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Advisor Answers

FoxPro 2.x and Visual FoxPro 3.0

Q: I use the APPEND FROM command with the DELIMITED WITH , option to import scanned data. It works fine for me, except when some fields are blank. For example, if the input line is:

```
123,,456,,,,,78
```

the data gets shifted to the left as if it were

```
123,456,,78
```

Is this a FoxPro bug? What can I do other than write low-level routines to import the data?

–Vladimir Laptev (via CompuServe)

A: Actually, what you're seeing is correct behavior. The problem arises from a choice the original designers of the APPEND FROM command made regarding terminology and options. The term "delimiter" has two different meanings with APPEND FROM, depending which option you use. To be more accurate, in some cases, APPEND FROM calls something a delimiter when it's really a separator. This leads to a great deal of confusion.

Let's start with some basic definitions and then look at what FoxPro really does. (FoxPro 2.x and Visual FoxPro have identical behavior in this regard.)

A delimiter is a character used to surround an item to distinguish it from its neighbors. For example, the quotes around the term "delimiter" in this sentences are, in fact, delimiters. When you write a date in FoxPro as {12/21/95}, the curly braces are delimiters.

A separator comes between two items to separate them. The comma you use between consecutive parameters when you call a function is a separator.

ASCII delimited data normally contains both delimiters and separators. By default, the delimiter is a quote mark and the separator is a comma. If you APPEND FROM somefile TYPE DELIMITED, that's what FoxPro expects. Here's some delimited data:

```
"Granor","Tamar","E.","73227,3303",37
```

Each character field is surrounded by quotes and consecutive fields are separated by commas.

Things get confusing when you use some of the special versions of TYPE DELIMITED that FoxPro offers. In DELIMITED WITH SPACE, in fact, fields aren't delimited by anything at all. They're separated by spaces.

DELIMITED WITH TAB also mistakes a separator for a delimiter. In this case, fields are delimited with quotes as usual and separated by tabs.

When you specify a delimiter in the DELIMITED WITH <character> version, FoxPro really does treat your character as a delimiter, not a separator. It still uses commas as a separator.

You're specifying DELIMITED WITH ,. In this case, FoxPro is using the comma both as a separator and as a delimiter. No wonder it's getting confused. In fact, it's doing exactly what you've told it.

It's not clear to me whether your data is really all numeric in which case you can just use TYPE DELMITED and omit the WITH clause or if you've got character data without delimiters. In the latter case, you'll need to either pre-process the data to add some string delimiters or use one of FoxPro's other input mechanisms. Perhaps the scanner software can produce its output with quotes.

–Tamar