



Mainsoft for Unix and Linux (C++)

The Enterprise-Class Application Porting Platform

Support for Visual Studio

- Visual Studio 2005
- Visual Studio .NET 2003
- Visual Studio 6

Performance

- Fully optimized to deliver native UNIX performance
- Sustained throughput rates of over 1,500 transactions-per-second

Best-In-Class XML

- High performance XML engine up to 7 times faster than Apache Xerces
- Based on MSXML

Scalability

- Platform's kernel provides linear scalability as more processors added

Reliability

- Total process isolation enables non-stop operation

Security

- RSA BSAFE encryption engine delivers industrial-strength security
- HTTPS/SSL for secure Web applications
- Secured COM/DCOM

Java EE Integration

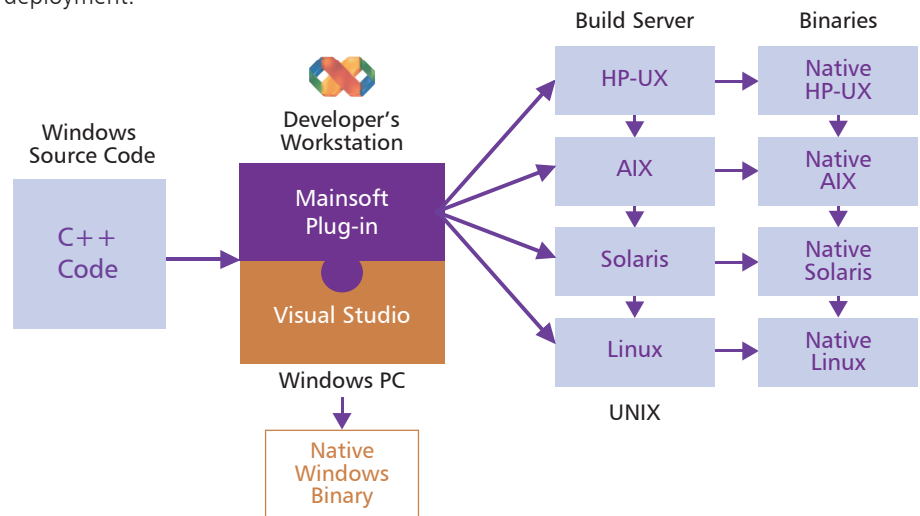
- Sun ONE
- WebSphere®
- WebLogic®

The ability to deploy applications on Windows®, as well as on the UNIX® and Linux® platforms, is critical for enterprise software companies. Software developers need to use the most productive application development tools available and rapidly deploy the resulting applications to multiple platforms. With more than a decade of experience in cross-platform development and deployment technologies, Mainsoft Corporation's unparalleled expertise in meeting the multi-platform challenge has culminated in the enterprise-class application porting platform, Mainsoft for UNIX and Linux (C++), version 5.x.

Mainsoft for UNIX and Linux enables developers to write C++ applications in the highly productive Microsoft® Visual Studio® development environment and deploy them natively on UNIX and Linux. Mainsoft for UNIX and Linux delivers an unprecedented level of multi-platform performance, security, and scalability for today's mission-critical applications, while providing a solid XML foundation for building Web services.

How it Works

Mainsoft for UNIX and Linux is comprised of two main components: the Software Development Kit (SDK) for application development and the Mainsoft Runtime for deployment.



Software Development Kit: Seamless Integration with Visual Studio

The Mainsoft for UNIX and Linux SDK plugs in to the Visual Studio IDE. By extending the default Windows-only Visual Studio build configurations, Mainsoft adds an array of target UNIX and Linux platforms. When a developer then clicks the *build* button in Visual Studio, Mainsoft's patent-pending Remote Development Technology splits the build process into atomic operations such as compilation and linking, and remotely executes them on UNIX using the native UNIX C++ compilers.

The results are displayed in the Visual Studio environment just as if the code was being built locally. An advanced compiler front-end resolves the syntactic differences between Windows and UNIX source file formats and between Microsoft Visual C++ and UNIX C++ compilers.



Everything Necessary to Compile C and Visual C++ Source Code as Native UNIX Binaries, Including:

- Ability to launch UNIX builds from Visual Studio
- Windows header files for UNIX
- Resource compiler for UNIX
- Message compiler for UNIX
- MIDL compiler for UNIX
- nmake build utility for UNIX
- Windows APIs on UNIX
- Windows Registry, complete with regedit and regsvr 32 for UNIX
- Extending UNIX compilers to support Microsoft extensions to C++

Advanced Windows Services on UNIX, Including:

- Kernel32, User32, GDI32
- Winsock, Wininet, Urlmon
- MFC
- ATL
- Multi-user COM/DCOM
- WGL
- MSHTML, VBScript, JScript
- Winsock, Wininet, Urlmon
- OLE/ActiveX
- Shell32
- RichEdit
- Common Dialogs
- Common Controls
- Advanced Printing Support

Advanced Application Support, Including:

- MSXML
- ODBC
- HTTPS/SSL
- Plug-in support for native UNIX Application Servers
- Java EE Integration Package
- UNIX Web sever integration including: Apache, Sun ONE
- Java EE application servers supported include: WebSphere, WebLogic, Sun ONE

Platform Support

- Linux
- Solaris
- HP-UX
- AIX

Performing the development and porting process from within the productive Visual Studio environment avoids a steep learning curve for Windows developers tasked with UNIX deployment. The result is rapid and effective cross-platform application development.

Runtime

The Mainsoft for UNIX and Linux Runtime consists of the *Windows Runtime on UNIX* and the *Mainsoft Core Services*. Together, they enable Windows applications to execute natively on UNIX.

The Windows Runtime on UNIX includes an extensive set of Microsoft technologies such as MSXML, SSL, MSHTML, WinSock, COM/DCOM, and ATL. These are based on the original Microsoft implementation, tuned for UNIX by Mainsoft. The Windows Runtime on UNIX also provides functionality such as synchronization objects, threads, and low-level graphic functionality.

The Core Services include the Mainsoft RPCSS and Registry services, which provide the robust infrastructure required to support a huge number of Mainsoft for UNIX and Linux processes running concurrently on the same machine.

Mainsoft for UNIX and Linux creates native UNIX binaries requiring no virtual machine. No emulation or mapping is performed at runtime, guaranteeing maximum performance of the deployed application.

High Performance XML Engine

The Mainsoft for UNIX and Linux XML engine is based on the same source code as the Microsoft engine, one of the most advanced implementations of the XML standards. The Mainsoft XML engine contains specific adaptations by Mainsoft to leverage the high scalability of UNIX platforms. On multi-processor machines, the Mainsoft XML engine is seven times faster than the widely available Apache Xerces XML.

Java EE Integration Package

The Java EE Integration Package (JIP) enables seamless interoperability between COM objects ported with Mainsoft and Java EE application servers. Developers leverage advanced Java EE technologies such as Java Server Pages and EJBs to invoke COM objects ported with Mainsoft to create end-to-end- solutions combining Microsoft and Java technologies on UNIX platforms.

Windows Compatibility

Ported applications are assured of running exactly as they do on Windows, since Mainsoft uses the same test suites as Microsoft uses to validate Windows. This approach makes certain that ported applications maintain the all-important functional compatibility with Windows as they take full advantage of the performance and reliability of UNIX.

About Mainsoft

Founded in 1993, Mainsoft Corporation is a leading provider of cross-platform technologies and services. Currently, Mainsoft is helping more than 150 businesses deploy Windows applications natively on open systems, including the UNIX and Linux operating systems. For more information, visit www.mainsoft.com.

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