

VOD / db4o PRODUCT COMPARISON

From Big Data to ultra-embedded data management scenarios, Versant offers a set of products in the object database market to fit your needs.

VOD our full blown scalable Big Data capable persistence solution, the ideal solution for the data requirements of the enterprise.

db4o our native lightweight embedded database for scenarios that range from industrial automation to mobile devices.

But how do they compare?

Check the table below to have a quick look at both technologies side by side.

| Feature | VOD | db4o |
|--|--|---|
| OPERATING SYSTEMS / PLATFORMS / LANGUAGES | | |
| Supported platforms | Windows 2000, XP, 2003, (Vista, Win7, x64), Sun (Sparc + Intel), HP-UX, RHEL, OSX (client side only) | Windows, Linux, OSX, Android, Compact-framework |
| Supported languages | Java C++ | Java .NET |
| Other languages/bindings | Python API (open source) | Scala, Groovy |
| SCALABILITY, AVAILABILITY AND PERFORMANCE | | |
| Distribution | Seamless data base distribution | Limited scalability (single lock engine) |
| HA | Enterprise-class high availability, fault tolerant server, HA Backup | No |
| Batch Activation | Yes, closures, groupReads | Yes |
| High speed data insert | Yes | No |
| REPLICATION | | |
| Synchronous Replication | Yes (FTS - Fault Tolerant Server) | No |
| Asynchronous Replication | Yes (VAR) | Yes (dRS) |
| Customizable | Yes (transport, messaging, conflict resolution and detection) | Yes (via events, also conflict resolution) |
| CONCURRENCY FEATURES | | |
| Locking | Object level (fine grained) | Arbitrary (semaphores) |
| Multi-threading | Yes | No |

| Feature | VOD | db4o |
|--|---|---------------------------------|
| Multi-session | Yes | Limited (multiple transactions) |
| Multicore support | Improved multi core support scalability (v8.0) | No |
| TRANSPARENT PERSISTENCE / ACTIVATION | | |
| Via object model code | Yes | Yes |
| Via post-compilation IL modification | Yes | Yes |
| OBJECT MODEL FEATURES | | |
| Dynamic Schema Evolution (aka Refactoring) | Yes | Yes |
| Object IDs | Yes (also Universal and Logical IDs) | Yes (also Universal IDs) |
| MODEL FEATURES | | |
| Transactions | Yes | Yes (each connection) |
| EVENTS | | |
| Object Instance Events | Yes (ObjectInstance callbacks) | Yes |
| Object Type Events | Yes | Yes |
| Creating / Updating / Deleting | Yes | Yes |
| Created / Updated / Deleted | Yes | Yes |
| Object Locked / Unlocked | Yes | No |
| Query Progress Callbacks | No | No |
| Server-side Committing | Yes | Yes |
| COLLECTIONS | | |
| Provided Collections | Yes | Yes |
| Transparent Activation / Persistence Collections support | Yes (multiple persistence categories for classes) | Yes |
| Disk based – large collections | Yes | Yes (limited) |
| Native Queries (refactorable) | Yes | Yes |
| SQL-like Query | Yes (VQL, OQL, JDOQL) | Yes (LINQ, .NET only) |
| SUPPORTED STANDARDS | | |

| Feature | VOD | db4o |
|-------------------------------------|---|--|
| Java | JDO | JDO, JPA (only via 3 rd party: DataNucleus) |
| .NET | - | LINQ |
| IDENTITY AND SECURITY | | |
| External Authentication | Yes (eg Kerberos) | No |
| DB Level Login | Operating System, User/Passwd, Read-Write permission | Multiple users |
| XA support | Yes | No |
| OPERATION | | |
| Embedded (engine runs in app space) | No - deprecated | Yes |
| Disconnected Client | Yes (object containers) | Yes |
| Client/Server | Yes | Yes |
| Embedded, Transparency | Low to zero administration | Zero admin |
| TOOLS | | |
| Tool support | Multiple (e.g., object manager, monitoring, dbcheck, dbreorg) | ObjectManager, Performance Monitoring |
| Defragmentation | Online Reorganizer | Offline defragmentation |