

Class Agenda

Beginning SQL for 4D Developers

4D Server Architectural Overview

- 4D Server and SQL Server
- Query Language Engines
- New Indexing Structures
- SQL Overview
- 4D and SQL Integration
- ODBC Client Architecture
- Multithreading Overview
- Local and Remote SQL Databases

Data Manipulation Language (DML) and Data Definition Language (DDL)

- Differences between 4D queries and SQL queries
- Data types
- Supported functions
- Query destination and data management
- Invoking SQL using QUERY BY SQL, Begin SQL/End SQL,
- Dynamic code using EXECUTE IMMEDIATE
- Overview of ODBC EXECUTE
- DML commands (SELECT, UPDATE, INSERT, DELETE)
- DDL commands (CREATE TABLE, DROP TABLE, ALTER TABLE)
- Calling 4D methods
- Error trapping and debugging in SQL

Implementation of SQL Specific Characteristics

- Transactions, used in SQL and 4D
- Nulls: what they are and how to work with them
- Constraints
- Triggers
- Accessing System Tables (catalogs)
- Relations via Join
- Structure editor and the inspector
- Project Method context-sensitive menu

A Closer Look: Using 4D's SQL Server With an External Database

- Changes to External Data Source commands
- ODBC EXECUTE in and out
- Selecting and using a data source for SQL pass-through queries
- SQL Server Preferences Configuration
- Connecting to a non-4D database using ODBC
- Executing Stored Procedures