

Advantage™ CA-Datcom® Database Server Option

Release Summary

5.0



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New Features

Advantage CA-Datcom Database Server Option allows workstation-hosted applications to use the Advantage CA-Datcom/DB database management system (DBMS) and implements industry standard Application Programming Interfaces (APIs) and the Advantage CA-Datcom/DB proprietary interface. The Open Database Connectivity (ODBC) and Java Database Connectivity (JDBC) industry standard interfaces allow Advantage CA-Datcom/DB access without any special programming by using generic tool set applications. These interfaces can also be utilized by coding specialized database independent programs to the API standards.

Advantage CA-Datcom Database Server Option enhancements focus on the following areas:

- Major upgrade of the ODBC Driver to support the ODBC 3.5 Application Programming Interface. The ODBC Driver will support the latest version and features of ODBC.
- Native OS/390 JDBC Driver has been added.

This support provides dynamic SQL access using Java on OS/390 Unix Services. The JDBC driver provides data access on the same platform as the Advantage CA-Datcom/DB database.

- ODBC 3.5 provides for OLE/DB support using the Microsoft OLE/DB ODBC provider.

This support expands the usability of the ODBC Driver by integrating into OLE/DB applications.

- ODBC Driver modifications to the SQL statement processing for performance enhancement.

Server SQL statement processing no longer makes additional database calls for autocomit processing. This modification removes the overhead of an additional database call from the workstation to the server for autocomit. The select statement processing using the SQLPrepare and SQLExecute interfaces has been streamlined. The execution of other SQL statements using the SQLExecuteDirect interface has also been enhanced.

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- Addition of the Advantage CA-Datcom/DB 10.0 'C' preprocessor.

This preprocessor supports the 'C' language and allows for the creation of plans, compilation and linkage or 'C' source code, and program execution. This preprocessor compliments the existing COBOL preprocessor functionality in 'C'. The 'C' environment runtime will also allow for the creation and execution of RAAT/SAAT programs.

- Support for the Advantage CA-Datcom 10.0 COBOL preprocessor.
- Support for Advantage CA-Datcom 10.0 syntax enhancements and functionality including SQL procedures.

SQL procedures, when compiled and built on the mainframe can be created, maintained, and executed utilizing both the ODBC and JDBC drivers. The utilization of SQL procedures can enhance both performance and functionality of Advantage CA-Datcom/DB applications.

- Security enhancements added with the encryption of user and password in packets transmitted across the network and the elimination of security checks for internal databases.
- Addition of a timer TCB to wake up and check for stranded or orphaned tasks in Advantage CA-Datcom Database Server Option.

This enhancement adds to the task timeout process a timer for checking connections that have exceeded timeout values. Tasks that have exceeded the timeout values are removed and resources freed. The timeout process is no longer dependant upon other server tasks to detect a timeout condition.

- Basic shutdown statistics are provided in the server output when the job ends. These statistics include request, network, connection, and timeout counts.
- Ability to limit the SQL resources used by Advantage CA-Datcom Database Server Option.

The addition of the SQLMEM=KEEP|FREE startup parameter. This parameter controls the release of SQL resources used by Advantage CA-Datcom Database Server Option. The SQLMEM=FREE will free the SQL resources as soon as possible after the statement execution.

- Enhancement of Advantage CA-Datcom Database Server Option job messages with the addition of the SUPMSG=YES|NO startup parameter.

The SUPMSG parameter allows for the suppression or display of the connection messages generated in Server. The Server version and maintenance level are also displayed in the Server messages at startup.

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- Addition of two ODBC traces.

The Network Timing Trace and the Network Statistics Trace aid the tuning and problem solving of Server. The Network Timing Trace provides timings and sizes of load packets sent and received by the driver. This trace incurs less overhead and concentrates on the load packet timings. The Network Statistics Trace provides internal information on the protocol execution of Server and aid support in diagnosing performance bottlenecks.

- Enhanced Advantage CA-Datcom Database Server Option side tracing in the addition of the USER1=, USER2=, USER3=, USER4=, and USER5= Server startup and communications parameters.

These parameters allow the mainframe tracing of up to five particular users. The utilization of these parameters reduces the tracing scope and resources consumed by tracing.

- Enhanced installation procedures that provide more ease of use.

