What's New in Version 2.2

This document describes the new features contained in Version 2.2 of db-One™ for Sun™ Solaris®, the database search and retrieval software developed by Metro One Database Software Division.

MPUTILITIES

A new module called MPUTILITIES is bundled as part of db-One. MPUTILITIES includes the MPAdmin and MPPerfMeter tools.

The **MPAdmin** utility provides a way to shut down the MPSERVER or to view the MPSERVER statistics that db-One collects. MPSERVER statistics provide information you can use to fine-tune the performance of db-One on your system. MPAdmin lets you receive these statistics from any machine running MPSERVER on your network. MPAdmin also lets you to terminate any of your MPSERVERs.

The **MPPerfMeter** utility is a realtime performance meter that lets you view and graph performance statistics. You can view statistics in a line or bar graph or in a numeric format.

Morphologic correction

A new type of spelling correction — morphologic correction — has been added to the Client, Protocol, and Java™ APIs. Morphologic correction returns words (such as gerunds and plurals) that are related to the original word by its root. For example, if you typed fly, you may get back flies, fly's, flew, flied, flown, and flying. You can use morphologic correction when setting up both fuzzy search actions and spelling error actions.

Phrase searching

Phrase searching has been added to the db-One Search Engine. You can now search for an exact phrase by placing the phrase in double quotes when you enter search criteria.

Proximity sorting

A new feature called **proximity sorting** is available in the db-One APIs. If you develop a custom application that uses db-One's distance matching feature to search for records that are within a certain distance from an origin, you can then use proximity sorting to display the matching listings in order of proximity to the selected listing.

Abort feature

You now have the ability to abort a search operation if you are using the Client, Protocol, or Java APIs. The abort method (or server operation) closes the socket thus terminating the connection between the client and server and freeing up the server's resources.

New package structure and installation configuration for Java API

The db-One Java API now contains three packages, which contain its class files. The packages are:

com.metro1.dbone,
com.metro1.dbone.mpapi, and
com.metro1.dbone.message.

The Java API classes are now contained in a Java Archive file called *db-one.jar*. For detailed information about the installation and package structure, see Chapter 1 of the *db-One API Guide for Sun Solaris*.

Get and Set methods added to Java API

The Java API contains get and set methods that allow you to access each variable that is currently public. (In a future version these variables will become private.)

Java API debug variable

A debug variable has been added to each class in the Java API. This variable lets you control whether or not debug messages are printed. If the debug variable for a class is set to TRUE, then debug messages for that class will be printed out. The debug variable is private and can be accessed only from the getDebug() or setDebug() methods.

Sample files

db-One includes two new sample files (an Update Data file and an Update MCF file) that you can use to update the db-One sample database (MDF file). Both files are installed automatically by the db-One installation program.

Caching

The method for caching data has changed from a priority caching scheme to one that is based on the table sizes for searchable fields in the MDF file. You can use the MPSERVER configuration file parameter MaxMPTCacheSize to set the maximum table size. All tables equal to or smaller than MaxMPTCacheSize are cached when MPSERVER is launched. When MaxMPTCacheSize is large, more tables fit in main memory, causing system performance to improve.

You can use MPSERVER's log file to help you determine an appropriate value for the MaxMPTCacheSize parameter. (See "Setting MaxMPTCacheSize" in Chapter 4 of the *db-One User's Guide for Sun Solaris*.)

Record Retrieval

For all of the db-One APIs, the order in which records are retrieved after a search has changed. In previous versions of db-One, the GetPrevious and GetLast operations returned records in backwards traversal order. For example, if the search result set consisted of the records A, B, C, D, E, F, and the last three records were returned, the order would be F, E, D. In version 2.2 of db-One, records are returned in forward traversal order. With this new ordering, the last three records returned would be in the order D, E, F.

Enhanced documentation set

The *db-One User's Guide for Sun Solaris* has been expanded to include information about collecting and interpreting MPSERVER statistics so you can fine-tune the performance of db-One on your system. It also includes more information about how to interpret and use the information contained in the server and client log files that db-One creates.

For ease of use, the *db-One Developer's Guide for Sun Solaris* is now contained in a five-volume set. The first volume in the set describes what each guide in the set contains and gives an overview of all of the APIs included in db-One. It also provides information about tradeoffs between the APIs. The next three guides document each of the three db-One APIs. Each API's guide contains an index specific to that API guide. The last guide in the set

contains information about developing a web page front end to db-One. The *db-One API Documentation Set* includes the following guides:

db-One API Guide for Sun Solaris

db-One Client API Guide for Sun Solaris

db-One Protocol API Guide for Sun Solaris

db-One Java API Guide for Sun Solaris

db-One Web Page Interface Guide for Sun Solaris