



Microsoft Silverlight

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Introduction

- a.k.a WPF/E ('E' stands for "Everywhere")
- a **proprietary** web presentation technology developed by Microsoft
- designed to run on several platforms and browsers
 - Windows, Mac OS X, (Linux support work in progress in a **separate project**)
- two versions at the moment: 1.0 for JavaScript developers and 1.1 alpha includes support for .NET development
- a browser plugin that enables running of Silverlight applications

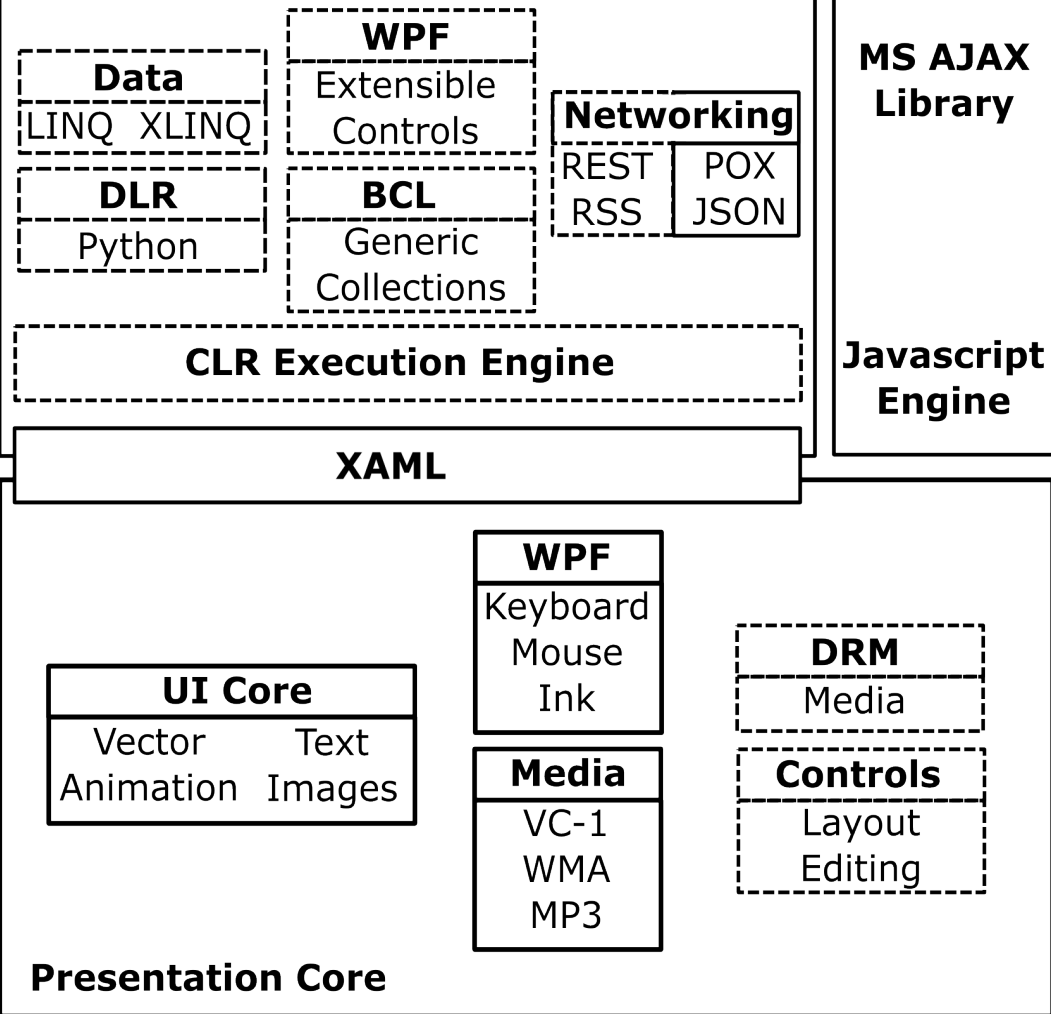
Overview

- Silverlight consists of
 - .NET for Silverlight
 - presentation core
 - browser plugin
- .NET for Silverlight includes relevant parts of .NET regarding web publishing
- Presentation core renders XAML DOM to the screen
- Plugin takes care of adapting Silverlight to different platforms and browsers

Overview (cont'd)

- Languages
 - Javascript (primary language)
 - .NET languages
 - Ruby
 - Python
 - more to come?
- Media codecs included
 - MP3
 - WMA, WMV
 - VC-1 (WMV 9 etc.)

.NET for Silverlight



Silverlight essentials

Browser Host

Integrated Networking Stack DOM Integration Application Services Installer

Legend

Only Silverlight 1.1

Also Silverlight 1.0

AJAX - Asynchronous JavaScript and XML

BCL - Base Class Library

CLR - Common Language Runtime

DLR - Dynamic Language Runtime

DOM - Document Object Model

DRM - Digital Rights Management

JSON - JavaScript Object Notation

LINQ - Language Integrated Query

MP3 - MPEG-1 Audio Layer 3

MPEG - Moving Picture Experts Group

MS - Microsoft

POX - Plain Old XML

REST - REpresentational State Transfer

RSS - Really Simple Syndication (2.0)

UI - User Interface

VC-1 - Video Codec 1


WMA - Windows Media Audio

WPF - Windows Presentation Foundation

XAML - eXtensible Application Markup Language

XLINQ - LINQ to XML

Application Platform



Windows Server


Internet Information Services (IIS)

ASP.NET
PHP
FastCGI
Windows Media Services

Linux

Apache

PHP



Windows Communication Foundation

XML and JSON Web Services Support

ASP.NET AJAX

Silverlight Controls

asp.media asp.xaml

Application Services


Accessibility Roles
Authorization Search
Profiles

Sys.Preview.UI.XAML

ASP.NET AJAX Library

BasePlayer Control
DomElement
MediaElement
MediaMarker

Services



Microsoft Services

Silverlight Streaming by Windows Live
Windows Live Services
Windows Live Search Maps
MSN Soapbox

Other Services

Any service that supports JSON, REST, RSS, ATOM or XML Web Services

Tools

Developers

Microsoft Visual Studio



Designers

Microsoft Expression Studio



Framework Languages

C#
Visual Basic
JavaScript
IronRuby Soon
IronPython
VBx Soon

Platforms

Browsers

Internet Explorer 7
Internet Explorer 6

Firefox 2.0
Firefox 1.5

Safari 2.0

Soon Opera



Apple

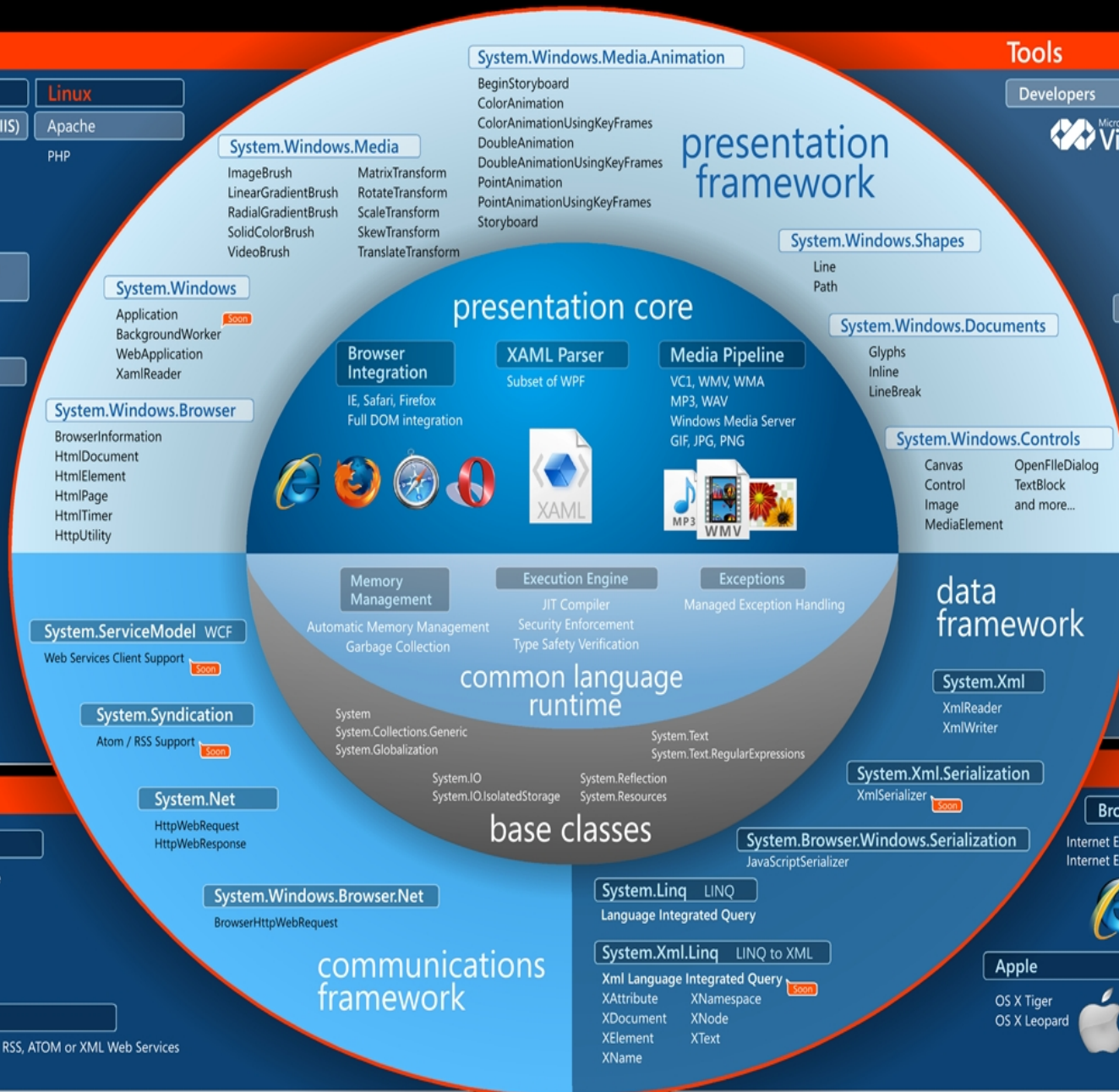
OS X Tiger
OS X Leopard



Microsoft

Windows Vista
Windows XP
Windows Server 2003
Windows 2000 Soon





XAML

- eXtensible Application Markup Language
- similarities with SVG
 - wasn't used because Microsoft was committed to XAML through .NET (consistency between .NET and Silverlight's .NET)
- used to markup UI components
- 1.1 includes basic components from .NET, more to come in future versions of Silverlight

Technology demos

- [Halo Game Guide](#)
 - Tutorial of Halo 3 video game with embedded video, nice buttons
- [Break.com](#)
 - Video player with advanced controls
 - Spatial search
- [Inkable Search Tip](#)
 - Handwriting recognition with Google search

Technology demos (cont'd)

- **Tafiti Search**
 - search engine with a new kind of an UI
- **NETiKA's WinForms for Silverlight**
 - standard .NET Windows Forms in a web browser
- **MSDN Whirly Thing**
 - "spin the wheel"
- **Destroy all invaders**
 - a shoot'em'up game on top of Virtual Earth

Summary

- Cross-platform (+)
- Not necessarily bound to specific tools (XAML can be hand coded...), but... (+)
- well integrated with .NET (+/-)
- Cross platform version of .NET (.NET everywhere :-D) (+/-)
- Limited media type support (-)
- ignores common standards like SVG (--)

Summary (cont'd)

- easy to create visually impressive web applications (+)
- .NET developers are able to use their skills directly on a new technology (+)