

# WPF Seminars

The following is a list of WPF seminars that can be presented at your user group or other live event by **Paul D. Sheriff**.

## Essentials of WPF

Learning XAML for use in Windows Presentation Foundation (WPF) can be a little daunting. This seminar will introduce the basic concepts of XAML and show you how to get started quickly and easily. You will learn how to use Visual Studio to create rich user interfaces in WPF the right way. If you are new to WPF, attend this seminar to see how to move your legacy Windows Forms applications into WPF. The focus on this seminar is using XAML to build business applications in WPF. You will learn to use the various controls you need for a business application, how to use styles for making your application look good, and you will walk away with a ton of samples to help you get your own WPF application started.

### Learning Objectives

Learn the basics of XAML

Learn flow-layout in XAML

See the various UI controls used to build standard business forms

## Secure Your WPF Applications

In a typical WPF application you need to secure controls on windows or user controls. You may want these controls to be invisible, disabled, read-only, hidden or collapsed. There is no security built-in to WPF, so you must roll your own. This seminar shows an approach to creating a data-driven security system you can add to your existing WPF applications with just a little bit of code.

## Learning Objectives

Create a security system for WPF

How to secure controls by user roles

Set a GenericPrincipal on the current WPF thread of execution

## Consume Web API Methods from WPF

Just because you are a desktop developer, does not mean you can use Web API's that already exist. Many companies already have a Web API interface created, so you should use them if you can. In this seminar you learn to call a Web API to read, insert, update and delete data. A generic base class is created to simplify the process of calling the Web API.

## Learning Objectives

Build a Web API

Get and Post data to Web API

Create a generic base class for calling Web API methods from WPF

Handling exceptions

## The WPF List Box Control Can Do That?!

The ListBox control in WPF is extremely powerful. In fact, after you see all the things you can do with the ListBox you will probably use it more than any other list-type control. In this seminar you will see how to present multiple columns, multiple lines per row, make the list box horizontal, display images, even perform sorting and grouping all with just a little bit of XAML and code. All of this and more is available with this powerful control. Switching templates to display two different sets of information in the same list box and using value converters to format data can really spice up your WPF applications. All these techniques and more will be shown in this fun and informative session. You will walk away with some great reusable code that will be of use to you right away.

## Learning Objectives

Multiple columns and rows  
Sorting, grouping and template switching  
Horizontal lists and using data triggers

# A Message Broker Eliminates Strong Coupling

A typical WPF application is made up of many pieces. Making sure you don't have references from one piece to another is key to developing any application. User controls and a good messaging system should be the backbone of your WPF applications. Each piece of a WPF window should be built with individual user controls and view models. In this seminar, you create user controls, combine them together, and see how to communicate between them. Creating your WPF applications in this manner takes full advantage of loose coupling principles. Loose coupling makes your application more robust, reusable, maintainable and testable. This seminar shows an application with multiple pieces on a window and how they all interact together, but with no coupling between them.

## Learning Objectives

Learn why strong coupling is bad  
Build several user controls  
Build a simple message broker  
Communicate between view models, user controls and windows

# Build Reusable WPF User Controls for Better WPF Applications

User controls can be created in most UI technologies, including Win Forms, Web Forms and WPF. To create truly flexible and reusable user controls, take advantage of the MVVM design pattern. This seminar builds a few different user

controls and shows you how each was built to be reusable and flexible. You will learn how to use dependency properties and how to raise events to communicate back and forth with the user control.

## Learning Objectives

Building reusable user controls

Using dependency properties

Raising events

# Architecting WPF Business Applications

When you set out to build WPF business applications, make sure you start with a well thought out architecture. You need a set of base classes for entity and view models. You need a set of standard styles for a nice-looking UI. You should have standard techniques for displaying a splash screen, loading user controls dynamically, and displaying informational and status messages. A message broker is necessary to eliminate strong coupling between objects. Of course, you must use the MVVM design pattern with all your WPF applications. This seminar shows you how to incorporate all these techniques into a WPF architecture and application, so you can build your business applications the right way.

## Learning Objectives

Create a WPF solution with several projects

Display a splash screen

Display informational and status messages

Load resources in the background

Eliminate strong coupling by using a message broker system

# MVVM Made Easy for WPF Applications

MVVM and WPF go together like chocolate and peanut butter. This seminar guides you step-by-step on how to take advantage of this powerful design

pattern. The main goal of MVVM is to help you develop code that is testable and re-usable, and this can be accomplished by just using MVVM. This seminar shows you how to create your own view model classes and bind them to your WPF screens. You also learn to build a base class on which all your view model classes inherit.

## Learning Objectives

- Use the MVVM design pattern effectively
- Utilize a base class for your MVVM design
- Keep MVVM simple

# Searching and Filtering Techniques in WPF

In most business applications, users wish to filter data that has been displayed to them. This seminar shows you how to filter and search, and how to display the filtering options to the user. In the first scenario, an expander control where the user selects values to filter is used. In the second scenario, the filters are displayed within the column header on the data grid control. The third scenario ensures that column headers are aligned consistently across each column.

## Learning Objectives

- Build a view model to search data
- Filtering data in response to UI changes
- Display search fields with a DataGrid control

# WPF Styles, Resources and Templates, Oh My!

This seminar teaches you how to effectively use styles in your WPF applications. You will learn the basics of styles, how to override styles, base styles on other styles, create resource dictionaries and override control templates. Resource dictionaries can be loaded dynamically, placed into DLLs, or right in your main application. You will learn the best practices around how to

manage your dictionaries. Being able to change the look and feel of the default controls can go a long way in giving your users a great UI. You will learn to modify controls by changing their default template. At the end of this session you will walk away with a set of reusable styles and resources that you can use immediately in your WPF applications.

## Learning Objectives

Best uses of styles, resources and templates

How to use style inheritance

Wrap styles into resource dictionaries for reusability

# Eliminate Code using Data Binding in WPF

Data Binding in WPF is much more than just binding to data in a database. You will learn various methods of using data binding including binding one control to another control, binding to properties in your classes, and having XAML create classes for you. You will learn how to set global settings like font size, colors and other configuration data through easy to use classes. You will also see how to bind to data classes in your back-end database as well. This session will show you how to retrieve data from your SQL Server database and display it in a typical business form. You will learn to use the ObjectDataProvider control to retrieve data and to filter data. You will see a real-world example of a CRUD screen. You will walk away with some useful classes that you can utilize in your own WPF applications.

## Learning Objectives

Write less code by employing data binding

Bind from control to another control

Bind from view models to controls

# Building Standard Business UI Forms

There are many standard business UI forms you need to any application. These include an About, Login, Contact Us, Person Name, Address, Credit Card and User profile screens. This seminar will show you samples of how to create each of these.

## Learning Objectives

Build several business forms

Bind business forms to an entity object