



# Mainsoft, Portal Edition: Composite Apps Across .NET and Java

## Enterprise Challenges

- Deliver a rich, integrated end-user experience across .NET and Java Web applications
- Preserve existing .NET developer skills and code
- Enable on-the-glass composite application development, without coding
- High costs of developing, maintaining a mixed .NET-Java production environment

## Mainsoft, Portal Edition

- Develop and maintain ASP.NET portlets using C#, Visual Basic 2.0, and the Visual Studio 2005 IDE
- Port existing ASP.NET 1.1 and 2.0 applications and deploy them as JSR 168 compliant portlets on WebSphere Portal v 5.1, 6, and 6.1

## Enterprise Benefits

- Enhanced end-user experience, including role-based security with single sign-on, consistent navigation model, AJAX-enabled UI experience, and people awareness
- Enable on-the-glass composite application development using .NET and Java components, without coding
- Preserve .NET developer skill sets and existing .NET code
- Simplify IT infrastructure: eliminate dual licensing and management costs

**Mainsoft®**, *Portal Edition*, enables IT departments to integrate ASP.NET applications seamlessly into a flexible, scalable service-oriented architecture running on WebSphere® Portal.

Enterprise .NET developers use Mainsoft's Visual Studio®-based software development kit to build a fully featured WebSphere Portal environment, with role-based, personalized access to all enterprise assets running on the portal. .NET developers can produce JSR 168 standards compliant Java portlets that run locally on the portal. These portlets can participate in on-the-glass mashups across .NET and Java components, creating a unified look and feel and enabling composite applications with portlet communication.

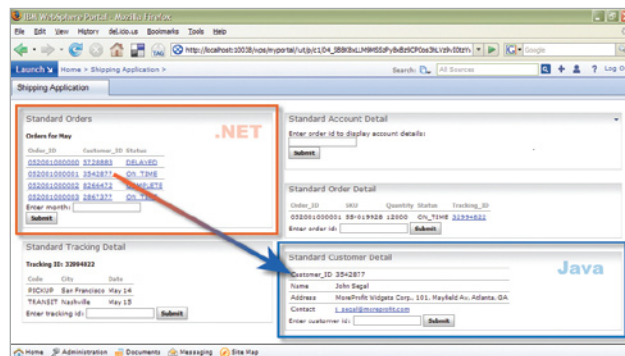


## .NET Extensions for WebSphere Portal

Mainsoft, Portal Edition, is an integral part of Mainsoft's .NET Extensions for WebSphere Portal offering. .NET Extensions enables IT organizations with .NET skills, applications, and services to deliver scalable, open access to all enterprise assets, including contents stored on SharePoint sites and SQL Reporting Services, within an integrated WebSphere Portal environment.

## Product Benefits: Mashups Across .NET and Java

With .NET portlets running natively on WebSphere Portal, business analysts can quickly compose mashups across .NET and Java components. Analysts use interactive tools such as WebSphere Portal Application Templates and inter-portlet communications to build new workflows on WebSphere Portal.



Using Mainsoft, Portal Edition, a business line manager can develop and view custom, integrated reports (e.g. supply chain management, manufacturing, and shipping) on-the-glass, without using expensive and hard-to-use application integration tools.

## Product Benefits: Superior End-User Experience

Mainsoft, Portal Edition, extends WebSphere Portal's enhanced end-user benefits to services written in C# and Visual Basic, including:

- **Role-based security:** End users gain secure, role-based access to enterprise .NET and Java services using WebSphere Portal single sign-on. .NET portlets run locally on WebSphere Portal and can access all portal services, including users and group management, Credential Vault, user profile, and portlet preferences. The 100% WebSphere security model reduces the number of potential intrusion points, as compared to a mixed security model provided by IFRAME remoting solutions.

## Mainsoft, Portal Edition

### Productivity

#### Intuitive, rapid development of JSR 168 portlets from the Visual Studio IDE:

- C # and Visual Basic 2.0 languages support, including generics, partial classes, and nullable types
- ASP.NET 2.0 controls, with seamless integration with the portal's theme and branding
- ASP.NET 2.0 out-of-the-box role-based security mapped to WebSphere Portal User Management Architecture (PUMA)
- Access to WebSphere Portal user profile directly from ASP.NET 2.0 Profile APIs
- Visual Portlet Designer enables the graphic configuration of portlets, portlet modes, localization, and user attributes
- Automatic WebSphere Portal deployment from the Visual Studio IDE
- Access all JSR 168 APIs and WebSphere Portal APIs from C# or Visual Basic, including Visual Studio's integrated dynamic help

### Web Services

- Automatic consumption of .NET and Java Web services from the Visual Studio development environment
- ASP.NET Web Services 2.0 Client and Server, including SOAP 1.2 and WS-I basic profile

### Integrated Debugger

- Preserve the Visual Studio debugging experience
- Integrated build, run, and debugging capabilities for Java-enabled applications from within the Visual Studio IDE
- Debug across Visual Basic, C#, and Java

### Robust ASP.NET Porting Capabilities

- Built-in support for single source code development for .NET and Java EE
- Integrated Java EE project generation wizard
- Platform-specific conditional code compilation
- Broad support for .NET 2.0 Framework assemblies, including, mscorlib, System.Configuration.System.XML, System.Data, System.Web, System.Web.Services, System.Drawing, System.Runtime.Remoting, System.Runtime.Serialization.Formatter, Soap, System.DirectoryServices, Microsoft.VisualBasic.jar

### Java Support

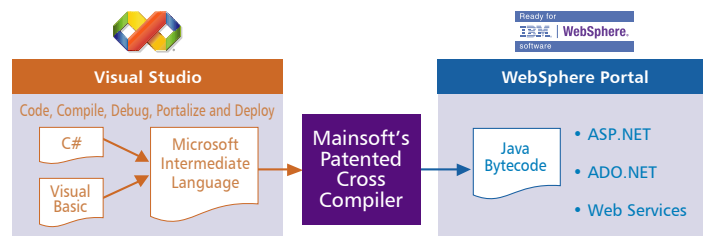
- IBM WebSphere Portal 5.1, 6, and 6.1



- **Interactive Web interface using AJAX:** Using Mainsoft, Portal Edition, and the AJAX Control Toolkit for ASP.NET, .NET developers can provide the full richness of AJAX to portlets coded in .NET.
- **WebSphere Portal navigation:** ASP.NET applications can be easily ported to multiple portlets to integrate with the portal navigation model. This model delivers a consistent end-user navigation experience across ASP.NET and Java applications.
- **Branding:** ASP.NET portal applications are branded consistently with the portal themes. This includes internationalization, with consistent levels of translation and localization to provide a comfortable experience for users worldwide.
- **People and location awareness:** ASP.NET developers can take advantage of Lotus® Sametime people and location awareness features. Users' names appear as hyperlinks in ASP.NET portlets, facilitating collaboration across all portal services.

## Enabling Technology

Mainsoft's patented cross compiler compiles .NET source code into Java bytecode, producing ASP.NET applications that run natively on WebSphere Portal. Mainsoft, Portal Edition, packs the generated class files in a standard WAR file, together with a robust Java runtime implementation of ASP.NET, ADO.NET, and the .NET 2.0 Framework.



*Mainsoft's .NET Framework sources were developed in partnership with the Mono community.*

Mainsoft's Visual Studio-based SDK enables C# and Visual Basic developers to customize the portal and build ASP.NET 2.0 applications using their preferred technologies, including the .NET 2.0 Framework, ASP.NET 2.0 controls, single sign-on, and C# generics. Because the .NET source code remains unchanged, .NET developers can continue to maintain their applications using their preferred development environment.

## Customer Success Story

Opal Future Technologies provides IT infrastructure for eight pension funds that are regulated by the Israeli government. To reduce operating costs, the government tasked Opal with consolidating the pension funds' information management systems – including customer relationship management, data mining, investments management, help desk, suppliers' management, and a few dozen other services – into unified system services, together with a central pension fund calculation engine and more than 30 terabytes of data. Opal had less than four months to integrate dozens of .NET and Java support services into an Intranet site running on WebSphere Portal 6 that would enable pension fund managers to administer the funds. Rather than rewrite the .NET services in Java, the company's enterprise .NET developers used Mainsoft, Portal Edition, to deploy its existing .NET services natively on the WebSphere Portal, changing less than one-half of one percent of its .NET code base in the process. Opal delivered the Intranet site on schedule. The next phase will open the portal to more than three million pensioners via the Internet.

## About Mainsoft Corporation

Founded in 1993, Mainsoft Corporation is a leading provider of .NET/Java EE interoperability solutions. The company's product suite and consulting services enable businesses to deliver a complete front-end Service Oriented Architecture (SOA), with secure, role-based access to .NET and Java services. Currently, Mainsoft is helping more than 150 businesses deploy Windows applications natively on open systems, including WebSphere Portal and WebSphere Application Server, as well as on the UNIX® and Linux® operating systems.

For more information, visit <http://www.mainsoft.com>.

## Mainsoft Corporation

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