FATAR Q & A

Many clients are moving to VTS and they are asking the following:

Q **A year ago, we migrated to a virtual tape system (VTS). Can you explain the benefits or needs for FATS or FATAR with a VTS?**

A FATAR functions on a Virtual Tape System:

1. Investigating a volume, to discover its label type, file count, DCB characteristics, etc., and providing a compact summary of the characteristics of all files on the volume.

2. Examining the data on a volume.

3. Verifying that certain data fields contain valid data.

4. Creating a backup copy of any volume (or multi-volume set of tapes), even if multiple files exist on the volume. FATAR can be used to make a backup physical copy of a virtual tape volume.

5. Verifying that a data set is properly formatted (every block is checked against its DCB info).

6. Correcting invalid data by creating a copy of the input volume(s) with the bad data corrected or dropped.

7. Creating a copy of a volume that was not properly closed (such as during a system failure).

8. Replacing volumes with small blocksizes with copies using a larger blocksize (reducing elapsed and CPU times of applications that read that data).

9. Making an "image copy" (an exact bit-for-bit copy) of a tape volume.

10. Detecting and correcting invalid variable spanned records. An example of this procedure can be found on the Innovation FTP site, http://www.fdr.com/ftp/ftp.cfm, in the file /Public/Download/FATS_FATAR_V49/ FATAR example - correct invalid variable spanned records.pdf

USER EXPERIENCES: See the two recent user experiences described on page 1 on how FATAR users see the benefits of using FATAR for modifying corrupted tape files.

FATSCOPY RESOURCES

Download the FATSCOPY User Manual:
http://www.fdr.com/Manuals_CurrentVersion/FATS_FATAR_FATSCOPY_V49L28_December_5_2013.pdf

How to build a FATSCOPY JCL view the link below:
http://www.fdr.com/Manuals_CurrentVersion/FATSCOPY_How-To-Guide_V49L28_December_5_2013.pdf

Watch the FATSCOPY Product Demo:
http://www.fdr.com/portfolio/products/demo.cfm

Download the FATSCOPY Quick Start guide:
http://www.fdr.com/Manuals_CurrentVersion/FATSCOPY_Quick_Start_Guide_V49L28_December_5_2013.pdf

View the FATSCOPY Concepts & Facilities Guide:
http://www.fdr.com/concepts/FATSCOPYCFG/index.html

The jobstreams and output for examples shown in this newsletter are available from the Innovation FTP site.
- *Go to: www.fdr.com*
- *Click on "FTP login" and Enter your access code (if you don't have one, you can request one on this webpage).*
- *Click on the "Download" directory, then "Tech_Support_Samples/FATSCOPY_Examples/Feb2014".*
- *For FDREPORT examples go to "Tech_Support_Samples/FDREPORT_FATSCOPY_Examples".*

FATAR Q & A

FATAR examples: identifying overwritten tapes

Q I accidentally used IEHINITT to re-initialize several of my tapes, making the files on those tapes inaccessible. If I suspect that certain tape volumes were reinitialized, how can I check them to see if they were, so that I can pull them out of the system for later recovery?

A You can use FATAR to search your tapes for the signature of an IEHINITT job. IEHINITT wipes out the data in the first HDR1 label, replacing it with zeros. You can use the following job to find out if a tape has been reinitialized with IEHINITT:

```
/STEP1       EXEC PGM=FATAR,REGION=0M
...
//SYSIN      DD  *
   ANALYZE LABELS=NO,NF=1
   REPLACE LF=1,B=ALL,S=C'HDR10000000000000000000000000000000000'
```

FTP member: **FATAR_IEHINITT_jcl.txt** ← [Sample JCL]

LABELS=NO tells FATAR to act as if the tape is unlabeled, so FATAR will scan the label as if it's ordinary data. If the HDR1 label contains a string of zeros, a BLOCK MODIFIED message will appear in the SYSPRINT output. (No blocks are actually modified since there is no TAPEOUT file; the input tape is not changed.)

Here is a sample output:

```
                                   IEHINITT Job

* * * * * * * * START FILE       1
      1      80  INPUT LABEL                VOL1STKE09
                 ***VOLUME LABEL***              VOLSER=STKE09 OWNER=
      2      80  INPUT LABEL                HDR1000000000000000000000000000000000000000000000000000000000000000000000000000
                 ***HEADER LABEL***              DSNAME=00000000000000000 SERIAL=000000 VOLSEQ#=0000 FILESEQ#=00000
                                                 CRTDT=000000 EXPDT=000000 SECURITY=0 BLOCKCOUNT=0000000000 BLKID=000A0000
                 BLOCK MODIFIED
* * * * * * * * END OF FILE       1  -- FILE CONTAINED        2 BLOCKS
FATS022 ANALYSIS TERMINATED AFTER SPECIFIED NUMBER OF FILES
```

FTP member: **FATAR_IEHINITT_output.txt** ← [Sample Output]

Q I relabeled 100 tapes. One of those tapes was not a scratch tape and should not have been relabeled. How can I find which of these tapes was the volume I want to keep so that I can pull it out of the system for later recovery?

A You can use FATAR to search each tape for an identifying string which you expect to find on the original volume. This string will be located somewhere after the overwriting label. The original volser will be found in the file labels and you can scan for that. For example, to look for volume STKE10, use:

```
/STEP1       EXEC PGM=FATAR,REGION=0M
...
//SYSIN      DD  *
   ANALYZE LABELS=EOD,LBLPRT=FORMAT
   REPLACE LF=ALL,B=ALL,S=C'STKE10'
```

FTP member: **FATAR_find_vol_jcl.txt** ← [Sample JCL]

LABELS=EOD tells FATAR to skip past the EOD mark (written when you relabeled the tape) before searching for the residual data remaining on the tape. The file HDR and EOF labels will be displayed in the SYSPRINT output with a BLOCK MODIFIED message if the string 'STKE10' is found. (No blocks are actually modified since there is no TAPEOUT file; the input tape is not changed.)

FTP member: **FATAR_find_vol_output.txt** ← [Sample Output]