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XMS FAQ & Features

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What is Xpiori XMS?

Xpiori XMS is a native, fully transactional, XML db that consumes, efficiently stores and manages information in an XML format, in a way that produces powerful access to all the underlying information. Xpiori XMS's patented database and indexing technology handles information and generates relationships between information in ways that are unrivaled in the market place. Accessible as a web service, XMS is designed to easily extend the power of applications that use XML. ([BACK TO TOP OF PAGE](#))

How can my company take advantage of XMS?

If your company is using XML for Information Exchange or Web Services, XMS provides all of the features you need to manage your information. XMS has the ability to store and manage XML messaging schemas, as well as store the XML messages themselves, offering excellent logging, auditing and production support capability.

XMS is perfect for companies who use rapid application development (RAD) to meet customer needs. By taking advantage of the self-describing nature of XML, XMS eliminates traditional database construction, and design efforts. Why? Because structural changes to XML documents are supported seamlessly, requiring no database redesign or re-indexing instructions. The result? An application that is highly adaptable to continually changing data requirements.

So, wherever XML is taking your company, XMS has the capability to get you there. ([BACK TO TOP OF PAGE](#))

Why should I trust my XML Data to XMS?

XMS is a feature rich, mature, fully transactional, XML db that provides all the basic database functions and supports development of applications that leverage your XML information. No need to change or shred XML from its native state.

Of course XMS provides the basic functions expected in a data management system: Store, Query, Insert, Delete and Modify. ([BACK TO TOP OF PAGE](#))

Queries

XMS uses the power of XPath and XQuery syntax expressions to access the information stored in XMS. The fundamental structure of XMS builds strong relationships between and within the information stored in XMS. This structure results in highly efficient internal query mechanisms and access to information stored in XMS.

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Range Queries

Efficient range queries are handled in XMS by turning on the value indexing for the data item. For instance, if range queries are being in the example:

```
/ND/Person[Height > 5.5 and Height < 6.2]
```

then, set the type for the node to “double” and turn Value Indexing on:

```
<xpst:XMS_SchemaType_Definitions
xmlns:xpst="http://www.xpiori.com/XMS_SchemaTypes">
< Person>
<Height> type=double
enable-index=value
</Height>
</ Person>
</xpst:XMS_SchemaType_Definitions>
```

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Data types supported by XMS

Data types supported by XMS include:

1. Integer 4-byte signed integer
2. Double 8-byte floating point number
3. String Default XML type
4. ISO-8601 Date-Time

XMS supports ISO-8601 Date-Time. This allows XMS to directly compare time and dates that are in different ISO-8601 representations and to handle date-time queries very efficiently. ([BACK TO TOP OF PAGE](#))

Keyword Indexing

Keyword indexing causes all the words at a XML document node to be indexed independently. Each word is indexed in its lower case form so that keyword queries will be case insensitive. ([BACK TO TOP OF PAGE](#))

Optional Indexing

XMS indexes all nodes in every document by default. Optional indexing allows indexing on specific nodes to be turned off and it allows special indexing, such as keyword and value indexing, to be turned on.

Some nodes in XML documents have little direct user information value. A typical case of this is the use of formatting tag structures within a document. Optional indexing allows indexing on nodes that would not typically be queried directly, to be turned off saving some indexing overhead.

Keyword indexing is an optional indexing mode that may be turned on for nodes that contain free-formed text.

Value indexing is another optional indexing mode that may be turned on for given nodes in a document. A value index is an index that arranges a node's data values in increasing order. Enabling value indexing on a node allows range queries to be handled in an efficient manner. ([BACK TO TOP OF PAGE](#))

DBA Tools

XMS provides the comprehensive Database System Administration tools, procedures, security and performance you'd expect from an enterprise ready DBMS.

With XMS, database administration is supported by both an interactive Web application and by a command line interface. Functions to manage your XML Database include DB creation and deletion, DB backup and restore, Data Export and Import, and Server Statistics Monitoring. Also available is a utility to perform hot backups, and a data migration interface to existing databases. ([BACK TO TOP OF PAGE](#))

Security

Security is supported by extensive access control at the group and user level. Users and/or groups can be added, deleted or modified with permissions applied to global, document, or node level access.

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Performance

Performance tuning is available to provide optimal Disk I/O, Memory, and Data Dictionary configurations. Performance is enhanced thanks to auto-growth functionality, full multithreading capability and concurrent session support. Complete transactional ACID (atomicity, consistency, isolation, and durability) support ensures that data integrity is maintained. ([BACK TO TOP OF PAGE](#))

System Support

Developers have their choice of XMS API's upon which to build applications. This includes a JAVA API, C++ API, .NET API, a COM Wrapper API, and WebDAV or using XML directly through HTTP(S) / SSL. Major OS support includes:

- Windows 2003 (32 bit)
- Windows 2008 (32 bit) (64bit as 32bit)
- Windows XP Professional
- Vista Business and Higher
- Win 7 Pro and Higher

- Solaris 10 (64-bit)
-

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Blob Storage / Binary Objects

The W3C established a new recommendation (XML-binary Optimized Packaging or XOP) for passing Binary Objects outside of the XML document. This method provides an efficient mechanism for handling binary objects such as picture files, music files, and a wide arrangement of other binary files. XMS contains binary dictionaries and methods for capturing, storing and retrieving binary objects using the XOP format. ([BACK TO TOP OF PAGE](#))

Namespaces

XMS fully embraces XML namespaces and handles them in a very efficient manor internally.

For query purposes, namespaces may be declared with each query, or namespaces may be associated with a session so that namespace to not have to be declared with each query. ([BACK TO TOP OF PAGE](#))

Insert, Modify and Replace Commands

Powerful insert and modify commands add strength and power to XMS, allowing the user to add to or modify the structure and contents of XML documents contained within the database. ([BACK TO TOP OF PAGE](#))

Mature Product

XMS is a mature and stable product. XMS was first introduced in the late nineties and has been updated and continually supported by the team at Xpiori.

Support for XMS can be purchased via a maintenance contract or on a per-incident basis. Developer Support includes extensive documentation, examples and tutorials.

Partnering and OEM relationships with Xpiori are encouraged and we welcome your ideas.

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