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Advisor Answers

FoxPro 2.x and Visual FoxPro

Q: How do I get the timestamp from a file? Getting the date is easy, but unless I've missed something obvious FoxPro (2.6 DOS in my case) doesn't let me get the time.

–Steve Wood (via CompuServe)

A: In fact, there are two ways to get both the date and the time of a file in FoxPro. They differ in how many files they check on. One of them was poorly documented until VFP 3, and the two techniques still don't cross-reference each other in the Help file.

The better known way to get a file's date and time stamp is to use the ADIR() function. This function creates an array containing information about one or more files. You pass it the name of the array to create, and optionally a file skeleton or filename (including path) and it fills the array with the names, sizes, dates and times for all files matching the skeleton (or all files in the current directory if the skeleton is omitted). The array is resized as needed. The function returns the number of files found. For example, if we have three tables with .DBF extensions in the current directory:

```
?ADIR(aTables, "*.dbf")
```

returns 3 and the array aTables now contains one row for each of the tables. The array which is created has five columns. The first four are, respectively, the name, file size, date of last update and time of last update.

The fifth column contains a five character string - each character indicates the absence or presence of a particular file attribute. Presence of the attribute is indicated by a particular letter; absence is marked by a period. For example, the first character is "R" if the file is read-only and "." if it's read-write. The other file attributes are "A" for archive, "S" for system, "H" for hidden and "D" for directory.

By default, ADIR() returns information only on non-hidden, non-system files. You can get it to include hidden files, system files and/or directories by passing a third parameter containing one or more of "H", "S" or "D". So, to include all subdirectories of the current directory in the array, use:

```
?ADIR(aFilesAndDirs, "*.*", "D")
```

(In addition, you can pass "V" for the third parameter to get only the volume name of the specified drive. In that case, no file information is returned.)

One warning about ADIR() (and the other FoxPro functions that create or resize arrays). When the function returns zero because no files match the specification, the array is not created; if it already exists, it's not resized. So, it's important to check the return value of ADIR() before you start processing the results.

When you need the date or time stamp for more than one file, ADIR() is your best bet. But when you need the date or time for a single file, ADIR() feels like overkill and forces

you to deal with an array of one row. In that case, you may prefer to use the FDATE() and FTIME() functions. These functions take a file name and return, respectively, the date stamp and time stamp for the file. For example, on my system:

```
?FDATE("C:\DOS\COMMAND.COM")
```

returns 5/31/95 while:

```
?FTIME("C:\DOS\COMMAND.COM")
```

returns 6:22:00 AM. (The time of COMMAND.COM always tells you the version of DOS you have installed - in my case, it's 6.22.)

FDATE() and FTIME() were added in FoxPro 2.6 for dBASE compatibility, but they didn't get their own entries in the Help file until Visual FoxPro 3.0.

There's one more way to get the date stamp only for a .DBF file, but only when it's open. The LUPDATE() function returns the date a table was last updated. You pass the alias or LUPDATE() looks at the current work area. Unlike the other functions, LUPDATE() doesn't use the DOS date stamp - it returns the date stored in the table header. I've never used this function yet since the others are more informative.

-Tamar