THE BEST OF VERITY STOB

Highlights of Verity Stob's Famous Columns From EXE, Dr. Dobb's Journal, and The Register



VERITY STOB

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JULY 1995, EXE MAGAZINE

Dear Bill

We have heard little of Microsoft employee Melinda French since her marriage last year to Bill Gates. Presumably she is safely installed in the Gates' Xanadu-like underground palace, with its computer-controlled doors and myriad other gadgets. But Verity is concerned...

TUESDAY

The shower went wrong this morning, so I called out a programmer.

It was my fault. I rebooted the john, owing to how it wouldn't flush, but was stuck on a modal dialog saying *Now wash your hands OK/Cancel* and thought I would freshen up while I waited for it to finish its login sequence. So I stepped into the cubicle and waved my hand over the virtual faucet, and of course I got a stream of boiling mangoscented gel down my right boob, *Yipe!*, because, as Bill explained later in his email, the Net DDE link with the boiler had gone down when I rebooted the toilet.

Then I got mad, which was kind of silly, because this sort of thing must happen to other people most days, and I pressed the emergency reboot button for the whole bathroom, which of course you mustn't do while the toilet is rebooting in case it picks up a stray interrupt and goes into its emergency back up routine. Which it did and it did.

I wouldn't have minded so much except of course I couldn't wash it off in the shower because the shower was still spurting molten mango goo, and I wasn't really in a fit state to call out the 24-hour programmer

over the vidlink. So in the end I emailed him priority Urgent. It took him ages to get here, because of course you need LoveNest security clearance level to get through all the doors to our *en suite* bathroom, and he had to literally hack his way in, so it was 4:00 pm before I got to fix myself up and have a blueberry waffle.

I do wish that Bill were here, instead of on an evangelising mission persuading the Native Australian Aborigines to use NT for boomerang design. He is such a practical man to have about the house.

WEDNESDAY

And it's my birthday! Sadly, Bill couldn't make it back from Down Under owing to how he had to fly to Rio to get them to use Windows '95 in all their snowmobiles. But he hadn't forgotten; I was woken up in bedroom suite #3960 (which is where I am sleeping until they fix up the LoveNest bathroom properly) by the email thing going off with a new message. The macro substitution hadn't worked out quite right, but it was still real Special. It said

```
Dear <Employee First Name Tag>
Happy Birthday. We look forward to another year of excellent work
from you.
Yours sincerely
<Friendly Line Manager Tag>
This message autogenerated by Microsoft Scheduler™ for Windows '95®.
```

And to think most girls have to put up with flowers!

In the evening, I held a virtual dinner party to celebrate my birthday. I asked Bill's parents, who are called Mr. & Mrs. William Gates II. We ate and I had matzo balls and I said, Isn't there any other part of the matzo you can eat? which is from Dinnerania™, the Microsoft CD-ROM of dinner party jokes. Only nobody laughed because they were having pot roast and they couldn't see what I was having what with them being 400 miles away and when I tried to explain they shut down the link. Which was kind of sad because Dinnerania is in alpha and this is the only joke in the database and I had matzo balls special because as Bill always says, someone has got to do the alpha testing.

FRIDAY

I am a bit down this morning. Partially this is because, according to the house Newsnet system, Bill has had to go on to Red China, on account of them needing to be told how to use Microsoft DictatorTM for Windows—I guess this must be our new voice recognition add-on for Office. Also I am still worrying about the joke in Dinnerania: what about all those dear little matzos that get hurt just so that persons can have dinner parties?

But mostly I am unhappy because the whole house crashed last night and when it came up again it had to go to its weekly backup security database, which means it thinks I am in LoveNest when I am actually in bedroom suite #3960, which means I cannot open the door as I do not have correct security clearance. Also, there is no phone in here, as Bill thinks guests should be discouraged from using obsolete mainframe technology, and no windows, because the house is built under the hill, and as Bill says who needs windows in a room when you have got Windows®?

However, no need to worry! There is a terminal in here and I have emailed Bill to send help and look! I just got a reply. I just click on the little envelope and

Dear <Guest in bedroom suite #3960 Tag>
Thank you for your message. While Bill is always keen to hear from

his guests, you will appreciate that he is a very busy man, and he can't always reply to his email straight away. Your patience is appreciated.

William Gates III



JANUARY 19100, EXE MAGAZINE

[This article has brought me more comeback than any other, drawing in many passionate emails from both sides of the argument.

Interestingly, it contains a whopping bug, caused by my changing of my code after I'd tested it—I over-egged the pudding to dramatise a point. I stand by the complaint I was making, but the example won't compile.

None of my pro-VB correspondents pointed out this error. Instead they concentrated on irrelevancies; for example noting that it is possible to change the behaviour of VB6's editor to overcome the difficulty indicated in point 12.5.

As is often the case, Microsoft has had the final say. When it designed VB.NET, the successor of the tool considered here, it chose to fix most of these issues.]

Thirteen Ways to Loathe VB

Verity Stob has recently been press-ganged into a Visual Basic project. For the benefit of other programmers who may be brought down in this way, she has prepared an executive summary of her experience.

1. *Procedure and function call.* This area of BASIC has come on in leaps and bounds. Whereas in the bad old days you had to use GOSUB, these days you have *subs* ("subs" is the preferred babyspeak for what grown-ups call procedures or void functions) and functions. You write

Subname Param1, Param2

to call sub Subname and

```
Result = FuncName(Param1, Param2)
```

to call function FuncName. Notice the useful difference in syntax, with and without parentheses, which serves more purposes than I can describe. It is of course a syntax error to write

```
Subname(Param1, Param2)
```

but the good news is you can write

```
FuncName(Param1, Param2)
```

to call a function and ignore its return. However, if Param1 or Param2 are reference parameters—and they will be unless you have specifically demanded value parameters—they will be treated *in this specific case* as value parameters, and any assignment to them discarded on exit from FuncName.

Obviously the syntax

```
Call FuncName(Param1, Param2)
```

fixes this, and causes Param1 and Param2 to be treated as reference parameters.

Right.

2. *Variable declaration.* This is achieved using the intuitive keyword Dim. To declare an integer I write

```
Dim I As Integer
```

To declare a whole load of integers write

```
Dim I, J, K, L As Integer
```

Actually (haha got you!) this doesn't work. This declares I, J, and K as variants and only L as an Integer. This almost never matters, except quite often.

3. Calling functions and accessing arrays. In most languages you can distinguish between a call to function F with parameter 3 and a reference to array F index 3 because one is written F(3) and the other F[3]. In Visual Basic they are both written F(3). Yes.

- **4.** Another thing about arrays. The index of the first element is 0, unless it is set to 1 by a directive.
- **5.** But there are also collections, modern object-oriented versions of arrays. And the first element of these is usually 1, unless it happens to be 0. Sometimes it is 0 and sometimes it is 1, depending on where you found it. Do you feel lucky, punk? Well, do ya?
- **6.** *Did I mention "object-oriented"* back there? Hahahahahahahahahahahahahaha.
- **7.** *Initialisation*. This area of BASIC has come on in leaps and bounds. Whereas in the bad old days you had to use a completely barbaric mechanism based on the keywords DATA and READ, this has now been swept away. The following fragment illustrates the modern way to initialise an array in code:

```
Dim A(20) As Double

A(0) = 4.5 ' May work, may not—who can tell?

A(1) = 4.71

A(2) = 4.82

A(3) = 4.92
...
```

You get the idea.

- **8.** *Arrays of constants*. No such thing. Anyway what would you do with 'em if you had 'em?
- **9.** The type Integer declares a 16-bit integer. That's right, sixteen bits. Yes I am using the latest version. Unbelievable, isn't it? Let's have a big warm *EXE* welcome back to code that dies suddenly around the 33k mark.
- 10. Assignment. This area of BASIC has come on in leaps and bounds. Whereas in the bad old days you used the = operator for assignment, preceding it with LET if you were a fusspot of the first order, these days you use the = operator for assignment, preceding it with Let if you are a fusspot of the first order. Or Set if it's an object. Which is compulsory not optional.

11. *Logic*. This particular language is supposed to be easy and intuitive, so here's a test for you. Suppose that Check1 is a checkbox on a form, and you execute the code

Dim b As Boolean, c As Boolean
b = Check1.Value
c = Not Check1.Value

Then b as expected will contain True if the checkbox is checked and False if the checkbox is unchecked. What do you think c will contain? (Clue: always True. No, really.)

- **12.** The four magic constants of the apocalypse: Nothing, Null, Empty, and Error.
- **12.5** *The stupid editor*, which by default will put up a whining dialog if you try to leave a line which it recognises as syntactically incorrect. Like when you leave an incomplete line temporarily to go and copy a long identifier into the clipboard, for example.
- **12.7** The stupid compiler, which by default does a "compile" so superficial that you can get runtime errors caused by an If missing its End If.
- **12.8** *Procedures, sorry "subs," can be declared* Public, Private, *or* Static. Two points to anybody who correctly guesses what Static does. Three points to anybody who can suggest a sane use for it.
- **13.** *Bill is making even more money out of this.* And I am powerless to stop him. In fact I am helping him.

(Next week: Java. Verity Stob is currently appearing as a troll in every single tiresome religious discussion about languages on Usenet.)



NOVEMBER 2000, DDJ WEBSITE

Two by Two

An unwilling victim has been sucked into the Extreme Programming craze.

Monday. "A lot of weather about today," observes the Breakfast TV she-forecaster, correctly. Arrive at work soaked to point of edibility, temper and climate a matching pair, to find Mike "Horatio" Nelson sitting in my chair, using my PC. Horatio, as we are not allowed to call him, is a recent recruit; pompous beyond his five-and-twenty summers with a florid complexion, spectacles, and a Pooterish moustache.

I say, "Good morning Mike. How can I help?"

He says, "I am your pair."

I say, "You are my what?"

He says, "Did you skip Friday's meeting? The company has decided to try the Extreme Programming methodology. Embrace Change! and all that."

I say, "By all means you embrace it, but at your own desk please."

He says, "Actually I think you'll find that Mr. Webster wants me here."

To the manager's office, where I enquire of Eric "Noah" Webster (we are nickname-fixated here) what the blankety-blank is Horatio doing hanging around my desk, reading my email, and babbling about XP? Noah gets embarrassed and explains that this is a new X-periment, ha-di-ho, and that he had sounded everybody out as to who should try it first and, quote, "You and Mike, Verity, seemed to be an obvious pair." Meaning: I am the dope to be sacrificed at the altar of the latest fad.

Fine.

Wednesday. Storm ongoing. TV news portrays gloomy family handing out hamster cage and video recorder from upper-storey bedroom window of flooded house into inexpertly rowed dinghy. I reach work late and soaked for the third time in three days, where I am still being taught the tenets of Extreme Programming by The Man Who Knows, i.e., Horatio.

Horatio is (again) reviewing one of my modules, looking for what he describes as "smelly code." He triumphantly pounces on a function called Locked, noting that this does not conform to our naming standard: it should be "IsLocked". I admit this to be strictly speaking true—if gob-smackingly pedantic—and bring up the editor's Search/Replace dialog to fix it.

But no. Horatio stops me and barges me out of the driving position. He says, "You have to get Test Infected, Verity. You should never cut any code without first writing a test."

"But Mike," I cry, "how can you write a test of a name change? It won't compile. This is just silly."

"No matter," he replies, wagging his index finger at me, "we are going to do this by the book."

"And what about the code in the test itself?" I ask. "Must we write code to test that as well? How shall we know when to stop?" But he is not listening.

I think I see why they call it "extreme."

Friday. Ongoing flooding, storms, railway/commuter mayhem. For the sake of novelty, a small tornado has devastated a caravan site on the south coast. (Query to self: why do tornados, in all sizes and in all parts of the world, invariably attack caravan sites? Are they Prince Charlesstyle "unspoiled countryside" snobs? Are they attracted by the smell of chemical toilets?)

Relationship with Horatio now declined to barely speaking terms, because

- **1.** He is sitting at *my* desk, using *my* PC. He has even had the temerity to set my screen wallpaper to a picture of a blonde TV nymphet called "Muffie the teenage muffin filler" or some such,
- 2. He continuously whistles through his teeth/moustache the Nancy Sinatra golden oldie "These Boots Are Made for Walking," a

tune that, once it has attached itself to one's brain, sticks there unshiftably like unobserved chewing gum to an incautious backside,

- **3.** He has spent all week "refactoring" (== playing with) my working code and we have achieved stuff-all, and
- **4.** Cut to the chase. He uses tab characters instead of two spaces to do his code indenting.

Enough.

Monday. Rain throttled back to intermittent showers, floods subsiding, and I absolutely insist that we actually write some code. Horatio reluctantly agrees and offers to let me drive for once but I say "No, go on, you are the expert, show me how to do it the XP way" all wide-eyed as though I Can Easily Believe It's Not Butter wouldn't melt.

As it happens, our first task is to write a library routine to compare two variants for equality. (More difficult than it sounds: raw memory comparison won't do it because the variant is the kludged data type from hell that can contain an integer, double, string, or a multi-dimensional array of yet more variants.) I watch with interest as Horatio begins to indulge in the telltale displacement activity of the floundering programmer: declaring variables. After six hours' work, he has written three loops and a switch statement, supported by 23 variables of assorted types. This code does nothing but exercise the stack register.

How could I have forgotten the First Law of Meta-Methodology? "Evangelists of new techniques often get that way because they can't write code for toffee."

Tuesday. A clear sky at last, TV news switched from tragedy to comedy: the US presidential election. I get in early, delete Horatio's doodling, and bang in a neat little recursive routine that I worked out privately yesterday. This not only compiles first off, it even passes the test infection Horatio had prepared for it.

When he finally arrives, Horatio is predictably baffled. "But how can a function call itself?" he whines.

"There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy," I reply, yielding to temptation and blowing Muffie a kiss.

At lunchtime I make the most of the November sunshine and head off to Sainsbury's for a mega grocery shop. On return I find Noah and Horatio standing by my desk. Says Noah, "I've asked Mike to help out in tech support for a while, so I'm afraid you'll have to press on with XP on your own."

I trawl my purchases, seeking a moment-encapsulating symbol.

"Here you are, Mike," I say. "Have an olive."