SUNSOFT WORKSHOP™ NEO™

# WorkShop NEO

SunSoft's™ WorkShop™ NEO™ 1.0 extends the award-winning software development environment and team productivity tools of the WorkShop family by adding a powerful set of tools called NEOworks™ for building scalable, robust, easily administered networked object applications. With WorkShop NEO, companies can develop shared services in the form of networked objects that implement core business rules and policies, and access these services from a variety of front-end platforms throughout the enterprise and the Internet. Shared services from disparate departmental and geographic locations combine to become the corporate web that brings commerce to the Internet.

NEOworks provides a Networked Object Constructor, an OMG CORBA-compliant Interface Definition Language (IDL) compiler, a Networked Object Debugger, and a rich set of development frameworks that serve as a robust foundation for network object applications. In addition, WorkShop NEO contains powerful programmer productivity tools such as performance analyzers, multithreading debuggers, and configuration management software.

Networked object applications created using WorkShop NEO can be deployed on Solaris™ NEO, the powerful object layer extension for Solaris. Third party support is also available for access to NEO's CORBA-compliant networked objects from MS-Windows desktops.

The proven benefits of object-oriented methodology combined with a rich set of programming productivity tools delivers a highly flexible software environment, allowing companies to respond quickly to change, thereby gaining a competitive advantage in today's fast-paced markets.

### Summary of Features

- NEOworks' Networked Object Constructor and the NEO Services Development Framework simplify development of shared objects, applications, and services by insulating programmers from network-specific and housekeeping code. Developers focus on implementing the object's behavior without concern for how the object will be accessed through the network.
- The NEOworks' OMG CORBA-compliant IDL compiler provides a single standard front end and multiple back ends for object implementations. WorkShop NEO 1.0 includes C and C++ language mappings to IDL.
- A powerful Networked Object Debugger is included in NEOworks, extending the functionality of the standard SPARCworks™ Debugger MT. The Network Object Debugger handles distributed program debugging, allowing single stepping across process and machine boundaries.
- WorkShop NEO provides all of the standard SunSoft WorkShop programming tools, including SPARCompiler™ C and C++, SPARCworks/iMPact™, SPARCworks/TeamWare™, and a suite of SPARCworks developer productivity tools.
- Third-party support is available for connectivity with Microsoft™ Windows desktops through integrating the OLE™ and CORBA object models. OLE-compliant MS-Windows client applications created with standard development tools can transparently access the NEO networked object system.
- Third-party products are available for automatic mapping of legacy data stored in industry standard relational databases into OMG-compliant networked objects, eliminating tedious programming and maintenance.

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## WorkShop NEO Features

### NEOworks

*Networked Object Constructor*

- Simplifies networked object programming
  - Automatic access to the NEO Services Runtime System, including the Shared Service Finder and Data Store Manager
  - Data Definition Language (DDL) compiler provides a standardized way of describing the persistent state of an object
  - Object Server Language (OSL) defines MT concurrency control and locking policies

*IDL Compiler*

- Fully OMG IDL-compliant
- Provides an industry-standard networked object interface independent of the object's language, implementation, or location
- Generates client stubs and server skeletons as well as associated header and related files.
- Extended support for additional data types, such as 64-bit integers and long doubles
- Object interface versioning support

*NEO Services Development Framework*

- Pre-built, robust foundation library which insulates developers from complex low-level networked object programming
  - *Workgroup Support* enables organization of the network for simplified, transparent sharing of data, objects, and applications
  - *Shared Service Finder* searches the network for a requested service and establishes communications, allowing dynamic reconfiguration of services
  - *Server and Persistent Object Availability* support for waking and idling shared network services
  - *Data Store Manager* provides facilities for persistence state of an object
  - *Concurrent Requests* support manages multi-threading, protecting shared data integrity and avoiding deadlocks
  - *Implementation Support* for functions that simplify object development including long-lived object references, exception handling, and object tracing
  - *Server Management* support for interactively querying the state of the systems, networks, servers, and objects
  - *Application Installation* offers complete support for automated application and object installation and de-installation

*Networked Object Debugger*

- Distributed debugging capability allows object method stepping beyond processes and systems from client to server
- Full power of the standard SPARCworks multi-threaded debugger
- Handles multiple processes, servers, and thread contexts
- Graphically manipulate several server processes from a single debugger GUI

### SPARCworks

*SPARCworks Developer Productivity Tools*

- Performance Analyzer helps tune applications based on processing time, memory usage, and system utilization
- Source Browser can quickly search through code based on definition, use, and type of symbols.
- FileMerge provides visual file comparison, as well as interactive and automatic merging
- MakeTool provides a graphical user interface for the UNIX *make* utility

*SPARCompiler Language System*

- SPARCompiler C++ Version 4.0
- SPARCompiler C Version 3.0

*SPARCworks/TeamWare Code Management Tools*

- CodeManager
- Version Tool
- FreezePoint
- ParallelMake

### Minimum System Requirements

*CPU*

- SPARC system or compatible

*Operating System*

- Solaris 2.4 and Solaris NEO 1.0

*Memory*

- 32 MB

*Disk*

- 90 MB



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