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The Filename Revisited

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"Come out of the desert of ignorance to the OASUS of knowledge"

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Why Pay Another Visit to the Filename Statement?

- Most SAS programmers have used the filename statement to read/write external files stored on disk.
- Few SAS programmers have used the filename statement to read/write to devices other than disk or using different access methods.
- This presentation will show you some interesting devices and access methods supported by the filename statement in the context of the data step.

Filename Statement 101

- A declarative statement to associate a **fileref** with an external file or a device file.
  - A **fileref** is a logical name that can be used to reference a file or device.
- Works in pair with the **file** and **infile** statements.
- The **put** and **input** statements trigger the I/O.
- ***Resist the temptation to get away without the filename statement. Your code will be much easier to maintain.***

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Syntax of the Filename Statement

1. FILENAME fileref <device-type> 'external-file' <options><operating-environment-options>;

2. FILENAME fileref <device-type> <options><operating-environment-options>;

3. FILENAME fileref CLEAR | _ALL_ CLEAR;

4. FILENAME fileref LIST | _ALL_ LIST;

The Disk Option

To access an external file on disk. This is the default.

```
filename copyin "&SASROOT\SAS 9.1\core\sample\contents.sas";
filename copyout disk "C:\temp\contents.sas";

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
```

The Temp Option

To create a temporary file that exists only as long as the filename is assigned.

```
filename copyin "&SASROOT\SAS 9.1\core\sample\contents.sas";
filename copyout temp;

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
```

The Dummy option

To discard the ouput to a file or to provide an empty file.

```
filename copyin "&SASROOT\SAS 9.1\core\sample\contents.sas";
filename copyout dummy;

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
```

The Clipbrd option

To read data from or write data to the clipboard on the host machine.

```
filename copyin "&SASROOT\SAS 9.1\core\sample\contents.sas";
filename copyout clipbrd;

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
```

The Pipe option

To send data to a pipe or to receive data from a pipe.

```
filename copyin pipe
       "type ""&SASROOT\SAS 9.1\core\sample\contents.sas""";
filename copyout clipbrd;

data _null_;
       infile copyin sharebuffers;
       file copyout;
       input;
       put _infile_;
run;
```

The Catalog option

To reference a SAS catalog as an external file.

```
filename copyin "&SASROOT\SAS 9.1\core\sample\contents.sas";
filename copyout catalog 'work.mycat.contents.source';

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
%include copyout;
```

The Email option

To send electronic mail programmatically from SAS.

```
filename copyin "&SASROOT\SAS 9.1\core\sample\contents.sas";
filename copyout email to="Your email address";

data _null_;
        infile copyin sharebuffers;
        file copyout subject="contents.sas";
        input;
        put _infile_;
run;
```

The FTP option

To access remote files by using the FTP protocol.

```
filename copyin ftp 'missto0.sas'
        cd='/techsup/download/datastep/'
        user='anonymous' host='ftp.sas.com'
        pass= 'Your email address';
filename copyout catalog 'work.mycat.missto0.source';

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
```

The URL option

To access remote files by using a URL.

```
filename copyin url
'http://ftp.sas.com/techsup/download/datastep/missto0.sas';
filename copyout catalog 'work.mycat.missto0.source';

data _null_;
        infile copyin sharebuffers;
        file copyout;
        input;
        put _infile_;
run;
```

Other Device-Type Options Available in Windows

- COMMPORT: communications port.
- DDE: Dynamic Data Exchange.
- DRIVEMAP: to display information about the available hard drives.
- NAMEPIPE: named pipe.
- SOCKET: to read and write information over a TCP/IP socket.

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References

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Questions / Comments

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