



Sax appeal

Sax Webster is a browser builder that is just the last word in web applications. Tim Anderson models it here for you, taking care not to neglect his widgets and tools while he's at it.

Forget laptops and mobile phones. The fashion accessory of the moment must be the personal web site. Web sites are no use unless they are visited, so why not build point-and-click access into the applications you distribute? You can do this by calling an external application like Netscape or Internet Explorer, but Sax Software lets you go one better by building a customised browser right into the application.

The Webster control is a 32-bit browser OCX that drops directly into any compatible development tool, such as Visual Basic 4.0 or Visual C++ 4.0. With the rampant growth of the internet and increasing corporate usage of intranet networks, Sax Webster has turned up at just the right moment. For example, online help might now mean dynamic information on a web site, rather than the static file shipped with an application. Another option is to direct the hapless user to a site offering further

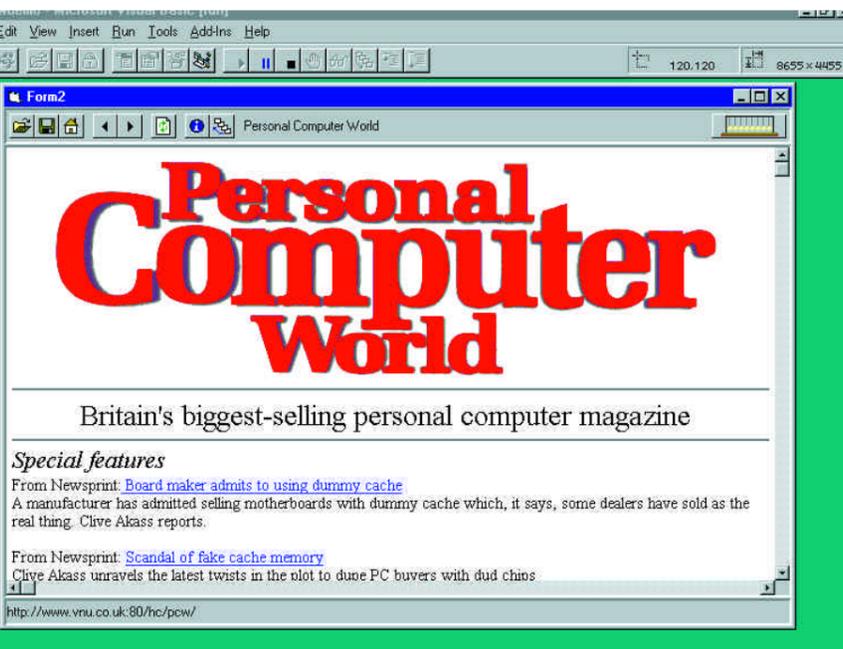


Fig 1 All done with Webster: VB 4.0 visits the PCW home page

products and services. HTML pages can be loaded from disk as well as from the internet, so you could also use Webster as a multimedia browser.

Sax Webster is a complete application wrapped in a control. You can create a browser simply by dropping the Webster control onto a form in VB or Delphi. It claims to support HTML version 3.0, but Sax adds that, "because 3.0 is not yet defined as a standard, it may differ from what Netscape or some other 3.0 browser supports." Here is the problem with Webster and ultimately with the web itself: lack of tightly defined standards, resulting in compatibility problems. It may not matter too much, since it would be foolish to use a Webster application as a replacement for Netscape or Internet Explorer. Webster makes better sense as a tool for accessing specific web sites that are linked to the container application, so you can ensure the

Listing 1: Intercepting the mailto command

```
Private Sub Webster1_DoClickURL(SelectedURL As String, Cancel As Boolean)
If Left$(LCase$(SelectedURL), 7) = "mailto:" Then
' run MS Exchange, using file association
ShellExecute 0, "open", SelectedURL, "", "", 0
SelectedURL = ""
' stop Webster attempting to act on this command
Cancel = True
End If
End Sub
```

Listing 2: Screensaver application

This application, which toggles the screensaver on and off, needs a VB form, a button and a code module. Note that to work in Windows 3.1, the declarations will need to be adapted. Code for the form:

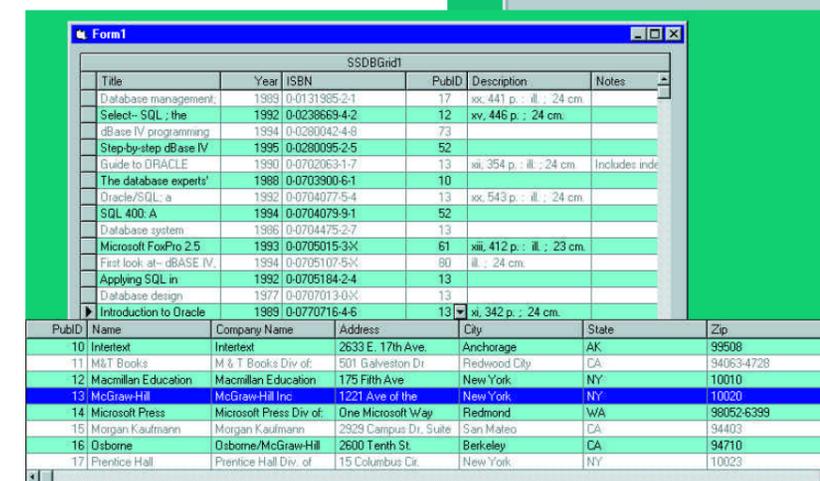
```
Private Sub Form_Load()
bOldActive = IsActive()
If bOldActive = True Then
Command1.Caption = "Disable screen saver"
Else
Command1.Caption = "Enable screen saver"
End If
End Sub

Private Sub Form_Unload(Cancel As Integer)
SetActive(bOldActive)
End Sub

Private Sub Command1_Click()
If IsActive() = True Then
SetActive(False)
Command1.Caption = "Enable screen saver"
Else
SetActive(True)
Command1.Caption = "Disable screen saver"
End If
End Sub (continues page 285)
```

compatibility of those particular pages. Some problems can also be overcome by writing code to intercept Webster events. For example, Webster does not support the mailto command that HTML uses to initiate an email message. The VB 4.0 code in Listing 1 will intercept mailto and call whatever application is associated with that command in the Windows 95 registry.

Another useful feature is the GetContent method, which lets you read all or part of an HTML page into a variable. Initially only



available as a 32-bit OCX, Sax has now released a 16-bit OCX as well, but nothing yet for VB 3.0 or Delphi 1.0 diehards.

Widgets for your data

Sheridan's Data Widgets has long been one of the most popular Visual Basic add-ons, particularly since the VB 3.0 controls in VB 4.0 are better, but still leave room for third-party enhancements. Version 2.0 brings the expected

conversion to 16- and 32-bit OCX format, but with enhancements. Sheridan has taken the opportunity to restructure the data widgets using objects and collections, bringing it into line with other programmable OLE objects. This makes for more logical code and increases the programmer's control, the disadvantage being that code which worked with Data Widgets 1.0 will have to be extensively rewritten. For example, to put a button in a DataGrid cell in version 1.0 used a ColBtn property: `SSDBGrid1.ColBtn(2) = True` which in version 2.0 becomes: `SSDBGrid1.Columns(2).Style = 1 ' edit button.`

The actual Data Widgets controls are the same six as before: Data Grid, Data Combo, Data Dropdown, Data OptionSet, Data Command and the Enhanced Data Control. All are useful but the Data Grid is the reason people buy this package. Its neatest trick is to link with a Data DropDown so that users can click on a grid cell and select values from a dropdown list bound to a field in another table (Fig 3).

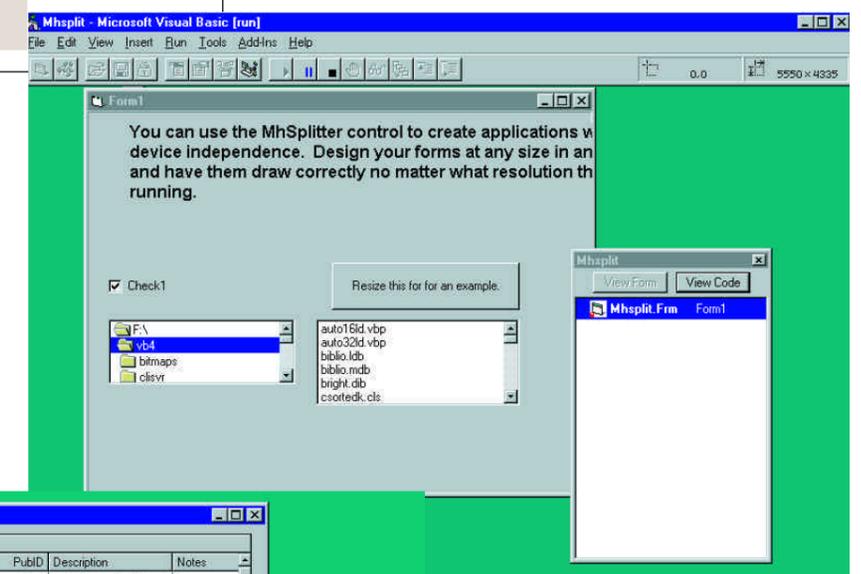


Fig 2 (above) The MhSplit control from OLE Tools attempting resolution independence. Unfortunately, this text box does not always get resized correctly...

Fig 3 (left) Using a data grid and a data dropdown. Clicking the PubID column drops down the publisher table, so you can see the full details when choosing the ID

Do you need Data Widgets? It depends entirely on how you prefer to program. If you make extensive use of bound controls, this bundle is all-but indispensable, particularly if a data grid is a key part of the user interface. The data control in VB 4.0 is not compromised in the same way as VB 3.0's effort, so this is a perfectly sound approach. The cautionary note is that large OCX controls like these cause substantially slower loading of your VB application, and that grids are often not the best way to present data to the user. Finally, the Data Grid also works well as an unbound virtual list control, a further enticement which may sway doubters.

OLE tools

Microhelp's OLE tools may have up-to-date OCX technology, yet this package conveys a dated impression. The main reason is that apart from their OCX conversion, many of the controls are little changed from earlier versions, right down to their description in the manual and the clunky example applications. OLE tools also slipped up during review when one of the genuinely new items, *MhSubClass*, failed to deliver. This is a message-trapping control that can catch Windows API messages and either kill them, or respond with a custom event and then pass them on. *MhSubClass* is fine for some purposes, for example if you want to inspect `WM_MENUSELECT` messages in order to provide a help text as the mouse runs down a menu. But a common requirement is to trap a message and then write code to determine whether to kill it or pass it on. *MhSubClass* cannot do this, since the fate of the message has to be determined before the VB event is triggered. Rivals such as the *MessageBlaster* OCX have no such handicap.

Never mind the quality. With 54 separate controls, the bundle still rates as good value. *MhCalendar* is a data-aware calendar control. *MhSplitter* allows you to build resolution-independence into interfaces by automatically resizing controls within the container, albeit rather slowly (Fig 2). *MhRealInput* is a text box that improves on VB's masked edit control for working with real or currency values. And so it goes on, providing something of value for most VB projects.

Microhelp supplies two versions of these tools. OLE tools has 16- and 32-bit OCXs, while VB tools stays with the old VBX

Listing 2 (continued from page 283)

Code for the module:

```
Option Explicit
Global bOldActive As Boolean
Declare Function SystemParametersInfo Lib "user32" Alias
"SystemParametersInfoA" (ByVal uAction As Long, ByVal uParam As
Long, lpvParam As Long, ByVal fuWinIni As Long) As Long
Public Const SPI_GETSCREENSAVEACTIVE = 16
Public Const SPI_SETSCREENSAVEACTIVE = 17

Function isActive() As Boolean

Dim lRetVal As Long
Dim pvParam As Long

lRetVal = SystemParametersInfo(SPI_GETSCREENSAVEACTIVE, 0,
pvParam, 0)

If lRetVal = False Then
MsgBox "Call to SystemParametersInfo failed"
isActive = False
Exit Function
End If

If pvParam = False Then
isActive = False
Else
isActive = True
End If

End Function

Sub SetActive(bActive As Boolean)
Dim lRetVal As Long
Dim pvParam As Long

lRetVal =
SystemParametersInfo(SPI_SETSCREENSAVEACTIVE, bActive,
ByVal pvParam, 0)

If lRetVal = False Then
MsgBox "Call to SystemParametersInfo failed"
End If

End Sub
```

format. There are differences between the two. For example, the inadequate *MhSubClass* is OCX-only, while the clever *MhOutOfBounds* universal data binding control is VBX-only. Finally, VB tools used to come with a version of Farpoint's Grid control, but that has now been dropped.

Hacking the system in Windows 95

Mark Horton writes: "I've just bought a new system with Windows 95 and VB 4.0. My

computer has a Win/TV card, and I wanted to write a program that would turn the screensaver off and on without having to go into the display properties tab. How or where can I find out about the API calls necessary to change the screensaver settings? Is there a book on the market which describes all the Win32 (and/or Win16) API calls?"

Windows 3.1 introduced a handy function called `SystemParametersInfo`.

This reads or sets numerous system parameters including the screensaver settings. Listing 2 (pp283/285) shows a small VB application for Windows 95 which toggles the screensaver on and off. The two key functions, IsActive and SetActive, work by calling SystemParametersInfo. The application checks the current state of the screensaver on loading, so that it can be restored on exit.

Another possibility is for your application to disable the screensaver whenever it has the focus. Windows activates the screensaver by sending a WM_SYSCOMMAND message with wParam set to SC_SCREENSAVE. By intercepting and killing this message, you prevent the screensaver from kicking in.

Delphi programmers can trap messages easily, but VB users will need an add-on like the MessageBlaster OCX.

Many problems like this can only be solved using the Windows API. That in turn means having a good API reference, and

the starting point is the Windows SDK help file (Fig 4) called WIN31WH.HLP for Windows 3.1 and WIN32.HLP for 32-bit Windows. Surprisingly, Visual Basic 4.0 comes with declarations for the 32-bit API but not the 20Mb help file. An alternative is

Daniel Appleman's book, *VB Programmer's Guide to the Windows API*, which provides what is needed for Windows 3.1 and is to be updated for Win32.

Tips for Visual Programming

- Speed VBs load time and slim your applications by stripping down AUTOLOAD.MAK (VB3) or AUTO32LD.VBP (VB4) to include only controls and references essential to every project.

- Avoid Dim iA, iB as Integer. This code declares iA as a variant. Instead, use Dim 1A as Integer, iB as Integer.
- In VB4, disable Compile on Demand (in Tools - Options - Advanced) to have the compiler check for syntax errors before a project runs.
- Your Delphi application can easily check for command-line parameters. ParamCount returns the number of parameters; ParamStr(0) returns the path and filename of the application, and ParamStr(n) returns the nth parameter up to ParamCount. (Listing 3)
- If you are adding lines to a string control like a listbox or memo, or an outline component, use BeginUpdate to increase performance by preventing screen updates. (Listing 4)

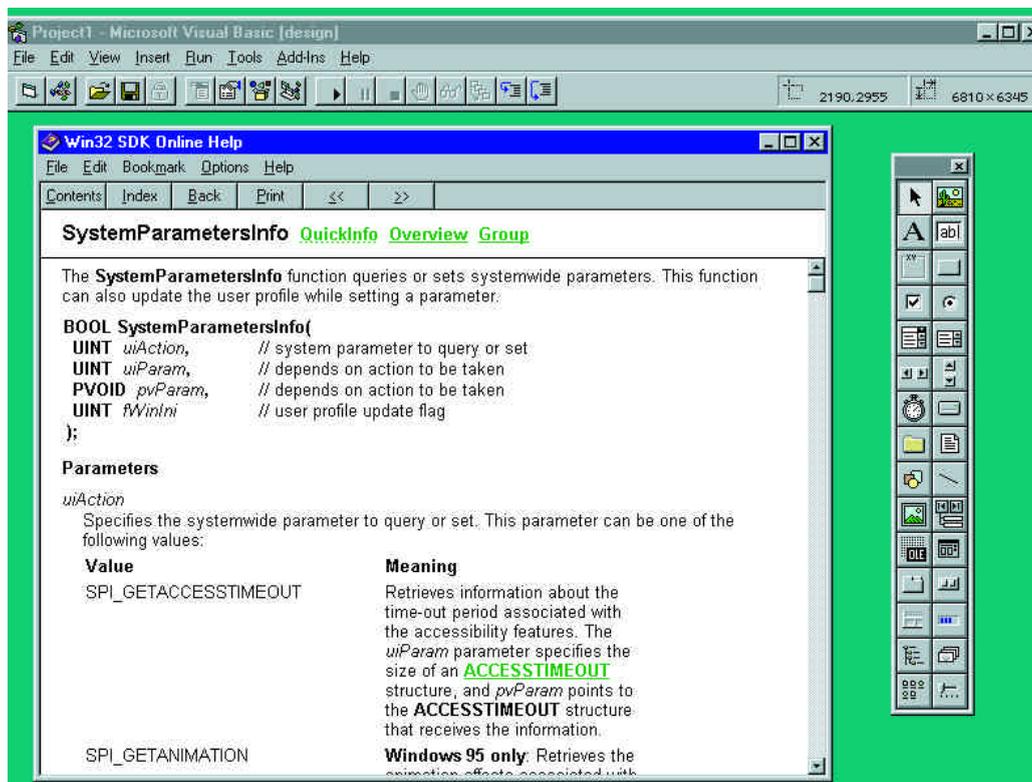


Fig 4 Although aimed at C/C++ developers, the Win32 SDK is an essential reference for Visual Basic developers. So why is this help file not supplied with Visual Basic 4.0?

Listing 3: ParamCount

```
procedure TForm1.Button1Click(Sender: TObject);
var
  i: integer;

begin
  for i := 0 to ParamCount do
    MessageDlg(ParamStr(i), mtInformation,
      [mbOk], 0);
end;
```

Listing 4: BeginUpdate

```
procedure TForm1.Button2Click(Sender: TObject);
begin
  ListBox1.Items.BeginUpdate;
  ListBox1.Items.Add('One item');
  ListBox1.Items.Add('another item');
  ListBox1.Items.EndUpdate;
end;
```

PCW Contacts

Tim Anderson eagerly awaits your comments, queries and tips, either at the usual PCW address or by email at visual@pcw.co.uk. *Visual Basic Programmer's Guide to the Windows API* by Daniel Appleman (Ziff-Davis Press, £33.02) Computer Manuals 0121 706 6000 Sax Webster £110 (plus VAT) Data Widgets 2.0 is £99 (plus VAT) OLE Tools is 149.00 plus VAT and VB Tools £99 (plus VAT) from Contemporary Software 01727 811999