Visual Studio 2008 Service Pack 1 and .NET Framework 3.5 Service Pack 1

VISUAL STUDIO 2008 helps developers and application development teams quickly create secure, manageable, reliable and rich user experiences optimized for Mobile, Microsoft® Windows Vista™, SQL Server, the Microsoft 2007 Office® system, the Web and more.

Visual Studio 2008 Service Pack 1 (SP1) and .NET Framework 3.5 SP1 continue Microsoft's investment in market-leading development tools.

How did we determine these updates?

SP1s for Visual Studio, .NET Framework 3.5 and Visual Studio Team System were based on input from a number of sources, including:
- Customer feedback
- Partner input
- Internal testing

What do they offer?

By downloading these Service Packs, customers should see dramatic improvements in:
- Responsiveness
- Stability
- Performance

This is a RECOMMENDED update for all Visual Studio, .NET Framework 3.5 and Visual Studio Team System users.

Visual Studio 2008 SP1
- Improved Windows Presentation Foundation (WPF) designers
- SQL Server 2008 support
- ADO.NET Entity Designer
- Visual Basic and Visual C++ components and tools (including an MFC-based Office 2007 style 'Ribbon')
- Visual Studio Team System 2008 Team Foundtion Server (TFS) improves version control and performance, email integration with work item tracking and full support for hosting on SQL Server 2008
- Richer JavaScript support, enhanced AJAX and data tools, and Web site deployment improvements

.NET Framework 3.5 SP1
- Performance increases between 20-45% for WPF-based applications – without having to change any code
- Windows Communications Foundation (WCF) improvements that give developers more control over the way they access data and services
- Streamlined installation experience for client applications
- Improvements in the area of data platform, such as the ADO.NET Entity Framework, ADO.NET Data Services and support for SQL Server 2008's new features

Highlights

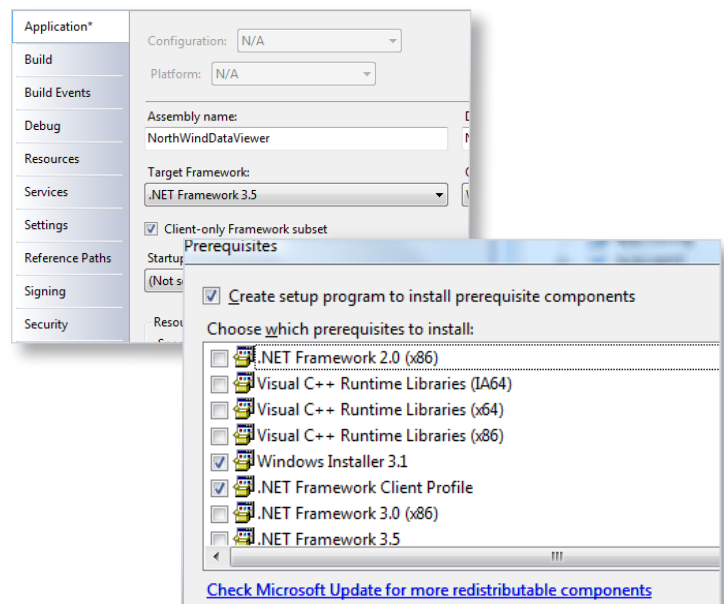### WPF and visual designer improvements

Cold startup performance improvement ranging between 20-45% depending on application size without needing to modify any code. Additional WPF support for text and graphics, and media to deliver better performance.

Now effects like DropShadow and Blur are implemented using hardware acceleration instead of software rendering. Other examples include:
- Text, especially when used in Visual and DrawingBrush, is substantially faster
- Scrolling improvements with Container Recycling
- Improved working set with TreeView virtualization
- Improved WriteableBitmap that enables real-time bitmap updates from a software surface
- Designer support for the event tab within the property grid for control events
- Toolbox support within source mode

.NET Framework 3.5 SP1 Optimized Client Runtime

SP1 provides a .NET Framework install version that is optimized for .NET-based client applications. The size of this optimized runtime is less than 28 MB.

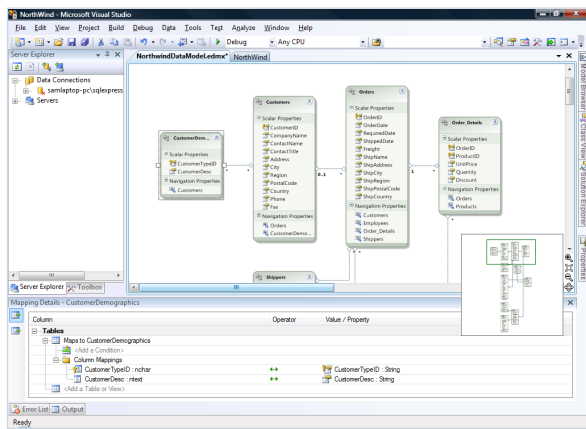.NET Client Profile enables rapid application *deployment*.

New ADO.NET Data Features

ADO.NET Entity Framework

The ADO.NET Entity Framework is the next evolution of ADO.NET, raising the level of abstraction at which programmers work with data, and allowing the database structure or data source to evolve without significant impact to the application code.

Rather than coding against rows and columns, the ADO.NET Entity Framework allows the definition of a higher-level Entity Data Model over your relational data, and allows developers to program in terms of this model. Developers get to deal with the data in the shapes that make sense for the application. Those shapes are expressed in a richer vocabulary that includes concepts like inheritance, complex types, and explicit relationships.

LINQ to Entities with the Entity Framework helps create easy-to-maintain code that retrieves and works well with strongly typed data objects or business entities.

Creating an object-oriented data model using the ADO.NET Entity Framework.

ADO.NET Data Services

The Microsoft ADO.NET Data Services framework provides a first-class infrastructure for developing the next wave of dynamic internet applications by enabling data to be exposed as REST-based data services that can be consumed by client applications (ASP.NET AJAX, Silverlight) in corporate networks and across the internet.

ADO.NET Data Services provides a framework to build data services for relational data sources – such as Microsoft SQL Server, MySQL, DB2, and Oracle – using the built-in support for the ADO.NET Entity Framework. You can also build services for non-relational data sources using the pluggable provider model.

Visual Studio Team System 2008 Team Foundation Server improvements

Version Control

Cleaner "Add to Source Control" dialogs, drag and drop support to the Source Control Explorer and a streamlined "Workspace" dialog for working folder mappings makes versioning easier to manage.
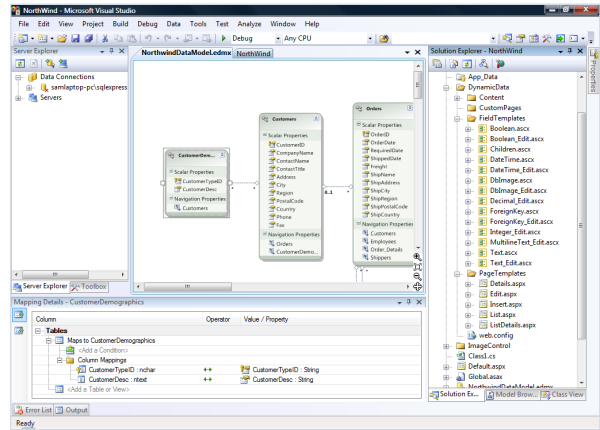
Version control now automatically supports non-solution controlled files. Updates to the Source Control Explorer include a new check-in date/time display column, local path hyperlink support and an editable source location field.

Work Item Tracking

Microsoft Office 2007 integration is now done using the standard Office "Ribbon" delivering a cleaner and easier-to-use integration with Microsoft Office 2007 products.

Email integration for work items and links for Team System Web Access to make it easier to use email as part of the development lifecycle.

Separation of business logic and UI.

Visual SourceSafe migration tool

The migration tool has been dramatically improved through many performance and reliability improvements. SP1 provides support for the elimination of namespace conflicts, automatic solution rebinding, improves timestamp coherency and increases the amount of migration logging information available.

Performance and scalability

With SP1, Team Foundation Server's performance and scalability has been dramatically improved through faster synchronization with Active Directory, improved check-in concurrency, a faster way to create source tree branches, online index rebuilding for less maintenance downtime and better support for very large check-in sets.

Plus, servers can now support more projects then ever and clients get a better experience when connecting to a server housing a large number of projects.

Additional Features

- Support for using SQL Server 2008 with Team Foundation Server.
- Team System Web Access provides "live" links to work items and check-in emails. This improves the customer experience for users who do not use Team Explorer.
- Scripting support for the creation of Team Projects.

Download these service packs from the technical resources section at: **www.microsoft.com/visualstudio**