Visual Studio and C# Write-ups

Video 1–Introduction to Visual Web Developer 2008 Express Edition

This video gave a quick intro on how to download and install Visual Web Developer, then highlighted some of the key components of the software. These components included the development templates: ASP.NET Website, ASP.NET Web Service, or a blank development environment. The instructor chose the ASP.NET Website template and demonstrated some of the features available in the Visual Web Developer environment. Each project can be developed in Visual Basic or C# programming languages. All functionality is available with both languages, so the language choice is simply a user preference. Features include different views of the website: source view where only the code is visible, design view that graphically displays the website, and split view which shows both the source code and the design view in two panels. The instructor demonstrated a simply website build and explored some of the tools located in the tool box. The tutorial also covered how to copy files to a server over the ftp interface located within the Visual Web Developer software.

Video 2 – Visual Web Developer 2008 Express Edition Tour

This video covered many of the same topics in Video 1 including downloading and installing the software, choosing a development template and language, features in the toolbox, and publishing to a server using an ftp connection within the Visual Web Developer environment. This tutorial also covered how to setup and implement MasterPage files for a website to create consistent formatting for all pages in the site. The tutorial further demonstrated how to access the Visual Basic (or C# depending on the language selected) code behind and supporting the .aspx pages. The instructor also showed how to add data to a website and make a database available to other on the web. The capabilities to querying, editing, and organizing tables connected to a database were shown. This tutorial further described how to use the table of contents tools to link pages within the website. The last part of the tutorial showed users how to publish website files out to a server along with database files for access to end users.
Video 3 – Introduction to the C# Programming Language

The C# video briefly introduces a new user to the bases of the language. The key terms are understanding that methods ‘using’ statements, namespace, class, and method. Using statements tell the program which .NET framework tools to use. Namespace is simply naming a group of code. A class is the fundamental unit of coding in C#. Methods perform the work inside the class. The ‘main’ method is a special case inside a C# class because this is where the program starts and stops. Sub-methods are called from the ‘main’ method until the end of the ‘main’ method is reached. All of this happens inside of a class and multiple classes can be written in the same namespace or in different namespace within the C# program. C# code can be called and call different snippets of its own code or other code. It sits behind the .aspx code and handles events, such as a click event that determines the outcome of a user clicking in certain spaces. This tutorial almost demonstrates how to walk through debugging step-by-step to ensure that the code is functioning properly. Stepping through the code in this way also shows how the code jumps from the ‘main’ methods to another method and back to ‘main’ before visiting the next method.

Silverlight Viewer vs. Flew Viewer

Both Silverlight and Flex are simple, straightforward viewers with great pre-packaged functionality. Deciding between them mainly has to do with intended use and developing experience. The Flex viewer is great for adding a REST service into the config.xml file and changing the desired extents. This is simple to understand and implement and requires only modifying the config.xml file. The Flew Viewer can be fully edited and modified if a user knows how to program in a Flash environment. Otherwise, this viewer is better for simple web map publishing for end users to view maps. The Silverlight application takes more time to setup to display a REST service. Silverlight requires the Visual Web Developer framework for editing and this setup takes some time to install. However, the support services for Silverlight are better developed and give access to a wealth of information about the software. In addition to tutorials, Silverlight tools have an ESRI toolkit plug-in that link ESRI products and directly to Silverlight. This is what enables web mapping services. ESRI has a well-documented help site as well as sample functions such as navigation bars, clickable menus, and many more. These samples are provided with both the XAML code and the C# code needed to add the function to a website. The code can be copied from the ESRI help website and pasted into a project in Visual Web Developer. The code is editable and can be customized as desired. While Silverlight takes some preliminary learning, it has more basic functionally and support than Flex. To customize the Flew viewer, a developer is more on their own. The files can be altered, but the developer does not have access to sample code. However, if a REST service simply needs to be displayed in a viewer without customization, the Flew viewer is ready-made to do this.