

NATURAL FOR MAINFRAME

The fastest, most reliable application environment

Designed for simplicity, reliability and speed, Natural is the environment of choice for enterprises operating large-scale Online Transaction Processing (OLTP) applications on the mainframe. Capable of accessing data and conducting transactions across the mainframe, Linux®, UNIX® and Windows® (LUW) platforms, Natural provides the interoperability needed to keep your enterprise agile and scalable to meet changing business requirements.

Natural maintains a robust mainframe presence, supporting z/OS®, z/VM®, z/VSE®, BS2000/OSD® and z/Linux® even as other providers drift out of this market. In fact, as a IBM® zSeries® Partner in Development, Software AG has adopted and tested the most current mainframe hardware and software innovations.

With more than 40 years of experience providing leading enterprises and governments worldwide with unmatched power, reliability and speed for mainframe applications, Natural continues to adapt to your needs with a comprehensive set of powerful add-on tools that provides even greater functionality to your application development environment.

Key benefits

Performance-focused

Natural provides fast and reliable design, development, testing, debugging and maintenance of enterprise-scale business applications.

Efficient and intuitive

Simple and efficient, Natural requires fewer lines of code for a given task than other development languages. The language is so easy to learn that developers new to Natural can be trained and productive in a matter of weeks.

Cross-platform interoperability

Natural can be used to open up key information to clients and partners without major redevelopment using tools that enable web services with full support of open-source environments.

Ease of portability

Reduce your total cost of ownership by migrating Natural applications from the mainframe to lower cost z/Linux and LUW platforms.

Unmatched developer productivity

Maintenance takes minimal effort with automated application inventory, documentation, code analysis, modification tools and enhanced monitoring.

Anywhere data connectivity

Access data from whatever data source you need—from LUW or the mainframe no matter if it is relational (Oracle®, Sybase®, DB2®) or not (Adabas, IMS™).

Low total cost of ownership

Natural is proven to reduce your total cost of ownership on the mainframe by avoiding CPU upgrades and reducing machine usage charges with efficient use of resources.

COMPABILITY

Operating systems

Natural for Mainframe operates on:

- z/OS
- z/VM
- z/VSE
- BS2000/OSD
- z/Linux

Transaction monitors

Natural for Mainframe easily processes transactions on:

- CICS®
- IMS

Mainframe databases

Natural for Mainframe works easily with:

- Adabas
- DB2
- VSAM
- DL1
- IMS/TM

Other databases

Natural for Mainframe also works with non-mainframe databases, including but not limited to:

- Adabas for LUW
- DB2
- Oracle
- Sybase
- Microsoft® SQL Server®

Develop

Intuitive IDE

Develop, modernize and manage existing applications, new rich web applications and services with ease with the intuitive Eclipse™-based IDE, NaturalONE.

Model-based application development

Cut development time in half for creating new applications by using Natural Construct, a powerful model-based application generator that requires no knowledge of Natural syntax.

DevOps

Agile development and DevOps are fully supported for Natural application development with NaturalONE—Natural's Eclipse-based development environment.

Engineer

Code restructuring

Restructure source code, improving its quality and reducing maintenance with automated code changes and precoded solutions with Natural Engineer. Best of all, Natural Engineer works in the cloud so no installation is needed.

SOA preparation

Move to a Service-Oriented Architecture (SOA) more easily by transforming applications into multi-tier or service-oriented applications with Natural Engineer.

Central repository

Reduce application development and maintenance efforts by storing all development artifacts in a central repository that provides services like automatic generation of database tables and program cross references with Predict.

Application versioning

Monitor, control and secure Natural, COBOL, JCL and Assembler applications throughout the software development lifecycle while complying with standards with Predict Application Control (PAC).

Automated screen testing

Automate testing of green-screen-based Natural business functions with Natural Screen Tester. Integrated with NaturalONE, it supports DevOps Continuous Integration & Continuous Deployment (CI/CD) with tools like Jenkins®.

ISPF™ compatibility

Writing code with ISPF as your standard editor for development? Improve developer productivity with Natural ISPF, a Natural editor that easily integrates with ISPF.

Direct printing

Save developer time by printing directly from a Natural application in a CICS, IMS/DC and UTM environment with Natural Advanced Facilities.

Monitor & Manage

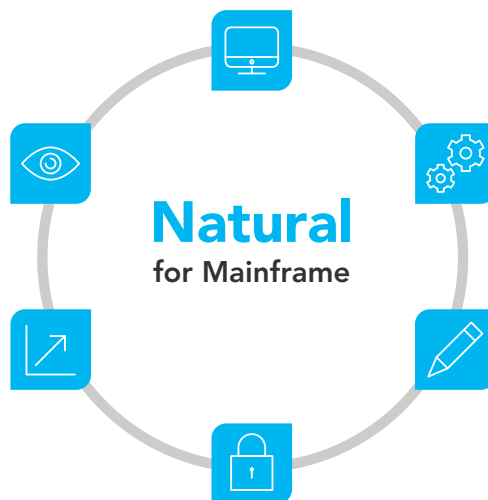
Com-plete
Entire Systems Management
Optimize for Infrastructure
Review Monitor

Optimize

Natural for zLIP
Optimizer Compiler

Develop

NaturalONE
Natural for AJAX
Natural Construct



Protect

Natural Security
SAF Security

Access

Natural for DB2®, DL/I, VSAM
Entire System Server

Engineer

Natural Engineer
Natural Screen Tester
Predict
Predict Application Control (PAC)

Optimize

IBM® zIIP™ support

Reduce the overall cost of computing by moving almost all batch and online workload of Natural from the GPP to IBM's low-cost zIIP for execution with Natural Batch for zIIP, Natural for Com-plete for zIIP and Natural for CICS® for zIIP.

Machine code compiler

Reduce CPU usage and optimize performance by compiling Natural statements and sequences of statements into machine code—which is faster to process—with Natural Optimizer Compiler.

Event tracing

Analyze the logical flow of Natural applications to trace the utilization of resources during runtime with Natural Profiler, now included in NaturalONE.

Access

Database connectivity

Enable Natural applications and new AJAX-based web applications to access DB2, DL1, IMS/TM or VSAM using Natural's own data manipulation language or standard SQL with Natural for DB2, Natural for DL1, Natural for IMS/TM and Natural for VSAM.

Desktop transactions

Connect thousands of concurrent Microsoft® Windows® users to applications running on mainframe, UNIX, Linux, OpenVMS and BS2000 platforms with highly scalable terminal emulation software, Entire Connection.

Operating systems

Make information and services from operating systems (such as z/OS, z/VSE, BS2000, UNIX, z/Linux and Windows) available in a logical view to all users with Entire System Server.

Protect

User access

Ensure application security and compliance while minimizing administrative efforts by controlling individual user profiles and access in centralized, external security tools, such as IBM RACF®, CA-ACF2® or CA-Top Secret® with Natural SAF Security.

Environment security

Secure Natural applications during development and runtime by defining user roles that control access to libraries, Natural utilities, individual programs, functions and DDMs with Natural Security.

Authentication

Authenticate users on the Natural server or application server with Java® Authentication and Authorization Service (JAAS) when developing with Natural for AJAX.

Terminal sessions

Protect your application from desktop access by requiring a user ID and password to open a terminal session with Entire Connection.

Single Sign On (SSO)

Implement SSO by storing the host user credentials encrypted in the share file and using the Entire Connection script language to log onto the host.

Monitor & manage

Resource utilization tracking

Delay upgrades, debug programs, resolve error messages, identify programs using excessive resources, track historical resource utilization and optimize Natural application performance (running under CICS) with Natural Review Monitor.

System resource management

Ensure application performance and availability for concurrent users by managing the system resources for online transaction processing environments with Com-plete (an alternative to CICS).

Complex environment view

Monitor application performance across multiple products and view the results on an interactive dashboard with webMethods Optimize for Infrastructure.

Ask your Software AG representative about these valuable add-on tools:

- Com-plete
- Entire Connection
- Entire System Server
- Natural Advanced Facilities
- Natural Batch for zIIP
- Natural Construct
- Natural Engineer
- Natural for Com-plete for zIIP
- Natural for CICS for zIIP
- Natural for DB2
- Natural for DL1
- Natural for IMS/TM
- Natural for VSAM
- Natural ISPF
- NaturalONE
- Natural Optimizer Compiler
- Natural Review Monitor
- Natural SAF Security
- Natural Screen Tester
- Natural Security
- Predict
- Predict Application Control
- webMethods Optimize for Infrastructure

Rehost

Portability

Changing IT strategies and mandates to cut costs often necessitate enterprise-wide platform changes. The implications of transitioning your proven online transaction processing systems from the mainframe to a LUW platform may be daunting. Fortunately, Software AG provides tools and services to port your Natural applications from the mainframe to your chosen platform with ease.

Rehost your Natural applications from the mainframe to LUW platforms with Cronus Rehosting Suite, which includes:

EspBatch—an alternative for submitting and maintaining standard mainframe Job Control Language (JCL) on UNIX/Linux platforms.

EspControl—migrates, documents and backs up objects across environments to control source code changes between production, quality assurance/user-acceptance testing and development.

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