often.

You will be making 26-day average data sets for Voyager-1, Voyager-2, Pioneer-F and Imp-8. These are the "standard" 26-day things Dr. McDonald asks for. All the jobs to produce THESE data sets are built using MONFLX.

Of interrest to you will be the SUN files voyager29 and voyager30. Pioneer will also have information on 26-day averages.

Are things going to fast for you? I'm trying not to burden you with more than you feel you can handle at the moment. If you need more time, just let me now. If I'm unclear, ask! :)

John

Detailed append email.

From bryant Mon Aug 14 14:24:31 1995
Date: Mon, 14 Aug 1995 14:24:28 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Analysis/Production
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1587

John,

I submitted the monthly flux runs on Friday and checked the results. Nothing seems to have crashed. Two outputs for each spacecraft were produced which I printed out. One is called V-1 26-DAY and the other is for Oxygen 16.

I did not do the daily averages asked by the program.

When I append the 26 Day Average Plot Data Sets would I not say NO to "DO ALL DATA SETS?" since I have not processed any Pioneer or ISEE-3 data or is the program smart enough to avoid duplication. By saying NO I am asked which space craft I would like to do.

When I use INFO to check the data sets is this after I submit the APPEND job or before and what would I be looking for.

Within INFO one gets the following menus:

INFO

Would you like to Edit or Browse? E/B

TEXT FILE MENU

1. Voyager
2. Pioneer
3. 26 Day Averages Data Sets
4. Configuration Control Management

By choosing option 3 I get moved to the following menu:

MONTHLY 26 DAY AVERAGE DATA SETS

1. Voyager-1
2. Voyager-2
3. Pioneer-10
4. Imp-8
5. Append data sets
9. Return to Previous Menu
10. Quit

A choice of either 1 or 2 (I did not try any others) puts you into yet another menu of various particles and energies which I will not reproduce here.

Finally I have run the JPL script and retrieved day 206 from sonic. How far into production can I go without having the previous analysis finished without causing problems.

Also, any day of this week that you would want to come over would be OK with me. I could also come to you as well. What should I be reading to learn about the Monthly Spectrum Flux runs.

Bryant

From katen@hansa.gsfc.nasa.gov Mon Aug 14 14:49:47 1995
Date: Mon, 14 Aug 1995 14:50:32 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Analysis/Production
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1771

On Mon, 14 Aug 1995, Bryant Heikkila wrote:

> When I append the 26 Day Average Plot Data Sets would I not
> say NO to "DO ALL DATA SETS?" since I have not processed

  That is correct.

> When I use INFO to check the data sets is this after I submit
> the APPEND job or before and what would I be looking for.

  Use INFO after, for voyager. You can check the data sets to see if any voyager files didn't get data.

> Would you like to Edit or Browse? E/B

 B for brows

> MONTHLY 26 DAY AVERAGE DATA SETS
>
> 1. Voyager-1
> 2. Voyager-2
> 3. Pioneer-10
> 4. Imp-8
> 5. Append data sets
> 9. Return to Previous Menu
> 10. Quit
>
> A choice of either 1 or 2 (I did not try any others) puts
> you into yet another menu of various particles and energies
> which I will not reproduce here.

  That is correct. The very bottom menu options that pop up should be the latest files.

> Finally I have run the JPL script and retrieved day 206
> from sonic. How far into production can I go without
> having the previous analysis finished without causing
> problems.

   I'm not sure what you are asking. You may do any production that doesn't involve the encyclopedia, (ENCMRG), durring analysis. This means you should be able to do edrsave, encgen.

> Also, any day of this week that you would want to come
> over would be OK with me. I could also come to you as

> well. What should I be reading to learn about the
> Monthly Spectrum Flux runs.

The pioneer guide, (with the blue plastic wring guides), the files Voyager29 and Voyager30 on the Sun. Also consult /home/voy386/cosmicra/pioneer/manual files pioneer11 and pioneer12. I think those are the ones that deal with Pioneer analysis.

I'll check and see what day I'm free and contact you.

John

From bryant Mon Aug 14 17:02:07 1995
Date: Mon, 14 Aug 1995 17:02:05 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: APPEND
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1166

John,

How your Monday been treating you?

One more question regarding APPEND. After selection of option 6 (Append 26 day ....) I answered 95 to the year question and then N (for NO) to the question Do you want to do all data sets. The program then asked which spacecraft. I selected Voy 1 and subsequently Voy 2. For each space craft several data sets were recalled and then a menu appeared listing 9 different energies and/or particles. I selected each in turn. All of the Voyager 2 appends completed without error, however, two of the Voyager 1 appends returned a RC=0005 error but the program continued to run. After finishing with this step, I invoked INFO and looked in turn at each data set. All of the Voyager 2 data sets were updated except the 10-25 MeV Alpha. This energy for alpha is not included in the MOVFLX output I have so I assume that this energy is not being used anymore.

For Voyager 1, the 30-69 MEV Alpha was not updated but it is in the MOVFLX output; and the High Energy Proton was not updated and also is in the MOVFLX output.

Finally, both of the appends that "failed" with RC=0005 were appended with the correct value.

Bryant

From katen@hansa.gsfc.nasa.gov Tue Aug 15 09:08:15 1995
Date: Tue, 15 Aug 1995 09:09:00 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: APPEND
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1221

On Mon, 14 Aug 1995, Bryant Heikkila wrote:

> How your Monday been treating you?

Horrible! Forgot my book of login/passwords.

> Voyager 2 data sets were updated except the 10-25 MeV Alpha.

Why did this happen? Did you check the 10-25 MeV Alpha data set that was gennerated for Voyager-2?

> This energy for alpha is not included in the MOVFLX output
> I have so I assume that this energy is not being used
> anymore.

You could be right. Check in the data sets that the Flux program created in your run.

> For Voyager 1, the 30-69 MEV Alpha was not updated but it is
> in the MOVFLX output; and the High Energy Proton was not
> updated and also is in the MOVFLX output.

Most likely, the failure was due to a system error. Edit the data sets by hand. Simply copy the data set the Flux job created to the end of the lifetime data set. Then delete the old year. Save the data set.

> Finally, both of the appends that "failed" with RC=0005
> were appended with the correct value.

Check the data sets the Flux job created. Are the two header lines missing? If so, it was a system error and can be ignored. If the header lines are still there, the files should be manually copied.

John

From bryant Tue Aug 15 12:13:21 1995
Date: Tue, 15 Aug 1995 12:13:19 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: MOVFLX files
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1119

John,

A few questions regarding the "files" generated by MOVFLX.

You wrote:

>Why did this happen? Did you check the 10-25 MeV Alpha data >set that was gennerat

>You could be right. Check in the data sets that the Flux
>program created in your run.

Which data files are these. I have the output from the MOVFLX
program and the lifetime data sets accessed by INFO but
I am not familar yet with these other files.

> Most likely, the failure was due to a system error. Edit
>the data sets by hand. Simply copy the data set the Flux
>job created to the end of the lifetime data set. Then
>delete the old year. Save the data set.

Can you draw a picture here? :)

> Check the data sets the Flux job created. Are the two
>header lines missing? If so, it was a system error and can
>ignored. If the header lines are still there, the files
>should be manually copied.

Again, not sure about the files generated? Probably a simple
matter. I looked in the manual but did not see any
reference to these files. Perhaps I did not look close
enough.

Bryant

----- End Included Message -----

From katen@hansa.gsfc.nasa.gov Tue Aug 15 13:17:32 1995
Date: Tue, 15 Aug 1995 13:18:23 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: MOVFLX files
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2028

On Tue, 15 Aug 1995, Bryant Heikkila wrote:

> Which data files are these. I have the output from the MOVFLX
> program and the lifetime data sets accessed by INFO but
> I am not familar yet with these other files.

Invoke the CLIST INFO options 3.5.1 or 2 to view the files I'm talking about. I have the monthly Flux runs set up to produce flux data sets. These data sets are what are appended to the life time 26-day average data sets. You will see the name of the data set members and the partitioned data set they are located in.
Make note of the full data set names of those that didn't get appended to the life time data sets. You will have to do it by hand or run the appends in manual mode, (the way you did the job in the first place, except, you will just do the append for the data sets that didn't get done.)

> Can you draw a picture here? :)

SB#HP.ALL26DAY.DATA

No, I don't think so. You would access the life time data set from panal 2. Go to the very bottom of the data set. Put an A in the left hand col. next to the last line. Move the cursor up to the COMMAND line and type COPY in.
The panal will then switch to the copy panal. Put the full data set name in the right place to copy FROM. This is the Flux run data set. When panal 2 comes back, you will see the two line header and new data below it. Find the start of the year above the two line header.
In the left hand col. put DD Move the cursor down to the second line in the header and put dd in the left hand col. Hit enter and the old data and headers should be gone. Move back up to the COMMAND line and end. That's about it. OR, you could run the append again and only do the job for the data sets you missed. If the append fails again, you will have to do it by hand. I would opt for running the append again and do it for the single data sets.

> reference to these files. Perhaps I did not look close
> enough.

I'm pretty sure if refferenced them. Use info with the options I gave above and take a look.

John

From bryant Thu Aug 17 12:36:32 1995
Date: Thu, 17 Aug 1995 12:36:30 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer Tapes
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 3921

John,

How are things with you today? I am a bit confused
about the PHA/RATES/FLUX removal, and re-assignment.

A PHA/RATE tape listing I made before I started the
Pioneer production shows the following:

****

LISTING OF PIONEER F TAPE CATALOG NUMBER 4

	TOTAL GOOD	TOTAL BLANK	FIRST TAPE IN BLOCK	LAST TAPE IN BLOCK
PHA TAPES:	37	10	E00401	E00450
RATES TAPES:	41	6	E00300	E00349

CATALOG TAPE CONTENTS	PRIMARY TAPE	BACKUP TAPE	FILE LOCATION
BACKUP TAPE CATALOG FROM DISK	E00497	E00498	1
FILE/LOGISTICS/HISTORY CATALOG	E00497	E00498	2
COMMAND CATALOG	E00497	E00498	3
ATTITUDE CATALOG	E00497	E00498	4

The blank PHA tapes indicated are E00444, E00450, E00403, E00407, E00408,
E00415, E00420, E00425, E00429, E00418.

The blank RATES tapes are: E00319, E00327, E00344, E00345, E00349, E00348.
****

The last "current" PHA tape is E00438
The last "current" RATES tape is E00302

A PHA tape listing I made after I finished the
Pioneer production shows the following:

****

LISTING OF PIONEER F TAPE CATALOG NUMBER 4

	TOTAL GOOD	TOTAL BLANK	FIRST TAPE IN BLOCK	LAST TAPE IN BLOCK

PHA TAPES:	37	9	E00401	E00450
RATES TAPES:	41	5	E00300	E00349

CATALOG TAPE CONTENTS	PRIMARY TAPE	BACKUP TAPE	FILE LOCATION
BACKUP TAPE CATALOG FROM DISK	E00499	E00500	1
FILE/LOGISTICS/HISTORY CATALOG	E00499	E00500	2
COMMAND CATALOG	E00499	E00500	3
ATTITUDE CATALOG	E00499	E00500	4

The blank PHA tapes indicated are E00450, E00403, E00407, E00408, E00415, E00420, E00425, E00429, E00418.

The blank RATES tapes are: E00327, E00344, E00345, E00349, E00348.

****

The last "current" PHA tape is E00444
The last "current" RATES tape is E00319

The notes say that the PHA and RATE tape cartridges are used and removed automatically by the PIODRP program. For this run the PHA tape E00438 and the RATE tape E00302 looks like they were "removed". The PIODRP output says that these tapes were "copied".

Are these tapes available now for re-assignment?

I see why the "total blank" tapes in the above listings change but why does the "Total Good" tapes remain the same?

Why is the "Primary Tape" different from the current tape?

The notes say that "The listing will tell the user what PHA and RATE tapes are currently available for use and what tapes are currently in use. The tapes not listed are available for re-assignment to the system."

Can you interpret this in terms of the above "listings"?

I understand how to make the re-assignments.

For the backups of the Flux catalog the notes say to do this after FLUXDBG has completed (It has) and a flux tape has been re-assigned to the catalog. Can you clarify?

I think I understand the actual tape backups part so I will stop for now.

Bryant

From katen@hansa.gsfc.nasa.gov Thu Aug 17 14:10:24 1995
Date: Thu, 17 Aug 1995 14:11:30 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Tapes
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1681

On Thu, 17 Aug 1995, Bryant Heikkila wrote:

> automatically by the PIODRP program. For this run the PHA tape E00438 and
> the RATE tape E00302 looks like they were "removed". The PIODRP output says

> Are these tapes available now for re-assignment?

  Yes, they are.

> I see why the "total blank" tapes in the above listings
> change but why does the "Total Good" tapes remain the same?

  You will notice that you have 37 PHA tapes in use, (listed as catalog members), and 41 RATE tapes in use.

> Why is the "Primary Tape" different from the current tape?

  Isn't Primary tape the previouse current tape? No

> The notes say that "The listing will tell the user what
> PHA and RATE tapes are currently available for use and
> what tapes are currently in use. The tapes not listed
> are available for re-assignment to the system."

> Can you interpret this in terms of the above "listings"?

  Blank tapes and currently listed tapes can not be re-assigned. Those tapes in the range of tapes not listed as one of these are available for re-assignment. Don't do
  Tapes in the Blank Tapes list are available for use by the software. Tapes listed in the current PHA/RATE tapes listing are currently in use.

> For the backups of the Flux catalog the notes say to do
> this after FLUXDBG has completed (It has) and a flux tape
> has been re-assigned to the catalog. Can you clarify?

  I don't think so. :) Re-assign the old flux tape for use. Then do the catalog backup.

> I think I understand the actual tape backups part so I will
> stop for now.

  If production for Pioneer-F is finished, I would like to come over tomorrow and start the spectrum stuff. Ready?

From bryant Tue Aug 15 17:24:11 1995
Date: Tue, 15 Aug 1995 17:24:09 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Update
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 529

John,

Just thought I would let you know what is happening here.

I edited the life time data sets and copied the relevant data to them from the files generated by MOVFLX.

I have continued production the JD 206 Voyager I & II files and I have finished with the Editscan. I will be examing the output soon.

Pioneer 10 data has arrived at Ames and a lot of it (7 days).

I guess I need to finish up the analysis of the previous Voyager data, finish the current production run, and then concentrate on the Pioneer data.

Bryant

From katen@hansa.gsfc.nasa.gov Wed Aug 16 10:25:13 1995
Date: Wed, 16 Aug 1995 10:26:07 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Update
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 461

On Tue, 15 Aug 1995, Bryant Heikkila wrote:

> Pioneer 10 data has arrived at Ames and a lot of it (7 days).

> I guess I need to finish up the analysis of the previous
> Voyager data, finish the current production run, and then
> concentrate on the Pioneer data.

Sounds like a plan to me. We will put off the spectrum thing till after you have finished the Pioneer-10 and Voyager production.

By the way, has MY time sheet shown up over there?

John

From bryant Wed Aug 16 10:34:22 1995
Date: Wed, 16 Aug 1995 10:34:20 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Update
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 568

John,

No, your time sheet did not come here. It looks like
you get to work for free.

As far as the Voyager analysis concerning the 26 day data,
what is left?

  Do I need to plot the flux data using MONPLT2 or ACE?

  What about the daily averages?

I have the Voyager production for JD 206 completed through
the Editscan step. The steps remaining are ENCGEN and
ENCMRG plus futher analysis. Do I need to hold this
production till we finish the spectrum analysis?

I am working on Pioneer production now. There will most
likely be questions later.

Bryant

From katen@hansa.gsfc.nasa.gov Wed Aug 16 10:44:16 1995
Date: Wed, 16 Aug 1995 10:45:13 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Update
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 666

On Wed, 16 Aug 1995, Bryant Heikkila wrote:

> No, your time sheet did not come here. It looks like
> you get to work for free.

  Not even for charity!

> As far as the Voyager analysis concerning the 26 day data,
> what is left?

  Finish the new data production.

>   Do I need to plot the flux data using MONPLT2 or ACE?
>   What about the daily averages?

  No and ignore them for now.

> ENCMRG plus futher analysis. Do I need to hold this
> production till we finish the spectrum analysis?

  Nope, finish it.

> I am working on Pioneer production now. There will most
> likely be questions later.

  After I get my time sheet. ON strike! :)

John

From bryant Wed Aug 16 15:21:53 1995
Date: Wed, 16 Aug 1995 15:21:53 -0400
From: Bryant Heikkila <bryant>
To: bryant@voypio.gsfc.nasa.gov, katen@hansa.gsfc.nasa.gov
Content-Length: 2836

John,

Hopefully you have received your time sheet since I have some questions. I have a print out of the DRS Catalog (PHA and RATES) and the Flux Summary Catalog. I have a few questions about these catalogs, primarily the Flux Summary Catalog, but first let me go over what I think I need to do in terms of the Pioneer production.

1. Check for data at AMES. I have and there is.

2. Retrieve data from AMES and place on the IBM. To do this I use the MCP clist 6.7 which asks for the beginning and edding JD and executes a FTP.

3. Make EDR's ($$MKEDR). I use MCP 1.2.4 to edit this member and submit the job.

   → output to hold que

   ZMBCHMK

   The last tape name you use was E02109 so I should use E02110 (these are the 9 track tapes, correct?) Next time I would use E02101.

   Since there are 7 days worth of data I only need to use one tape (E02110). Is it possible to get a listing of these tapes? The catalogs do not show them.

   Next, change the EXEC lines after //PEND to reflect the current data JD. Remember to increment the tape file number in the correct fashion.

   Finally, change the EOV line at the bottom to reflect the correct tape file number. Since I have seven days I believe this will be 36.

   Have I left anything out?

4. Assign the tape to the production system.

   I use MCP 1.2.1 to do this which places me in an edit window with the DATAF member. I just change the DTSLOT name from 'E02109' to 'E02110' correct? Then I END the edit.

5. Next I submit a PIODRP run using MCP 2.1 after checking that two PHA and two RATE tapes are available in the DRS catalog. The beginning of the DRS catalog listing shows that 10 PHA tapes

and 6 RATES tapes are available. According to the notes I can change the run class after submitting the PIODRP job. Correct?

6. I then check the output looking for bad things before submitting a FLUXDBG job.

7. Submit a FLUXDBG job. To do this I use MCP 2.2 after making sure at least two flux tapes are present. The flux summary catalog shows that 3 blank tapes are present: PENC17, PENC19, and PENC20.

8. Finally, I back up the FLUX catalogs using the MCP. 4.3

If I have left anything out please let me know.

I think I understand the assigning and re-assigning tapes part. What I am not sure about is in the FLUX catalogs listing. The listing shows an EDR section, a 6250 section, a ENC section, and a PENC section. The EDR section has tape labels in the 500's, ie. E00503 for most of the entrees but then switches to PF005XX for the last few lines. The last entree is also dated 11-24-87. Is this section not used anymore. Likewise the 6250 section stops on 11-24-87. The ENC section only has one entry on 1-11-74. It seems that the only up to date section is the PENC one. Do I ignore the others?

Bryant

Hold gene
ZMBCHPF1

JOBNAME
ZMBCHFFF

Flux summary catalog.

1. Make listing of available tapes MCP.
2. Reassign PENC18 Flux tape
3. Back up flux catalog. MCP. 4.3

9. Tape backup.

From katen@hansa.gsfc.nasa.gov Wed Aug 16 16:16:37 1995
Date: Wed, 16 Aug 1995 16:17:36 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: your mail
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2402

On Wed, 16 Aug 1995, Bryant Heikkila wrote:

> Hopefully you have received your time sheet since
> I have some questions. I have a print out of the

Time sheet arrived, not on time.

> the Pioneer production.

> 3. Make EDR's ($$MKEDR). I use MCP 1.2.4 to edit
>   this member and submit the job.

>   The last tape name you use was E02109 so I should
>   use E02110 (these are the 9 track tapes, correct?)
>   Next time I would use E02101.

Correct!

>   to use one tape (E02110). Is it possible to get
>   a listing of these tapes? The catalogs do not

Not that I know of. The catalogs list only tapes relevant to the tape data base.

>   Next, change the EXEC lines after //PEND to
>   reflect the current data JD. Remember to
>   increment the tape file number in the correct
>   fashion.

Also remember that the next set of 4 files starts at the last file number plus 1. Look at each line of file assignments and you will see that the first entry file number is the last one from the line above plus 1.

>   Finally, change the EOV line at the bottom to
>   reflect the correct tape file number. Since
>   I have seven days I believe this will be 36.

I can't say for sure but I think you are correct. Figuring 5 file numbers per line, 36 would be correct.

>   Have I left anything out?

I don't recall anything.

> 5. Next I submit a PIODRP run using MCP 2.1 after

> the notes I can change the run class after submitting
> the PIODRP job. Correct?

I think you can change the run class after EXECUTING the Piodrp CLIST. Once a JCL stream has been submitted, it's to late. You would have to cancil the job in Panal 8.s.i

> 8. Finally, I back up the FLUX catalogs using the MCP.

I usually re-assign the flux tape before this but it's a matter of choice.

> If I have left anything out please let me know.

Not that I recall.

> listing. The listing shows an EDR section, a 6250 section,
.
.
> It seems that the only up to date section is the PENC one.
> Do I ignore the others?

Pioneer has several Flux data bases associated. For Pioneer-F, the rellivant ones are the PENC and 6250. For Pioneer-F data base production, the PENC is the only data base of rellivance. The 6250 data base has early data in it.
The other data bases are close encounters of the planet kind, etc...

Ignore them, in this instance.

John

From bryant Mon Aug 21 14:01:22 1995
Date: Mon, 21 Aug 1995 14:01:20 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: 26 day plots
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 329

Hi John,

Hope your weekend went well. Pam came in today
and said she needs the rest of the analysis plots today
to send to Dr. McDonald. Kinda caught me by surprise.
I still need to perform the 26 day analysis of Pioneer
data and plot both it and the 26 day analysis data from
the Voyager analysis. Any suggestions?

Bryant

From katen@hansa.gsfc.nasa.gov Mon Aug 21 14:43:08 1995
Date: Mon, 21 Aug 1995 14:44:36 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: 26 day plots
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1389

On Mon, 21 Aug 1995, Bryant Heikkila wrote:

> Hope your weekend went well.

Was sick for most of it. That's my usual weekend, though. :(

> Pam came in today
> and said she needs the rest of the analysis plots today
> to send to Dr. McDonald. Kinda caught me by surprise.

I sounds like she came in with a bad mood! Even I can't do the monthly annalysis in one evening!! The only thing to do is submit all the monthly analysis and let it finish. You already have the 26-day averages and spectrum data done. The reason I said do all of the monthly stuff, (except the spectrum), is to get the listings. When this is done, then do each of the Pioneer section. Once that is done, we can move everything over to the Sun. Then it can be printed and plotted. Pam will be upset because the print/plot jobs will hog the printer for the rest of the night.

She should have given more notice than this! I have shells to do the plot/print stuff. Otherwise, she will just have to send whatever without you. I think you should take this up with Nitya. She will make you look bad if Nitya doesn't know she just walked in and dumped this on you. Just point out to him that she came in today, (I pressume you mean Monday evening), and made this pronouncement. You aren't doing this to make trouble for anyone, just to protect yourself. Send it in the mail.

John

From bryant Mon Aug 21 14:55:28 1995
Date: Mon, 21 Aug 1995 14:55:26 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: 26 day plots
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 271

John,

Me again. I started working on the Pioneer 26 day averages and 5 day moving average stuff before your email so I am going to finish it. Pam decided she was going to make plots for Voyager. This is a bit anoying since I need to learn how this is done.

Bryant

From katen@hansa.gsfc.nasa.gov Mon Aug 21 15:02:16 1995
Date: Mon, 21 Aug 1995 15:03:44 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: 26 day plots
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 864

On Mon, 21 Aug 1995, Bryant Heikkila wrote:

> going to finish it. Pam decided she was going to make plots
> for Voyager. This is a bit anoying since I need to learn how
> this is done.

Pam can be a bit frustrating at times. Try to be patient with her, she's been kicked around by life a bit more than we usually experience. Don't worry about learning to plot this stuff, there will be time. As I said, just make sure Nitya knows what happenned. This is for your protection as much as for keeping him informed on what's going on.

What does she mean by making plots for Voyager? The monthly stuff or is she working on one of her requests? If she means the monthly stuff, she will still need the daily flux averages run. If she is working on her own requests, then she will have to do without the Monthly stuff. It's that simple! :)

John

From bryant Mon Aug 21 15:38:09 1995
Date: Mon, 21 Aug 1995 15:38:07 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer/INFO
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 228

John,

After I submit the 26 day averages I use INFO to examine the output files. These files contain data from the 1972 up to the present. Do I edit out all of this data except for the 1995 stuff before Appending it.

Bryant

From katen@hansa.gsfc.nasa.gov Mon Aug 21 16:02:54 1995
Date: Mon, 21 Aug 1995 16:04:22 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer/INFO
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1168

On Mon, 21 Aug 1995, Bryant Heikkila wrote:

> After I submit the 26 day averages I use INFO to examine
> the output files. These files contain data from the
> 1972 up to the present. Do I edit out all of this data
> except for the 1995 stuff before Appending it.

Your getting a bit rattled. Take a deep breath. You're looking at the life time 26-day averages. Not the data sets that are to be appended TO them. Those data sets are probably located in 'sb#vg.mcdonald.monthly.data', though I'm not sure.

Try INFO options 3, 5,3,1-9! I've noticed that the life time data sets are up to 7/28/95. The append data sets are empty. Did you submit the monthly jobs, (MCP option 4)? Or, are we talking about MCP options 3, 1-3? If this is the case, just run them and you are through. At least as far as I can remember. :) Once they have run, you should be ready to use MCP options 5, 3. If this runs, then the routine to get the data to the SUN is in the cosmicra/monthly/bin/plot shell. It has a menue also, but you will have to edit it and getdata so that you will have permission to use it. Like you have done with my other shells.

John

From bryant Mon Aug 21 16:05:18 1995
Date: Mon, 21 Aug 1995 16:05:16 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Pioneer/INFO
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 81

Thanks, I sorta figured out what to do based on what I did
with Voyager.

bh

From bryant Tue Aug 22 10:27:51 1995
Date: Tue, 22 Aug 1995 10:27:49 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Nightmare
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 917

Hello,

Yesterday afternoon was pretty much a nightmare. Things were going fine untill I started running the append job for Pioneer. Basically it crashed and deleted all of the 95 data in the life time lists. Pam was attempting to access the same pioneer files because she misentered a command on the voyager fluxplot run. She claims the error was a result of the clist STABPF being changed inadvertently by you. Anyway this is the past. Pam, I guess, fixed everything after I went home and made the listings, data plots, basically everything.

She left me instructions to produce the v1tweny.six.txt and v2tweny.six.txt files on the IBM and to print them out on the SUN. She did not leave instructions on how to do this. I have examined the getdata clist you have on the SUN but these files donot yet exist on the IBM. I guess I need to know how to produce them (v1tweny..., v2tweny...) on the IBM.

Bryant

From katen@hansa.gsfc.nasa.gov Tue Aug 22 10:37:38 1995
Date: Tue, 22 Aug 1995 10:39:09 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Nightmare
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 428

Hello,

This sounds typical! :/ All the things I have written are meant to work together. Pam is trying to do it piece meel, so things don't quite go the way planned.

To make the listings, submit the monthly 26-day average flux runs for Voyager-1, -2. They will produce the listings. THEN use the getdata. That will fetch the listings from the IBM. :) The listings will end up in ~cosmicra/monthly/data.

John

From katen@hansa.gsfc.nasa.gov Wed Aug 23 15:10:30 1995
Date: Wed, 23 Aug 1995 15:12:11 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: MOVING DATA TO THE SUN
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1194

On Wed, 23 Aug 1995, Bryant Heikkila wrote:

> I was looking over and writing notes on moving data sets
> from the IBM to the SUN when I noticed that your MCP clist
> has an option (MOVE PLOT DATA TO SUN) that does not seem

This option is ill named. I don't know if I actually have anything on the IBM to move the monthly data sets over to the sun. It is used by me to prepair the plot data sets for ACE and collect as much as possible in one place. In the data set 'zmjok.lib.sun.clist' is the work I was doing from the IBM side of things.

> to be used anymore. This option (MCP 5.3) converts data
> and places it in SB#HP.LIB.SUN.DATA. The GETDATA program
> however, accesses the SB#VG and SB#PR files. It this
> correct?

If you mean the getdata shell on the SUN, no it isn't. At the bottom you will see that it accesses 'sb#hp.lib.sun.data(*)' and fetches each member found in it. It's set up to use the member names as local names in ~cosmicra/monthly/data in lower case print.

To recap: I use MCP on the IBM to prepair the data and getdata on the SUN to fetch the data. The shell, plot, on the SUN gives you the option to use getdata as a subroutine.

John

From bryant Fri Aug 25 12:21:05 1995
Date: Fri, 25 Aug 1995 12:21:03 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer Backups
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 2612

Hi John,

How is your Friday treating you?

I have a few questions in regard to tape backups for Pioneer production. I want to make sure I am not doing something wrong or overlooking something I should be doing.

PHA and RATE tape cartridges:

The output generated after PIODRIP runs successfully lists the DATA REDUCTION SYSTEM STATUS REPORT FOR PIONEER F GSFC/CRT EXPERIMENT. In this listing it shows the total number of tapes and the total number of blank tapes and so on.

It then lists the

PHA TAPES CREATED THIS RUN E00450 for example,

PHA TAPES COPIED THIS RUN E00444

RATES TAPES CREATED THIS RUN E00327

RATES TAPES COPIED THIS RUN E00319

Now when I make a backup of the PHA/RATES tapes I backup the newly created tapes correct? (ie. E00450 & E00327).

The notes say that the PHA, RATE, or FLUX tape should be backed up to the current back up tape cartridge till the source tape itself is full. The full status is indicated when the production system no longer removes the PHA, RATE, or FLUX tape from the listing. When the source tape is full a final backup should be made to th current back up tape cartridge. After this point, the next available back up tape cartridge should be used to back up the job products.

My main question about the PHA/RATE tapes is:

If the production system uses a new tape every time how do you know when when the backup tape is full? If I were to continue doing things as I am then I would be forever backing the CREATED tapes up to the same backup tape. ???

FLUX tapes:

For the flux tapes there seems to be only 4 "working" PENC tapes. Let me explain what I mean by this: At the beginning of the current Pioneer production a flux catalog listing showed that there were 3 blank tapes in the array:

PENC19, PENC20, PENC18, in that order.

The last tape shown in the listing is PENC17 with 3814 blocks. After I ran FLUX DBG the last tape shown in the listing for the PENC source is tape PENC19 which was the next available tape. The FLUX DBG listing also said that tape PENC17 was free at the end of this job. I have since re-assigned PENC17sso that the free tapes understand this part of things.

Now when I do a flux tape back up I would back up PENC19 to the current backup tape found using INFO. These backup tapes are by the way PENB17, E00488 for PHA, and E00391 for the RATES tapes.

My question is:

When will I start using a new backup tape? (ie. When will a new line appear in the flux catalog PENC listing?)

I think I am on the verge of grasping all this but probably need a push.

Bryant

From katen@hansa.gsfc.nasa.gov Fri Aug 25 13:51:32 1995
Date: Fri, 25 Aug 1995 13:53:24 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Backups
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1715

hello,

On Fri, 25 Aug 1995, Bryant Heikkila wrote:

> How is your Friday treating you?

  It would be better if I spent it at home. The weather is to good to spend it inside like this! :)

> PHA and RATE tape cartridges:

> It then lists the
>
> PHA TAPES CREATED THIS RUN   E00450 for example,
>
> PHA TAPES COPIED THIS RUN   E00444
>
> RATES TAPES CREATED THIS RUN E00327
>
> RATES TAPES COPIED THIS RUN E00319
>
> Now when I make a backup of the PHA/RATES tapes I backup
> the newly created tapes correct? (ie. E00450 & E00327).

  That is correct.

> My main question about the PHA/RATE tapes is:

> If the production system uses a new tape every time how do
> you know when when the backup tape is full? If I were to

  Let's say that E000450 becomes full. At the end of the run, tape used may list, say E000451. Tapes removed will have nothing in it. The actual tape data base list will still have E000450 listed as one of the tapes in use.

> FLUX tapes:

> My question is:

> When will I start using a new backup tape? (ie. When will
> a new line appear in the flux catalog PENC listing?)

  When the "system" no longer removes the tape volume name from the tape data base listing. You are dealing with 3 classes of tapes.
1. Free tapes - those that are available to the system for writing to.

2. Released tapes - those the system copied from.
3. Data base tapes - those that contain the data files and are listed in the catalog section. Most of these tapes are "permenant". The last volume name is usually what's changed from production job to production job.

> I think I am on the verge of grasping all this but probably
> need a push.

  Considder yourself pushed! ;)

John

From bryant Fri Aug 25 13:55:12 1995
Date: Fri, 25 Aug 1995 13:55:09 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Blocks
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 194

Hello,

Me again. One final question. When I update the INFO page for the PHA and RATES tapes where do I find the number of blocks? The PIODRP output lists the number of feet used.

Bryant

From katen@hansa.gsfc.nasa.gov Fri Aug 25 15:08:50 1995
Date: Fri, 25 Aug 1995 15:10:43 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Blocks
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 320

On Fri, 25 Aug 1995, Bryant Heikkila wrote:

> Me again. One final question. When I update the INFO
> page for the PHA and RATES tapes where do I find the
> number of blocks? The PIODRP output lists the number of

  The listing provided by the backup job itself will have the total number of blocks copied.

John

From bryant Wed Sep 6 10:39:43 1995
Date: Wed, 6 Sep 1995 10:39:41 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Editscan
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 2135

Hi John,

How did your Holiday weekend go?

I think I might be missing something when it comes to checking the results of editscan. I understand what to look for within the RN2 files but I may not be interpreting them right since I have OK'd all of the Voyager files that I have processed so far (~6 EDR files for each spacecraft). In looking back on some of your work you had a higher frequency of editing. Following this email, I will send you two files from my most recent edit scan. These files have been highly truncated to reflect only the data and the surrounding data which have been flagged.

It seems to me that one of the most common flags (**) occurs for those data in which the one way light time (OWLT) is a little over a second longer than the program thinks it should be. Consequently the program "corrects" the space craft event times (SCET) by a little over a second. I have been letting these go by as OK even though there may be many of them in a row. The way I see it is if the new SCET time is sequential then the data is OK. Is this right?

Perhaps if you have some time you could look over the files I am sending you. In V1RN2.OUTLIST the 4th starred line has a SCET of 5435 2382 380 95 which is not correct. The program corrects this to 5608 1662 337 95 which is OK except that the following record (5608 1662 315 95) will be skipped. I think the program calls it overlapping data. There are a couple of other occurences of this in the same section.

What should be edited out? I would first tend to remove the starred SDR that was corrected to 5608 1662 337 95 and the starred SDR that was corrected to 5608 1758 337 95. Is this right?

If so I will read up on the editing procedure. More importantly, how big of a problem will it create if I have let similar occurences go by. I would assume that the overlapping data is thrown out and only a few such "missing" data segements would not affect the total data set very much. Obviously if a large section of data was overlapping then a problem would occur.

I would say the Voyager-2 file is OK (v2rn2.outlist).

Help if you can,

Bryant

From katen@hansa.gsfc.nasa.gov Wed Sep 6 12:45:39 1995
Date: Wed, 6 Sep 1995 12:42:59 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Editscan
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 3579

On Wed, 6 Sep 1995, Bryant Heikkila wrote:

> How did your Holiday weekend go?

Much to fast! But I enjoyed it more than any other I can remember. :)

> I think I might be missing something when it comes to checking
> the results of editscan. I understand what to look for within
> the RN2 files but I may not be interpreting them right since

Basically, I look at the surrounding records that are OK. If the hour and year of the Earth Recieve Time and Spacecraft Send Time are the same I usually consider the record good. My general rule of thumb is to allow for plus or minus a half hour of the One Way Light Time for that day.
The most important record is the first one. If this is bad, it can throw off all the following calculations! That's when it's a good idea to check with Pam about it, or Nand if you can get him. ENCGEN tends to correct or discard data depending on WHEN the first record begins.

> I have OK'd all of the Voyager files that I have processed
> so far (~6 EDR files for each spacecraft). In looking back
> on some of your work you had a higher frequency of editing.

Most of the EDR files that come to you should be OK. The spacecraft are no longer close to the sun or planets. The only problems should be found in recieving data, due to solar activity. (In theory!)

> It seems to me that one of the most common flags (**) occurs
> for those data in which the one way light time (OWLT) is
> a little over a second longer than the program thinks it
> should be. Consequently the program "corrects" the space

This is correct. No reason to throw the data out, though. :)

> of them in a row. The way I see it is if the new SCET time
> is sequential then the data is OK. Is this right?

That and the line counts should be consistant. Those are the numbers that appear on the far left. It sounds right to me.

> has a SCET of 5435 2382 380 95 which is not correct.
> The program corrects this to 5608 1662 337 95 which is OK
> except that the following record (5608 1662 315 95) will
> be skipped. I think the program calls it overlapping data.

It would be better to ask Dr. Lal. I would tend to let the program correct the problem and determine what data is most robust.

> What should be edited out? I would first tend to remove the
> starred SDR that was corrected to 5608 1662 337 95 and the
> starred SDR that was corrected to 5608 1758 337 95. Is this
> right?

Yes, if you must edit. It's best to edit those records that indicate a possible transmission problem. The data could be corupted but you can't be sure of it.

> If so I will read up on the editing procedure. More
> importantly, how big of a problem will it create if I have
> let similar occurences go by. I would assume that the
> overlapping data is thrown out and only a few such "missing"
> data segements would not affect the total data set very much.
> Obviously if a large section of data was overlapping then a
> problem would occur.

I would say that your assesment is corect. I would tend not to edit, if possible. The software is designed to capture the most common problems, like overlapping data. It makes a best choice decision and uses the data. Again, Dr. Lal would be the best person to consult on such things. He has a greater understanding of the criteria the ENCGEN uses when making an encyclopedia entry. The program seems to need the greatest help at the beggining of data and seems to be able to handle things after that. Like I said, look for patterns more than anything else.

John

From katen@hansa.gsfc.nasa.gov Wed Sep 6 12:57:04 1995
Date: Wed, 6 Sep 1995 12:54:26 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: your mail
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 6151

On Wed, 6 Sep 1995, Bryant Heikkila wrote:

```
>
>  IEF375I  JOB /ZMBCHRN2/ START 95248.1707
>  IEF376I  JOB /ZMBCHRN2/ STOP  95248.1709 CPU     0MIN 03.51SEC SRB     0MIN 00.22SE
> 0                            --------SCET---------  ----START ERT-------  ----NEW SCE
>   E# TYPE MD216 MD60  LC     HR     SC     MS  YR    HR     SC     MS  YR    HR     SC
>   ****************************
>   ****************************
>
>    3 SDR  17624  53     1    5608   1662    315 95    5616   2947    12 95
>    3 ENGR 17624  53     1    5608   1662    315 95    5616   2947    12 95
>  **3 SDR  17408  53   161    5435   2391    980 95    5616   2955   212 95    5608   1670
>  **3 ENGR 17408  53   161    5435   2391    980 95    5616   2955   212 95    5608   1670
>  **3 SDR  17624  53   161    5608   1671    915 95    5616   2955   212 95    5608   1670
>  **3 ENGR 17624  53   161    5608   1671    915 95    5616   2955   212 95    5608   1670
>  **3 SDR  17408  53   321    5435   2401    580 95    5616   2963   412 95    5608   1678
>  **3 ENGR 17408  53   321    5435   2401    580 95    5616   2963   412 95    5608   1678
>  **3 SDR  17624  53   321    5608   1681    515 95    5616   2963   412 95    5608   1678
>  **3 ENGR 17624  53   321    5608   1681    515 95    5616   2963   412 95    5608   1678
>  **3 SDR  17408  53   481    5435   2411    180 95    5616   2971   612 95    5608   1686
>  **3 ENGR 17408  53   481    5435   2411    180 95    5616   2971   612 95    5608   1686
>  **3 SDR  17624  53   481    5608   1691    115 95    5616   2971   612 95    5608   1686
>  **3 ENGR 17624  53   481    5608   1691    115 95    5616   2971   612 95    5608   1686
>  **3 SDR  17408  53   641    5435   2420    780 95    5616   2979   812 95    5608   1695
>  **3 ENGR 17408  53   641    5435   2420    780 95    5616   2979   812 95    5608   1695
>  **3 SDR  17624  53   641    5608   1700    715 95    5616   2979   812 95    5608   1695
>  **3 ENGR 17624  53   641    5608   1700    715 95    5616   2979   812 95    5608   1695
>  **3 SDR  17408  55     1    5435   2478    380 95    5616   3043    25 95    5608   1758
>  **3 ENGR 17408  55     1    5435   2478    380 95    5616   3043    25 95    5608   1758
>    3 SDR  17624  55     1    5608   1758    315 95    5616   3043    25 95
>    3 ENGR 17624  55     1    5608   1758    315 95    5616   3043    25 95
>  **3 SDR  17408  55   161    5435   2487    980 95    5616   3051   225 95    5608   1766
>  **3 ENGR 17408  55   161    5435   2487    980 95    5616   3051   225 95    5608   1766
>  **3 SDR  17624  55   161    5608   1767    915 95    5616   3051   225 95    5608   1766
>  **3 ENGR 17624  55   161    5608   1767    915 95    5616   3051   225 95    5608   1766
>  **3 SDR  17408  55   321    5435   2497    580 95    5616   3059   425 95    5608   1774
>  **3 ENGR 17408  55   321    5435   2497    580 95    5616   3059   425 95    5608   1774
>  **3 SDR  17624  55   321    5608   1777    515 95    5616   3059   425 95    5608   1774
>  **3 ENGR 17624  55   321    5608   1777    515 95    5616   3059   425 95    5608   1774
>  **3 SDR  17408  55   481    5435   2507    180 95    5616   3067   625 95    5608   1782
>  **3 ENGR 17408  55   481    5435   2507    180 95    5616   3067   625 95    5608   1782
>  **3 SDR  17624  55   481    5608   1787    115 95    5616   3067   625 95    5608   1782
>  **3 ENGR 17624  55   481    5608   1787    115 95    5616   3067   625 95    5608   1782
>  **3 SDR  17408  55   641    5435   2516    780 95    5616   3075   825 95    5608   1791
```

```
>  **3 ENGR 17408  55  641   5435  2516   780 95   5616  3075   825 95   5608  1791
>  **3 SDR  17624  55  641   5608  1796   715 95   5616  3075   825 95   5608  1791
>  **3 ENGR 17624  55  641   5608  1796   715 95   5616  3075   825 95   5608  1791
```

Look at the way the counts oscillate with the times. This could indicate imbedded playback data or requested data by ground controle. If you wanted to be sure, you should check back in the edrsave listings that have the line counts starting at 17408 and see if the hour is, roughly, the same (5435 hours).

If so, these are most likely packets of data requested because of garbled reception. Since the data is out of sequence, ENCGEN will most likely discard it.

I wouldn't edit out the ones that are oscillating by fractions of a second or so, like hour 5608. That is probably due to minor variables in reception. I would tend to let ENCGEN handle these records.

John

From katen@hansa.gsfc.nasa.gov Wed Sep 6 13:01:00 1995
Date: Wed, 6 Sep 1995 12:58:22 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: your mail
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1192

On Wed, 6 Sep 1995, Bryant Heikkila wrote:

```
>
>  IEF375I  JOB /ZMBCHRN2/ START 95248.1655
>  IEF376I  JOB /ZMBCHRN2/ STOP  95248.1658 CPU     0MIN 03.11SEC SRB     0MIN 00.21SE
> 0                          --------SCET---------  ----START ERT-------  ----NEW SCE
>   E# TYPE MD216 MD60  LC     HR     SC     MS  YR    HR     SC     MS  YR    HR     SC
>   ***************
>   ***************

>  **3 SDR  11520  49     1    5641    753    617 95    5684  1395      3 95    5678     33
>  **3 ENGR 11520  49     1    5641    753    617 95    5684  1395      3 95    5678     33
```

These two would be worrysome, if they hadn't been isolated instances. Just a glitch in reception, most likely. ENCGEN will handle it. :)

If they had occured at record one, they would have to be eddited our! They would through off all subsequent time calcullations in ENCGEN. No problem where they are, though.

John

From bryant Thu Sep 7 12:39:39 1995
Date: Thu, 7 Sep 1995 12:39:38 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Daily Averages
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 560

John,

During standared analysis when I run the MONFLX program (MCP 3.4) I get asked if I want to do 26-day averages and I say YES. I also get asked if I want to do daily averages for which I say NO. I am assuming that I do not want to run 26-day averages and daily averages at the same time because they use the same programs. Is this correct?

Once any 26-day jobs I have submitted complete would I then run MONFLX again to do the daily averages before going on to the Spectrum and Append steps? What order did you find was the most efficient?

Bryant

From katen@hansa.gsfc.nasa.gov Thu Sep 7 13:24:19 1995
Date: Thu, 7 Sep 1995 13:21:47 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Daily Averages
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1032

On Thu, 7 Sep 1995, Bryant Heikkila wrote:

> for which I say NO. I am assuming that I do not want to run
> 26-day averages and daily averages at the same time because
> they use the same programs. Is this correct?

Yes and no! :) Each job uses the same resources but I have named each jog with the same name. They will be held in the job queue till resources become available. This way, each voyager job runs in a linier order. Same for Pioneer. So, it's OK to submit the daily and 26 day average jobs automatically by saying yes to submitting all jobs.

> run MONFLX again to do the daily averages before going on
> to the Spectrum and Append steps? What order did you find
> was the most efficient?

The way I did it was to submit all the monthly fluxplot jobs at class F and check them the next day to see that they ran. I would update the 26 day append stuff, (except the Pioneer-F 30-56 MeV Proton), and start the Spectrum stuff. I saved the spectrum stuff because it always takes so much time.

John

Pioneer-10.

MENC.

From bryant Wed Sep 6 13:30:44 1995
Date: Wed, 6 Sep 1995 13:30:42 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Editscan
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 231

John,

Just a clarification. When you refer to "The most important record is the first one." are you indicating the very first record of the EDR file or do you mean the record with MD60 = 0 which cycles every 5 records?

Bryant

From katen@hansa.gsfc.nasa.gov Wed Sep 6 13:44:54 1995
Date: Wed, 6 Sep 1995 13:42:15 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Editscan
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 307

On Wed, 6 Sep 1995, Bryant Heikkila wrote:

> Just a clarification. When you refer to "The most
> important record is the first one." are you indicating
> the very first record of the EDR file or do you mean

The very first record of the EDR is what ENCGEN syncs on for time calcullations. :)

John

From bryant Thu Sep 7 14:22:09 1995
Date: Thu, 7 Sep 1995 14:22:08 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: One more time...
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 490

Hi John,

One more quick question. When MONFLX asks the user:

SUBMIT ALL MONTHLY FLUX JOBS AT CLASS F? Y/N

and you say YES to this MONFLX will submit jobs for all of the spacecraft. Since Pioneer is one of these space craft Do I have to have already submitted the previous Pioneer analysis options (ie. Daily average rate (LOAD2A), 26 day listings and matrices (LIST26DY), and 5 day moving averages (MAVPLOT) for this step to work with Pioneer or are the steps not related?

Bryant

From katen@hansa.gsfc.nasa.gov Thu Sep 7 14:32:24 1995
Date: Thu, 7 Sep 1995 14:29:52 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: One more time...
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 675

On Thu, 7 Sep 1995, Bryant Heikkila wrote:

> space craft Do I have to have already submitted the
> previous Pioneer analysis options (ie. Daily average
> rate (LOAD2A), 26 day listings and matrices
> (LIST26DY), and 5 day moving averages (MAVPLOT) for this
> step to work with Pioneer or are the steps not related?

They are to be handled seperately. You should have already done them OR do them after the MONFLX job. Your choice. You could even do them after the spectrum work but they don't take very long to run. Each of these jobs should be run seperately. Wait for one to finish before submitting the other. This avoids resource conflicts. :)

John

From bryant Fri Sep 8 12:28:50 1995
Date: Fri, 8 Sep 1995 12:28:48 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: GETDATA
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 914

Hello,

Hope your payday Friday is going well. I have a couple of standard analyis questions for you.

First, I used series 93 this time since we had used series 92 last time for the spectrum analysis. However, I noticed that the dates you have entered next to the series # in the brown notebook (ie. Series 90 1/1 - 3/20; Series 91 3/20 - 6/6; etc.) are for three month intervals. Did I miss something?

Second, for Voyager spectrum analysis we ran:

EX 'SB#VG.LIB.CLIST(GETDATA)' 'SPL192A SPL192P'

from the TSO windown after the MCP option 5 was finished: (Submit/Print Monthly Spectrum Flux Runs).

I know how to submit this but do I need to if I am going to use ACE for the plotting?

If I do or don't submit GETDATA from the IBM I am guessing my next step would be to use MCP 5.3
(Prepare plot data to be moved to the SUN) and then use the local GETDATA program to retrieve the files. Correct?

Bryant

From katen@hansa.gsfc.nasa.gov Fri Sep 8 17:20:46 1995
Date: Fri, 8 Sep 1995 17:18:20 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: GETDATA
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1512

Sorry for the late reply. Been elsewhere for awhile. :)

On Fri, 8 Sep 1995, Bryant Heikkila wrote:

> 92 last time for the spectrum analysis. However, I noticed
> that the dates you have entered next to the series # in
> the brown notebook (ie. Series 90 1/1 - 3/20; Series 91 3/20
> - 6/6; etc.) are for three month intervals. Did I
> miss something?

I don't think so. I do the spectrum on consecutive 26-day periods for three periods. You could count back from the last day of data or simply use the same periode till Pioneer-F data goes past the end of the periode!
I usually run the same periode for available data. If McDonald requests it, I do a count and run for THAT periode. :) It's up to you. The data should be for three 26-day intervals, though.

> Second, for Voyager spectrum analysis we ran:
>
> EX 'SB#VG.LIB.CLIST(GETDATA)' 'SPL192A SPL192P'
>
> I know how to submit this but do I need to if I am going
> to use ACE for the plotting?

If you have new data, yes! The GETDATA CLIST makes a "plottable" data set on the IBM. When these data sets are made, you ahead and prepare the data sets for moving to the SUN and Ace plotting.

> If I do or don't submit GETDATA from the IBM I am guessing
> my next step would be to use MCP 5.3
> (Prepare plot data to be moved to the SUN) and then use
> the local GETDATA program to retrieve the files. Correct?

Yes. The SUN getdata shell will fetch the files available. If SPL192P isn't there, it just moves on. :)

John

From bryant Mon Sep 11 10:12:28 1995
Date: Mon, 11 Sep 1995 10:12:26 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Cor.dat
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 956

Good Morning John,

Hope you had nice weekend. I am making background corrections for the Pioneer data and I have a couple of questions. First, Did you make background corrections every month for the standard monthly analyis?

Second, assuming that you did, in the COR.DAT file shown below:

```
************
 PIONEER-10     30.8 - 56.5  MEV PROTON
 PF  30.8-56.5 MEV FOR CORRECTION.
  1   1 95  0  0  0 9.6351E-06 3.5997E-06
  1 27 95  0  0  0 9.6351E-06 3.5997E-06
  2 22 95  0  0  0 9.6351E-06 3.5997E-06
  3 20 95  0  0  0 8.9209E-06 4.2080E-06
  4 15 95  0  0  0 8.9209E-06 4.2080E-06
  5 11 95  0  0  0 8.9209E-06 4.2080E-06
  6 06 95  0  0  0 1.1371E-05 4.8997E-06
  7 02 95  0  0  0 1.1371E-05 4.8997E-06
  7 28 95  0  0  0 1.1371E-05 4.8997E-06
**************
```

would I replace the correction factor shown for 6/6/95, 7/2/95, and 7/28/95 with the new correction factor I have obtained? The start dates are the same for the Julian period.

Bryant

From katen@hansa.gsfc.nasa.gov Mon Sep 11 10:46:32 1995
Date: Mon, 11 Sep 1995 10:44:20 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Cor.dat
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1094

On Mon, 11 Sep 1995, Bryant Heikkila wrote:

> Hope you had nice weekend. I am making background

  It was pleasant but far to short! :)

> of questions. First, Did you make background corrections
> every month for the standard monthly analyis?

  Only if I felt enough new data was recieved to make a substatial difference. You will have to decide what substantial is.

> Second, assuming that you did, in the COR.DAT file shown

> would I replace the correction factor shown for 6/6/95,
> 7/2/95, and 7/28/95 with the new correction factor I
> have obtained? The start dates are the same for the

  Basically, yes. After the vaules stop changing, you may enter them into the INFO datasets for the 30-56 Proton.

  Your data should go from 6/6/95 till the current end of data. How you choose to handle the plot dates is up to you. Just be sure to let Dr. McDonald know. I usually put the start and stop period for the period being tested instead of the start and stop time of the data. I think he would rather see the start and stop time of the actual data, though.

John

From bryant Mon Sep 11 10:51:07 1995
Date: Mon, 11 Sep 1995 10:51:05 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Cor.dat
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 291

John,

Thanks. I discovered this morning that my SPL193P, SPL293P, etc. files were erased so that I have to redo the Voyager spectrum work. Are these data sets put on temporary packs?

Because of this "redo" will I have to do anything other than simply rerun the spectrum steps?

Bryant

From katen@hansa.gsfc.nasa.gov Mon Sep 11 10:58:51 1995
Date: Mon, 11 Sep 1995 10:56:39 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Cor.dat
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 724

On Mon, 11 Sep 1995, Bryant Heikkila wrote:

> Thanks. I discovered this morning that my SPL193P, SPL293P,
> etc. files were erased so that I have to redo the Voyager
> spectrum work. Are these data sets put on temporary packs?

They should all be on temp packs.

> Because of this "redo" will I have to do anything other than
> simply rerun the spectrum steps?

Test and see if the other data sets are still around. SP193, SP193A and SP193AA may not be on temp packs. If so, all you need run is the CLIST GETDATA. :)

If you find all the data sets gone, you will have to start with the spectrum jobs. You shouldn't have to redo the Pioneer-F correction factor work, if the factor is written down.

John

From bryant Mon Sep 11 12:10:15 1995
Date: Mon, 11 Sep 1995 12:10:13 -0400
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: cor.dat
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1761

Hello again :(

You are probably getting tired of my stupid questions but I need to clarify this issue of the cor.dat file one more time. Basicly, the cor.dat file from the time you were here looks like:

```
PIONEER-10    30.8 - 56.5  MEV PROTON
 PF  30.8-56.5 MEV FOR CORRECTION.
  1   1 95  0  0  0 9.6351E-06 3.5997E-06
  1 27 95  0  0  0 9.6351E-06 3.5997E-06
  2 22 95  0  0  0 9.6351E-06 3.5997E-06
  3 20 95  0  0  0 8.9209E-06 4.2080E-06
  4 15 95  0  0  0 8.9209E-06 4.2080E-06
  5 11 95  0  0  0 8.9209E-06 4.2080E-06
  6 06 95  0  0  0 1.1371E-05 4.8997E-06
  7 02 95  0  0  0 1.1371E-05 4.8997E-06
  7 28 95  0  0  0 1.1371E-05 4.8997E-06
```

We added the last three lines with the appropiate correction factor. The dates of the three periods we analyzed were:

5/11 - 6/06
6/06 - 7/02
7/02 - 7/28

The date entered in cor.dat is the ending date of the period.

OK, so far. I noted that we have a pattern of three running through the cor.dat file. Now, for the analysis I just finished the dates of the three periods are:

6/06 - 7/02
7/02 - 7/28
7/28 - 8/23

with a correction factor of 9.8625E-06 +/- 3.7264E-06

I want to make the cor.dat file look like:

```
PIONEER-10    30.8 - 56.5  MEV PROTON
 PF  30.8-56.5 MEV FOR CORRECTION.
  1   1 95  0  0  0 9.6351E-06 3.5997E-06
  1 27 95  0  0  0 9.6351E-06 3.5997E-06
  2 22 95  0  0  0 9.6351E-06 3.5997E-06
  3 20 95  0  0  0 8.9209E-06 4.2080E-06
  4 15 95  0  0  0 8.9209E-06 4.2080E-06
```

```
  5 11 95  0  0  0 8.9209E-06 4.2080E-06
  6 06 95  0  0  0 1.1371E-05 4.8997E-06
  7 02 95  0  0  0 9.8625E-06 3.7264E-06
  7 28 95  0  0  0 9.8625E-06 3.7264E-06
  8 23 95  0  0  0 9.8625E-06 3.7264E-06
```

but if I do this then 6/6/95 is by itself, no more three pattern. Can you shed some light on this?

Bryant

From katen@hansa.gsfc.nasa.gov Mon Sep 11 13:31:32 1995
Date: Mon, 11 Sep 1995 13:29:21 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: cor.dat
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2458

On Mon, 11 Sep 1995, Bryant Heikkila wrote:

> You are probably getting tired of my stupid questions but I

  I would be if you asked stupid questions! You haven't so far. :)

> Basicly, the cor.dat file from the time you were here looks

```
> PIONEER-10     30.8 - 56.5  MEV PROTON
>    6 06 95   0   0   0 1.1371E-05 4.8997E-06
>    7 02 95   0   0   0 1.1371E-05 4.8997E-06
>    7 28 95   0   0   0 1.1371E-05 4.8997E-06
```

> We added the last three lines with the appropiate correction
> factor. The dates of the three periods we analyzed were:

> 5/11 - 6/06
> 6/06 - 7/02
> 7/02 - 7/28

  I presume that you submitted the fluxplot job for 5/11-7/28? This would give you the time periods you have indicated.

> through the cor.dat file. Now, for the analysis I just
> finished the dates of the three periods are:

> 6/06 - 7/02
> 7/02 - 7/28
> 7/28 - 8/23

  So your fluxplot job was for 6/6-8/23?

> with a correction factor of 9.8625E-06 +/- 3.7264E-06

> I want to make the cor.dat file look like:

```
> PIONEER-10     30.8 - 56.5  MEV PROTON
>    6 06 95   0   0   0 1.1371E-05 4.8997E-06
>    7 02 95   0   0   0 9.8625E-06 3.7264E-06
>    7 28 95   0   0   0 9.8625E-06 3.7264E-06
>    8 23 95   0   0   0 9.8625E-06 3.7264E-06
```

> but if I do this then 6/6/95 is by itself, no more three
> pattern. Can you shed some light on this?

  I see. What I usually do is this. If the end of data, (let's say

it's actually 8/26), is beyond the three time periods, (in this example 6/6-8/23, giving 6/6, 7/2 and 7/28), I would make a run the data for 6/6-8/23 and put the correction factor in the 6/6, 7/2 and 7/28 lines.
I would then make a flux run from 7/2-8/26. The correction factor for this run would be assigned to the 8/23 line and the ones above would remain unchanged. Your correction file would look like this:

```
>    6 06 95   0   0   0 1.1371E-05 4.8997E-06
>    7 02 95   0   0   0 1.1371E-05 4.8997E-06
>    7 28 95   0   0   0 1.1371E-05 4.8997E-06
>    8 23 95   0   0   0 9.8625E-06 3.7264E-06
```

The run next month would be for 7/28-10/14. The table would be:

```
>    6 06 95   0   0   0 1.1371E-05 4.8997E-06
>    7 02 95   0   0   0 1.1371E-05 4.8997E-06
>    7 28 95   0   0   0 1.1371E-05 4.8997E-06
>    8 23 95   0   0   0 ?.????E-0? ?.????E-0?
>    9 18 95   0   0   0 ?.????E-0? ?.????E-0?
```

and so on. Only the current 3 time periods change value. This is because the flux data base has the data for those time periods. You are still getting data for the new time periods.

John

From katen@hansa.gsfc.nasa.gov Mon Oct 16 12:12:41 1995
Date: Mon, 16 Oct 1995 12:16:12 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Tapes and things.
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 4173

Hello,

This is the third time I've tried to start this letter today! :(I'll just get to the point.

I have left you with two head aches. Software Configuration and Control, and tape management. Let's take a look at the tape stuff first as this is the more problematic.

You have tapes in Tape Staging and Storage, (TSS), a drawer in the filing cabinet next to you and in some boxes in your office.

The boxes in your office, (two of them), are from TSS. You will need to inventory them to see that all the tapes belonging in them are pressent. If a tape is missing, check the drawer first and then check in the tape library system. When you locate the tapes, put them back into the boxes, seal the boxes and return them to TSS. The procedure is on the back of the forms for returning the boxes to storage.

The drawer should be inventoried. Make a list of the tapes and any thing written on the face labels. Some of the tapes are bad and should be sent to tape rehab. Other tapes are backups from Voyager and Pioneer and should be placed in TSS. You can ellect to recall appropriat boxes or assign new boxes for these tapes. The remaining tapes have to do with a low priority project I was assigned.

A large number of reel tapes had been stored in a room on Goddard. No one really knew what they were or what was on them. I did a tape scan on all of them and started asking people if they recognised them. I didn't really get much cooperation in the project! I elimenated most of them but about 500 are still around. I placed them in TSS. Some of the tape cartridges you find in the drawer are backups of 9 inch reels. The 9 inch reels should be located and sent to rehab, if I haven't already done so. Look on the tape rack in your room. If any of these tapes have the same label as those in the drawer, rehab them.

To complete the job, you will need software that will list the full name of each data set file on the tape as well as other information. Ask TAG about it. There should be something on line that can be used for it. Once you get this software, the work can progress much faster.

The object is to sepperate the 9 inch reels that should be kept from those that shouldn't. Tapes with old load libraries shouldn't be kept. The operating systems aren't used and I can't see a reason to keep them. It's up to you. :)

I once had a list of these tapes but it probably got "misplaced" durring

one or more of our moves. What I suggest is removing one box at a time and consentrating on it. Get the tapes, make a list of the face labels and information on it then decide what tapes to rehab and what tapes to copy.

Hang the tapes to be copied in TLS with new tape cartridges. I have CLISTs that will make a "mirror" copy from a reel tape to a cartridge. Just recall my ZMJOK.LIB.CLIST and ZMJOK.LIB.CNTL to find it. (I don't know if I can still log in.)

The 9 inch reel tapes can be hung in place of the voyager or pioneer 9 inch reels for a temporary period. Say, the week end? :) You DON'T remove the tapes from the voyager or pioneer catalogs. You would manually modify TLS using the TLSUPDTE command. The same can be done for the cartridge that you will copy to.

The next head ache is software control and configuration. What happens here is that someone modifies the source code for a program or writes a new piece of software. Once they are finished, they request a form and change control number from the government person that hands them out. They then pressent that form to you to request a backup of the data set.

The backup process is controled by CLISTs and JCL located in the Pioneer LIB.CLIST! I'm not sure what it's called at this time but I'll now it when I see it. Look on the SUN for any information in the Pioneer manuals directory or the Voyager directories first. It really is quite easy to do and I think I did write something up on it.

What I would like to see is an inventory of the tapes in the drawer and on the tape rack, at this time. :) Then, we can move from there. Do you think you have the time?

John

From katen@hansa.gsfc.nasa.gov Mon Oct 16 12:21:44 1995
Date: Mon, 16 Oct 1995 12:25:17 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: IMP-8
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1295

On Mon, 16 Oct 1995, Bryant Heikkila wrote:

> How are things going? Henry has finished with the newest

  Slow but sure! :)

  When Henry or Nancy Smith is through, we use the flux catalog. We then submit a Fluxplot run via MCP for 26-day averages. When this is done, we update the 26-day average data sets for the Imp-8 life time and produce the monthly plots. That's it!
  You can get a catalog from the MCP option 4, (I think), and then do a search through it for "flux". This will put you in the flux tape section. Page down till you get to the bottom of the section and you will see the current end of data. Do the Fluxplot run from the start of the year till the end of the year for the data that's pressent. I am not sure is we have all of 94 but I think we do. Just use the INFO clist to check the Imp-8 data sets and see if the flux is into 95. If so, just do the Fluxplot run for 1/1/95-12/31/95. That will get you the newest data.
  Update the 26-day data sets and you are done. :) How's that? To get the data to the SUN, you just go through the usual menu option but choose Imp-8. This should get the data down to the SUN for you. Let me know if you have any trouble and well take a look/see. :)

John [At least, that's all *I* ever did with it!]

From katen@hansa.gsfc.nasa.gov Thu Oct 26 11:05:26 1995
Date: Thu, 26 Oct 1995 11:08:19 -0400
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Production
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 635

On Thu, 26 Oct 1995, Bryant Heikkila wrote:

> the output, included below, has some tape rejection notices
> around line 326. Is this something to worry about? I have

> 0 PIODRP 2 0 0 END OF JOB : TOTAL EDR TAPES MOUNTED= 1 TOTAL

Number of tapes mounted is one and number of tapes rejected is 0. No problems that I can see. The tape rejection notices are warnings about possible data states. No tapes have been rejected. Some data was dropped by the system because of time stamp conflickts. It looks OK to me.

Did you get my mail re. the reel and cartridge tapes?

John

From bryant Thu Nov 2 11:41:58 1995
Date: Thu, 2 Nov 1995 11:41:57 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 292

John,

How is this rainy weather treating you? I have a simple question. You said as did the notes that it is recommended that one put 7 days of Pioneer EDR data onto a single 9-track. I currently have 9 days of EDR to process. Will 9 days of Pioneer EDR data fit on one tape?

Bryant

From katen@hansa.gsfc.nasa.gov Thu Nov 2 12:11:16 1995
Date: Thu, 2 Nov 1995 12:11:15 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 537

On Thu, 2 Nov 1995, Bryant Heikkila wrote:

> How is this rainy weather treating you? I have a simple

Not bad. I like it for sleeping and listenning to the sounds of the woods in the rain. :)

> Will 9 days of Pioneer EDR data fit on one tape?

I don't know. It would depend on how big all the files are! I've never tried it but I don't see why 9 days won't fit. Give it a try. The worst that can happen is that the job will abbend while trying to write past the end of tape. :) Let me know how it turns out.

John

From bryant Mon Nov 6 17:20:59 1995
Date: Mon, 6 Nov 1995 17:20:57 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer production on the SUN
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 582

Hello,

Hope your Monday went well. I am looking into the status of the Pioneer production/analysis programs on the SUN. I have found the piodrp directory in your space as well as the shell scripts MENU and PIONEER in your top directory. Can you tell me, if you remember, if the programs in ~john/piodrp are currently runable. I also found the Crick directories on cfgmgr which seem to hold a lot more scripts than what you have in ~john/piodrp. Can you tell me about this stuff?

In addition, do you know about the status of Pioneer-10 analysis routines on the SUN?

Bryant

From katen@hansa.gsfc.nasa.gov Tue Nov 7 10:57:34 1995
Date: Tue, 7 Nov 1995 10:57:18 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer production on the SUN
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 3379

On Mon, 6 Nov 1995, Bryant Heikkila wrote:

> you tell me, if you remember, if the programs in ~john/piodrp
> are currently runable. I also found the Crick directories

These scripts should be runable. Unless someone has toyed with them. I got them from David, (Dr. Crick), and helped to devellope the scripting. You will also be interrested in:
/home/voy386/cosmicra/pioneer/manual
/home/voy386/cosmicra/pioneer/trajectory
/home/voy386/cosmicra/pioneer/production
/home/voy386/cosmicra/pioneer/analysis
The production should have had the Makefiles, etc... in it but they seem to be missing. You will need to copy them from the crick directory again! The analysis was resserved for the files used in data analysis.

> on cfgmgr which seem to hold a lot more scripts than what
> you have in ~john/piodrp. Can you tell me about this stuff?

This should contain the Makefies to build the Piodrp production system and Fluxdbg system. David also made printed notes available on 4tran converting that can be helpfull. They should be located amoung the notebooks you have from me. I seem to recall a thin, black, three ring binder.
Of course, the monthly stuff currently used is in:
/home/voy386/cosmicra/monthly/bin

> In addition, do you know about the status of Pioneer-10
> analysis routines on the SUN?

When David ressigned, he could produce PHA, Rate and Flux files from the raw EDR files. He had utillities that could scan these and produce printouts. I created a trajectory routine to get trajectory data from the raw trajectory files from Ames.
David ran into a problem when he tried to find out how people wanted to keep track of all these files. They didn't want to use the catalog approach of the IBM but didn't seem to have any other ideas. David thought the best approach would be to produce PHA and Rate files as the only permanent production files.
The Flux files could then be produced as needed for Fluxplot runs and then disposed of. The Fluxdbg routines would become a front end to the Fluxplot program. Unless the "powers that be" face this problem, no progress will be made.
In essence, the production routines have been done and only await implementation within a data base schema. I don't remember any

lingerring problems with the software. It is pretty well based on the orriginal ideas implemented on the IBM and follow the same standards to execute. :) This is why you see rellated text files in my Pioneer directory. One is a script to invoke Piodrp and edit the needed file. The other is the file that needs to be edited to tell it what file to start with, if the data should be appended or inserted, etc... This file corresponds to the way you "log in" a Pioneer EDR tape! Take a look at it, it should seem familliar to you. :)

As for the analysis, I thought Pam and Nand had been working on fluxplot. The other programs are Mavplot for the matrix and that still depends on fluxplot! The programs used on the IBM seem to be implementations of fluxplot for specific purposes. The only stranger I know of is the matrix production. To the best of my knowledge, Pam and Nand have a working version of Fluxplot. You would only have to set up shells to extract the data you need to get listings and plots. The matrix program is a mystery to me.

Does this help any?

John

From bryant Wed Nov 8 14:37:37 1995
Date: Wed, 8 Nov 1995 14:36:21 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Local Pioneer Production
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1332

John,

Within your directory ~john/piodrp you have numerous binary data sets called E02101.file1, E02101.file2, etc.

If I am correct the E02101 designation refers to a tape name like on the IBM and the file# suffixes correspond to the Logistics (.file1,6,11,...) Command Data (.file2,7,12,...), Attitude Data (.file3,8,13,..), and Experiment Data (.file4, 9,14,...). I have a couple of questions concerning these files in relation to the pioneer production on the SUN.

1) How do I break a given day of Pioneer data that I FTP over from Ames into the individual files (ie. Is there a local equivalent of the EDR Tape Creation?

2) How strict are the names themselves? I am guessing that they need to stay named as they are: E02101.file1...

3) The input to the piodrp program, piodrp.in, does not include a card which tells how many days are included on a particular E02101 tape. This sort of relates to question #1. When do you stop putting files under E02101 and start on E02102?

4) In your pioneer script you have the choices:
   0 Piodrp
   1 Flxdbg
   2 EDR list
   3 Flux list
   4 PHA list
   5 Rate list

   I think I understand option 0 and 1 but what do the other three options do? Also I am not sure what purpose the menu script has other than invoking the pioneer script.

Bryant

From katen@hansa.gsfc.nasa.gov Thu Nov 9 09:13:56 1995
Date: Thu, 9 Nov 1995 09:13:32 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Local Pioneer Production
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 3470

On Wed, 8 Nov 1995, Bryant Heikkila wrote:

> If I am correct the E02101 designation refers to a tape name
> like on the IBM and the file# suffixes correspond to the
> Logistics (.file1,6,11,...) Command Data (.file2,7,12,...),
> Attitude Data (.file3,8,13,..), and Experiment Data (.file4,

You are correct! We tried to keep things working in the same conventions used on the IBM to avoid confusion and minamize having to relearn as much as possible.

> 1) How do I break a given day of Pioneer data that I FTP
>   over from Ames into the individual files (ie. Is there
>   a local equivalent of the EDR Tape Creation?

Wouldn't you just ftp the files over to the SUN from Aims? Just don't go through the IBM. I don't know about the data blocking that the IBM does when the file is passed through Pams formatting process. If the software requires the EXACT blocking of data, you may have to right a blocking routine. (This may be easier than modifying the fortran code on the SUN to read the files. Don't forget, the production system only uses data from two of the files!)
Each day of data could be a sepperate EDR tape. You don't have to use the multi-day method.

> 2) How strict are the names themselves? I am guessing that
>   they need to stay named as they are: E02101.file1...

For a given run of data, David set it up to use the extension to tell when the end of data was. The name of the tape doesn't matter, I believe. It could be flies.file1, flies.file2, flies.file3 and flies.file4 for all the softwar cares. The next tape would have to have another name, though. Buggs? (Buggs.file1, Buggs.file2, etc...) It's the extension after the dot that's really important!

> 3) The input to the piodrp program, piodrp.in, does not
>   include a card which tells how many days are included on
>   a particular E02101 tape. This sort of relates to
>   question #1. When do you stop putting files under E02101
>   and start on E02102?

Think of E02101 as the RUN of data. The program is coded to look for all files for E02101. As I said above, it could be Flies! The program is coded to look for all files beggining with the name the user gives. When it can find no others, it is finished the job! When to change the

file names is up to you. You could use the names as bellow:
  Monday.file1, Monday.file2, Monday.file3, Monday.file4
  Tuesday.file1, Tuesday.file2, Tuesday.file3, Tuesday.file4
  Wednsday.file1, Wednsday.file2, Wednsday.file3, Wednsday.file4
 Your input file, (piodrp.in), would look like this:

```
 &option idrun='F',hcputm=3,hiotm=7,qmerge=.t.,qprtid=.t.,&end
 &edrtap dtslot='Monday',single=.t.,&end
 &edrtap dtslot='Tuesday',single=.t.,&end
 &edrtap dtslot='Wednsday',single=.t.,&end
```

  Compair this with piodrp.in and I think you will see. :)

>   2 EDR list

  Creates a listing of the "raw" edr files. I think it's in hex!

>   3 Flux list

  Creates a listing of the flux file that's created in fluxdbg step.
Also in hex, I believe.

>   4 PHA list

  Creates a listing of the PHA file, as above.

>   5 Rate list

  Creates a listing of the Rate file, as above.

>   three options do? Also I am not sure what purpose the
>   menu script has other than invoking the pioneer script.

  That's EXACTLY what the script is for! So I don't have to do a lot of
darn typing!! I'm also forgetfull and the scripts bring everything
together for me. :)

  Next question!

John

From bryant Tue Nov 21 10:05:19 1995
Date: Tue, 21 Nov 1995 10:05:17 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Work Tape Label Job Failing
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1146

Hello again,

I found my problem, I had set up the label job incorrectly.

I had listed the NEW VOL correctly but instead of using the old volumes label I had used the last three digits of the slot numbers. :(

I fixed the label job and resubmitted it but the job was cancelled with the message:

JOB ZMBCHLWK CANCELLED: TP=M2482 IS FILE PROTECTED//GH CH(01)

What do you think is the correct way to procede to fix this blunder? My guess is that the tapes need to have the white dot rotated again and the label job resubmitted after.

Bryant

PS. I have not been using TLSUPDTE when relabeling tapes.
The order I have been doing things is:

1. Choose the tapes to be relabelled using TLSREP.
2. Start the chart with the old tape labels and slot numbers.
3. Remove the tapes using MCP 1.1.2 (REMOVE WORK TAPES).
4. Assign the tapes using MCP 1.1.6 (ASSIGN WORK/CIT TAPES).
5. Complete the chart with the new tape labels.
6. Go over to Bldg. 28 and change the face label and rotate the write protect wheel.
7. Edit the Label job (correctly): ZMJOK.LIB.CNTL(LABWRK)
8. Submit the label job.

From katen@hansa.gsfc.nasa.gov Tue Nov 21 10:13:20 1995
Date: Tue, 21 Nov 1995 10:12:10 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Work Tape Label Job Failing
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 418

Fancy seeing you again!

On Tue, 21 Nov 1995, Bryant Heikkila wrote:

> blunder? My guess is that the tapes need to have the white
> dot rotated again and the label job resubmitted after.

   I would agree with this. Call Marty and ask her to do it for you.

> PS. I have not been using TLSUPDTE when relabeling tapes.
>   The order I have been doing things is:

  If it works for you, stick with it! :)

John

From bryant Mon Nov 20 17:02:56 1995
Date: Mon, 20 Nov 1995 17:02:55 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Work Tape Label Job Failing
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 481

Hi John,

I am getting a RC=0008 when I try to relabel some Voyager-2 Work tapes. I tried it twice and got the same result. The output from the job says at the bottom:

STANDARD LABEL READ WITH VOL SER M2W461 ON 5B2. MUST BE VERIFIED. NO LABELING DONE.

I initial tried to label 10 cartridges at once and I think that is where the system messed up. Five of the tapes labeled correctly but the second five did not. Do I have to remove those 5 tapes and reassign them?

Bryant

From katen@hansa.gsfc.nasa.gov Tue Nov 21 09:16:04 1995
Date: Tue, 21 Nov 1995 09:14:56 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Work Tape Label Job Failing
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1658

Hello,

On Mon, 20 Nov 1995, Bryant Heikkila wrote:

> STANDARD LABEL READ WITH VOL SER M2W461 ON 5B2. MUST BE
> VERIFIED. NO LABELING DONE.

  This mean that your target tape had an internal label of M2W461 on it. You should set up your label job to look like this:

```
//ZMJOKL JOB (SB020,N991,30),MJS.JOB,TIME=(2,10),
//   CLASS=L,MSGCLASS=X
// EXEC LABEL,VOL=M2W145,OLDVOL=M2W461,TUNIT=CART,DEN=4
// EXEC NOTIFYTS
```

  Where M2W145 is the NEW label you want to use.

> I initial tried to label 10 cartridges at once and I think
> that is where the system messed up. Five of the tapes

  Be sure that the tape people didn't just grab the wrong tape for the label job. Look up M2W461 in TLS and see if it is in the slot you thought your target tape was in.

> labeled correctly but the second five did not. Do I have to
> remove those 5 tapes and reassign them?

  No, if everything is set up right the label jobs will proceed fine. Make sure the tape volume labels are in the slots by using TLSUPDTE to verrify it. If not, call Marty and ask her to put the right tapes in the right slots.
  Also make sure these tapes have the right face label. Remember, the steps to re-labeling tapes is:

1. Choose the tapes to be relabelled.
2. Make a chart of the tape volume labels and associated slot numbers.
3. Set up the JCL with new and old volume labels.
4. Go over and alter the face label so that your target tapes have the NEW volume serial numbers on them.
5. Make sure the tapes are write ENABLED.
6. Using TLSUPDTE, modify the old volume labels to the new ones for each tape.
7. Submit the JCL.

  Did you do these? :)

From bryant Tue Nov 21 16:21:15 1995
Date: Tue, 21 Nov 1995 16:21:13 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: M1L051
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1624

Hello,

Sorry to bother you with this but as you probably expected I have numerous questions about hanging a new tape in TLS.

1. The slot number: From a TLSREP I see that the slot numbers start at 106242 and go up to 106569. 10 of the slot number do not have a Volume Serial associated with it but instead have a WAS: XXXXXX under the TAPE TITLE. Should I use one of these slot numbers or make up a new one where there is a gap (ie. The slot numbers run from 106242 to 106249 and then start again at 106255. For example: Should I use slot number 106250?)

2. Once I have hung the tape in the slot number with the Volume label M1L051 on it, do I invoke TLSUPDTE to place the cart in the TLS catalog? What are the specifics here?

When I did this previously, a backup tape was full and I exchanged it for a new tape (ie. M1EB45 was full, so I removed it and hung M1EB46 in its place.) I then profiled to SB#VG, ran TLSUPDTE, and used the command

```
 m vol=m1eb45,newvol=m1eb46
```

to replace the tape. I then ended TLSUPDTE, profiled back to my user ID and labeled the new tape by editing and running ZMJOK.LIB.CNTL(LIBLAB).

3. Tape M1L050 is full, but part of the files I was trying to write to it are on the tape. How do set up the system so that I can rerun the EDRSAVE and use the new tape M1L051? Should I back up M1LB50 onto M1L050 and then rerun EDRSAVE so that this time the program will write partly to M1L050 and then find M1L051?

4. If M1L050 was nearly full, then so must be its backup M1LB50. Do I need to hang a new backup tape as well? The TLSREP does not show any other M1LBXX tapes.

Bryant

From katen@hansa.gsfc.nasa.gov Tue Nov 21 16:45:15 1995
Date: Tue, 21 Nov 1995 16:44:05 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: M1L051
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 2224

On Tue, 21 Nov 1995, Bryant Heikkila wrote:

> instead have a WAS: XXXXXX under the TAPE TITLE. Should I
> use one of these slot numbers or make up a new one where

   If no volume serial number is listed, it's free to use! Go ahead and use it. :)

> there is a gap (ie. The slot numbers run from 106242 to
> 106249 and then start again at 106255. For example:
> Should I use slot number 106250?)

  TLSREP will list all the slots owned by the user you give. You can only use those slots that have been assigned to the user (voyager IE SB#VG).

> 2. Once I have hung the tape in the slot number with the
> Volume label M1L051 on it, do I invoke TLSUPDTE to place
> the cart in the TLS catalog? What are the specifics here?

  Yes. Do a profile prefix of SB#VG. Then TLSUPDTE. At the TLS prompt, you would type:

  A S=106249,VOL=M1L051
   by way of example. It should respond with TAPE M1L051 assigned to SLOT number 106249, or something to that effect.

> When I did this previously, a backup tape was full and I
> exchanged it for a new tape (ie. M1EB45 was full, so I
> removed it and hung M1EB46 in its place.) I then profiled
> to SB#VG, ran TLSUPDTE, and used the command
>
> m vol=m1eb45,newvol=m1eb46

  You can do the same thing, if you want. BUT, make a FINAL backup of M1L050 FIRST! Then do it. :)

> 3. Tape M1L050 is full, but part of the files I was trying
> to write to it are on the tape. How do set up the system
> so that I can rerun the EDRSAVE and use the new tape M1L051?

  You don't. EDRSAVE will process that unfinished file and make it the first file on M1L051!

> Should I back up M1LB50 onto M1L050 and then rerun EDRSAVE

> so that this time the program will write partly to M1L050 and
> then find M1L051?

Nope. (backup M1l050 onto M1LB50, by the way!) ;)

> 4. If M1L050 was nearly full, then so must be its backup
> M1LB50. Do I need to hang a new backup tape as well? The
> TLSREP does not show any other M1LBXX tapes.

Just make your final backup of 50. THEN hang a NEW backup tape labelled M1LB51. It can replace LB50, if you choose. After the EDRSAVE job is finished, you can backup M1L051 to M1LB51! :)

John
S'long, I'm off to work. :(

From bryant Mon Nov 27 10:07:39 1995
Date: Mon, 27 Nov 1995 10:07:37 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer Data
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 611

Hi John,

Hope you had a nice Thanksgiving.

I have been trying to use Pioneer-10 data from AMES to test the local Pioneer programs against the IBM programs, however, the format of the data is not correct. The Pioneer data that you have in ~john/piodrp has 8 more bytes than the data I have ftp'd from both AMES (in binary) and the IBM.

For example your file:

```
-rw-r--r--  1 john          488 Nov 15  1993 E02101.file1
```

and my file:

```
-rw-r--r--  1 bryant        480 Nov 21 14:13 E02108.file1
```

Do you know if I need to run a conversion program to reblock the data before using it locally? Thanks.

Bryant

From bryant Thu Nov 30 10:20:03 1995
Date: Thu, 30 Nov 1995 10:19:40 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Pioneer Data
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 839

Hi,

Yes, I did not find the thick black book you were referring to but with a little digging and a few questions I found out the fix was quite simple. In PIODRP there are four lines (one for each file) of the form:

```
if (fopen(1,nrd,cfile,0,'VB',32760,32760).ne.0)
```

The 'VB' needed to be changed to F and the two numbers 32760 needed to be changed to the correct block size of the data: 480,1200,1240, and 5204.

The program now runs. Nand wants me to compare the output with that generated on the IBM but I am not sure what to compare. Does the IBM produce the same, huge files such as edrlst.out, flxlst.out, prnpha.out, and pfrtpl.out? I assume it does but is there a way to easily compare the files?

I am currently working on trying to find out why the IMP8 fluxplot did complete correctly after I added a new bin card.

Bryant

From bryant Fri Dec 1 11:59:38 1995
Date: Fri, 1 Dec 1995 11:59:35 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 816

Hi John,

It sounds like the simple way to compare the SUN and IBM output for Pioneer is the tapescan idea. If I understand correctly I would submit a tapescan job for the EDR tape:

EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E02108 TUNIT(TAPE)'

For the PHA tape:

EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E00429 TUNIT(TAPE)'

For the RATES tape:

EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E00319 TUNIT(TAPE)'

Where E02108, E00429, and E00319 are the last tapes I used. I believe all of these tapes are 9-track so I would use the TAPE designation instead of CART.
I would them compare the last part of these scans (ie. only the lastest run) to edrlist.out, flxlist.out, ratelist.out produced locally. This way I would not have to mess with resetting the catalog, the thought of which sort of scares me.

Bryant

PS. Have a nice (WARM) weekend.

From katen@hansa.gsfc.nasa.gov Thu Nov 30 13:53:03 1995
Date: Thu, 30 Nov 1995 13:51:21 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Data
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1314

On Thu, 30 Nov 1995, Bryant Heikkila wrote:

> The program now runs. Nand wants me to compare the output
> with that generated on the IBM but I am not sure what to
> compare. Does the IBM produce the same, huge files such
> as edrlst.out, flxlst.out, prnpha.out, and pfrtpl.out?
> I assume it does but is there a way to easily compare the
> files?

Piodrp, Fluxdbg and the listing programs should produce the same thing on the SUN that they produce on the IBM. I think, what he is saying is:
1. Fetch Pioneer EDR files to both the SUN and IBM.
2. Do a Piodrp run on the new files on both machines.
3. Compare the listings produced by these runs.
4. Do a Fluxdbg run on both machines and compair listings.

Note: I think that Piodrp and Fluxdbg break the "listings" down into seperate files. (fort1, fort2 and fort3?) The "listing" from the IBM is simply these files concatenated to one printout.

To be thoural, you can do scans of the files and tapes on the two machines. The ressults should be the same. That would be scans of the EDR files/tape, PHA files/tape and RATE phile/tape.

> I am currently working on trying to find out why the IMP8
> fluxplot did complete correctly after I added a new bin card.
> ^^^

It IS annoying when thing DO go right, isn't it? ;)

John

From bryant Thu Nov 30 15:49:40 1995
Date: Thu, 30 Nov 1995 15:49:37 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Re: Pioneer Data
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 232

John,

Is there a way to run PIODRP on the IBM without writing to the tapes? I ask this since I have already processed the only Pioneer-10 data that we will have for a while and the hold queue listings produced are gone.

Bryant

From katen@hansa.gsfc.nasa.gov Thu Nov 30 16:08:00 1995
Date: Thu, 30 Nov 1995 16:06:17 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Data
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 933

On Thu, 30 Nov 1995, Bryant Heikkila wrote:

> Is there a way to run PIODRP on the IBM without writing to
> the tapes? I ask this since I have already processed the
> only Pioneer-10 data that we will have for a while and
> the hold queue listings produced are gone.

This problem can be tackled two ways. Writing to a file would require changes to JCL and setting up the DRS and Flux catalogs. Difficult!

The other way is to reset the DRS and Flux catalogs to point to the catalogs previous to your most recent run. This is a bit easier.

You make catalog listings for DRS and Flux.
You search the listings to find what catalog numbers you are currently on. You re-set the DRS catalog pointer, (a JCL file with just one number on one line), and restore the flux catalog from the backup you made. :) You did make a backup of the flux catalog, didn't you?

Not an easy thing to do, as you can see. :)

John

From bryant Fri Dec 1 11:59:38 1995
Date: Fri, 1 Dec 1995 11:59:35 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 816

Hi John,

It sounds like the simple way to compare the SUN and IBM output for Pioneer is the tapescan idea. If I understand correctly I would submit a tapescan job for the EDR tape:

EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E02108 TUNIT(TAPE)'

For the PHA tape:

EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E00429 TUNIT(TAPE)'

For the RATES tape:

EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E00319 TUNIT(TAPE)'

Where E02108, E00429, and E00319 are the last tapes I used. I believe all of these tapes are 9-track so I would use the TAPE designation instead of CART.
I would them compare the last part of these scans (ie. only the lastest run) to edrlist.out, flxlist.out, ratelist.out produced locally. This way I would not have to mess with resetting the catalog, the thought of which sort of scares me.

Bryant

PS. Have a nice (WARM) weekend.

From katen@hansa.gsfc.nasa.gov Fri Dec 1 12:38:38 1995
Date: Fri, 1 Dec 1995 12:36:52 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1338

On Fri, 1 Dec 1995, Bryant Heikkila wrote:

> correctly I would submit a tapescan job for the EDR tape:

Nope! Think of it as a DATA scan. You want to compair the data in the files. :)

> EX 'SB#VG.LIB.CLIST(TPSCAN)' 'E02108 TUNIT(TAPE)'

For the EDR tape/files you want to use EDRLST. JCL should be in the SB#PR.LIB.CLIST for this.

> For the PHA tape:

PRNPHA, in SB#PRs CLIST.

> For the RATES tape:

FLXLST in SB#PRs CLIST. :)

> Where E02108, E00429, and E00319 are the last tapes I used.

Yep, I believe they are correct.

> I believe all of these tapes are 9-track so I would use the

Nope! The PHA, RATE and FLUX tape are cartridge. The only 9 track is the EDR tape. :)

> I would them compare the last part of these scans (ie. only
> the lastest run) to edrlist.out, flxlist.out, ratelist.out
> produced locally. This way I would not have to mess with
> resetting the catalog, the thought of which sort of scares
> me.

NOW, you're getting the idea. Tapescan only tells you about the TAPE, not the data on the tape! :) Setting up the catalogs isn't all that hard but it can be a pain in the shots! The Voyager catalogs are the worst!! You might look into it in your "free" time. ;)

> PS. Have a nice (WARM) weekend.

Heh, I'm just happy to HAVE a weekend! ;D Same to ya!

John

From bryant Fri Dec 1 14:30:50 1995
Date: Fri, 1 Dec 1995 14:30:47 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Hello again.
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 2800

Hello,

I found the appropiate programs:

SB#PR.LIB.CNTL(UEDRLST)
SB#PR.LIB.CNTL(UPHALST)
SB#PR.LIB.CNTL(URATLST)

It looks to me like I just edit the JCL to include the
correct tape and then submit it. I have include the UPHALST
listing to see if you concur.

Bryant

```
//ZMJOKLST JOB (SB001,N991,09),'EDR LIST',TIME=(0,30),                  00000010
//      CLASS=A,MSGCLASS=X,NOTIFY=ZMJOK                                 00000020
//*F&G LIST                                                             00000010
//*PHA TAPE                                                             00000020
// EXEC FORTRANV                                                        00000030
//SYSIN DD DSN=SB#VG.GENERAL.SOURCE(ABEND),DISP=SHR                     00000055
//LINKGO    EXEC  LINKGOV,REGION.GO=150K                                00000030
//LINK.SYSLIB  DD  DSN=SB#PR.ZB2NL.OPIOFRAT.LOAD,DISP=SHR               00000040
//LINK.SYSLIN DD *                                                      00000050
 INCLUDE SYSLIB(PRNPHA)                                                 00000060
 INCLUDE ABD                                                            00000060
 ENTRY PRNPHA                                                           00000070
//ABD     DD DSN=XRHHL.ABEND.OBJ,DISP=SHR
//GO.FT08F001  DD  SYSOUT=X,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265)      00000080
//GO.FT10F001  DD  DSN=PIOPHA,UNIT=(CART,,DEFER),DISP=SHR,              00000090
// VOL=SER=DUM1,DCB=DEN=4                                               00000100
//GO.FT20F001  DD  DSN=SB#PR.PFDRSCTP.DATA,DISP=SHR                     00000110
//GO.FT21F001  DD  DSN=SB#PR.PFDRSCT1.DATA,DISP=SHR                     00000120
//GO.FT22F001  DD  DSN=SB#PR.PFDRSCT2.DATA,DISP=SHR                     00000130
//GO.FT23F001  DD  DSN=SB#PR.PFDRSCT3.DATA,DISP=SHR                     00000140
//GO.FT24F001  DD  DSN=SB#PR.PFDRSCT4.DATA,DISP=SHR                     00000150
//GO.FT30F001  DD  DSN=SB#PR.PGDRSCTP.DATA,DISP=SHR                     00000160
//GO.FT31F001  DD  DSN=SB#PR.PGDRSCT1.DATA,DISP=SHR                     00000170
//GO.FT32F001  DD  DSN=SB#PR.PGDRSCT2.DATA,DISP=SHR                     00000180
//GO.FT33F001  DD  DSN=SB#PR.PGDRSCT3.DATA,DISP=SHR                     00000190
//GO.FT34F001  DD  DSN=SB#PR.PGDRSCT4.DATA,DISP=SHR                     00000200
//GO.SYSUDUMP DD SYSOUT=A                                               00000210
//* DATA CARD: COL. 1-8 (TYPE), 9 (ID), 13 (TAPE), 26-49 (START & END)  00000220
12345678901234567890123456789012345678901234567890123456789012345678  00000230
//GO.DATA5 DD *                                                         00000240
TIME    F   E00419       9301071746009301172345OO                     00000250
 // EXEC NOTIFYTS
```

From katen@hansa.gsfc.nasa.gov Fri Dec 1 14:35:08 1995
Date: Fri, 1 Dec 1995 14:33:19 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Hello again.
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 526

On Fri, 1 Dec 1995, Bryant Heikkila wrote:

> SB#PR.LIB.CNTL(UEDRLST)
> SB#PR.LIB.CNTL(UPHALST)
> SB#PR.LIB.CNTL(URATLST)

   Good. :)

> It looks to me like I just edit the JCL to include the
> correct tape and then submit it. I have include the UPHALST
> listing to see if you concur.

  Is it really UPHALST? You are right, of course. :)

> TIME   F   E00419   930107174600930117234500   00000250

   That be the line. Wonder what the numbers are for? :/ Looks good from here! :)

John

From bryant Tue Dec 19 11:35:59 1995
Date: Tue, 19 Dec 1995 11:35:55 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: NSSDC
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 259

Hello,

How are you on this rather bleak day? Dr. McDonald requested that the Pioneer data for NSSDC be updated for all of 94. Pam does not remember the specifics other than a tape is made and given to someone. Can you fill in the details?

Thanks,
Bryant

From katen@hansa.gsfc.nasa.gov Tue Dec 19 13:44:48 1995
Date: Tue, 19 Dec 1995 13:41:55 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: NSSDC
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1122

On Tue, 19 Dec 1995, Bryant Heikkila wrote:

> How are you on this rather bleak day? Dr. McDonald requested
> that the Pioneer data for NSSDC be updated for all of 94.
> Pam does not remember the specifics other than a tape is
> made and given to someone. Can you fill in the details?

Surprislingly, the procedure is very simple. At least the one I used! You will find it in the spiral bound manual. You will be dealing with NL tapes and you'll need several TLS slots for the 9 inch reels.

You will need to do a TLSREP on SB#PR to find the old tapes. I may have modified the JCL to use some standard names. I haven't loged in to gibbs in a long time. Start with the book on producion and anallysis that I talked about above. Also, do a tape scan on the tapes to find out when the last year of data was put on the tapes.

The tapes are given to Ralph Post. Be aware, the reason I haven't kept the tapes up to date is that Dr. N. Lal had a method of getting the data for the NSSDC. You may want to check with him before starting. See if his procedures are to replace the old procedures.

John

From katen@hansa.gsfc.nasa.gov Mon Nov 27 10:38:24 1995
Date: Mon, 27 Nov 1995 10:36:53 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Data
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1538

On Mon, 27 Nov 1995, Bryant Heikkila wrote:

Hello,

> Hope you had a nice Thanksgiving.

It was restfull, till I tried to carry a tree load of fire wood up to the house. Then it was painfull! :)

> the format of the data is not correct. The Pioneer data
> that you have in ~john/piodrp has 8 more bytes than the

Oh, yea. :) Forgot about that little thing. Please check on the IBM under my Clist and Cntl libraries. Look for something call either Dave or Crick. It's most likely DAVE! This will point the way to the conversion process. I'm sure it's under the home directory for crick, it should be commented on in my scripts. Sorry for not saying anything about it. It may also be written up in Dr. Cricks notes, in the think black notebook I kept. It will be with the stuff David wrote for porting fortran from the IBM to the SUN. Henry will know it on site. Say HI to him from me and give him a big bear hug! ;)

John

> Do you know if I need to run a conversion program to reblock
> the data before using it locally? Thanks.

I'm afraid so. This is due to the use of the ftio routines used by Dr. Lal. This should be discussed with Pan, (say hi but don't try the hug bit!), and Dr. Lal. Since we are going straight to the SUN, we may not need the ftio routines. A straight read may be all that's needed.
That would involve a little modification to the source codes for your local Pioneer data base production work. Changing from the ftio fread to a standard fortran read. :)

John

File 1 480

File 2 1200

File 3 1240

File 4 various

07040000

From bryant Wed Jan 3 09:24:44 1996
Date: Wed, 3 Jan 1996 09:24:42 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: New Year
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 389

A belated Merry Christmas and Happy New Year.

Hope yours turned out well!

If you have the time, could you let me know what needs to be done with analysis for the 95 year after I have received all of the data (Voyager is currently at 12/23/95, and P10 is at 12/24/95). Are there any special backups or other such work that I need to do that I haven't done before? Thanks.

Bryant

From katen@hansa.gsfc.nasa.gov Wed Jan 3 16:05:30 1996
Date: Wed, 3 Jan 1996 16:01:42 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: New Year
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1131

On Wed, 3 Jan 1996, Bryant Heikkila wrote:

> A belated Merry Christmas and Happy New Year.
> Hope yours turned out well!

Not bad. Hope yours went well, too. :)

> If you have the time, could you let me know what needs
> to be done with analysis for the 95 year after I have

Once the data gets past the end of the year, you should do the standard 26 day averages for 1995 and place 1995 in the life time data sets.

Also, make sure the data sets that have the correction factors for spectrum, Pioneer-F 40-50, 50-60 and 40-60 MeV Proton are up to date for 1995. These list the correction factor and error for the 3 26-day periods. (My energy range is aproximate.)

Out side of these, I don't remember anything special. The standard plot JCL will have to be updated to show the new year. This is pressuming you are still doing plots on gibbs! Do remember that the 26-day average flux plots will shift the start time forward one year so that you still have the same spread of years for the plot, including the new year. If I remember anything else, I'll let you know.

Have a fun time! :)

John

From bryant Tue Jan 16 14:46:47 1996
Date: Tue, 16 Jan 1996 14:46:44 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer Rate Cartridges
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 592

John,

How's the snow down that way? We only worked one day last week due to Goddard being code Red. Looks like it is back to normal now exect for continuing traffic problems.

Pam started copying Pioneer Rate cartridges into Unitree and found that the first three cartridges were not mounted in TLS.

E00305 3/06/72 - 4/30/72
E00328 4/30/72 - 5/10/72
E00329 5/10/72 - 5/22/72

I have since found these cartridges in the metal drawer with all of the misc. tapes in a box marked: 8mm tapes Nancy Smith. Do you know why these tapes were removed from TLS? Perhaps I/O errors?

Bryant

From katen@hansa.gsfc.nasa.gov Tue Jan 16 14:58:20 1996
Date: Tue, 16 Jan 1996 14:57:05 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Rate Cartridges
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1370

On Tue, 16 Jan 1996, Bryant Heikkila wrote:

> How's the snow down that way?

Let's see. Cold, deep, wet and white! :) Oh yes, slippery!!

> We only worked one day last week due to Goddard being code Red.

Same here! Off for almost a week. :) Vacation time, of course. Sick leave before that but it's all used up now. :(

> Looks like it is back to normal now exect for continuing traffic problems.

Same here! :(

> Pam started copying Pioneer Rate cartridges into Unitree
> and found that the first three cartridges were not mounted
> in TLS.

I wish I could say I'm surprised! :/

> I have since found these cartridges in the metal
> drawer with all of the misc. tapes in a box marked: 8mm
> tapes Nancy Smith. Do you know why these tapes were removed
> from TLS? Perhaps I/O errors?

No, except that she removed a lot of tapes. It's strange that all the Rate tapes aren't over in the TLS. How did we do life time runs? Oh, yes. The Flux tapes. :\

You'll have to hang them and do a scan. Also, be sure to look about for any other tapes with the same Volume names! Just to be sure. All the tapes listed in the backups guide should be pressent and accounted for. By the way, check the backups guide and make sure they HAVE been backed up, will you? :) If Nanc took them out, I may not have been aware of them.

John

From bryant Wed Jan 17 16:33:28 1996
Date: Wed, 17 Jan 1996 16:33:24 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Pioneer Cartridges
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 399

John,

A quick question regarding Pioneer Rate tapes. I have hung the three Pioneer tapes I asked about yesterday in blank Helios slots (SB#HL). I then ran TLSUPDTE and added the Vol Ser to the slot number. Now is there anything else I need to do to these tapes before they can be used? I did not want to label them as that seemed like something you would only do to a new, blank tape.

Bryant

From katen@hansa.gsfc.nasa.gov Wed Jan 17 16:38:25 1996
Date: Wed, 17 Jan 1996 16:37:11 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Pioneer Cartridges
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 472

On Wed, 17 Jan 1996, Bryant Heikkila wrote:

> Helios slots (SB#HL). I then ran TLSUPDTE and added the
> Vol Ser to the slot number. Now is there anything else I
> need to do to these tapes before they can be used? I did

   Not that I can think of. They should be available for use now.

> not want to label them as that seemed like something you
> would only do to a new, blank tape.

   Correct. A label job would effectively errase anything on the tape.

John

From bryant Tue Jan 30 17:45:45 1996
Date: Tue, 30 Jan 1996 17:45:43 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: I Procrastinated
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 325

Hello John,

How are things down that a way? Hoping for warmer weather like I am I bet.

I have procrastinated and put off doing the yearly analysis and now I have lost the email you sent me early. Could you please tell me again what I need to do for Voyager and/or Pioneer for the end of the year stuff.

Thanks,

Bryant

From katen@hansa.gsfc.nasa.gov Wed Jan 31 10:01:34 1996
Date: Wed, 31 Jan 1996 09:59:30 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: I Procrastinated
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1667

On Tue, 30 Jan 1996, Bryant Heikkila wrote:

> How are things down that a way? Hoping for warmer weather
> like I am I bet.

Nope! I like it cold. Heat just takes all my energy. :(

> I have procrastinated and put off doing the yearly analysis

With the raises they have been handing out, I'm surprised anyone is doing anything but preying for snow days. ;)

> and now I have lost the email you sent me early. Could

You mean this?

>From katen@hansa.gsfc.nasa.gov Wed Jan 31 09:56:34 1996
Date: Wed, 3 Jan 1996 16:01:42 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
Subject: Re: New Year

On Wed, 3 Jan 1996, Bryant Heikkila wrote:

> If you have the time, could you let me know what needs
> to be done with analysis for the 95 year after I have

Once the data gets past the end of the year, you should do the standard 26 day averages for 1995 and place 1995 in the life time data sets.

Also, make sure the data sets that have the correction factors for spectrum, Pioneer-F 40-50, 50-60 and 40-60 MeV Proton are up to date for 1995. These list the correction factor and error for the 3 26-day periods. (My energy range is aproximate.)

Out side of these, I don't remember anything special. The standard plot JCL will have to be updated to show the new year. This is pressuming you are still doing plots on gibbs! Do remember that the 26-day average flux plots will shift the start time forward one year so that you still have the same spread of years for the plot, including the new year. If I remember anything else, I'll let you know.

Have a fun time! :)

From bryant Wed Jan 31 11:19:56 1996
Date: Wed, 31 Jan 1996 11:19:53 -0500
From: Bryant Heikkila <bryant>
To: katen@hansa.gsfc.nasa.gov
Subject: Two More Questions
Cc: bryant@voypio.gsfc.nasa.gov
Content-Length: 1115

Hello again,

I have a couple more clarifications/questions if you
have the time.

1) If I understand the yearly analysis correctly I simple
   do the same thing as during a monthly (3 26 day period)
   except use the entire year: 1/1/95 - 12/31/95.
   I then Append this entire run to the lifetime data sets.

   I do this for Voyager-1, Voyager-2, and Pioneer-10.
   I do not make any daily runs.

   Pioneer may be difficult since we no longer work in
   26 day intervals but instead use only the time periods
   in which the instrument was turned on. This has also
   messed up the way the background corrections are done.

2) This sort of leads me into the second topic: Exclude times.
   Dr. McDonald was worried about high V-1 spectra points. The
   problem, it turns out, was high rates which were correct
   by excluding those times. However, the only place I see
   to enter spectra exclude times is in the bincards
   themselves. I do not see where the daily and 26 day
   runs access an exclude file. Should I enter these
   times into the bincards also or ...?

Thanks for your time,

Bryant

From katen@hansa.gsfc.nasa.gov Wed Jan 31 13:19:48 1996
Date: Wed, 31 Jan 1996 13:17:44 -0500
From: John Katen <katen@hansa.gsfc.nasa.gov>
Subject: Re: Two More Questions
To: Bryant Heikkila <bryant@voypio.gsfc.nasa.gov>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Content-Length: 1185

On Wed, 31 Jan 1996, Bryant Heikkila wrote:

> 1) If I understand the yearly analysis correctly I simple
>   do the same thing as during a monthly (3 26 day period)
>   except use the entire year: 1/1/95 - 12/31/95.
>   I then Append this entire run to the lifetime data sets.

    Yep! :)

>   I do this for Voyager-1, Voyager-2, and Pioneer-10.
>   I do not make any daily runs.

    Wrong! You do the daily runs for 1/1/95 - 1/1/96! :)

>   Pioneer may be difficult since we no longer work in
>   26 day intervals but instead use only the time periods
>   in which the instrument was turned on. This has also
>   messed up the way the background corrections are done.

  This DO pose a problem! You will have to use multiple include cards for the spectrum I guess. For the non-spectrum, you would use multiple exclude cards.

>   to enter spectra exclude times is in the bincards
>   themselves. I do not see where the daily and 26 day

   Wrong. The Clist will show you the time card location. I think you will find them in the <project>.lib.cntl(time) members for each project. You would add your extra cards to this member. :)

  That help?

John