

Visual Basic Programmer's  
Journal  
and Microsoft Corporation  
present VBITS 1994



# Debugging VB/Win Applications

Scott Swanson  
Applications Programmability  
Product Manager  
Microsoft Corporation

[Scottsw@Microsoft.com](mailto:Scottsw@Microsoft.com)

DEBUG.ZIP



# Overview

---

## Avoid

Coding style

Naming conventions

## Correct

Steps

Breaks

Watches

## Reality check

Error handling

Misc. tips

OLE Automation



# Coding Style

---

Comments, comments, comments

Modular, modular, modular

GLOBAL.BAS

Always use 'Option Explicit'

Avoid the Variant datatype



# More Coding Style...

---

**Avoid multi-variable dim statements**

Dim x, y As Integer

**Use the tightest scoping possible**

**Declarations at top of procedures**

**Use lots of white space**

**Keep procedures short**



# Naming Conventions

---

## Control naming

- Never accept default names

- Three-letter object prefix

- Make name and caption consistent

## Procedure prefixes

## Consistent procedure conventions

## Use case effectively

- Upper-case constants

- Mixed-case variables

## Hungarian notation



# Naming Examples

```
Global Const OLE_ACTIVATE = 7

Dim iCounter as Integer
Dim lBigNumber as Long
Dim sUserName as String

txtFirstName.Text = "Scott"
lblFirstName.Caption = "First Name:"

frmUserData.Caption = "User Data"

Sub UserWriteAddress()
End Sub
```



# Steps, Breaks, Watches

---

Single step vs. procedure step

Use break and step together

Watch expressions and watchpoints

Use call stack to step out of procedures

Use F9 and F5 to move by chunks

Shift+F2 and F2 to navigate procs

Consider using debug flags



# The Debug Window

---

## Test-drive procedures

Events, Subs, Functions

Command1\_Click

InitData

? SquareIt (3)

## Evaluate expressions

Properties, Variables, Expressions

? Text1.Text

? iRate

? ((x \* 2) ^ 3)

X = 4 'X must be in scope

## Debug.Print



# Error Handling

---

Do it early in development cycle

ALL I/O, ALL memory allocation

Indent to clearly show trap area

Only use where necessary - never add

On Error Resume Next to top of  
procedure

Check error code before resume -  
never assume what the error is

Use 'Case Else'

Use MsgBox to display information



# OLE Automation

---

Know your objects!

Scope is Key!

CreateObject vs. GetObject

Multiple Instances of same application

Passing data between applicaitons



# Miscellaneous Tips

---

Mark and date undone sections

Window positioning

Use multiple modules to see multiple procedures simultaneously

Don't maximize forms

Multiple .MAK files

Save frequently...in ASCII

Write tests before writing code



# More tips...

---

Be careful with replace

Multiple level undo is your friend

WPS utility

\\VB\CDK\WPS.EXE

DLL search path (see docs for  
LoadModule API)

Current Directory

\\Windows

\\Windows\System

Directory where .EXE is running

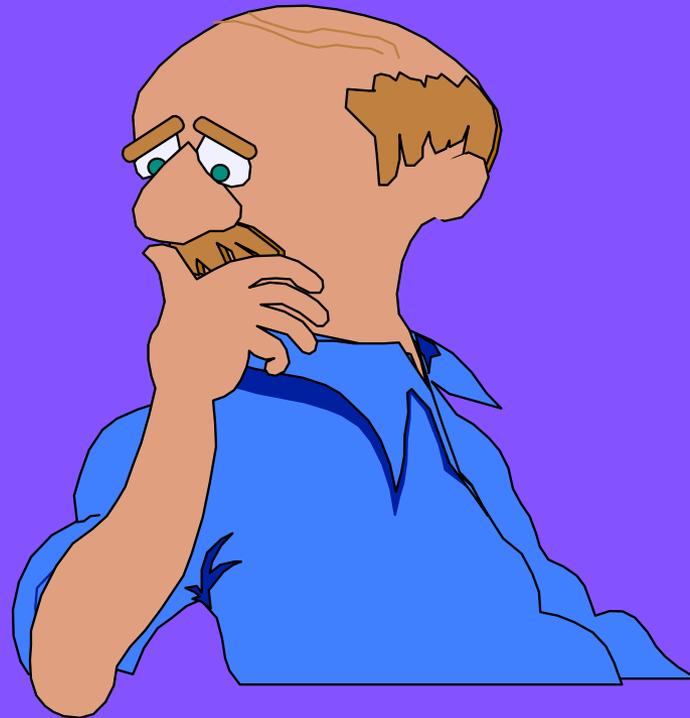
DOS Path

Directories mapped by network



# Questions?

---



*San Francisco*  
**VBITS '94**  
*California*