

HOW TO MODIFY OLD QBASIC PROGRAMS TO RUN IN VISUAL BASIC

Seth Bergmann, Computer Science Department
Tirupathi R. Chandrupatla, Mechanical Engineering

Thomas J. Osler, Mathematics Department
Rowan University
Glassboro NJ 08028

bergmann@rowan.edu
chandrupatla@rowan.edu
osler@rowan.edu

1. INTRODUCTION

It is the purpose of this short article to show QuickBASIC (also known as QBasic, GW-BASIC and IBM BASIC) programmers how to perform simple modifications to their old programs so that they will run in Visual Basic. QuickBASIC interpreters are no longer available. Yet, QuickBASIC was one of the most popular programming languages in the world ten years ago. Many QuickBASIC programmers now have hundreds of programs that will run only on their old DOS based interpreters. Professors with QuickBASIC software sometimes feel like dinosaurs when they show DOS based programs to their students. Yet QuickBASIC was a great language. It was easy to learn and the interpreter was small enough to fit on a diskette with ample room for programs as well. It had great graphics capabilities that were easy to implement. New languages like C++ do not have all these nice features.

In place of QuickBASIC, Microsoft now markets Visual Basic. Fortunately, Visual Basic code is identical to QuickBASIC code with only a few exceptions.

Unfortunately, getting started with Visual Basic can be discouraging because there are so many options available. Worse, all the books on Visual Basic are big and thick. You have to read 200 pages before you learn to write a program that will solve a simple mathematical problem.

As you will see, it is both easy and inexpensive to get started with Visual Basic. We will show you how to use your knowledge of QuickBASIC so that you can write useful programs that run in Visual Basic. We cannot teach you the powerful new features of Visual Basic. For that you will have to read hundreds of pages.

2. GETTING STARTED FAST

Readers who do not own Visual Basic can obtain the so called “Control Creation Edition 5” or the “Working Model Edition 6” on CD as well as a book describing the language at any book store. (See [1] and [2] which sell for less than \$20.) This is a great bargain. We purchased [2] and used it for all the material shown in this paper.

Now perform the following simple steps:

1. Prepare your old QuickBASIC code by saving your code in ascii (text) format.
2. Start the Visual Basic program, and click on the “Standard EXE” option that appears on your screen. You should see a screen that looks like Figure 1. Complicated isn’t it! Don’t worry, we will show you only the features that are necessary. The rectangle in the middle of the screen labeled “Form1” is called the *form*. Think of it as a window. This is where all the action takes place.

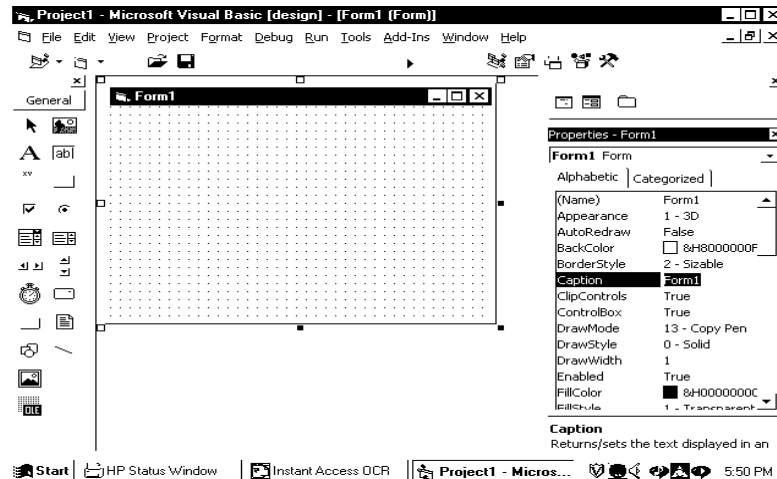


Figure 1: The Visual Basic form

3. Place a command button on the form by clicking on the button marked “A” shown in Figure 2. Next move the mouse pointer onto the form and drag it a bit and you will see a command button appear on your form as in Figure 3.

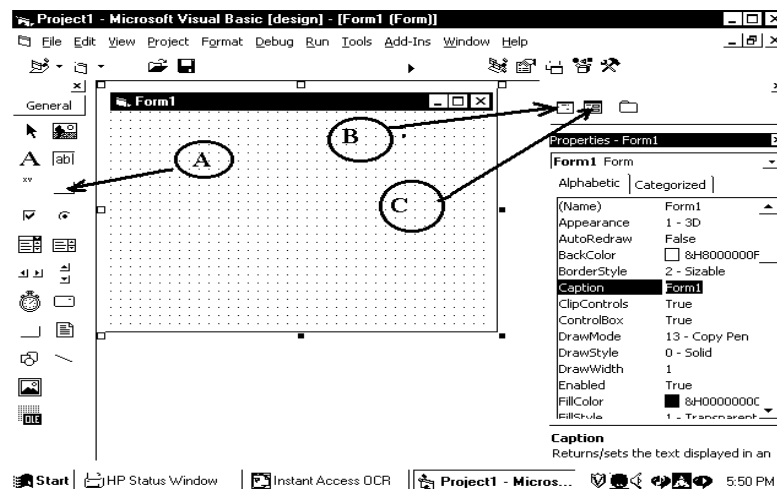


Figure 2: Selecting options
A: Command Button; B: View Code; C: View Object

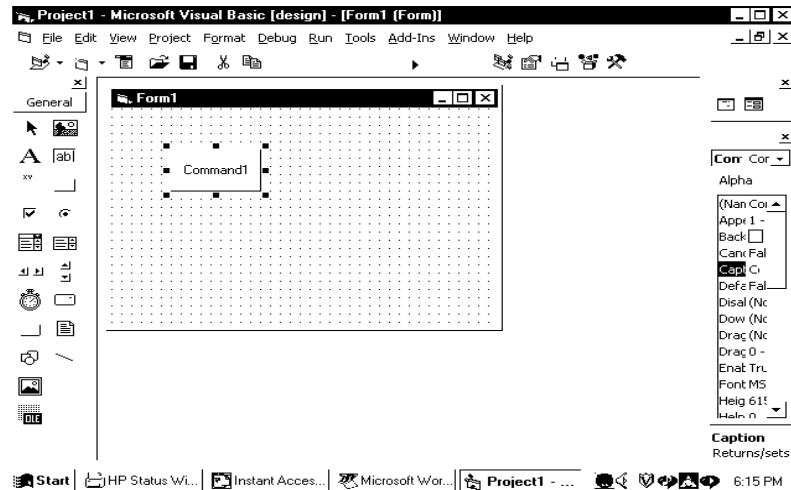


Figure 3: A command button placed on the form

4. Double click on the command button that you just placed on the form. The window to hold your Visual Basic code now opens as in Figure 4. This is where we must insert your old Quick BASIC file.

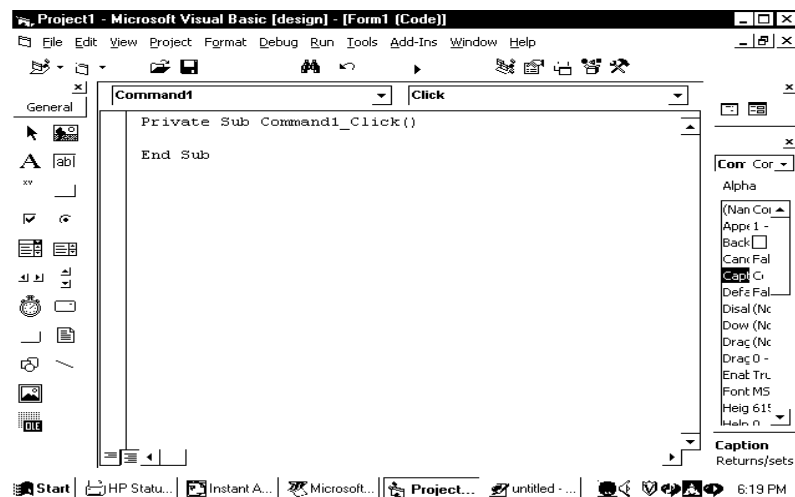


Figure 4: Preparing to enter the code

5. Now we will enter your old Quick BASIC code. Click on "Edit" on the tool bar and select the "insert file" option. Find the old BASIC program you saved in step 1 as an ascii file it will appear on your Visual Basic window. This should resemble Figure 5.

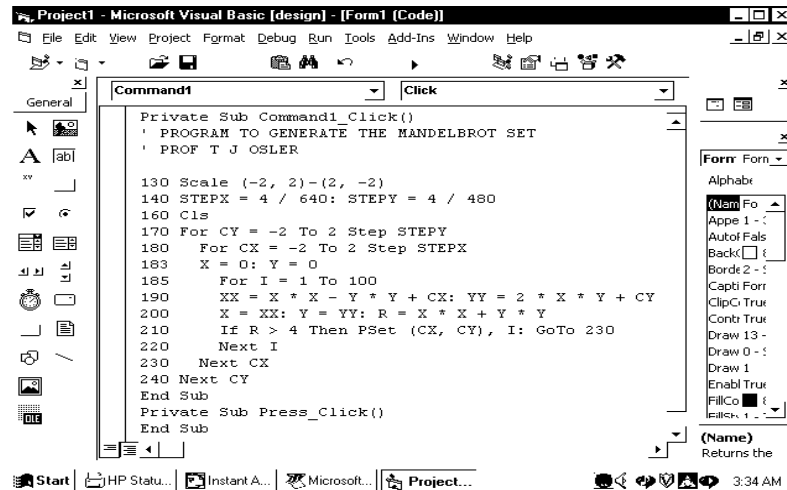


Figure 5: Paste or type in the code

6. Next you must change a few of your old Quick BASIC commands. Use the following Table to make the necessary changes.

	QuickBASIC Code	Visual Basic Code
1	DATA 20, 55, 33, 98	
2	DEFDBL A - Z	<i>unnecessary - all calculations done in double precision, including functions</i>
3	A\$ = INKEY\$	
4	INPUT "Enter number "; A	A = InputBox("Enter number ")
6	LPRINT "Hello"	
7	SCREEN 12	<i>delete this line</i>
8	WINDOW (-10,20)-(30, 0)	Scale (-10,20)-(30,0)

Of course, you could simply type the program into the window as an alternative to inserting an old file.

7. Notice that clicking on the *View Object* button marked "C" in Figure 2 leaves the code window and returns you to the original form window. Clicking on the *View Code* button marked "B" in Figure 2 displays the code window again.

3. EXECUTING THE PROGRAM

You are now ready to run your program. Click on “Run” on the tool bar and select “start”. The form with the command button will appear. Simply click on the command button and the program should execute. Our program generates the Mandelbrot set on the form as seen in Figure 6.

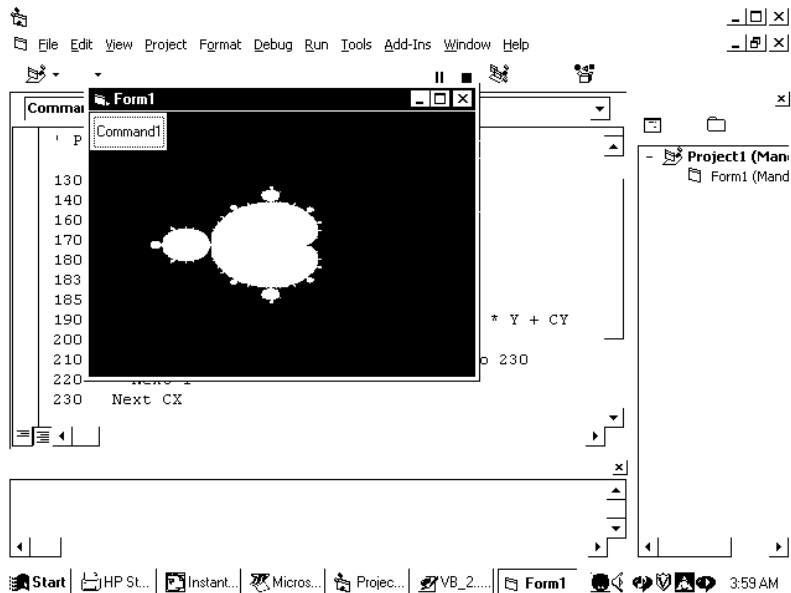


Figure 6: The form after executing the program

Of course, you could have increased the size of the form before executing the program by clicking on the little square in the upper right hand corner.

To *end* the program click on “Run” on the tool bar and select the “end” option.

8. You save your project (programs are called projects in Visual Basic) in the usual way by clicking on File on the tool bar and selecting the “Save project” option. The files are automatically saved in ASCII format. Opening old Visual Basic projects is equally familiar.

4. FINAL REMARKS

The inexpensive Control Creation Edition of Visual Basic that we used to run our programs is a true bargain. We ran a numerical calculation that took 104 seconds in our QuickBASIC interpreter, but only required 63 seconds on Visual Basic. Another unexpected feature is the high precision of the mathematical functions. Under QuickBASIC functions like SIN returned single precision values (7 digits). The Visual Basic returns 15 digits!

REFERENCES

- [1] Mansfield, Richard, *Visual Basic 6 Weekend Crash Course*, M&T Books, Foster City, CA, 2000. (Contains CD with *Visual Basic 6 Working Model Edition*. \$19.99)
- [2] Perry, Greg, *Sams' Teach Yourself Visual Basic 5 in 24 Hours*, Sams Pub., Indianapolis, Indiana, 1997. (Contains CD with *Visual Basic Control Creation Edition 5*. \$19.95)