

Using FTP with the Mainframe

A Quick How To...

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The Problem

You have a file on the mainframe you want to use in a PC SAS session. You could download it to your local PC but:

- There are character translation issues
- Binary fields are an issue
- Downloading via ftp on the command prompt can be a hassle.

Use a FILENAME statement instead...

The FILENAME statement works for more than just local files. The FILENAME statement can use the FTP protocol to read your file. If your mainframe allows FTP connections (most do) you can utilize this.

Here is an Example

```
FILENAME CAPTLOG FTP
''' MYDATA. DASD. FILE. HERE' ''
debug
host=' ftp. starshi p. enterpri se'
user="spock"
pass="1234"
S370V
RCMD=' SITE RDW NOWRAPrecord
READTAPEFORMAT=V'
ENCODING=' ebcdi c1047' | recl =1000;
```

DASD Names need quotes

You need to ensure the mainframe name has single quotes and surrounded by double quotes:

Start with Double
Quotes!

“ ' MYDATA. DASD. FI LE. HERE' ”

Then add Single
quotes

The DEBUG option

Adding DEBUG writes extra information to the log. This is helpful in diagnosing problems but can be turned off if not needed

```
FILENAME CAATALL FTP  
"MYDATA.DASD.FILE.HERE"  
debug  
host='ftp.starship.enterprise'
```



Add Your Host and User info

The host name of your
mainframe ftp server

host=' ftp. starshi p. enterpri se'

user="spock"

Your mainframe user ID

pass="1234"

Your password (same as my luggage!)

S370V and S370VS

The S370V and VS options tell SAS that the data is in IBM 370 variable (S370V) or variable spanned format (S370VS).

This is important if you are reading binary data.

```
RCMD=' SITE RDW NOWRAPrecord  
READTAPEFORMAT=V'
```

This is the remote commands issued in FTP

This **SI TE** command says:

- Read variable format data (**RDW**)
- Don't read next line past end of current line (**NOWRAPrecord**)
- This is a tape with a variable record length (**READTAPEFORMAT=V**)

More RCMD and SITE Help

- The **RCMD** command lets you run and remote FTP command.
- To find out more about **SITE** and other remote commands logon to your FTP server and use the REMOTEHELP command:

```
ftp>REMOTEHELP <command>
```

```
Eg: ftp>REMOTEHELP SITE
```

Language Barriers!

The Encoding option is important when reading EBCDIC data. Certain characters don't translate well. SAS can convert them properly with this option:

```
ENCODING=' ebcdic1047'
```

Voila! Now It's Ready

SAS will not connect when the FILENAME statement is issued, only when it needs to read the file. An example is with INFILE:

```
data mydata;  
  infile  CAPTLOG;  
  input  @01 stardate  yymmdd10.  
        @11 log_text  $500.      ;  
run;
```