Smart Client Software Factory Hands On Labs

The developer hands on labs are a set of tutorials that introduce key features of the Smart Client Software Factory. Each lab guides you step-by-step through the process of developing a complete web client application using the Smart Client Software Factory.

# Prerequisites

In order to complete the labs, you must have the following installed on your computer:

* Windows XP, Windows Server 2003 or Windows Vista
* [.NET Framework 3.0](http://www.microsoft.com/downloads/details.aspx?FamilyId=10CC340B-F857-4A14-83F5-25634C3BF043&amp;displaylang=en) (Not necessary if you use Windows Vista)
* Visual Studio .NET 2005 Team Edition for Software Testers with support to C# and Visual Basic. (required to run unit tests)
* [Visual Studio 2005 extensions for .NET Framework 3.0 (WCF & WPF)](http://www.microsoft.com/downloads/details.aspx?familyid=F54F5537-CC86-4BF5-AE44-F5A1E805680D&displaylang=en) (required to create a disconnected service agent for a WCF proxy and to use CAB-WPF Extensions which enable you to define WPF controls as smartparts)
* [Guidance Automation Extensions February 2007 CTP](http://go.microsoft.com/fwlink/?LinkId=47181)
* [Microsoft SQL Server 2005 Compact Edition Runtime](http://www.microsoft.com/downloads/details.aspx?FamilyId=85E0C3CE-3FA1-453A-8CE9-AF6CA20946C3&displaylang=en) (required to use Disconnected Service Agent Application Block)
* [Smart Client Software Factory - May 2007](http://msdn2.microsoft.com/en-us/library/aa480482.aspx)

***Note:*** *The labs require that you install the Smart Client Development guidance package. You can either use the software factory Windows Installer to install the guidance package, or use Visual Studio to build and register the guidance package. For information on how to install the guidance package, see the Smart Client Software Factory documentation*

***Note:*** If you don’t want to install Visual Basic you have to follow the steps detailed here.

# Objectives

After completing the following labs, you will understand how to use the software factory automation to create and update solutions, and to how to manually modify the code to perform typical development tasks. Specifically, you will learn how to perform the following tasks:

* Create a new Smart client solution
* Create a business module
* Create a view with a presenter, with unit tests
* Create a Composite UI Application Block service
* Create a foundational module

# Contents

Each lab contains a document with step-by-step procedures, and a Visual Studio solution. The lab documents are located in the \Developer folder. The Visual Studio Solution is located in the Solutions directory; this solution matches what you should create when you follow the step-by-step procedures to completion. To begin a lab, you can start with the solution that you developed in the previous lab, or start with the end solution of the previous lab.

*Note: the End solution of a lab is exactly the same as the Start solution of the next lab.*

This package includes the following hands on labs:

1. [Creating the Initial Solution](Lab%201%20-%20Creating%20the%20Initial%20Solution.docx)
2. [Creating a Module](Lab%202%20-%20Creating%20a%20Business%20Module.docx)
3. [Creating a View](Lab%203%20-%20Creating%20a%20View.docx)
4. [Creating a Service](Lab%204%20-%20Creating%20a%20Service.docx)
5. [Creating a Foundational Module](Lab%205%20-%20Creating%20a%20Foundational%20Module.docx)
6. Disconnected Service Agent
7. Creating a WPF View

# Getting Started

For labs 4 to 7, a SQL Server database is required.

To create the database you can run a script that creates the database for you. The script requires that you have SQL Server 2005 or SQL Server 2005 Express Edition.

**To create the database with SQL Server 2005 Express Edition**

* Execute the script named **SetupDatabase.bat** located in the **Scripts** folder.

**To create the database with SQL Server 2005:**

* Open a command prompt in the **Scripts** folder and run the following command:

SetupDatabase.bat .

*Note: The parameter (.) specifies the SQL Server instance. In this example, the script creates the database on the local SQL Server instance.*

*Note: the script creates a database named SCSF\_HOLs.*

Background: Smart Client Software Factory

With the Smart Client Software Factory, architects and developers can quickly incorporate many of the proven practices and patterns of building composite smart client applications. These practices and patterns have been identified during the development of many smart client applications and their components.

By using the software factory, architects and developers can focus their efforts on business opportunities and create smart client applications that effectively address the needs of their organizations.

The Smart Client Software Factory provides an integrated set of guidance that assists architects and developers in creating composite smart client applications. These applications have one or more of the following characteristics:

* They have a rich user interface that takes advantage of the power of the Microsoft Windows desktop.
* They connect to multiple back-end systems to exchange data with them.
* They present information coming from multiple and diverse sources through an integrated user interface, so the data looks like it came from one back-end system.
* They take advantage of local storage and processing resources to enable operation during periods of no network connectivity or intermittent network connectivity.
* They are easily deployed and configured.

# Overview



# Using the Smart Client Software Factory

You can use the recipes and templates it contains in your smart client applications to speed up development, reduce errors, and create code that follows both best practices and your own team development guidelines.
 