

PROGRESS OBJECTSTORE PSE PRO™

PERSISTENT OBJECT DATA MANAGEMENT SOLUTION FOR EMBEDDED AND SINGLE-USER APPLICATIONS

Progress® ObjectStore® PSE Pro™ provides a richly featured implementation of ObjectStore's persistent data management solution that is designed for single-user and/or embedded application support. PSE (Personal Storage Edition) Pro delivers a complete set of data services for Java or C++ applications, packaged in a compact footprint. With PSE Pro, application developers gain a unique solution that combines:

- > A robust object model with programming ease that eliminates the object/relational mapping typically required of Java or C++ development
- > A lightweight database footprint that minimizes the requirements for memory and storage
- > A scalable data store that can accommodate high transaction rates and large data volumes

HIGHLIGHTS

- > Data persistence easily embedded within Java or C++ applications.
- > Standards-based support, including JDO in the Java version.
- > Application portability with ObjectStore®.

PSE Pro provides the optimal data management environment for embedded, mobile, and other classes of single-user applications, particularly when the data store must support high transaction rates.

APPLICATION EXAMPLES

PSE Pro enables developers to:

- > Develop local libraries for Java or C++ tools
- > Provide complete data management services for applications requiring offline, disconnected operation
- > Deliver temporary data caches for application server processes
- > Create robust, embedded applications for such devices as network routers, telephone switches, or medical equipment

OBJECTSTORE PSE PRO CAPABILITIES

ObjectStore PSE Pro is available in Java or C++ versions that are functionally equivalent. Both deliver a complete set of persistent data management services in support of transaction-intensive applications. Unlike relational database systems, PSE Pro requires no extensive modification of Java or C++ class hierarchies to manage data objects. PSE Pro inherits the class definitions defined within the application. PSE Pro APIs can:

- > Start and end sessions, enabling process threads to use the API
- > Create, open, close, and destroy databases
- > Start, commit, and abort transactions that access data in the database
- > Read and write database roots that provide the starting points for navigating to persistent objects
- > Store, retrieve, and update objects managed in the database

PSE Pro's rich transaction model permits multiple concurrent read transactions (each on its own thread or process) and a single update transaction (updates lock the entire database). And for applications needing the ability to execute database reads that are unencumbered by update activity,

FEATURES AT A GLANCE

- > Complete database functionality for transaction persistence and data recoverability.
- > Available in 100% Java version.
- > Zero administration model that is ideal for embedded runtime environments.
- > Speedy transaction rates and low latencies via patented Virtual Memory Mapping Architecture.
- > Java and C++ object models that eliminate object-to-relational data transformation.
- > Runtime execution footprint of less than 500K.
- > Support for hundreds of thousands of data objects and hundreds of MB of data.
- > Easy support of 3rd party class libraries.

PSE Pro also supports multiversion concurrency control (MVCC) to enable simultaneous reads and writes while maintaining transaction consistency.

Overall transaction support within PSE Pro includes recovery from application failures or system crashes. Should a failure prevent changes in a transaction from being saved, PSE Pro ensures that no transaction changes are saved in the database. When the application is restarted, the database retains consistency with its prior state.

The tight programming integration enables developers to focus time and attention on writing application code rather than worrying about the logic that manages data persistence within the application. PSE Pro reads and writes data directly from disk so there is no translation code required to be incorporated into the application. This greatly enhances application development and maintenance efforts. Typically 25% to 75% of Java or C++ development involves writing code to interact with relational data stores. That coding is eliminated with PSE Pro, thus improving development, maintenance, and runtime execution of the application.

OBJECTSTORE PSE PRO FOR JAVA

PSE Pro's commitment to Java includes an 100% Java implementation, as well as support for the emerging Java Data Object (JDO) standard. JDO delivers a standards-based persistence model for Java developers. With PSE Pro's JDO support, the rapidly growing Java development community can access the rich data services of PSE Pro via a standards-based API. JDO support incorporates all the requisite mandatory JDO features, including:

- > Instant Callbacks
- > JDO Helper
- > Persistence Manager
- > Persistence ManagerFactory
- > Enhancer

Support for numerous optional JDO APIs is also provided.

In addition to JDO, the Java version of PSE Pro also supports a native Java implementation of the PSE Pro API. This API provides an upgrade path for prior PSE Pro versions as well as application portability between PSE Pro and the enterprise versions of ObjectStore.

OBJECTSTORE PSE PRO FOR C++

As an alternative to Java, PSE Pro is also available in a C++ version that enables developers to provide explicit, fine-grained control over persistent data that can leverage PSE Pro's Virtual Memory Mapping Architecture.

And, as with the Java version, PSE Pro for C++ offers an API that facilitates application portability with enterprise deployments of ObjectStore or Progress® ObjectCache™.

Visit our website for the latest information about PSE Pro, including specific operating environments and compilers supported. That information, as well as access to a 30-day evaluation copy is available at:

web.progress.com/objectstore-landing/evaluate-objectstore-pse-pro.html.

SUPPORTED PLATFORMS

Windows Vista, XP, Win2003, Win2008 (32-bit & 64-bit)

Visual Studio .NET 2005 SP1, .NET 2008 (32-bit & 64-bit)

RedHat Linux 4.0 Update 4 with GCC 3.4.6 (32-bit & 64-bit)

HP-UX 11 V2, V3 with a CC 3.63 (32-bit & 64-bit)

Solaris 10 with Sun Studio 9, 10, 11 (32-bit only)

PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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