

Insider opinions on the big new products

Ahead of this March's official launch of SQL Server 2008, Windows Server 2008 and Visual Studio 2008, we find out their top 5 features



ANDREW FRYER

On SQL Server 2008

SQL Server 2005 is a great product so how could it possibly be improved in the next release? The following are my five killer features

Reporting

The new Report Designer looks more like a part of Office than SQL Server. End users will be able to choose what to put on the report by dragging fields onto the design surface from a pre-defined report model. It is also powerful enough for IT professionals to use as it can source data directly from any data source and the Report Designer exposes the new tablix (table + matrix) data control enabling complex layouts to be created.

Location intelligence

SQL Server 2008 will have data types, indexes and functions to allow the de-

velopment of solutions that understand spatial data. It will be easy to calculate how far one record is from another or whether one is inside the boundary of another, so users can make requests such as "Show me all customers more than 50 miles away from my warehouse." It will also be much easier to plot distributions onto maps using Virtual Earth as a software-plus-services solution.

Unstructured data

Using a hybrid approach, SQL Server will now be able to store any kind of unstructured data and break the previous limit of 2Gb per document. The data is stored in dedicated filegroups

which are controlled by SQL Server and so has all the benefits of database manageability and security.

Performance

In SQL Server 2008 there is a new resource governor where limits can be put on what percentage of resources a particular role or application can take.

Auditing

This can be enabled at the server or database level either to a log file or to the application log where DBAs must meet stringent compliance regulations.

See my blog at: blogs.technet.com/andrew/



JAMES O'NEIL

On Windows Server 2008

Windows Server 2008 has many new and improved features. Working down from five to one are my own, totally subjective, favourites

Read-only domain controller (RODC)

The RODC acts as a cache so when it is located in a branch office it only holds the passwords of people in that specific branch. Active Directory tracks which users are allowed to have their passwords cached on RODCs, and who has their password cached on any given server. If a server is compromised, the administrator can force a password reset of the affected users.

Network Access Protection (NAP)

The idea behind NAP is to limit ac-

cess to a network to clients that meet specific health criteria. Windows can report the status of its firewall, virus protection and updates, and an agent can look at these to generate a 'statement of health', which is presented when connecting to the network. At its simplest, the statement of health governs the IP address issued to the client. In more sophisticated networks, it governs the IP-Sec certificate issued to the client, which in turn governs the servers that can be accessed. The agent architecture is extensible to allow other

things to be checked, and usually clients which fail the validation will be allowed to access the resources needed to put things right.

Terminal Services

In Server 2008 there are two major changes. 'Terminal Services app' allows Terminal Services to present a single application rather than a whole desktop. This is mostly a feature of new clients which allows them to request a particular application. On the server, the Terminal Services management con-



DANIEL MOTH

On Visual Studio 2008

There are many new features in Visual Studio 2008 and the .NET Framework 3.5 that was made available to developers in November 2007. Here are my top five

Multitargeting

You can choose which version of the .NET Framework you wish to target. This means that when you upgrade your existing solutions from VS2005, you can continue to target version 2.0 of the .NET Framework while taking advantage of increased reliability, a better Vista client and leveraging the numerous IDE productivity and usability enhancements. You will also be able to use the new C# 3.0 and VB9 language features in your existing projects!

Language Integrated Query (LINQ)

LINQ simplifies the way you connect with data sources of any type by fully integrating the API into the language syntax. Using a unified declarative syntax, you can query (or transform) in-memory objects, XML data, data sets and SQL Server databases. One of the beauties of the new API, is available to C# and VB developers, is that it is

fully extensible to incorporate other data sources.

Office development

Included with the Professional Edition is Visual Studio Tools for Office (VSTO) 3.0. VSTO 3.0 supports Office 2003 and the 2007 Office System. You can create add-ins at the document and at the application level for Word and Excel and target PowerPoint, Visio, InfoPath, Project and Outlook. New options include customising the Office ribbon, custom task panes, form regions, actions panes, content controls and easy interop between managed and VBA code.

Web development

ASP.NET AJAX ships out of the box, including designer support for AJAX control extenders. There are three new data controls (ListView, DataPager and LinqDataSource) that make it very easy to connect with data and fully define

the HTML that gets emitted to the browser. Whether you use the ASP.NET 3.5 features or continue with ASP.NET 2.0, you will love the new Script intellisense and debugging support as well as the new Cascading Style Sheet engine.

.NET Framework 3.0 development

.NET Framework 3.0 includes Windows Presentation Foundation (WPF), Windows Communication Foundation (WCF) and Windows Workflow Foundation. With Visual Studio 2008 we get a refreshed toolset for these technologies and enhancements. New features include WPF designer, ClickOnce and XBAP deployment to FireFox, WCF support for an HTTP SOAP-less programming model, syndication support, partial trust for services and JSON serialisation.

See my blog at: www.danielmoth.com/Blog

sole allows the administrator to create the .RDP files with this information in them, and package them as .MSI files for easy installation (or present them on a web page). The other change to Terminal Services is the introduction of a gateway which allows RDP traffic to be tunnelled in HTTP allowing easy access to corporate servers (or desktops) over the Internet.

Task automation

The world has changed since we designed Windows 2000, which is the basis for Server 2003. Lots of servers now run in 'lights-out' mode in data centres. Many things need to be run in a repeatable and auditable way. This

is an area where command lines and scripts are usually better than GUIs. With Windows Server 2008 you can just install Server Core, which is effectively GUI-less, meaning a smaller footprint and fewer patches. To support this, more tasks can be done from a remote GUI and more have a command-line interface. Then there's the sophistication of PowerShell and the new scheduling engine.

Virtualisation

Windows Server 2008 contains Hyper-V, Hypervisor-based virtualisation. It has almost nothing in common with Virtual Server and Virtual PC, except that they all use the same file format.

PRODUCT LAUNCH DATES

The main launch event is taking place on 19 March 2008 at the Birmingham ICC. There will also be a TechNet launch roadshow going around the country between March and May. For more information, visit: www.heroeshappenhere.co.uk

Hyper-V is fully 64-bit, supporting multiple processors, huge amounts of memory and 64-bit guest operating systems. It can emulate the same hardware devices used in Virtual Server, but it can also use a software bus to provide fast access to disk, video and network devices.

See my blog at: blogs.technet.com/jamesone/