Rude Q&As on VS .NET Launch

Things not to talk or speculate about:
- Lawsuit Issues – all questions on legal issues should be forwarded to Corporate PR.
- Microsoft Patent Issues
- Any questions you don't know how to answer. Refer questions to PR for follow up.

VISUAL STUDIO .NET/.NET Framework Rude Q&As

General Q&As

What is Visual Studio .NET?
A. Visual Studio .NET is Microsoft's powerful rapid application development (RAD) tool for easily creating, building and deploying XML Web services and next-generation Internet applications on the .NET Platform. Visual Studio .NET and the .NET Framework provide the core development tools and programming model for the .NET developer tool.

What is the .NET Framework?
A. The Microsoft .NET Framework is a feature of the Windows operating system for building, deploying, and running XML Web services and applications. It provides a highly productive, standards-based, multi-language environment for integrating existing systems with next-generation applications and services. The .NET Framework consists of two main parts: the Common Language Runtime (CLR) and a set of class libraries, including Windows Forms, ASP.NET, and ADO.NET.

How much does Visual Studio .NET cost?
A. Visual Studio .NET comes in three Standard versions:
- Visual Studio .NET Enterprise Architect retails for $2499
- Visual Studio .NET Enterprise Developer retails for $1799
- Visual Studio .NET Professional retails for $1079
- Standard editions of Visual Basic .NET, Visual C++ .NET, and Visual C# .NET are also available for $109

What is Microsoft .NET?
A. Microsoft .NET is a platform for building, running, and experiencing the next generation of distributed applications. It spans clients, servers, and services, and consists of a programming model, a set of XML Web services, Windows servers, client software and development tools.

What does the launch of Visual Studio .NET mean to Microsoft?
The launch of Visual Studio .NET and the .NET Framework represent a new milestone not only for Microsoft, but the industry. Visual Studio .NET enables developers and companies to easily build XML Web services and extend their enterprises in ways that would have previously been difficult and expensive. Microsoft recognized customers' demand for this technology and is betting the business that XML Web services are the wave of the future.

When will XML Web services be real?
XML Web services are real today. Microsoft already has customers (Merrill Lynch, L'oreal, Autodesk, and Continental) who have created XML Web services with Visual Studio .NET and are using Web services to provide immediate business return. Like any new technology, XML Web services are in their infancy with most customers building solutions behind firewalls, but industry analysts predict that as XML Web services gain momentum, use of Web services outside the firewall will expand dramatically.

What is the .NET Compact Framework?
The .NET Compact Framework is subset of the .NET Framework that allows developers to target mobile devices with XML Web services

When will .NET CF be available?
A beta version will be available later this year.

Developer Rude Q&As

Are developers fleeing VB?
A: Developers are very excited about the promise and opportunity with .NET. Developers using VB, in particular, asked for a lot of changes over the years – Web programming, better Windows programming, and language enhancements chief among them – and now Microsoft is delivering.

Which languages are in development?
A. There are more than 20 languages on the .NET Framework today, including COBOL, Perl, Python, Java, C++, C#, Visual Basic, RPG, and SmallTalk.

What is J#?
A: Microsoft Visual J# .NET is a Java-language development tool for building applications and services on the .NET Framework. It integrates the Java-language syntax into the Visual Studio .NET shell, enabling the Java-language to integrate with more than 20 other programming languages supported by the .NET Framework. It is for developers who want to use the Java-language to build XML Web services or have an investment in Visual J++.

So J# is Microsoft's Java?
A: No. We are not building an implementation of the Java platform. Our goal is to provide a development tool for building applications and services on the .NET Framework using the Java-language.

What is the Java Language Conversion Assistant that you announced Feb 5th?
A: The Java Language Conversion Assistant (JLCA) is a tool that automatically converts existing Java source code into C#, for developers who want to move their existing applications to the .NET Framework. The Java Language Conversion Assistant provides the quickest, low cost method of moving existing applications to the .NET Framework. These applications can then be extended to produce and consume XML Web Services and to take advantage of the benefits of the .NET Developer Platform, such as ASP NET, ADO.NET, and Windows Forms.

How does this relate to the JUMP announcement in Jan 2001?
A: In Jan we announced 2 paths that a developer could take in moving from a Java platform to .NET. The first path was a development tool that implemented the Java-language on .NET. Visual J# .NET is that tool. The second path was source code migration using an automated tool. We will be announcing more about that tool later this year.

So can I run my Java code on this and on a J2EE application server?
A: No. In a limited number of cases this could be a possibility; however we are not building or testing an implementation of the Java platform. Nor did we design this tool to support code portability between the Java platform and .NET. Our goal was to deliver a tool that allows developers to use the Java-language syntax to build great .NET applications and components. This protects their developer investment in learning the Java-language.

Can you call this Java? Don't you have to pass Sun's compatibility tests?
A: No. This is not an implementation of the Java platform at all. Visual J# .NET is a Java-language development tool for building applications and services on the .NET Framework. Visual J# .NET is not endorsed or approved by Sun Microsystems, Inc.

Why would I want to use Visual J# .NET?
A: If you are a developer who is comfortable using the Java-language and wish to start building 3rd generation applications on a native XML Web services platform then Visual J# .NET will appeal to you. If you are an existing Visual J++ customer then this is the easiest path for you to move your code to the .NET platform.

What is C#?
A: C# is a simple, modern, object-oriented language that is an evolution of C and C++. In C#, we have addressed the needs of developers who want simplicity and power in a managed environment.

How does C# compare to J#?
C# deals with problems like Versioning and Platform Integration in elegant and innovative ways. J# was based on the Java language, which was based on C and C++. Any language building on the foundation of C and C++ and attempts to take all of these design points into account will exhibit similarities to other languages based on C and C++. However, comparisons are naive because one could easily make the same comparisons between Java and Smalltalk, Eiffel and other object oriented languages.

What do you recommend VJ++ developers do?
A. VJ++ Developers have several options:
1. They can continue to develop using VJ++ and surface their applications and components as COM objects which are callable from .NET.
2. They can open their projects in Visual J# .NET and start building true .NET applications.
3. They can use the source code migration tools to move their existing Java source code to C# and the .NET platform.

The path they choose depends on the kinds of applications they have today and where they want to place investments tomorrow.

How does this relate to the JUMP announcement in Jan 2001?
A: The JLCA is the second part of the JUMP to .NET strategy announced in January. The first path was a development tool that implemented the Java-language on .NET. Visual J# .NET is that tool. The second path was source code migration using an automated tool, the Java Language Conversion Assistant.

So can I program in Java and have this tool do 100% of the conversion?
A: No. Our goal was to deliver a tool that protects code investment not to produce a limited platform mapping layer. This means that there will be some work required to migrate code from Java to .NET but the Java Language Conversion Assistant minimizes this work.

Does this work for J2EE?
A: This tool will migrate existing Java-language code and JSP pages to C#, .NET and ASP.NET. A full J2EE tool will be provided by ArtinSoft, our technology partner in this area.

What about JSP?
A: This tool will migrate JSP to ASP.NET. This feature will be available in final release of the tool.

Why did you have a 3rd party do this work?
A: Microsoft's first interaction with ArtinSoft was as a customer in 1999. During that time, Microsoft searched for companies that could provide the level of knowledge necessary to develop the upgrade wizard embedded in Visual Basic .NET, and decided to partner with ArtinSoft to take further advantage of ArtinSoft's eight years of research and development embedded in Microsoft's technology.

Who provides support?
A: Both Microsoft and ArtinSoft will be providing support for this tool.

Can you provide more guidance on which route (conversion or using J#) I should take?
A: We will be providing a whitepaper on when to use Visual J# .NET or the Java Language Conversion Assistant.

When will all these things ship?
A: We expect to ship the Java Language Conversion Assistant in early 2H 2002.

How much money has Microsoft invested in ArtinSoft?
A. Microsoft has made a small equity investment in ArtinSoft, which will provide the company with further software development opportunities in a growing Internet market. We are not disclosing the amount.

Why was this not an outright acquisition by Microsoft?
A. We are building a company for the long-term, our objective is to provide a wide array of solutions to the market on a number of different platforms.

What is your long-term plan for ongoing support for the joint technology and tools?

A. The opportunities this relationship will present will allow us to maintain and grow our leadership position in the software migration and upgrade market. In addition, we can help customers accelerate the evolution of their systems to take full advantage of today's software market.

Won't Sun cut off ArtinSoft's access to its technology resources? Couldn't Sun sue ArtinSoft for sharing the Freedom technology?

A: We can't comment on what Sun may do.

SECURITY – Rude Q&As

I heard you slipped from your December RTM date because you had security bugs – what can you tell me about that?

Security is Microsoft's highest priority and ensuring security with Visual Studio .NET and the .NET Framework is a key element of our overall security architecture. In line with the Microsoft Secure Technology Protection Plan and Microsoft's Trusted Computing Initiative, we changed the behavior of the system level security so that the defaults are very secure. This decision did have an impact on the product development cycle.

On a scale of 1-10, how serious was the security vulnerability with VS .NET?

Security issues are always important and customers expect Microsoft to treat then as such. We are committed to shipping a quality product. That said it's important to remember the product was in beta and the very nature of a beta program is to test, find and fix situations such as this.

What impact did security lockdown with VS .NET effect customers who implemented the GoLive! License?

There was no effect on customers live on ASP.NET.

What are the known security issues with the .NET Framework?

The delay was not a security issue. It was a change in the default setting to decrease the potential of vulnerability.

What can you tell me about the changes in security settings in the .NET Framework?

The .NET Framework is shipped with default settings that are designed to hit an intelligent balance between system security and extensibility. In recent months, our customers asked us to focus intensely on security, making that our top priority. We responded by reevaluating the default settings on the .NET Framework and locking them down further in a few specific scenarios where the executing code is only "partially trusted" (for example, because it was downloaded off the Internet).

What is Trusted Computing or STPP?
The Trusted Computing Initiative is Microsoft's company-wide effort to subject all of Microsoft's products to a thorough security review before final release. An example of this effort includes the Secure Windows Initiative where Microsoft will shut down its Windows divisions for the month of February to review, complete training, create security tools, and share some of its best practices to make more secure software with the entire industry. Another example of Microsoft's added focus on security includes the successful Foundstone security review of Visual Studio .NET and the .NET Framework.

Was the RTM of VS .NET delayed due to security holes found during the Trustwothy Computing audit?
A: The RTM of Visual Studio .NET was delayed to put final fit and finish across the product, including the Trusted Computing audit. In light of the current climate, Microsoft chose to take another look at security, its importance to Microsoft, its importance to our customers, and its importance to the industry. Visual Studio .NET and the .NET Framework were subjected to this arduous security audit and have been determined ready for release.

How does the new Trusted Computing Initiative affect the announcement you made with Foundstone earlier this year?
Foundstone worked with our security team to verify and validate our security architecture and found it to be excellent. That remains to be the case. The only thing that changed is that Microsoft made the default behavior of the system even more secure. Foundstone concluded that the .NET Framework provides one of the most secure platforms for enterprise and Web applications.

Can the .NET Framework guarantee the security of the systems running it?
While the .NET Framework provides organizations with greater assurance that their applications can resist known security attacks, maintaining secure systems requires an active commitment from administrators and developers to follow best practices (write secure code, implement strong account management policies, disable unnecessary services, regularly install patches, and so on).

How does Microsoft's Trusted Computing Initiative relate to the Donut virus which surfaced recently?
Microsoft's proactive security initiative is not the result of the donut virus, or any other specific virus threats. However, the fact that the donut virus was unable to penetrate the .NET Framework is proof of concept that Microsoft's Trusted Computing initiative will ensure the security of our products. The Donut virus proved that the security structure of the .NET Framework could not be compromised.

Was the Donut virus a ".NET" virus?
The Donut virus is based on an old Windows exploit that targeted certain files within the .NET Framework. The evidenced-based security model of the .NET Framework was put to the test, and it passed that test with flying colors. The perception that the Donut virus was the first .NET virus is misleading and inaccurate.

What implications do the continuing attacks on .NET have for future security?
Obviously, .NET is an attractive target. Having people try to test the security of the .NET Framework is one of the prices we pay for being the market leader in XML Web services. We stand by the security of the .NET Framework and will continually examine all the possibilities. The broad security initiatives we're talking about today are proof of concept that .NET security is one of Microsoft's top priorities.

Cross Site Scripting Rude Qs

I recently read about the Cross-site Scripting error penetrating .NET web sites?
The .NET Framework team was alerted to this Cross Site Scripting issue during the Beta testing phase of the .NET Framework and we fixed this for the shipping version, which is now available for download from MSDN. By downloading and installing the .NET Framework SDK, administrators can fully protect their applications. Uptake of the .NET Framework SDK has been tremendous. Most sites we know of have already upgraded or are well into the process of upgrading. Microsoft's sites are also presently in the process of upgrading to the final bits.

Did the CCS error cause problems for sites operating on the GO Live License?
To our knowledge, no Go Live users have been affected by this issue. However, the Go Live license requires that all licensees must upgrade to the final version within 30 days of release. Though we have no intent in strictly enforcing this agreement, Go Live licencees should download the final version of the .NET Framework which is freely available on MSDN. By downloading and installing the .NET Framework SDK, administrators can fully protect their applications.

Doesn't the CSS error expose customers' private data on servers?
There is no server penetration associated with this issue. The code here is limited to running in Javascript on the client - without access to the client's disk or private files.

About the ASP.NET Go Live Licenses:
The ASP.NET Go Live license explicitly requires that users upgrade to the Version 1 bits. While we are not planning on enforcing this requirement, we strongly recommend that customers upgrade immediately.

WS-I Rude Qs

What is WS-I? Why was it founded? What is its charter/mission?
The Web Services Interoperability Organization (WS-I) is an organization open to those committed to promoting interoperability among Web services based on common, industry-accepted definitions and related XML standards support. The overarching mission of WS-I is to offer our shared customers and the entire industry a clear and consistent roadmap as we are beginning this new era of Web Services.

Why would you create such a group when the Liberty Alliance already does this or is this a competitor to the Liberty Alliance?
The WS-I is distinct from any other industry effort, including Liberty, in that its focus -

spans the entire spectrum of Web services striving to provide much needed clarity, guidance around industry standards-based specifications. At the same time, while maintaining a distinct mission and charter, WS-I is open to all organizations seeking interoperability in Web services and includes companies who are members of UDDI working group (i.e., Microsoft and IBM themselves) and the Liberty Alliance (United, etc)

Is this being driven by problems with other standards orgs?
No – Web services standardization and architecture definition is beyond the scope of any single standards organization. What our customers and the industry are demanding is a common industry vision and clear roadmap for the creation and deployment of interoperable Web services that incorporate the standards developed by various independent bodies such as the W3C, OASIS, etc.

Are Microsoft and IBM trying to undermine existing standards organizations?
No. WS-I is committed to the existing standards process. Indeed Microsoft and IBM and other WS-I members have a rich track record of working closely with the appropriate standards bodies vis-à-vis contributing IP and other resources to develop industry accepted specs and standards that have helped get the web services phenomena to where it is presently. This org is simply the next step and MSFT and IBM remain committed to continue working with Web service standards organizations to incorporate key Web service standards they produce into the WS-I deliverables.

Where will the specifications that WS-I "integrate" come from?
Specifications will come from a variety of efforts –when there is consensus around using a group of these specifications in a certain way we will most likely develop a profile and generate testing that addresses those groupings.

How were the board members chosen?
The board members of WS-I were selected based on a variety of factors, including
- their industry leadership in Web services
- proven commitment to Web Services as an interoperability platform
- their complementary expertise in the field of standards efforts around Web services

What are the dues for WS-I.org members?
Fee's for members joining WS-I are $3,000 annually.

Visual Studio .NET – 2/13 Launch Talking Points

As you know, we are heading into the biggest developer launch in Microsoft's history. Not only do we have a big launch in San Francisco at VSLive! on February 13th with Bill Gates keynoting and over 4,000 customers live and many more via webcast, we also have Steve Ballmer keynoting in Chicago for over 3,500 customers on the same day, and more than 150 launch events around the world over the next 90 days. This document contains the key messages and talking points for the launch and while it includes a lot of information, there are three key things to remember when you read it:

1. **Unleash the Power of .NET:**

   - Right Here, Write Now! The tool and framework for .NET are here now, enabling developers to transform their vision to reality.

2. **Tools Precede the Phenomenon:**

   - The broad availability of Visual Studio .NET and the .NET Framework precede the phenomenon, paving the way to a new era of XML Web services

3. **Microsoft and developers: Partners for success.**

   - Our mission is to make developers successful, which in turn makes customers successful, which in turn enhances Microsoft success.

What you will find in this document:

- High-level objectives
- Key launch messages and themes
- Business value talking points
- Developer Talking points
- Launch Fast Facts & Momentum
- Open Tools platform talking points
- More

Please take the time to read this thoroughly. It's important that we have a very consistent message around the launch.

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Primary Objectives:

- Generate awareness that the final releases of Visual Studio .NET and .NET Framework have shipped and are generally available.
  - Position VS .NET & .NET Framework as the best vehicles to generate XML Web services revolution

- Drive coverage of Visual Studio .NET as first to market with a tool for easily creating and deploying XML Web services

- Reach out to Microsoft developer community with messaging "of the developer, for the developer by the developer" mantra via broad-based outreach

- Demonstrate Microsoft leadership in XML Web services

Secondary Objectives:

- Drive .NET adoption – encourage businesses and developers toward early evaluation and deployment of Visual Studio .NET and the .NET Platform.

- Establish .NET as delivering immediate business value.

KEY MESSAGES AND THEMES:

Launch Theme: Tools Drive the Phenomenon

1) Tools Precede the Phenomenon

- Just as development tools like Visual Basic and PowerBuilder presaged the client/server phenomenon, Visual Studio .NET and the .NET Framework similarly presage the coming XML Web services phenomenon.

- Visual Studio .NET and the .NET Framework are paving the way for the new era of XML Web services.

- XML Web services built with Visual Studio .NET and deployed on the .NET Framework empower businesses to leverage the Internet as a unified platform to conduct their daily business activities.

- Visual Studio .NET and the .NET Framework enable businesses to bridge the technology gap between disparate systems, regardless of platform.

- XML Web services deployed on the .NET Platform enable businesses to maximize their return on investment by fully integrating new and existing IT

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systems, infrastructure, and personnel for maximum productivity.

2) Industry focus on XML Web services is exploding

- There are currently more than 300 books on XML on amazon.com.
- There are currently more than 300,000 XML-related Web sites
- There are currently more than 150 conferences in the U.S. alone covering XML
- There are currently more than 12,000 courses currently being taught on XML

3) Microsoft is betting the business on .NET

- **Microsoft's .NET Platform features three core elements enabling businesses to deploy XML Web services operating on any device, any time, in any programming language.**

- **Secure, Scaleable Servers** – The .NET platform is a distributed computing platform demanding an agile, reliable infrastructure built on secure, scalable servers. This reliable infrastructure, the backbone for hosting and deploying applications on the .NET platform, is comprised of Microsoft Windows® 2000 Servers, the Windows .NET Servers and Microsoft .NET Enterprise Servers.

- **Smart Clients** – Smart Clients are a new generation of connected applications supported by the .NET Platform and allow more immediate user experiences via PCs, mobile and embedded devices. The .NET Framework's managed, secure execution environment allows this next generation of software clients to connect anytime, anywhere.
- **Services** - XML Web services enable applications to share data and functionality with any computer connected to the Internet. XML is the universal language of Internet data exchange, and is the basis for connecting platforms and operating systems, regardless of programming language.

4) It's here, it's now! Right here, Write Now!

- .NET is the Microsoft platform for building XML Web services.

- Visual Studio .NET and the .NET Framework transform .NET from a vision to reality by delivering the tools and platform to write next-generation Internet applications.

- Visual Studio .NET enables developers to use their existing skills to write XML Web services and the next generation of Internet applications - TODAY.

- Visual Studio .NET empowers developers to become agents of change, transforming computing into a new level of performance and productivity.

5) .NET is fostering a development industry ecosystem

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- The release of Visual Studio .NET and the .NET Framework are igniting one of the largest developer and partner "ecosystems" in the industry, providing developers with the tools and support they need to help customers succeed.

- During beta testing of Visual Studio .NET and the .NET Framework, more than 3.5 million betas were distributed worldwide, populating a thriving ecosystem.

- The final releases of Visual Studio .NET and the .NET Framework prompted MSDN subscribers to download more than 100,000 copies within the first 96 hours.

- 800K developers are already building ASP.NET Web sites. Internal Microsoft research shows that 9% of developers are already building and deploying ASP.NET Web sites. These vanguard developers have already begun to reap immediate benefits of better performance, shorter development cycles and reduced time to market.

- Microsoft's .NET ecosystem has thrived just over one year after Microsoft delivered the first beta preview of Visual Studio .NET and the .NET Framework.

Launch Talking Points

- The Visual Studio .NET launch is a worldwide developer event

- 150+ launch events will be held in 60+ countries in the next 90 days, touching 125K+ developers

- 4,000 gathering for Launch in SF, 3,500 in Chicago. This is such a big deal for Microsoft that Bill is leading the Launch in SF while SteveB is doing so in Chicago.

- More than 10 thousand viewers will see the BillG keynote and other launch activities via worldwide Webcast.

- Microsoft is reaching out via VSLive! to the incredible community of developers, customers, partners, and others focused on developing with the industry's premier development tools.

Business Value Talking Points

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1) VS .NET enables customers to create new business opportunities and improve return on existing investments.

- **Internet Platform** – .NET enables customers to leverage the Internet as a unified applications platform, exposing their business seamlessly and transparently as XML Web services, connecting with new business partners and customers to gain new opportunity.

- **Superior Integration** - Visual Studio .NET enables companies to easily build XML Web services on the .NET platform, enabling new business opportunities through system-to-system integration.

- **Avoid Rip & Replace** -Visual Studio .NET enables businesses to maximize existing investments in software, hardware, and people, rather than incur costs for replacing or rewriting applications.

- **Quicker to Market** -The .NET Framework's unified programming model and integrated infrastructure dramatically speeds the development process.

- **Reach New Customers** -Visual Studio .NET allows companies to maximize mobility by extending existing applications to new devices. (Examples: Shiprepair.net, SAS, Continental Airlines)

2) Visual Studio .NET increases productivity

- **Multi-Language Support** – Visual Studio .NET supports all major programming languages, enabling companies to maximize existing IT resources and avoid expensive and risky retraining.

- **Same Skills, Any Device** - Visual Studio .NET enables companies to build and extend applications for delivery on practically any computing device including a Windows PCs, a Web browser, PDA, cellphone, or other wireless devices. (Customer examples: ShipRepair.net,, SAS, Continental Airlines)

- **Replicate business models** - Visual Studio .NET invites business analysts into the development process. Business domain experts can define their needs in plain English, then work with developers to translate their plans into actual application designs.

- **Increased Architect Productivity** - Visual Studio .NET enables businesses to leverage their most skilled and expensive developers more effectively. Visual Studio .NET Enterprise Architect enables developer architects to capture their designs as templates to share with the rest of the development team.

3) Applications built with Visual Studio .NET and deployed on the .NET Framework deliver operational excellence.

- Improve performance: The .NET Framework improves the performance of typical Web applications. ASP.NET includes advanced compilation and caching features that improve performance by a factor of two to three over existing Active

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Server Pages applications.

- **Increase reliability:** The .NET Framework includes technologies to make applications more reliable. For example, memory, threads, and processes are managed by the .NET Framework to ensure that memory leaks don't occur. And ASP.NET monitors running Web applications and can automatically restart them at administrator-defined intervals. With the .NET Framework metadata technology, installing applications is as easy as copying them into a directory and eliminate "DLL Hell." The .NET Framework is even capable of self-healing when applications are damaged.

- **Improve security:** The .NET Framework security system provides fine-grained, method-level control over what applications can and can't do based on who wrote the code, what it's trying to do, where it was installed from, and who is trying to run it.

Developer Talking Points

1) Visual Studio .NET enables developers to rapidly build XML Web services and applications.

- **Multi-language Support** – Visual Studio .NET and the .NET Framework support more than 20 programming languages, enabling developers write applications in the language of their choice. Visual Studio .NET also enables developers to reuse applications written in any language to leverage existing code and build applications faster.

- **Powerful Development Tools** – Visual Studio .NET provides easy-to-use tools to for rapid application development. VS .NET supports forms and data for visual designers, support for HTML and XML and an integrated end-to-end debugger. Enterprise developers can use Visio-based tools for defining application architecture and capturing and communicating business requirements.

- **Increased Productivity-** Visual Studio .NET features drag and drop components, enabling developers to reuse code easily, while the .NET Framework provides the infrastructure for building XML Web Services. VS .NET and the .NET Framework provide an intuitive, unified programming environment that simplifies development.

- **Employ Windows Services -** Through the use of a new visual designer and wrapper classes, VS .NET allows developers to use Windows application services and reduce code by up to 95 percent.

- **Shortened product cycles -** Visual Studio .NET enables developers to build new applications quickly, shortening designers' learning curve with XML, Web services, databases, and other programming challenges.

2) Visual Studio .NET is a smart way to ensure seamless interoperability and

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integration.

- Seamless Integration - Visual Studio .NET and the .NET Framework, through inherent support for industry integration standards, provide enterprises a safe way to ensure interoperability with their partners and customers.

- Integrated Development Environment - Visual Studio .NET and the .NET Framework offer a complete development environment and platform for the creation, deployment and evolution of secure, scaleable and interoperable XML Web services and Web applications.

- Innovative Solution - Microsoft has attracted some of the industry's top technology experts, placing renewed focus on putting the best brains in the business working on .NET.

3) Developers are excited to get Visual Studio .NET.

- The beta versions of Visual Studio .NET and the .NET Framework were Microsoft's earliest and broadest beta distributions ever – over 3.5 million copies were distributed for developers to test.

- .NET has attracted significant developer enthusiasm with thousands of customers deploying solutions with the beta versions of the .NET Framework.

- More than 99.9 percent of all developers stand to gain through as .NET supports over 20 different programming languages, including C, C++, Visual Basic, COBOL, and Java.

4) Visual Studio .NET & the .NET Framework increase developer productivity.

- Reduce ramp-up time by simplifying the development of distributed Web applications and services.

- Minimize the amount of code developers have to write.

- Build Web apps and services faster and with less clutter via new integrated development environment (IDE)

5) Microsoft is committed to driving public Internet standards.

- For XML Web services to live up to its potential, the industry must agree on a set of standards.

- MS is actively working with standards bodies and major industry partners to create this set.

- SOAP and WSDL are undergoing standardization in W3C today.

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- C# and the core of the .NET Framework (CLI) have been standardized in ECMA.

LAUNCH FAST FACTS & MOMENTUM: The Official Numbers to Quote!

- Four new awards:
    - PC Magazine Technical Excellence 2001: "Most ambitious development environment yet...and the first tool built around XML Web services"
    - Intelligent Enterprise Readers Choice
    - VARBusiness Editors Choice, Top 10 New Products of the Year
    - 2001 InfoWorld Technology of the Year
- 3.5M betas – largest beta in MS history
- 350K customers have already received gold code
- 250K developers trained, 200 .NET courses available now
- 800K developers building ASP.NET sites
- 20+ languages supported on .NET, covering 99.9% of all developers WW
- 200 books available now on developing for Microsoft .NET
- 190+ integrated add-on tools launching now
- 764 user groups (30% increase in the last 6 months)
- MSDN Academic Alliance – 1500 CS departments, 815 institutions, 1500 faculty, 200K students

Momentum Details:

Why is momentum important? Because it drives home the Microsoft advantage. Our momentum demonstrates that Microsoft has the best developer ecosystem (more devs, more components, more books, more choices, highest volume, lowest cost platform) which leads to a virtuous cycle for developers: 1) Best economics for customers investing in the MS platform, and 2) Best success for developers serving those customers.

Awards – Visual Studio .NET received the PC Magazine Technical Excellence Award in November 2001, one of the most prestigious awards in the industry for new products. Further quote – Visual Studio .NET "makes the creation and debugging of multilanguage projects painless." Visual Studio .NET has received 5 awards prior to launch, the other being for C# from Web Techniques in 9/01.

3.5M Betas = 2.5M VS, 1.0M .NET – not only the largest beta in MS history, but the largest beta in MS history by factor of 3. **Competitive comparison:** Microsoft distributed over 4X as many betas versions of VS .NET as there are Java developers!

350K customers have received gold code – 200K via MSDN Subscriptions, 100K downloads of .NET Framework, 50K downloads of VS, plus hundreds of thousands more now on store shelves. **Competitive comparison:** We are on track to reach 1M developers using Visual Studio .NET within 7 months. Java has 1M developers today, 7 years after their launch.

Training – 250K developers already trained, consisting of DevDays, .NET Readiness Training (2-day, paid course), MSDN on-site training for corporate customers.

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800K developers are already building ASP.NET Web sites. This is a WW number extrapolated from US research showing that 9% of developers are already building and deploying ASP.NET Web sites. (9% of 9M devs WW = 800K)

20+ languages on .NET – One of the key differentiators for the .NET Platform is the support for many computer languages, seamlessly integrating on a common language runtime. **Context:** If you look at the 9 million developers in the world, you'll find that 99.9% of them are using a language supported on the .NET Platform, the most popular being VB, C, C++, COBOL, and Java. **Competitive comparison:** For Java, only 11% of developers WW can participate (source: IDC, 2001) because only 1 language is supported on the Java platform. (Sun recently announced some debugging interfaces for multiple languages, but this is a far cry from the common type system, cross language inheritance, and other shared tools offered by the .NET Platform.)

200 books available now – many on Amazon's best-seller list. **Competitive comparison:** It took Java over 18 months after its release to reach this milestone.

190 tools launching now – these include tools, add-ons, and controls, many of them tightly integrated with Visual Studio .NET, from the largest tools vendors in the world, including Rational, Compuware, Crystal Decisions, Computer Associates, and others. **Context:** WW revenue in application design and construction market (dev tools market; consisting of 4GL, 3GL, software construction components, analysis/modelling and design, etc.) is going to be $8.78B in 2002. Microsoft's share is less than 1B in this market. (source: IDC, 2001) **Conclusion:** While Microsoft is certainly a leading tools software vendor, there is a huge industry ecosystem built around tools that support developer success.

MSDN Academic Alliance is a licensing program for colleges and universities which was launched in 2001. For a single annual fee, each department or lab can install everything on MSDN on all their machines. This program has been incredibly successful, indicating the popularity of MS tools being taught around the world. **Competitive comparison:** Don't use this competitively, Java numbers are much stronger than MS.

ECMA standardization – **Competitive comparison:** With ECMA standardization, C# has already gained international acceptance while Java has been out for 7 years and still has not become an international standard.

Open Tools Platform Talking Points

- **Open Tools Platform** - Visual Studio.NET is an Open Tools Platform. Working with its partners, Microsoft has opened up Visual Studio.NET for deep integration and interoperability.

- New VSIPS offer deep integration – Computer Associates and Groove Networks have joined 70 other partners in Microsoft's VSIP program. The VSIP program offers ISVs and language and tool vendors deep integration through the Visual Studio Integration SDK, and Visual Studio for Applications SDK. These SDKs enable vendors to focus on their core offerings, while broadening their reach to millions of Visual Studio developers.

- VS .NET extensibility/integration - More than a developer tool, Visual Studio .NET is a platform that has been opened up with dramatic extensibility and integration through Macros and Add-ins.

- Public Automation Model - The Public Automation Model allows developers to customize, extend and integrate the development environment right out of the box.

- Open Internet Standards - Visual Studio.NET is built on open Internet standards (HTTP, XML, SOAP, UDDI). Key pieces of the .NET Framework have been submitted to ECMA for standardization (CLI, C#).

- Extended Developer Tools - Developers can extend their toolset for more powerful developing and making the development experience more rich and productive.

- Enhanced extensibility through Macros - Visual Studio.NET allows developers to record and write macros to automate the Visual Studio.NET IDE. They can also write add-ins and wizards to automate complex and time-consuming tasks.

- The big winners are developers.

WS-I Talking Points

WS-I is another example of Microsoft's commitment to work with the industry to develop Web services standards.

- WS-I is comprised of technology and business industry leaders, and it is open to all organizations committed to promoting interoperability among Web services based on industry-accepted definition and open standards support.

- WS-I will provide the clarity, guidance and direction around Web services that customers are requesting as they move to the Web services model of computing.

- To assist in ensuring interoperability of Web services, the WS-I will create a suite of tools for testing implementation and conformance with "basic level" Web services standards: XML, SOAP, WSDL and UDDI.

.NET Framework SP1 Talking Points

NOTE: Use only in the event of an SP1 inquiry. Do not volunteer SP1 info. SP1 will probably not be released by 2/13, but may be discussed freely after it is released.

- Microsoft is so committed to the .NET Framework and VS, that even after

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releasing them in January, we continued testing. We've rolled up several bug fixes into a Service Pack and are releasing that today to underscore our commitment to quality and security.

- The .NET Framework Service Pack provides additional security with further default setting lockdowns as part of Microsoft's Trustworthy Computing initiative.

- Microsoft has re-energized its focus on security and the SP1 is a result of this re-newed effort.

- The .NET Framework SP1 is now available for download on MSDN at: http://msdn.microsoft.com/netframework/prodinfo/getdotnet.asp#download

  - As always, Microsoft recommends customers should check for the latest Service Pack after loading Visual Studio .NET, and before deploying any applications

.NET Framework Cross-Site Scripting Talking Points

- Microsoft has repaired the Cross-site scripting error during the .NET Framework security audit as part of the Microsoft Trustworthy Computing initiative.

- The .NET Framework team was alerted to this issue during the Beta testing phase of the .NET Framework and was fixed in Version 1. Version 1 is now freely available for download from MSDN. By downloading and installing Version 1, administrators can fully protect their applications.

- Microsoft's sites are already in the process of upgrading to Version 1

- This not an issue which could ever cause a server side penetration. Attacks of this type involve Javascript code executing on the client only. This code cannot gain client disk access. Typically CSS attacks are harmless, involving pop-up messages appearing on sites where they are not supposed to.

- Uptake of Version 1 has been tremendous. Most sites we know of have already upgraded or are well into the process of upgrading

- If asked about the Go Live licenses
- The ASP.NET Go Live license explicitly requires that users upgrade to the Version 1 bits. While we are not planning on enforcing this requirement, we strongly recommend that customers upgrade immediately.

Competitive Talking Points

1) Sun ONE announcement talking points

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- It is great that Sun is jumping on the Web services bandwagon and validating what the rest of the industry already knows to be true: that XML Web services represent the next significant evolution of computing.

- Sun is the last major platform vendor to throw their hat into the Web services ring. Even though they take credit for creation of the key Web services standards, Sun is no more than a follower and late to the game. Their fallacious claims represent revisionist history.

- The Sun announcements on February 7th amount to nothing more than a repackaging of old products along with a disingenuous claim that what is old is somehow new again.

- Sun proposes offerings while Microsoft has established a real industry foothold. Microsoft has more than 6000 customers deploying solutions on .NET while there are no customers currently deployed on vapor Sun ONE.

- They did a series of demos of the iPlanet Expert apps, iPlanet Portal and Sun One Web Top -- these are simply old products with nothing new to offer. Sun made no statements regarding how these old products would support a services architecture.

- The only new products discussed are vaporware with fuzzy ship plans. They discussed an updated iPlanet Application Server for which they gave no ship date. They demonstrated Forte Tools Version 4 claiming it would ship by year-end, however Version 3 has not even shipped yet.

- It is clear that Sun doesn't understand the full implication of Web services - their world view is still about big services (and Big Brother) controlling the internet and reflects their total bias toward selling more hardware.

2) J2EE Talking Points

- The SunONE event is Sun's effort to create a perception of relevancy.

  <u>Supporting points:</u>
  More and more, we are seeing the industry is independently addressing its needs without Sun. For example:
  - SOAP from Apache
  - IBM's Web Services efforts
  - UDDI
  - XML parsers from Apache - (Sun's "specified" parser is not compliant with current standards)
  - Any XML-related technology - XPath, XMLQuery, etc
  - This event is all about the J2EE guys screaming to get their money's worth out of this brand. Only BEA and IBM are making any money with Java servers, and they are the most independent of the J2EE brand (especially IBM).
- The app server market is shaking out, and vendors are moving <u>away</u> from

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J2EE, not towards it.

Supporting points:
- Macromedia and Allaire announced a merger.
- Gemstone and Bluestone merged.
- Persistence has given up on J2EE.
- All of the remaining players are running scared.
- Two companies actually earn revenue from J2EE-related products - BEA and IBM - and both of them are more and more independent of the Sun standard, then what is the meaning or value of J2EE? Even Sun itself (iPlanet) is just coming around to building Web services with J2EE.

- **Sun is finally discovering technologies that MS has offered for years.**

  Supporting points:
  - MS customers have been doing messaging/component model integration since Nov. '97 (NT Option Pack)
  - Integrated messaging, component model, transaction services, queued components, etc. – all part of MS platform
  - COM+ is still the preferred technology versus EJB in terms of real-world development (Evans study)

- **Sun is asking users to rip & replace.**

  Supporting points:
  - Enterprise development is a heterogeneous world – Java is just one of many programming languages that developers know

  - Customers have massive investments in place that are not built on J2EE, and cannot afford the exorbitant cost and excessive time commitment required of replacing and re-educating developers.

  - With the .NET Framework, Microsoft empowers developers to build and deploy enterprise applications using the language they know best.

- **Microsoft is actively working with other industry players and standards bodies to establish the truly open, multi-vendor standards that will power the next-generation Internet.**

  Supporting points:
  - Our leading role in UDDI with IBM and Ariba, the SOAP and XML Protocols (XP) work with W3C; submitting C# and the Common Language Infrastructure to ECMA supports our open standards approach. In contrast, Sun is concerned only with preserving the myth that its technology is somehow an approved standard by railroading its own proprietary technology. Who is open?

  - Sun reneged on its pledge to submit Java to ECMA and the International Standards Organization (ISO)

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3) Standards Talking Points

UDDI Internal Only

- Our main key message is "UDDI is real and continues to move forward"

- Our objective is to drive businesses to register their companies and their web services

UDDI External Talking Points:

- Universal Description Discovery and Integration is an industry-wide initiative supporting Web services.

  #### Supporting Points:

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  - All three registration sites (Microsoft, IBM, and Ariba) have been available and running since October 2000.

  - As of today, thousands of businesses have registered their Web services.

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  - The UDDI specification continues to evolve. Version 2 spec was recently released to the advisors for review.
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  - UDDI is on schedule for submission to an industry standards body in 2002.

- UDDI continues to gain momentum with the NTTdoComo announcement
  - We are pleased with NTT Com's continued support of UDDI by joining with the UDDI Business Registry Operators, Microsoft, IBM, Hewlett-Packard, and SAP in hosting the public UDDI Business Registry for Web services.
  - With UDDI, companies of all sizes can register their Web services and discover those of other registrants. NTT Com is truly preparing its customers

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for Web services as the first UDDI operator in the Asia-Pacific region.

- This is another example of continued global momentum of UDDI.

- **Microsoft currently provides developers a variety of UDDI resources:**

    SOAP/Web Services SDK

    - http://msdn.microsoft.com/soap/default.asp

    Visual Basic UDDI SDK
    www.microsoft.com/downloads/release.asp?ReleaseID=24822

    Visual Studio .NET
    http://msdn.microsoft.com/vstudio/default.asp

- The list of companies making a commitment to support UDDI has reached over 250.

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- The industry at large continues to show its support by sponsoring independent conferences dedicated to UDDI as a key E-commerce technology, such as Web Services World in April 2001.

- By listing a Web service in the UDDI Business Registry, companies are opening the door for the establishment of new e-business relationships and added efficiency to existing relationships.

- The digital economy will not rapidly reach its optimistic potential (Gartner $7.3 trillion by 2005) until there is a common method for businesses to quickly, dynamically, and easily find and transact with each other regardless of the software and hardware they use.

- UDDI's global directory will rapidly accelerate adoption of e-commerce by large and small businesses.

- UDDI is based on accepted industry standards such as XML and SOAP and will be turned over to an industry standards body within the next year.

- UDDI greatly simplifies how buyers, sellers, and marketplaces discover and connect with each other.

Oracle and UDDI Talking Points

- We are pleased that Oracle has joined the UDDI Project.

- Oracle's participation in the UDDI Project reemphasizes the importance of industry standards in business-to-business integration and commerce on the Internet.

- UDDI Project is a 130 member coalition of business and technology leaders committed to the acceleration and broadening of business-to-business integration and commerce on the Internet.

- Industry support and membership in the UDDI Project continues to grow, contributing to the significant momentum behind the UDDI Project.

- UDDI is the first effort supported by a broad and diverse coalition of industry leaders to accelerate the pace of transacting business on the Internet.

- Those backing the project have agreed to cooperate on the UDDI standard and compete only on how they implement solutions on top of it.

ECMA-C#/CLI Talking points

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- We are working with HP, Intel, and other leading industry representatives to create standards for C# and CLI (common language infrastructure, a subset of common language runtime) with ECMA.

- The standards process will yield a standard specification that other manufacturers can use to implement C# and CLI, and other languages on the CLI.

- This is a key effort for Microsoft, and we are very excited about it.

- The ECMA acceptance of C# and the Common Language Runtime specifications means developers have more resources to build applications that interoperate across disparate systems.

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