I’m a PHP Developer, Why Should I Care About Microsoft?
A Microsoft primer for PHP devs

(or...Microsoft and PHP – a love story)
Who Am I?

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Microsoft Corporation
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Borg Collective ID: X914BZ01
1998 Started working at Microsoft
1998 Started working at Microsoft MetroPark, NJ
1998 Started working at Microsoft

Edison & Iselin, NJ
1998 Started working at Microsoft

Edison & Woodbridge, NJ
1998 Started working at Microsoft

Exit 131, NJ
1999-2005 Worked on Enterprise server applications
I blog, therefore, I am

http://www.peterlaudati.com
So much time! So little to see!

So little time and so much to see!
My goals

- Show some cool stuff
- Tell you where you can get it
- Tell you where you can learn more
- Answer questions
- Go have a beer with all of you
Stuff we’ll talk about

• Microsoft & Open Source
• PHP and IIS
• SQL Server 2005 Driver for PHP
• Microsoft AJAX Library
• Silverlight
• Expression Web 2.0
• ...
Linux
Samba
Mozilla
Apache
MySQL
PHP
Ruby
Python
Java
Eclipse
Microsoft Open Source Software & Novell Interop Labs

**OSS Lab: Redmond, WA**
- Staffed by OSS and Linux experts
- 300 servers of varying types, Gumstix, Intel, AMD, Blades, HPC clusters, and IBM P6 series machines
- Highest computing density of any Microsoft Redmond lab
- Availability of over 340+ Linux Distributions
- Testing interoperability OSS and Windows Technologies
- Research on OSS technologies
- Performance testing of Windows and OSS stacks

**Novell Interop Lab: Cambridge, MA**
- 2500 sq feet of lab and office space
- Jointly staffed by Microsoft and Novell
- 80 servers running Intel Xeon dual and quad core technology and AMD Opteron dual core technology
- Testing interoperability of virtualization, ws-management and identity federation solutions
- SAMBA Interoperability testing
Past:
- Windows Media Player 11 interoperability
- Silverlight Firefox compatibility
- Silverlight/Moonlight implementation of common standard
- SQL Server drivers providing connectivity from Java or PHP
- Fast CGI hosting PHP and Python in IIS
- Vista compatibility with Firefox

Present:
- Hyper-V Linux Interoperability
- Ws-man Compliance Tool
- System Mgmt interoperability
- PHP Interop: PHP application connectivity to SQL Server
- Apache Interop: ASF Technology Transfer
- CardSpace relying party
- Java/PHP/Ruby/C Interop
- HPC Linux/Windows environment
- Identity Integration, File Server Integration

Future:
- PHP Active Directory Integration
- PHP/Sharepoint Integration
- SugarCRM SQL Server Connectivity Collaboration
- Continue providing technical support to Apache (Build Support)
PHP and IIS
PHP on IIS – A Brief History

• First, there was CGI
  – Invokes new process for each request
  – Easy to configure, pretty stable
  – SLOOOW due to overhead of process creation
• Then, ISAPI extension
  – Loaded in process
  – Better performance
  – Not stable if code isn’t thread safe
• What’s the solution?
The solution - FastCGI

- Extension to CGI that allows reuse of a process
- Easy to Configure
- Faster than CGI
- More stable than PHP on ISAPI
- Able to leap tall buildings in a single bound
- Can run non-thread-safe versions of PHP
More on FastCGI

• Developed in close collaboration with Zend Technologies
  – Improvements in PHP engine for IIS with contributions and collaboration back to PHP Community
  – Zend Core Available for Commercially Supported PHP
• Available for IIS6 (Windows Server 2003) or IIS7 (Windows Vista SP1 or Windows Server 2008)
• Fully supported by Microsoft
• Where do I get it? http://www.iis.net/php
IIS7 Cool New Features

• Modular architecture
• XML configuration
• Remote management
• Advanced diagnostics
• Integration with Windows Media Server
• Can easily extend with managed code
New Modular Architecture
The integrated pipeline

Native
- or -
Managed
Custom
Managed

ASP.NET
Static
Compress
Cache
Logging
Anon
Basic

FastCGI
ASP
Errors
ISAPI
Tracing
Forms
UrlAuth
Demo
Leverage the Platform

• Rich functionality in IIS7
  – Included modules such as Membership
  – Add-on modules from http://IIS.net

• SQL Server 2005 Driver for PHP

• Other Windows Applications
  – Active Directory
  – Exchange
  – SharePoint
  – Office
Add-On Modules

- Publishing
  - WebDAV - Released
  - FTP7 - Released
  - Frontpage Server Extensions - Released

- Media Pack
  - BitRate Throttling – Go Live
  - Playlists - CTP

- Other modules to come...
Good IIS and PHP resources

- IIS Authentication plugin for the Wordpress PHP blogging engine
  - [http://tinyurl.com/ytwndt](http://tinyurl.com/ytwndt)
- Installing PHP apps on IIS7
SQL Server 2005 driver for PHP
SQL Server 2005 Driver for PHP

• Goal: Provide robust, scalable, and reliable SQL Server connectivity for PHP developers targeting the Windows platform

• Enterprise “abilities” to PHP/SQL Server Devs.
  – Reliability
  – Scalability
  – Maintainability

• Base the PHP driver's API on existing data patterns
  – API changes made based on community feedback during beta
  – For more info, see the team blog http://blogs.msdn.com/sqlphp

• **Version 1.0 Released July 2008!**
ASP.NET AJAX and PHP
What is AJAX?

- **Asynchronous JavaScript And XML**
- Client/server communication without loading a new page
What else does AJAX sometimes mean?

• DHTML: HTML + JavaScript behavior
  – Animations
  – Drag/drop
  – Show/hide details

• Partial page updates
  – Replace part of the page with UI from the server
  – Stock ticker, news headlines
  – Often with a timer

• AJA*: XML, HTML, text, JSON
What is ASP.NET AJAX?

• Microsoft AJAX Library
  – Cross-browser, cross-platform, cross-backend
  – Pure JavaScript

• ASP.NET AJAX Extensions
  – ASP.NET-only server controls

• AJAX Control Toolkit
  – Shared-source, community project, built on AJAX Extensions
Microsoft AJAX Library

Client

XHTML/CSS

Server-generated Proxy Scripts

Microsoft AJAX Library

Components

Browser Compatibility

Networking

Core Services

Browsers (IE, Firefox, Safari, others)
AJAX Library Design Goals

• Framework for OOP in JavaScript
  – Namespaces, properties, events, inheritance, reflection, ...

• Encapsulation of controls/behaviors
  – Reusable script components, easy to associate with HTML elements

• Cross-browser abstraction
  – IE, Firefox, Safari, Opera

• Seamless integration with “web services”
Demo
public class Customer {
    public string FirstName {
        get {} set {} 
    }

    public string LastName {
        get {} set {} 
    }
}

    [WebMethod]
    public Customer GetCustomer(int id) {
        return new Customer("bill, "gates");
    }

    [WebMethod]
    public void UpdateCustomer(Customer customer) {
        // todo: update database
    }
}
<script language="JavaScript">
function getCustomerInfo() {
    CustomerService.GetCustomer(123, onCustomerComplete, onTimeout);
}

function onCustomerComplete(results) {
    firstNameTxt.value = results.FirstName;
    lastNameTxt.value = results.LastName;
}

function updateCustomerInfo() {
    var customer = new Customer();
    customer.FirstName = "Bob";
    customer.LastName = "Jones";

    CustomerService.UpdateCustomer(customer, onUpdate, onTimeout);
}
</script>
Microsoft AJAX Library

• Downloads, documentation, etc.
  – [http://ajax.asp.net](http://ajax.asp.net)

• PHP for Microsoft AJAX Library

• Steve Marx’s webcast
  – [http://tinyurl.com/2pwd5z](http://tinyurl.com/2pwd5z)
Silverlight
Microsoft **Silverlight** is a cross-browser, cross-platform, cross-device plug-in for delivering the next generation of .NET-based media experiences & rich interactive applications (RIAs) for the Web.
Silverlight Overview

Compelling Cross-Platform User Experiences
- Immersive media experiences & RIA
- Seamless, fast installation for end users
- Consistent experiences on Mac / Windows

Flexible programming model with collaborative tools
- Integration with Web technologies
- Based on the .NET Framework
- Role specific tools for designers / developers

Efficient, lower cost delivery, and more capable media
- HD to Mobile w/ SMPTE VC-1
- Broad media ecosystem
- Tools for live and on-demand publishing
Designer/Developer Collaboration

production

final result
Key technology aspects

- Silverlight asset delivered as text-based XAML
- XAML can come from static file or dynamic server code
- XAML defines UI and animations
- XAML events can be raised to code
- XAML can be changed at “runtime”
Silverlight Development Model

JavaScript AJAX

- Supported with Silverlight 1.0 and 2
- Enables JavaScript to program both HTML and JavaScript together
- Fully supported with ASP.NET AJAX

.NET

- Supported with Silverlight 2
- Cross platform version of the .NET Framework included with Silverlight
- Fully supports VB and C# development in the browser
- Supports dynamic languages (IronRuby, IronPython, etc)
Silverlight 2 Runtime Features

- 2D, Graphics
- Audio, Video
- Animations
- Text, Text Input*
- Controls*
- Layout*
- Styles/Templates*
- Data Binding*
- Networking
  - HTTP/S and Sockets*
- .NET Support*
  - C# and VB.NET*
  - LINQ*
  - XML APIs*
  - Generics*
  - HTML Integration*
  - JSON Serializer
  - Local storage*
  - Crypto APIs (AES)*
  - Threading*

* New in Silverlight 2
Get Started!

1. Visit Silverlight site for samples, demos, videos, whitepapers
   http://www.silverlight.net

2. Install the Beta 1 Runtime

3. Install the Visual Studio 2008 tools

4. Install the Silverlight 2 Beta 1 SDK

4. Expression Studio beta
General resources

• MIX 08 sessions
  – http://sessions.visitmix.com

• Channel 9
  – http://channel9.msdn.com

• PHP on IIS
  – http://www.iis.net/php
Questions?

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