

```
1  ' .....
2  '      OCR Test Pattern Generator      '
3  ' .....
4  '              By Malcolm Stagg      '
5  ' Visual Basic 6.0 program to generate '
6  ' test data for the C++ Neural Network '
7  ' test program. This example generates '
8  ' 10 sets of 10 characters, with a     '
9  ' position offset and added noise.     '
10 ' Each character is 10x10 pixels.      '
11 ' .....
12
13 VERSION 5.00
14 Begin VB.Form Form1
15     AutoRedraw      = -1 'True
16     Caption         = "Form1"
17     ClientHeight    = 3195
18     ClientLeft      = 60
19     ClientTop       = 345
20     ClientWidth     = 4680
21     LinkTopic       = "Form1"
22     ScaleHeight     = 213
23     ScaleMode       = 3 'Pixel
24     ScaleWidth      = 312
25     StartUpPosition = 3 'Windows Default
26     Begin VB.PictureBox PictureBox1
27         AutoRedraw      = -1 'True
28         BackColor       = &H00FFFFFF&
29         BorderStyle     = 0 'None
30         BeginProperty Font
31             Name        = "Small Fonts"
32             Size        = 6.75
33             Charset     = 0
34             Weight      = 700
35             Underline   = 0 'False
36             Italic     = 0 'False
37             Strikethrough = 0 'False
38         EndProperty
39         Height         = 150
40         Left          = 120
41         ScaleHeight    = 10
42         ScaleMode      = 3 'Pixel
43         ScaleWidth     = 10
44         TabIndex       = 0
45         Top           = 120
46         Width         = 150
47     End
48 End
49 Attribute VB_Name = "Form1"
50 Attribute VB_GlobalNameSpace = False
51 Attribute VB_Creatable = False
52 Attribute VB_PredeclaredId = True
53 Attribute VB_Exposed = False
54 Private Sub Form_Load()
55
56     Randomize Timer
57
58     'generate 10 sets of characters 0-9,
59     'with a small offset and 5% noise
60
61     '5 are for training, 5 are test sets
62
```

```
63     Open "c:\ocrsets.h" For Output As #1
64         Print #1, "const bool in_test_set[50][100] = {"
65
66 For sets = 1 To 5
67
68     For ch = 0 To 9
69
70         'generate a character, and add 5% random noise
71         'character will have offset of 0-1 pixel
72         x = Int(Rnd(Timer) * 3) - 1
73         y = Int(Rnd(Timer) * 3) - 1
74
75         Picture1.Cls
76
77         Picture1.PSet (x, y), &HFFFFFF
78
79         Picture1.Print ch
80
81         For n = 1 To 5
82             x = Int(Rnd(Timer) * 10)
83             y = Int(Rnd(Timer) * 10)
84             Picture1.PSet (x, y), &HFFFFFF - Picture1.Point(x, y)
85         Next n
86
87         Print #1, "{";
88         For y = 0 To 9
89             For x = 0 To 9
90                 If Picture1.Point(x, y) < &H808080 Then
91                     Print #1, "1";
92                 Else
93                     Print #1, "0";
94                 End If
95                 If Not (x = 9 And y = 9) Then Print #1, ",";
96             Next x
97         Next y
98         Print #1, "}";
99         If sets = 5 And ch = 9 Then
100             Print #1, ";"
101         Else
102             Print #1, ","
103         End If
104     Next ch
105 Next sets
106
107 Next sets
108
109     Print #1, "const bool out_test_set[50][10] =
110     {{1,0,0,0,0,0,0,0,0,0},{0,1,0,0,0,0,0,0,0,0},{0,0,1,0,0,0,0,0,0,0},{0,0,
111     0,1,0,0,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
112     0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,0,
113     0,1}," & _
114     "{1,0,0,0,0,0,0,0,0,0},{0,1,0,0,0,0,0,0,0,0},{0,0,1,0,0,0,0,0,0,0},{0,0,
115     0,1,0,0,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
116     0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,0,
117     0,1}," & _
118     "{1,0,0,0,0,0,0,0,0,0},{0,1,0,0,0,0,0,0,0,0},{0,0,1,0,0,0,0,0,0,0},{0,0,
119     0,1,0,0,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
120     0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,0,
121     0,1}," & _
```



```
0,1,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,
0,1}," & _
162 "{1,0,0,0,0,0,0,0,0,0},{0,1,0,0,0,0,0,0,0,0},{0,0,1,0,0,0,0,0,0,0},{0,0,
0,1,0,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,0,
0,1}," & _
163 "{1,0,0,0,0,0,0,0,0,0},{0,1,0,0,0,0,0,0,0,0},{0,0,1,0,0,0,0,0,0,0},{0,0,
0,1,0,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,0,
0,1}," & _
164 "{1,0,0,0,0,0,0,0,0,0},{0,1,0,0,0,0,0,0,0,0},{0,0,1,0,0,0,0,0,0,0},{0,0,
0,1,0,0,0,0,0,0,0},{0,0,0,0,1,0,0,0,0,0},{0,0,0,0,0,1,0,0,0,0},{0,0,0,0,0,
0,1,0,0,0,0},{0,0,0,0,0,0,0,1,0,0},{0,0,0,0,0,0,0,0,1,0},{0,0,0,0,0,0,0,0,0,
0,1}};"
165
166 End Sub
```