# Develop Smart Client Applications

Visual Studio 2008 provides developers with new ways to build smart clients that enhance the functionality of the application, in addition to improving developer productivity. Many customers face the challenge of integrating their smart client applications with existing and new Web based applications through logon and personalization services. Visual Studio provides a new set of tools and classes that simplify this integration and enable developers to simply handle the local caching of data for disconnected scenarios.

Smart client development areas of focus include:

* Integrated UI designer experience
  + By supporting common formats (such as XAML) and giving designers more direct control over the layout, controls, and data binding of the application user interface (UI), Visual Studio makes integrating designers into the development process easier. Designers can use familiar tools like the Microsoft® Expression® Suite to create UIs and produce files that developers can work with directly in Visual Studio. Visual Studio supports a fully collaborative workflow that enables designers and developers to hand work back and forth directly and work in parallel. Designers and developers will also be able to build libraries of common UI designs, formats, and elements that can be easily managed and reused.
  + By taking advantage of the 2007 Office system as a development platform, designers can leverage the look and feel of both Office and SharePoint to create familiar, intuitive UI. Developers can then use Visual Studio Tools for Office to create the UI in their solutions quickly and easily.
* Improved ClickOnce application deployment
  + ClickOnce deployment in Visual Studio 2005 provided Web like deployment for smart clients. Users could go to a single URL and click a link to have the smart client application installed on their machine. IT Professionals could deploy new versions of the application by simply copying the new application to the URL. In Visual Studio 2008, ClickOnce now supports Firefox® as a browser and provides location independent signing and customer branding. In addition, ClickOnce now supports deployment through authenticated proxy servers and enables developers to distribute their application to multiple end-user companies from a central location.
* Office 2007 UI style support for native C++ applications
  + Visual Studio 2008 also provides developers with support for building applications that use the Microsoft Office 2007 UI style, including the Ribbon Bar, Ribbon Status Bar, and Mini-toolbar.
* Client Application-Level Services
  + Enable client application developers to use the same user profile and login services as their Web applications. This enables customers to use one method of backend storage for user personalization and authentication, regardless of the application type.
* Occasionally connected data access
  + The Microsoft Synchronization Services for ADO.NET provide an application programming interface (API) to synchronize data between data services and a local store. The Synchronization Services API is modeled after the ADO.NET data access APIs and gives you an intuitive way to synchronize data. It makes building applications for occasionally connected environments a logical extension of building applications where you can depend on a consistent network connection.
* Integrated support for Microsoft® SQL Server™ 2005 Compact Edition
  + Microsoft SQL Server 2005 Compact Edition is the next version of SQL Server Mobile, adding the desktop platform. SQL Server Compact extends the SQL Server Mobile technology by offering a low maintenance, compact, embedded database for single-user client applications, which is available for all Windows platforms including Tablet PCs, Pocket PCs, smart phones and desktops. Just as with SQL Server Mobile, SQL Server Compact is a free, easy-to-use, lightweight, and embeddable version of SQL Server 2005 for developing desktop and mobile applications.
* Leverage SOAs and WCF in mobile applications
  + Developers will be able to build a mobile device client application that works in a partially connected environment. The application will be able to send and receive data from a server, even if the device disconnects or roams. By providing the logic to solve the addressability and storage issues, a developer can focus on the mobile application functionality and not worry about the different identities, connection methods, or storage models required.

# Create Microsoft Office Applications

Visual Studio Tools for Office (VSTO) is now fully integrated into Visual Studio 2008 Professional Edition. Developers can now easily target the more than 500 million users of Microsoft Office while using the same managed code skills that they’ve developed for writing Microsoft Windows applications or ASP.NET applications. Visual Studio enables developers to customize Word, Excel®, PowerPoint, Outlook, Visio®, InfoPath®, and Project to improve user productivity and take advantage of the many improvements in the 2007 Microsoft Office system. Visual Studio 2008 enables developers to perform tasks such as:

* Target the breadth of the new 2007 Microsoft Office system
  + Developers can use the tools in Visual Studio to create both application level and document level managed code customizations behind 2007 Office system applications quickly and easily. Visual Studio's built-in visual designers for key 2007 Office system UI features provide developers with a RAD development experience and enables them to deliver applications with a high-quality Office-based UI.
* Build applications that target Microsoft Office SharePoint Server
  + Visual Studio simplifies the task of building and debugging SharePoint Workflow projects, and also enables developers to build applications that provide easy access to back-end data stores and to data from enterprise systems such as SAP, CRM and ERP. Web Parts built for SharePoint are easily reusable in other applications.
* Develop Microsoft Office-based UI workflow solutions
  + Easily incorporate key Microsoft Office UI elements, including the Fluent Ribbon and Custom Task Panes, and integrate SharePoint Workflow Services into Visual Studio solutions. Developers can create applications that use Microsoft Office to manage process navigation and enterprise data surfacing, combined with SharePoint workflow services to manage collaboration requirements.
* Deploy applications securely and easily
  + Developers now have an easy to use and version resilient security model for their applications that will be compatible with future versions of Visual Studio and Office. With full support for ClickOnce deployment of all Office customizations and applications, developers and administrators now have the right tools and framework for easy deployment and maintenance of their Office solutions. This greatly simplifies the process of creating and deploying new solutions based on the 2007 Office system.