

October, 1998

Advisor Answers

Visual FoxPro and FoxPro 2.x

Q: Try this in Fox 2.6 or VFP:

```
SET TALK OFF
? LEN( SUBSTR( "Hello", 6, 1) )
```

Then do this:

```
SET TALK ON
? LEN( SUBSTR( "Hello", 6, 1) )
```

In the second case (with TALK ON), an error message appears. Why in the world would SET TALK have anything to do with this string function?

–Bud Wheeler (via Advisor.COM)

A: This one goes way, way back in Fox history. I tested it as far back as FoxPro 2.0 (the oldest version I still have on my machine) and the behavior is the same all the way up to VFP 5. With TALK OFF, asking the SUBSTR() function for characters after the end of the string returns the empty string. With TALK ON, an error is generated (error 62, "Cannot access characters beyond string").

Why does FoxPro behave this way? I think it's because FoxPro (or FoxBase, to be more exact) started life as primarily an interactive tool for manipulating data, though it offered the ability to write programs. The designers figured that TALK would be ON when you're working interactively, but that it would be turned OFF in programs. When working interactively, you want to know about this sort of error, so you can adjust what you're doing. In a program, though, they apparently felt that triggering an error in this case wasn't worth it.

However, some of us were a little too clever for the designers. There are some circumstances where many people SET TALK ON in programs. For example, it's not unusual to turn TALK ON before a SQL SELECT in order to have the built-in progress bar appear as the query runs. Unfortunately, this opens your code up to the beyond string error.

In VFP 6, the designers finally decided to make this behavior uniform. SUBSTR() never returns error 62, no matter what you ask it to do. If you ask for a non-existent substring, you get the empty string.

While this is, on the whole, a good thing, watch out as you move older code forward. This is yet another way that VFP 6 is not exactly backward-compatible and could change your results. (The biggest such area is date constants, but that's a topic for another column.)

–Tamar