



NetUnity WSRP .NET Framework

WSRP Portlet Development Framework for .NET

The NetUnity WSRP .NET Framework is a comprehensive portlet development framework and run-time for developing and deploying portlets based on the Web Services for Remote Portlets (WSRP) open standard using the Microsoft .NET Framework. The WSRP .NET Framework allows developers to rapidly create rich, interactive and standards-based portlets that plug-and-play with any WSRP-compliant portal or consumer regardless of the platform.

Executive Summary

Enterprises today use and support a variety of heterogeneous platforms, development tools and programming languages. While the Java/J2EE continues to be a significant development framework, the Microsoft .NET Framework™ has quickly gained momentum and today it's just as popular as Java in large enterprises.

Enterprises deploying portals have long suffered from proprietary standards and interoperability issues. The reason: proprietary portal interfaces required development experience in specific platforms, frameworks and tools. Leveraging an organization's development resources regardless of skill set to deliver portal applications posed a significant challenge.

Two open standards promise to make portlet development easier. JSR-168™ and its newer version JSR-286™ are portal-to-portlet interface standards for building Java portlets that can be consumed by Java-based portals and applications. Web Services for Remote Portlets (WSRP) is a standard that defines a common interface and protocol for creating pluggable, user-facing, interactive remote portlets using XML web services that is platform and development tools independent.

The WSRP standard is developed by the Organization for the Advancement of Structured Information Standards (OASIS) - an international consortium that advances the development and adoption of XML and web service standards. Its members and sponsors include Microsoft, IBM, Oracle, SAP, Nokia, Boeing and other international private, public and governmental organizations inside and outside the software industry that develop and promote open standards.

The NetUnity WSRP .NET Framework™ allows organizations to leverage their .NET development resources to create rich interactive, WSRP-based portlets that plug-and-play with any WSRP compliant portal or consumer regardless of the platform.

Why WSRP?

Web Services for Remote Portlets (WSRP) is a standard that defines a common interface and protocol for creating pluggable, user-facing, interactive remote portlets using XML web services that is platform and development tools independent.

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The WSRP version 1.0 specification was approved as an OASIS standard in August 2003. The standard was created to enable businesses to provide content and application portlets to consumers in a form that does not require the use of proprietary interfaces or require consumer specific adaptation. Over the years, the standard continued to evolve culminating in the release of WSRP version 2.0 in April 2008. The WSRP 2.0 standard focused extensively on support for portlet-to-portlet communication and coordination: the ability to pass data and coordinate activities between WSRP portlets.

A major benefit of the WSRP specification is that it allows application and content providers to publish portlets to any consumer regardless of location or platform. Another benefit is that it allows developers to write portlets using popular development environments such as Java/J2EE or Microsoft's .NET Framework without having any knowledge of the consumer application and its environment.

WSRP for Businesses

WSRP is good for businesses because content and applications written to the WSRP standard will interoperate across a potentially multi-portal enterprise. It also minimizes the risk of relying on any one portal vendor implementation. Business portlets written for one department and deployed on one portal platform can be used in another area of the company that uses a different portal platform. Because WSRP is based on web services, it is easier to build solutions that work both within and outside the corporate firewall when considering projects such as customer portals, supplier portals and other IT-based initiatives.

WSRP for Content Syndication

WSRP provides visual, user facing web services making it an excellent choice for providing a richer content delivery mechanism than the often used Really Simple Syndication (RSS) standard. Using WSRP, content publishers can deliver rich, interactive content-based portlets to paying and non-paying subscriber anywhere in the world, regardless of their customer's platform.

WSRP for Composite Applications

The WSRP specification opens up new ways of building and delivering applications. It provides content aggregation, personalization, navigation, caching and other portal-based services to any web application. By leveraging the openness of WSRP, composite applications can be rapidly built using portlets developed within the organization as well as by using portlets developed by business partners, software vendors, content providers or any other third party regardless of the platform or location.

WSRP for Deployment

As a web service, WSRP portlets can be deployed separate from the portal or consumer application. This separation lessens the dependence on the consumer hardware and software platform. It also permits more granular deployments of specific applications without affecting other applications or the consumer itself. The end result is simpler, less costly and less risky deployments.

WSRP for Scalability

A significant advantage of WSRP, especially in large scale operations with thousands or even millions of users such as B2C portals, is that portlets can be load balanced independently from the portal. Often capacity issues are related to a few highly used portlets and not the portal or consumer itself. WSRP permits more flexible and highly optimized load balanced configurations that maximizes throughput while reducing costs by minimizing hardware and software requirements.

Need the flexibility to increase and decrease processing capacity during peak and non-peak times? Need to scale to potentially thousands of servers? Because WSRP is based on web services, it can be easily scaled like ordinary web sites to tens, hundreds or even thousands of servers. It's also the right architecture for future cloud computing

platforms like the Microsoft Windows Azure™ that rely heavily on application being built as a collection of scalable web services.

WSRP and .NET

At NetUnity, we believe that .NET developers should be able to build WSRP-based solutions that leverage the advantages of .NET with the standards of WSRP. A WSRP-enabled portal should be capable of hosting an unlimited number of application portlets regardless of the platform. A .NET developer should be able to use the popular Visual Studio™ development environment and their preferred .NET language to build WSRP compliant portlets. Now, these goals can be achieved using the NetUnity WSRP .NET Framework.

The NetUnity WSRP .NET Framework

The WSRP .NET Framework allows companies to create application portlets that work with any WSRP-compliant portal, regardless of the platform. The framework lets companies leverage all the development and deployment advantages of .NET, while enjoying the openness and portability of the WSRP standard. The NetUnity WSRP Framework offers organizations of all sizes, the ability to build rich, interactive and open portal-based business solutions.

WSRP .NET Class Library

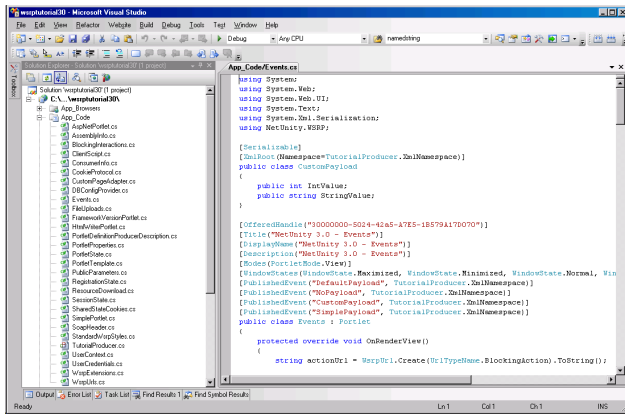
The WSRP .NET Framework provides an extensive class library and runtime implementing the WSRP standard. Developers simply focus on developing portlets and not WSRP plumbing. The framework automatically handles all WSRP requests for registration, markup and interactions but allows the developer to get involved and modify any aspect of servicing these requests if needed.

Leverage ASP.NET Architecture

The framework was designed to leverage the ASP.NET architecture. The majority of the effort developing WSRP portlets does not require learning a new architecture because it is typical ASP.NET development. Developers use ASP.NET pages and controls to implement their WSRP portlets or convert existing ASP.NET applications to portal-based WSRP applications.

Deployment and Scalability

Deploying WSRP portlets is similar to deploying a standard ASP.NET web site. The WSRP .NET Framework provides a compact runtime footprint that does not require the installation of a portal and relies solely on standard .NET libraries. This allows easy deployments of portlets within the organization to a single server or load balanced configuration separate from the portal or consumer server.



Microsoft Visual Studio™ 2008 – IDE integration

WSRP Version 1.0 and Version 2.0

The WSRP .NET Framework supports the WSRP version 1 and version 2 specifications including all forms of portlet-to-portlet communication and coordination. Supporting both specifications allows you to preserve your investment in version 1 portlets as well as take full advantage and obtain the most benefit from the new features in the version 2 specification.

Visual Studio™ Templates

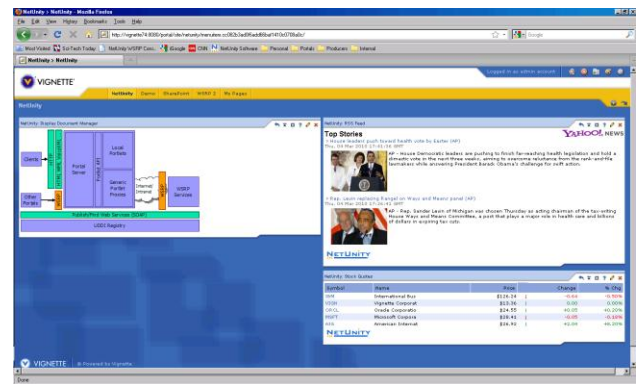
Portal developers can use .NET and the popular Visual Studio™ development environment to rapidly create standards-based portlets that plug-and-play with any WSRP-compliant portal. The framework includes Visual Studio Templates for generating C# or VB projects so that developers can quickly become productive.

Samples and Tutorial

The framework comes with extensive sample portlets and extensive tutorial explaining all aspects of WSRP portlet development.

WSRP Developer Portal

Included with the framework is a WSRP compliant core portal for testing portlets. The WSRP Portal - Developer Edition - is designed to allow developers to rapidly test their WSRP portlets on their own workstations without having to install a full-fledged enterprise portal. The Developer Edition provides extensive portlet developer functionality that is not available in commercial portals.



WSRP Framework Developed Portlets – Vignette Portal

Key Features and Benefits

WSRP Portlet Development Framework for .NET

Solutions

- Build WSRP portlets in .NET and consume in WSRP compliant enterprise portals
- Convert existing .NET applications to portal-based applications
- Publish content and applications as WSRP portlets
- Rapidly build composite applications using WSRP portlets

Features

- .NET WSRP class library and runtime
- Visual Studio™ Templates
- Use ASP.NET pages and controls to implement portlets
- WSRP Portal - Developer Edition for testing portlets
- Integrated Visual Studio™ help
- Implements the 1.0 and 2.0 WSRP specification
- Operates independently and outside of the portal infrastructure – no portal required
- Extensive tutorial and samples
- Flexible load balanced configuration

Benefits

- Increase developer productivity
- Syndicate content and applications across the enterprise
- Write once, deploy in all major portals
- Increase portal throughput
- Utilize all development resources regardless of development platform

System Requirements

- Windows XP, Windows 2000, Windows 2003, Windows 2008
- SQL Server 2000/2005/2008, Oracle 8.7x and higher
- IIS 5.x and higher
- Visual Studio™ 2005/2008/2010
- .NET Framework 2.0/3.0/3.5/4.0

About NetUnity Software

NetUnity Software is an innovator in Web Services for Remote Portlets (WSRP) software. NetUnity provides products and services that enable businesses to develop and deploy portal solutions based on the open standard - Web Services for Remote Portlet (WSRP) - using the Microsoft .NET platform. NetUnity is committed to helping customers and partners deliver high-quality, easily maintainable, WSRP applications and integration solutions. NetUnity is member of OASIS WSRP Committee and an active participant in the development of the WSRP Specification.

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