

Teaching Tip Column: Visual Basic Jump Start

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Introduction

I have been teaching Visual Basic (VB) for numerous years in a variety of settings. Usually I teach a semester length course in VB as an introduction to business programming. I also teach short courses ranging from a one hour quick exposure to VB to a 6 hour introductory class in VB. My experimentation with a variety of demonstrations to use as a first VB experience have culminated in the following exercise which I love using as a one hour introduction to VB. My primary objectives in creating the demonstration included:

- demonstration can be completed in one hour
- demonstration is a guided tour where each student creates their own application
- application is easy to understand, entertaining, and generally interesting
- demonstrates fundamental VB controls
- includes changing properties of controls
- includes writing simple code triggered by events

Demonstration

The demonstration takes place in an electronic classroom or computer lab where each student has a workstation (or students can share a workstation if needed). One student's workstation is connected to a projector so the entire class can watch their actions. I refer to this individual as 'the driver' for the guided tour. Each student has a copy of the handout of the demonstration as shown in Figure 1. My primary role is to be 'the navigator', I direct 'the driver' regarding the actions to perform next. I walk around the room as I talk to the driver and make sure all the students are effectively following along. I ask students to raise their hand if they are having problems, but I find I also have to keep an eye on their progress or lack of progress. The demonstration works best if the whole class stays together. If someone is having technical problems that I can't resolve quickly, I ask them to sit with a neighbor and watch. It's important to keep the demonstration moving along.

The Application

The application provides a GUI for a dictionary of vocabulary words and definitions. Users can test themselves on the meaning of the vocabulary words by hiding then showing their definition. As described on the next page, the steps of the demonstration are:

- create an Access database with two fields (word and definition)
- enter sample words and definitions (I usually include examples on the blackboard or the back of the exercise.)

- in Visual Basic, create a form as shown on the next page
- change the properties to link the database to the VB form
- add code to the Command buttons as shown on the next page
- execute the application

Hints

Use a student driver of average proficiency and make sure they move at a comfortable pace for the class to successfully imitate their actions. Walk around the room and check that students are staying with the driver. Use a laser pointer so you can point to a button or control on the projected screen from the back of the room. Bring extra disks so students can save their work on a diskette.

Summary

I like the way this demonstration includes a brief exposure to a database, a quick experience with VB controls and coding, and the link of the database to the VB application. My undergraduates also have requirements to master numerous vocabulary words and this provides them with another mechanism for working with their vocabulary words. With MBA students, I use this demonstration as a 60 minute exposure to a rapid application development tool. The example words (or acronyms) and definitions I give the MBA students fit with the discussion of rapid application development. This demonstration sparked numerous questions and enthusiastic responses from the MBA students

- Open Microsoft Access to create a new database. Set the location to your diskette in the A drive – create a new folder with the name **Demo Lab** for the location. Give the database the name **Dictionary**.
- Use the design of a table and design view. Name the first field **word** and set the type to **text**. Make it a key field (or primary field). Name the second field **definition** and set the type to **memo**.
- In the datasheet view enter words and definitions. Save the table as **Computer Terms**.
- Close Access and open Visual Basic. You will create an application like the one below. Save the project to the location of the Demo Lab folder on your diskette in the A drive.
- Change the caption of form1 to contain your name like what is in the title bar below.
- Add two text boxes. Put **Text1** on the left and **Text2** on the right (one for the word and the second for the definition). Make the shapes look like the ones below. Change the properties of **Text2** (the definition text box) to true for multilines and to have a vertical scroll bar.
- Add a data control. Set the database name to the one you created earlier. Thus look on the A drive and in your demo lab folder to open **Dictionary**. Set recordsource to **Computer Terms**.
- Click on the left text box and set the DataSource to **Data1** and the DataField to **word**.
- Click on the right text box and set the DataSource to **Data1** and the DataField to **definition**.
- Save your project to the location on the A drive of your **Demo Lab** folder (use default names for the project and form). Take your project for a test drive by clicking on run then start. Use the datacontrol to move forward and backwards through your database. Stop your test drive by clicking run then end.
- Now add three command buttons to the bottom of the screen. Place **Command1** on the left, **Command2** in the center, and **Command3** on the right. Change the captions as shown below.

Go to the code window

```
Command1_click
```

```
End
```

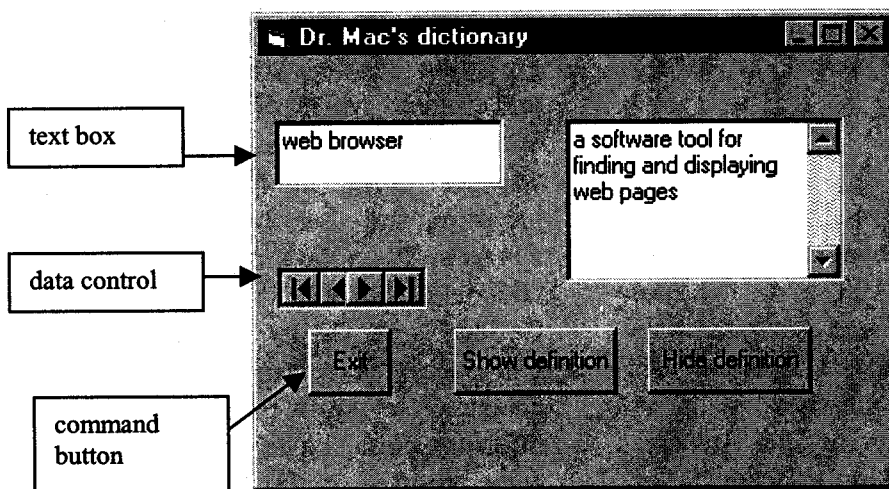
```
Command2_click
```

```
Text2.Visible = true
```

```
Command3_click
```

```
Text2.Visible = false
```

Again, test drive your project and this time use your exit button. Remember to save your project to your disk!





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ISSN 1055-3096