

MICRO FOCUS APPLICATION SERVER™

Micro Focus Application Server is a set of powerful run-time facilities that enable COBOL applications to run on all leading Windows, UNIX and Linux platforms without code changes.

OVERVIEW

Micro Focus Application Server™ is a high-performance execution environment to deploy COBOL applications on all of today's popular Windows and UNIX platforms. Micro Focus Application Server supports a variety of object formats to provide users with the flexibility to balance performance with portability. If your key requirement is performance, you may utilize native code optimization for specific hardware chips. If your key requirement is portability, then applications can be created where the object code can be built once and run on any supported platform with the confidence that the code will work exactly the same way, regardless of differences in operating systems or hardware platforms. Micro Focus Application Server is the deployment component for Net Express®, Server Express™ and Object COBOL™ Developer Suite development products.

Delivering Applications Where Your Customers Need Them

IT organizations and software vendors alike have always wished they could create application code once and deploy it on whatever operating environment makes the most business sense. With the advent of Java and the publicity behind it, the IT industry believed the promise that "write once, run anywhere" was within its grasp. The fact is, the ability to "write once, run anywhere" is not new and has been around many years. In fact, the language that has delivered first and most consistently on this promise is not Java, but Micro Focus COBOL. Micro Focus Application Server enables COBOL application portability without additional programming. It is a set of powerful run-time facilities that enable COBOL applications to run on all leading Windows, Linux and UNIX platforms without code changes. Micro Focus Application Server includes features that simplify operating system interfaces, communications, user interface, database access and file handling.

Satisfying the Performance and Reliability Demands of the Business

The demand for increased application processing is constant. This is partially satisfied by the continued increase in processor power, but customers demand greater reliability and faster recovery when things do go wrong. Micro Focus Application Server is a collection of tools and utilities that allow you to run your COBOL applications at the highest performance level your systems provide, as well as providing the ability to quickly diagnose and recover from problems should they occur.

HIGHLIGHTS

Improved Reliability, Availability and Serviceability

The evolution of Micro Focus Application Server over the last twenty-six years is the key to its ability to ensure an application performs its intended function reliably day in, day out. However, systems can fail, which is why it also provides advanced production recovery capabilities to ensure service is restored in the shortest possible time.

Optimized Application Performance

Being able to execute native machine code instructions generated from a single source base gives Micro Focus Application Server the ability to utilize the full performance capabilities of the deployment platform. This offers IT organizations a wide range of choices regarding the deployment of their applications, each specifically optimized to fit their deployment system architecture.

Insulation/Protection from Platform Architecture Variations

The intermediate code produced by the Micro Focus COBOL compiler can be deployed on any platform for which there is a Micro Focus Application Server product. This has been the case for over twenty-five years, providing a real 'write once, run anywhere' environment that many software vendors exploit to ensure their products are available on every popular platform without the need to maintain different source streams. For corporations, Micro Focus Application Server provides the insulating layer that prevents applications being trapped by corporate hardware decisions. Platforms can be changed without fear of impacting corporate systems.

Bridge the "Islands of Technology"

The separate technology islands of COBOL and Java are bridged with Micro Focus Application Server. COBOL assets can be accessed from Java applications using COBOL/Java Interoperability support. On Windows, COBOL COM/DCOM Components may be combined together with other Windows technology such as Microsoft Visual Basic, Microsoft Active Server Pages or other .NET Languages such as C# and, if required, deployed as transactional COBOL components with Microsoft Transaction Server.

Reduce Risk and Optimize Time-to-Market Through Re-use

With Micro Focus Application Server, existing COBOL applications performing critical business tasks on proprietary or dated platforms can be redeployed rather than rewritten. This enables organizations to leverage their substantial investments in COBOL and minimize risk by delivering more stable systems faster on their strategic Windows or UNIX platform.

FEATURES

Micro Focus Application Server is the latest iteration of a deployment environment for COBOL on PC and UNIX platforms. It now supports 32-bit and 64-bit platforms and both integrates and inter-operates with all of today's popular deployment technologies such as COM/DCOM, COM+, .NET and JavaBeans to allow COBOL business processes to effectively participate in today's enterprise e-business systems. Micro Focus Application Server provides a robust and proven deployment environment for COBOL applications.

Intermediate Code Support for Applications that are Operating System Independent

The Micro Focus Run-Time System (RTS) engine provides the programmer with full intermediate code portability from a single set of COBOL source code. This is the COBOL equivalent of the Java byte code with the RTS performing similar functions of the Java Virtual Machine or the .NET Common Language Run-time (CLR). In this way, we achieve the 'write once, run anywhere' characteristic that has been an intrinsic part of Micro Focus COBOL since its inception over a quarter of a century ago.

Native Code Support that Fully Exploits Individual Platform Performance

The Micro Focus RTS can also execute fully optimized, hardware specific 'Native Code' instructions created during the development process to extract the maximum performance from a given operating system/chipset combination. All this is achieved without the need of any changes to the original source code, in fact 'Native Code' is produced from intermediate code, so you don't even need access to the source code to create these high-performance objects.

MULTIPLE DEBUGGING OPTIONS

FaultFinder¹

When applications fail in production you often cannot use your regular debugging techniques to locate the problem. You don't have the source code available or you cannot easily reproduce the problem. FaultFinder is designed to provide you with the help you need in these critical situations. It provides you with a snapshot of your application, just at the point where the application failed, and provides fully configurable and comprehensive fault diagnostic information including:

- Detailed analysis of your execution environment including environment variables, configuration options, switch settings, etc.
- Comprehensive memory allocation and usage details.
- A snapshot of the data files being processed and their file descriptors.
- Threading¹ information, active programs (call stack) and their parameters.
- Loaded programs and associated data.
- The actual machine code operation at which the application aborted and a history of other operations performed prior to failure.

In addition to this, FaultFinder can now be used to analyze applications that have not failed. It can be invoked from the command line and the report used to identify system resource bottlenecks or conflicts.

'Just-In-Time' Debugging with Animator®

This facility allows application failures to be 'caught' at the point of failure and rather than having an error message issued, Animator, the source code debugging system provided with the development environment, is automatically invoked. You can then use Animator to determine the cause of the failure. This requires the development system and application sources to be present but eliminates any 'guesswork' in determining the cause of a problem. The full power of Animator can be utilized the moment a problem is detected to help determine the cause of the failure.

Web Service Client Support

Application Server now includes Web service COBOL client support for the consumption of Web services from COBOL. Using this support, a standards-based Web service (for example – a Web service created by .NET or IBM WebSphere, or a Micro Focus direct COBOL Web service deployed with Micro Focus Enterprise Server) can be invoked directly from COBOL without going through any other language or technology.

COBOL/XML Support

The new Micro Focus Application Server COBOL/XML support allows you to seamlessly integrate the power of XML with COBOL applications. With this extended syntax and run-time capability you can consume, create or

update XML documents from COBOL facilitating Business to Business (B2B) and Business to Commerce (B2C) transactions and providing the ability to share data with other applications and systems that have no direct interface with your COBOL system.

User Interface Management

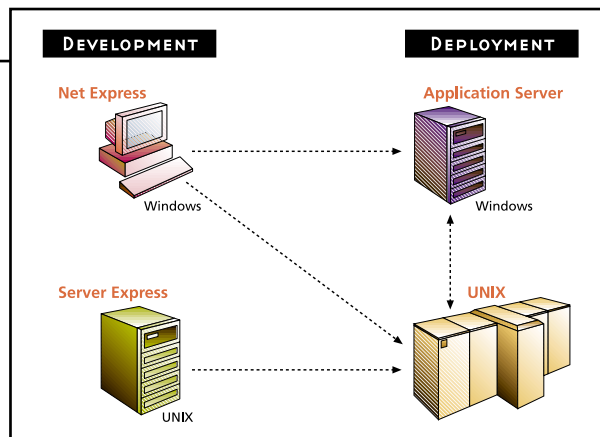
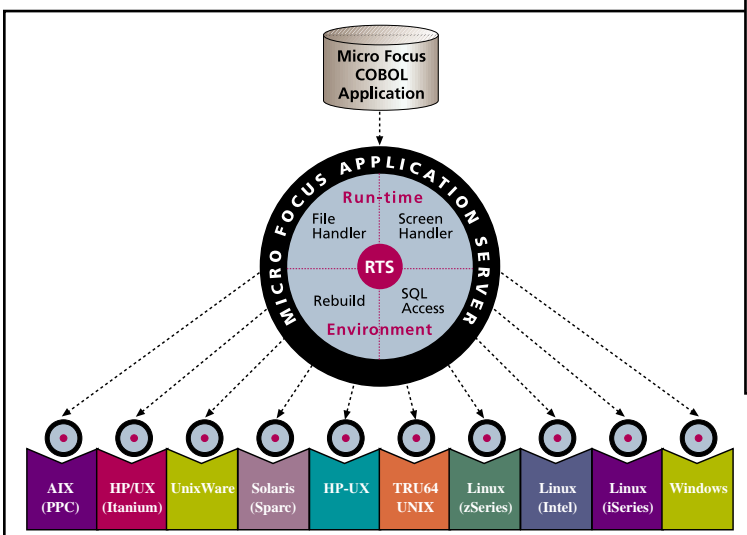
Micro Focus Application Server is able to manage the user interface using generic application syntax unrelated to specific terminal types or operating system functions. There is support for both syntax driven functions as well as those created using Micro Focus tools like Dialog System. Applications remain portable across a wide variety of hardware while gaining the highest degree of optimization possible. This results in faster screen updates as only the changes are redisplayed, rather than the whole screen being refreshed.

Simplified Client/Server Communications

Client/Server Bindings provide a lightweight Remote Procedure Call (RPC) mechanism that enables communications between client/server applications running on different machines. Using this simple interface, programmers can develop complex distributed applications in a fraction of the time taken if programming to the low-level transport layer.

Comprehensive Data Access Options

With Micro Focus Application Server, you can utilize the power of OpenESQL to access all data sources for which an ODBC driver exists, or alternatively harness all the



Developing and deploying Micro Focus COBOL applications.

power of COBOL's flexible, high-performance file handling system. By combining Micro Focus Application Server with industry standard ODBC drivers, COBOL applications can realize high-performance and reliable connectivity to all major databases.

Micro Focus Application Server supports COBOL data file sizes in the terabytes, providing you with the scalability you need for today's data intensive, large server applications. Micro Focus Fileshare™ extends COBOL data file processing to provide networked file access, transaction logging and recovery, as well as two-phase commit capabilities without having to modify your application to use a relational database. Fileshare can link several network files into a logical database spread across several servers. Fileshare provides high-speed network file sharing by compressing I/O requests into packets and sending them across the network using available protocols.

Data Recovery Utilities

Developers constantly manipulate data for various test scenarios or to repair data records. Micro Focus Application Server includes useful data tools for examining and changing data files:

- Data File Editor² lets you examine data files to see how an application has updated them, or create and edit a file to provide test data for an application.
- Rebuild enables you to quickly repair corrupt index files as well as providing you with the ability to quickly and easily change data file formats.

TECHNICAL SPECIFICATIONS

Net Express Application Server: Hardware/Software Requirements

- Intel Pentium processor or higher recommended
- Windows Server 2003, Windows XP/2000/98, or Windows NT v4.0 with Service Pack 5 or later
- 32MB memory
- 25MB hard disk space (for full installation)

Object COBOL Development Suite Application Server: Hardware/Software Requirements

- 16MB memory
- 20MB hard disk space
- Operating system name/version varies (see Product Matrix on microfocus.com)

Server Express Application Server: Hardware/Software Requirements

- 32MB memory
- 40MB hard disk space
- Operating system name/version varies (see Product Matrix on microfocus.com)

For Training and Consulting information, visit www.microfocus.com.

¹ Just-In-Time Animation, FaultFinder, Java/EJB support and Multi-Threading are only available with Micro Focus Application Server for Net Express and Server Express.

² Data File Editor is only available with Micro Focus Application Server for Server Express.

Micro Focus is the fastest, most effective way to migrate, extend, develop and deploy enterprise applications. As the industry standard for COBOL, Micro Focus enables organizations to maximize ROI while reducing development costs for accelerated business success. Founded in 1976, Micro Focus is a global company with principal offices in the United Kingdom, United States and Japan. For more information, visit www.microfocus.com.

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