Transporting Files Between MVS and MVS, or Between MVS and a Workstation

BY LIONEL B. DYCK

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If you need to transport files from an MVS system to another MVS system, or to any other computing environment that supports TCP/IP FTP, there's a simple ISPF dialog named FTP Batch that will simplify this task. This dialog, which I developed, is available in the TECHSUPT library of the NaSCOM Internet server as filename DEC97002.EX1, or the SHARE members-only download area at www.share.org. This dialog was designed to simplify the task of using the native TSO FTP command. The FTP Batch ISPF dialog can be invoked from any ISPF command prompt by entering:

TSO %FTPB

You will be presented with the panel shown in Figure 1. There is a reasonable tutorial behind this dialog. For purposes of explanation, the dialog will be shown sending a member of SYS1.PARMLIB from one of the IBM MVS systems to the IBM MVS DSYS. This dialog invokes FTP in a push type fashion; it will copy the specified data set to the specified target host. Note: This is

Figure 1: Primary FTP Batch ISPF Panel

```
──────────────────────────── TCP/IP FTP Dialog ──────────────────────────── 1.000
Command ===>

Source Data Set ===> 'SYS1.PARMLIB'
                       member of '*' for all members if PDS
Target Information:
  Hostname      ===> nkaiserd
  MVS Data Set  ===>
                    (blank will use source dsname - ignored for non-MVS target)
User Information:
    Userid      ===> syslbd
    Password    ===>              Verify Password ===>

Optional Information:
    Binary      ===> No           Yes or No (use No for MVS to MVS)
    MVS Target  ===> Yes          Is the target system running MVS? Yes or No
    Other       ===> ____________________________________________________________ <
                ===> ____________________________________________________________ <

          See the IBM TCP/IP User's Guide for more information on FTP
```

Figure 2: PDS Transfer Prompt Panel

```
──────────────────────── TCP/IP FTP PDS Prompt ────────────────────────
Command ===>

   You are transferring a partitioned data set (PDS).

   Create data set at target  ===>        Yes or No

   Unload for transfer        ===> No     Yes or No  (Should always be Yes
                                                      for load libraries)

   Note that when transferring a large number of members that it can be
   faster to unload the PDS using IEBCOPY, FTP it, and then reload it
   at the target site using IEBCOPY.

   You will now be prompted to specify the members you want to transfer
   to: nkaiserd
```

Figure 3: PDS Member Selection Panel

```
Member List – SYS1.PARMLIB ──────────────────────────────── ROW 00001 OF 00584
Command ===>                                                 Scroll ===> CSR
Commands:      LOCATE, RESET, SELECT, SORT, HELP
Line commands: / or S = Select, B = Browse, \ or U = Unselect
   Name                 VV MM  Created     Changed      Size  Init   Mod   ID
   ABENDAID             01.00  96/09/10 96/09/10 16:39    39    39     0 SYSCJH
   ADYSET00             01.00  96/12/18 96/12/18 09:12    15    15     0 SYSSJW
   ADYSET01
   APPCPM00             01.02  95/01/27 95/01/27 09:06     9     9     0 SYSMSS
```

Figure 4: FTP Batch Submission Menu

```
──────────────────── FTP Generalized Submit/Exec Panel ────────────────────
 Select Processing Option: ===>

      B - Browse the generated FTP job
      E - Edit the generated FTP job
      S - Submit the generated FTP job
      X - eXecute FTP now in the foreground

 Review/Update:
      Local Batch Job Card:
===>    //SYSLBDB JOB 666001,'FTP',NOTIFY=SYSLBD,
===>    // TIME=15,MSGLEVEL=1,REGION=6M
===>    //HOLD OUTPUT JESDS=ALL,DEFAULT=Y,OUTDISP=(HOLD,HOLD)
```

Figure 5: Sample Generated JCL and FTP Control Statements

```
BROWSE     SYS97120.T095802.RA000.SYSLBD.R0109795     Line 00000000 Col 001 080
 Command ===>                                          Scroll ===> CSR
******************************** Top of Data ********************************
//SYSLBDH JOB 666001,'FTP',NOTIFY=SYSLBD,
// TIME=15,MSGLEVEL=1,REGION=6M,CLASS=L,MSGCLASS=X
//HOLD OUTPUT JESDS=ALL,DEFAULT=Y,OUTDISP=(HOLD,HOLD)
//*-------------------------------------------------*
//*    FTP Batch JCL Generated by FTPB Dialog    *
//*    Release 1.000 on 4 Jun 1997 10:14:36      *
//*-------------------------------------------------*
//FTPSTEP EXEC PGM=FTP,PARM='nkaiserd (EXIT'
//SYSPRINT DD SYSOUT=*
//INPUT    DD *
syslbd @@@@@@
type e
mode b
cd 'SYS1.PARMLIB'
lcd 'SYS1.PARMLIB'
Put ABENDAID
Close
Quit
/*
****************************** Bottom of Data ******************************
```

Figure 6: FTP Batch Submission Menu for Unload Transfer

```
──────────────────────── FTP Generalized Submit Panel ─────────────────────
Select Processing Option: ===>

     B - Browse the generated FTP job
     E - Edit the generated FTP job
     BL- Browse the generated Load JCL job
     EL- Edit the generated Load JCL job
     S - Submit the generated FTP job

Review/Update:                                      See Help for more info
      Local Batch Job Card:
===>   //SYSLBDI JOB 666001,'FTP',NOTIFY=SYSLBD,
===>   // TIME=15,MSGLEVEL=1,REGION=6M,CLASS=L,MSGCLASS=X
===>   //HOLD OUTPUT JESDS=ALL,DEFAULT=Y,OUTDISP=(HOLD,HOLD)
      Reload Batch Job Card:
===>   //SYSLBDI JOB 666001,'FTP',NOTIFY=SYSLBD,
===>   // TIME=15,MSGLEVEL=1,REGION=6M,CLASS=L,MSGCLASS=X
===>   //HOLD OUTPUT JESDS=ALL,DEFAULT=Y,OUTDISP=(HOLD,HOLD)
```

Figure 7: The Steps of an Unload Transfer Job

UNLOAD	Uses IEBCOPY to convert the PDS into a sequential data set.
FTPSTEP	Runs the FTP program to transfer the sequential data set to the target site and then submits the reload JCL to the target site.
DELSTEP	Deletes the temporary data sets used by the job, including the JCL that is submitted at the target site to reload the sequential data set into a new or existing partitioned data set.
FTPPRINT	Prints the results of the reload JOB if the reload JOB completed within 10 minutes of being submitted by the FTPSTEP.

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a work in progress, so your feedback on the dialog and tutorial are appreciated.

In this example, the source data set is SYS1.PARMLIB and we are going to transmit (copy) it to the system with a hostname of NKAISERD. First, you must enter a valid user ID and password. The password is entered twice as a means of verification since the field is a non-display field.

Under "Optional Information"the Binary option is only required when doing an FTP to a non-390 (not MVS or VM) host system. The MVS Target defaults to "Yes," as it is necessary for the dialog to know the type of target system.

After filling out the first panel, if the source data set is a partitioned data set, you will be presented with a second panel. See Figure 2. On this panel you must specify if you want to create the data set at the target site. In this case, we want to update an existing data set. The other option, unload, is intended for libraries with a blksize in excess of 32752 due to an IBM FTP limitation (typically with load libraries but also poses problems with CLIST or REXX libraries).

Next, since you are transmitting a PDS, you will be presented with the panel in Figure 3. At this point, you are given several options: S to select a member for transmission, B to browse a member so you can verify it is really what you want to transmit, and U in case you accidentally selected a member but changed your mind.

To exit this panel you must hit PF3 (end), Then you will be presented with the panel shown in Figure 4. Note that if you do not select any members, or the data set name is specified with a (*), then all members will be transmitted.

In this next step, a default job card that can be modified will be set up. Any changes

Figure 8: The RELOAD Job for an Unload Transfer

```
//SYSLBDI JOB 666001,'FTP',NOTIFY=SYSLBD,
// TIME=15,MSGLEVEL=1,REGION=6M,CLASS=L,MSGCLASS=X
//HOLD OUTPUT JESDS=ALL,DEFAULT=Y,OUTDISP=(HOLD,HOLD)
//*-------------------------------------------------------*
//*      FTP Batch JCL Generated by FTPB Dialog    *
//*      Release 1.000 on 4 Jun 1997 10:19:11      *
//*-------------------------------------------------------*
//UNLOAD      EXEC PGM=IEBCOPY
//SYSPRINT    DD   SYSOUT=*
//INPUT       DD   DISP=SHR,DSN=SYS1.PARMLIB
//OUTPUT      DD   DISP=(,CATLG),UNIT=3390,
//            DSN=SYSLBD.UNLOAD.D970604.T1019135,
//            SPACE=(CYL,(10,0),RLSE)
//SYSIN       DD   *
  COPY INDD=INPUT,OUTDD=OUTPUT
  S M=(ABENDAID)
//FTPSTEP     EXEC PGM=FTP,PARM='nkaiserd (EXIT'
//SYSPRINT    DD   SYSOUT=*
//INPUT       DD   *
syslbd @@@@@@
type e
mode b
Put 'SYSLBD.UNLOAD.D970604.T1019135'
Put 'SYSLBD.LOAD.D970604.T1019135' FTPJCL.D970604.T1019135
Site filetype=jes
get FTPJCL.D970604.T1019135 FTPRPT.D970604.T1019135
site filetype=seq
delete FTPJCL.D970604.T1019135
Close
Quit
/*
//DELSTEP     EXEC PGM=IEFBR14
//DELLOAD     DD   DISP=(OLD,DELETE),DSN=SYSLBD.LOAD.D970604.T1019135
//DELULOAD    DD   DISP=(OLD,DELETE),DSN=SYSLBD.UNLOAD.D970604.T1019135
/*
//PRINT       EXEC PGM=IEBGENER
//SYSPRINT    DD   DUMMY
//SYSUT2      DD   SYSOUT=*
//SYSUT1      DD   DISP=(OLD,DELETE),DSN=SYSLBD.FTPRPT.D970604.T1019135
//SYSIN       DD   DUMMY
/*
```

will be remembered for these three statements. You have the option of "Browsing" the JCL and FTP control statements, "Editing" them, "Submitting" the job for batch execution, or doing an online "eXecution." Figure 5 presents the JCL and FTP control statements for this transaction. Note that the user ID is clearly shown but the password is hidden by @ symbols. This protects the password, which is updated just before you Submit or eXecute the FTP.

If you selected option X, the FTP will be initiated and all output messages will be trapped. When the FTP is complete, you will be placed into browse on the message log for the transmission. If you had selected "unload" then you would see the submission panel shown in Figure 6. The Local Batch Job JCL is shown in Figure 7. Note that if your original data set is partitioned and has a BLKSIZE greater than 32752, then the unload step will be a two-step process with the first step using COPYMOD to convert the data set into one with a smaller BLKSIZE and then converting that data set to a sequential data set. The RELOAD JOB will then reload the sequential data set into one with the correct BLKSIZE. See Figure 8. ts

NaSPA member Lionel B Dyck has been in systems programming since 1972 and an active member of SHARE since 1982. He has developed more than 100 ISPFdialogs, many of which are available on the CBT Tape. His email address is Lionel.B.Dyck@kp.org.