

Micro <-> Mainframe Forte PJ

Purpose:

This paper provides an overview and examples for using the DCA Forte PJ Emulation to upload and download files from the mainframe to microcomputers or vice versa.

General Information:

The Forte PJ emulator uses hardware and software to let you connect an IBM PC or compatible to an IBM control unit and host computer.

This will enable you to not only use the PC as a mainframe terminal, but to also upload and download files. An added feature enables you to capture screens.

The Forte PJ works as a IBM3278 Display Station. The cost was approximately \$900. Extra software and/or hardware must have been purchased to emulate IBM 3279 or Model 5 (132 Columns).

System Requirements:

Forte PJ Emulation Card and Emulation Software.

The minimum hardware configuration is 128K RAM and Monochrome or color monitor.

DOS 2.0 or greater is required.

An installation program is included as well as a menu driven Forte PJ configuration program.

Installation:

At DOS prompt, enter:
PC789INS c: <Enter>

Configuration:

At DOS prompt, enter:
PC789CFG <Enter>

NOTE: Add \PC789 to your AUTOEXEC.BAT file to ensure Forte PJ files are always available.

Starting Forte PJ:

At DOS prompt, enter:

PC789 -f <Enter>

to start Forte PJ emulation.

-f = force option
-r = resident option
-e = exit option

-f options enables emulation and permits use of the screen capture option (recommended). You may also invoke resident mode from within the force mode.

Mainframe System Requirements:

The mainframe must have the host file transfer programs.

In the MVS environment, use the attached SIGNON2.CLIST to access this program, thus enabling uploads and downloads. (See Attachment A)

This process is menu driven. At the system ready mode prompt, type FORTSPF to start the upload/download. (See Attachment B)

In the CMS environment, use PCXFER to upload and download files. PCXFER (PC Transfer) is not interactive and the desired parameters must be provided with the command. (See Attachment C)

NOTE: Please BATCH FILE transfers are not available.

IBM 3278 Emulation:

Upon executing PC789 -f the PC will display an emulation of a IBM3278 screen. The codes for the Controller Type, Communication Type and Status, Cursor Position, and Model Number will be Displayed on the bottom of the screen. (See Attachment D)

The screen will display a message SYSTEM WAITING FOR LOGON.

Type the following:

TSO_ (_ = System A, H. etc.)

USERID (e.g. DOT9__)

The above can often be entered at together (e.g TSOA DOT9__).

Then enter your password at the prompt.

Once the Ready prompt is displayed you may activate the desired application (e.g ISPF, FORTSPF, etc.).

Upload/Downloads:

Once in MVS/TSO type FORTSPF at the Ready prompt to start the upload/download process.

This will invoke a menu driven system to easily download or

upload a file(s).

Attachment E is an example of a file download.

Attachment F is an example of a file upload.

Use the System defaults to download ASCII files. Generally, use the BINARY file option to download binary files.

VM/CMS Emulation:

Type the following:

VM_ (_ = System I, etc.)

USERID (e.g. DOT9__)

Again, VMI DOT9__ may be combined.

IMPORTANT NOTE: Use VMEXIT command to leave VM Menu screen.

Uploads/Downloads:

Once in CMS at Ready prompt, type the following:

PCXFER FROM (file mode type)
TO (D:filename.ext)

together on one line.

Attachment G & H provide examples of file uploads and download respectively.

Helpful Hints:

In MVS/TSO include SIGNON2 clist in your signon clist.

Create a TSO clist named MENU to help users execute Forte uploads/downloads. (See Attachment I)

Use the Forte PJ screen capture, append, and print

features to help document mainframe system applications.

Use Resident feature to move back and forth from DOS to mainframe without logging off.

Create a batch file to start Forte PJ emulation so user do not need to learn PC789 -f (See Attachment J).

An IRMA Plus Board is the current replacement for the Forte PJ board. DCAXFER File Express can be used in resident mode to utilize the FORTE menus. This transfer method can also be used in background mode. The IRMA emulation also provides for batch file uploads/downloads.

Uploading/downloading files from or to a hard disk is faster, since disk I/O is considerably faster. Once the file transfer is completed, copy the file(s) to a floppy disk if desired.

Conclusion:

The DCA Forte PJ Emulation provides a fast, easy method to transfer files from a mainframe to a microcomputer. The user menus are very easy to use and file transfers are reasonably fast. The screen capture, append, print, and resident features are very useful.

On the negative side, batch file transfers are not available.

If a person is seeking a easy method to occasionally upload or download files, the Forte PJ board or the Forte Menus used in conjunction with the IRMA board will function very well.

Please keep in mind the replacement equipment is a IRMA Plus or IRMA3 emulation board which cost approximately \$850 (\$1200 for graphics) with software.

Product:

DCA FORTE PJ is a product of Digital Communications Associates, Inc., Alapartta, Georgia, which has since been purchased by IRMA.

Attachments:

Attachments A through I are examples referred to in the above paper to provide illustrations of described processes.

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```

PROC 0
CONTROL NOMSG NOFLUSH PROMPT NOLIST
GLOBAL &IDCSYS
GLOBAL &PLIBU
GLOBAL &MLIBU
GLOBAL &SLIBU
GLOBAL &LLIBU
GLOBAL &TLIBU
SET    &PLIBU = ('IDC.FORTE.ISPPLIB')
SET    &MLIBU =
SET    &SLIBU =
SET    &TLIBU =
SET    &LLIBU = ('IDC.FORTE.LOAD')
END

```

ATTACHMENT A

```

* * * * *
*   WHICH OPTION DO YOU WANT?
*
*   ENTER:
*       I - FOR ISPF MAIN MENU
*       2 - FOR ISPF OPTION 2 - EDIT PANEL
*       8 - FOR ISPF OPTION 8 - VIEW INPUT/OUTPUT DATASETS
*       C - FOR INTERACTIVE CHART UTILITY
*       F - FOR FORTE UPLOAD/DOWNLOAD
*       M - FOR SUPERCALC
*       S - FOR MISTIC-SAS MENUS (NEW)
*       N - FOR INTERACTIVE SAS VERSION 6.06 NEW
*
*       R - FOR READY MODE
*
*                                     'HAVE A GREAT DAY'
* * * * *
==> f

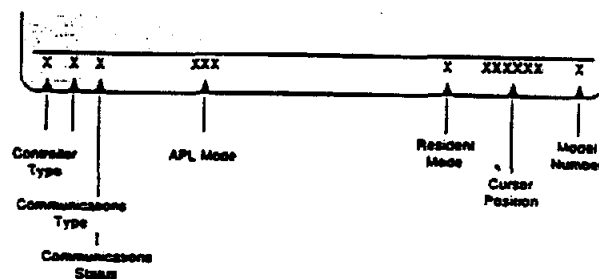
```

Alternate Method

Type the following:

FORTSPF <enter>

ATTACHMENT B, I



```

-----> Forte Data Systems Option Menu <-----
-----> V1R3M9 <-----
OPTION ==> 1

1 Transfer MVS file to the PC
2 Transfer PC file to MVS file
3 Transfer PC file to MVS SYSOUT
4 Transfer PC file to MVS INTERNAL READER

```

Enter END command to terminate file transfer.

ATTACHMENT M

```

-----> Forte Data Systems PC File Transfer <-----
-----> Transfer File from Host to PC <-----
COMMAND ==>

```

PC File name ==> a:vulcm16.dat

ISPF Library:

Project ==> DOT9??

Library ==> GRAD1

Type ==> DATA

Member ==> vulcm16 (must be specified for a PDS)

Other Partitioned, Sequential Data Set:

Data Set Name ==>

Remove Line Numbers ==> NO (YES or NO)

Transfer ASIS =====> NO (YES or NO)

Data Set Password ==> (If password protected)

Enter END command to terminate transfer of MVS file to the PC

ATTACHMENT E

```

-----> Forte Data Systems PC File Transfer <-----
-----> Transfer File from PC to Host <-----
COMMAND ==>

```

PC File name ==> a:vulcm16.dat

ISPF Library:

Project ==> DOT9??

Library ==> GRAD1

Type ==> DATA

Member ==> (must be specified for a PDS)

Other Partitioned, Sequential Data Set:

Data Set Name ==>

Disposition =====> SHR (OLD, NEW, MOD or SHR)

Renumber file =====> NO (YES or NO)

Tabs expansion =====> 08 (00 to suppress)

Transfer ASIS =====> NO (YES or NO)

Data Set Password =====> (If password protected)

Enter END command to terminate transfer of PC file to an MVS File

ATTACHMENT F

Ready;

PCXFER profile data al FROM PC(a:profile.ex)

RUNNING VM_3090

ATTACHMENT G

Ready;

PCXFER profile exec al TO PC(a:profile.ex)

RUNNING VM_3090

ATTACHMENT C, H

Ready;

PCXFER profile data al FROM PC(a:profile.ex) (append

RUNNING VM_3090

ATTACHMENT G

```
echo off
cd \pc789
pc789.exe
cd \
com.bat
```

ATTACHMENT J

```
-----> Forte Data Systems PC File Transfer <-----
-----> Transfer File from PC to SYSOUT <-----
COMMAND ===>
```

PC File name ===> a:vulcm16.dat

Sysout class ===>

Copies	===>	(number of copies if more than 1)
Destination	===>	(User ID or Printer Name)
NJE Node	===>	(NJE System Node Name)
Form	===>	(form number if not standard)
Fold	===> NO	(yes to force upper case printing)
Tabs expansion	===> 08	(00 to suppress)

Enter END command to terminate transfer of PC file to SYSOUT

ATTACHMENT K

```
-----> Forte Data Systems PC File Transfer <-----
-----> Transfer File from PC to the Internal Reader <-----
COMMAND ===>
```

PC File name ===> a:vulcm16.dat

Tabs expansion ===> 08 (00 to suppress tab expansion)

Enter END command to terminate transfer of PC file to Internal Reader

ATTACHMENT L

----- PF KEY DEFINITIONS AND LABELS -----

COMMAND ===>

NUMBER OF PF KEYS ===> 12

TERMINAL TYPE ===> 3278

PF1 ===> HELP
 PF2 ===> SPLIT
 PF3 ===> END
 PF4 ===> RETURN
 PF5 ===> RFIND
 PF6 ===> RCHANGE
 PF7 ===> UP
 PF8 ===> DOWN
 PF9 ===> SWAP
 PF10 ===> LEFT
 PF11 ===> RIGHT
 PF12 ===> CURSOR

PF1 LABEL ===>
 PF4 LABEL ===>
 PF7 LABEL ===>
 PF10 LABEL ===>

PF2 LABEL ===>
 PF5 LABEL ===>
 PF8 LABEL ===>
 PF11 LABEL ===>

PF3 LABEL ===>
 PF6 LABEL ===>
 PF9 LABEL ===>
 PF12 LABEL ===>

Press ENTER key to save changes. Enter END command to save changes and exit.

ATTACHMENT N

Ready;
 PCXFER profile data a1 FROM PC(a:profile.ex)
 FORTE20E FILE ALREADY EXISTS. APPEND OR REPLACE MUST BE SPECIFIED.
 Ready(00020);

RUNNING VM_3090

Command ===>

MIRSAS:AGGFILE1

USERID: DOT9DW

AGGREGATE FIELD GRADATIONS FILE GENERATOR

TEST YEAR-----: 91 (90, 91, 92, ALL)
RESPONSIBLE LOCATION: 99 (91-99, 50, 501, 88)

AGGREGATE SOURCE----: 50872-03 (e.g. 50872-03)
MIXTURE PLANT-----: 50872-03 (e.g. 1202-04)

FROM MATERIAL CODE--: 042CA11 (e.g. 001)
TO MATERIAL CODE--: 042CA11 (e.g. 032CA11)

FILE MEMBER NAME----: calla (e.g. MS9091) Max 8 Char.
ACTION-----: MAINFRAME (e.g. ? FOR ACTION LIST)

NOTE: ENTER DESIRED PARAMETER(S). File will displayed on screen and
FILENAME='userid.GRAD1.DATA(membe
<PF15=SUBMIT> <PF3=QUIT>

ATTACHMENT P

Command ===>

MIRSAS:AGGFILE1

USERID: DOT9DW

AGGREGATE FIELD GRADATIONS FILE GENERATOR

TEST YEAR-----: 91 (90, 91, 92, ALL)
RESPONSIBLE LOCATION: 99 (91-99, 50, 501, 88)

AGGREGATE SOURCE----: 50872-03 (e.g. 50872-03)
MIXTURE PLANT-----: 50872-03 (e.g. 1202-04)

FROM MATERIAL CODE--: 04 +Select Data-----+
TO MATERIAL CODE--: 04 Command ===>

FILE MEMBER NAME----: ca Make one selection.
ACTION-----:

NOTE: ENTER DESIRED PARAMETER
<PF15=SUBMIT> <PF3=QUIT>

FORTE
IRMA
MAINFRAME

and
embe

ATTACHMENT P

+FSVIEW: WORK.GRAD91 (B)-----

Command ==>

OBS	DIST	MATL	TYTEST	SUPP	PNAME	COUNTY
1	99	042CA11	IND	50872-03	SOUTHERN ILL.STONE	087
2	99	042CA11	IND	50872-03	SOUTHERN ILL.STONE	087
3	99	042CA11	IND	50872-03	SOUTHERN ILL.STONE	087
4	99	042CA11	IND	50872-03	SOUTHERN ILL.STONE	087
5	99	042CA11	IND	50872-03	SOUTHERN ILL.STONE	087
6	99	042CA11	PRE	50872-03	SOUTHERN ILL.STONE	087
7	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
8	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
9	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
10	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
11	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
12	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
13	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
14	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
15	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
16	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
17	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087
18	99	042CA11	PRO	50872-03	SOUTHERN ILL.STONE	087

ATTACHMENT P