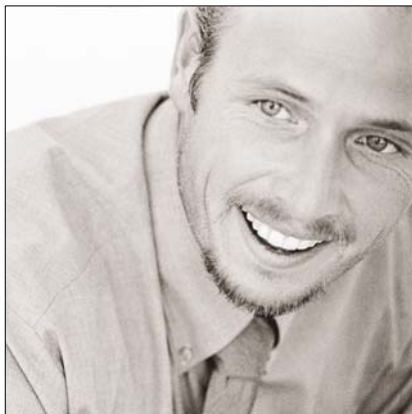


# extend<sup>®</sup>8

Interoperability Suite

## AcuXDBC™ | Data Management System for Vision Files



Access your data from the most popular Windows<sup>®</sup> applications. Manage your data like a relational database. AcuXDBC gives your end users the power to use Microsoft Excel<sup>®</sup> to create bar charts from your COBOL data, Word's mail merge to generate form letters from customer data, or Crystal Reports<sup>®</sup> to issue a financial report. AcuXDBC also allows you to create a system catalog and base tables, giving you the flexibility to query and manage your corporate data in a relational database-like manner.

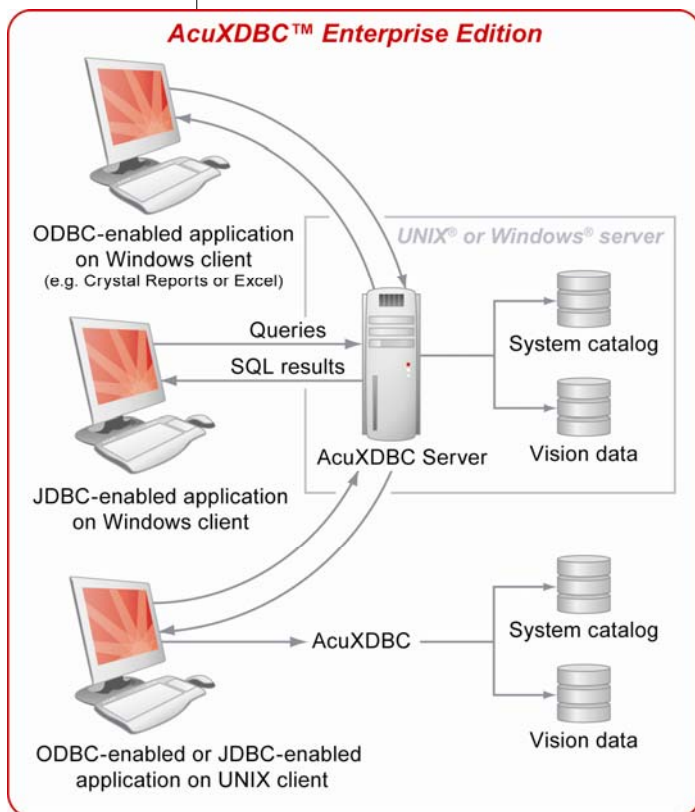
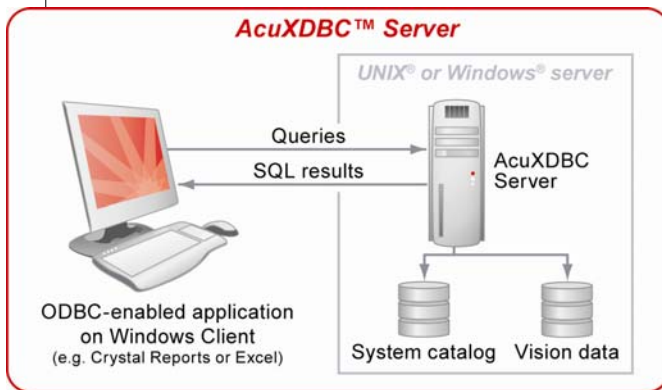
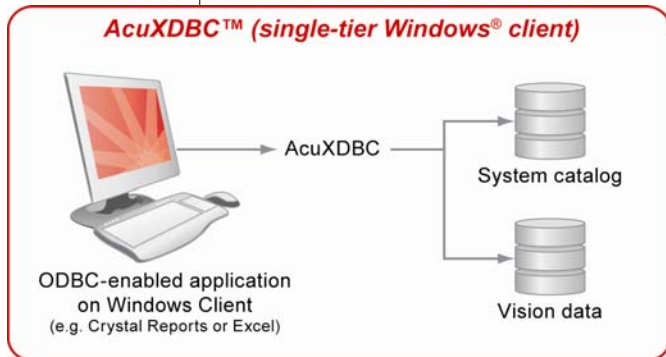
### EXECUTIVE OVERVIEW

AcuXDBC is a data management system designed to incorporate Vision files into a relational database-like environment. AcuXDBC enables you to apply SQL and relational database concepts to your COBOL data files, resulting in data that can be accessed and managed in much the same way as many of today's popular relational database management systems.

AcuXDBC provides broad flexibility in the way your COBOL data is accessed and maintained. It translates SQL requests to COBOL I/O actions and COBOL data to ODBC-compliant data sets. ACUCOBOL-GT<sup>®</sup> indexed, relative or sequential data files can then be retrieved or updated from ODBC (Open Database Connectivity)-enabled applications, such as Microsoft Word, Excel and Access as well as Business Objects' Crystal Reports. With AcuXDBC Enterprise Edition, Vision data can also be accessed from Java applications that utilize JDBC standards.

Files can be easily managed locally on a Windows PC using AcuXDBC or on a UNIX<sup>®</sup> operating system using AcuXDBC Enterprise Edition along with third-party ODBC core libraries. For remote file access, AcuXDBC Server can perform remote SQL processing on your UNIX<sup>®</sup>, Linux<sup>®</sup> or Windows NT/2000 Server.

AcuXDBC, AcuXDBC Server, and AcuXDBC Enterprise Edition are key members of Acucorp's *extend<sup>®</sup>8* family of solutions, designed to help you make the most productive use of your corporate data wherever it resides.



## ACUXDBC VERSION 8 HIGHLIGHTS

### Data Access Features

End users can access your data files using their most familiar applications. They never need to know they're looking at COBOL files. AcuXDBC includes the following features that ensure data access remains seamless:

- AcuXDBC provides an ODBC driver that enables users of popular Microsoft Office applications such as Access, Excel and Microsoft SQL Server as well as Crystal Reports and Visual Basic to connect to your database and execute SQL commands for data retrieval and manipulation purposes.
- With third-party UNIX ODBC core libraries, AcuXDBC can enable connections to an ODBC driver from a UNIX command line or script. This allows UNIX users to access the database directly rather than through a Windows operating system.
- AcuXDBC includes a JDBC driver that enables Java applications to connect to the database.
- Also included is an SQL query tool that enables the execution of SQL commands and scripts directly on your database tables without having to connect to the database via a third-party application or an ODBC connection. This command-line query tool is extremely handy for tasks like setting permissions to tables, creating views and producing batch reports that require a series of complicated SQL commands to produce.

### Multiple Applications Supported

AcuXDBC is designed to work with any Windows application that complies with Version 2.0 of the ODBC standard. Acucorp certifies AcuXDBC for use with the following products:

- Microsoft Excel
- Microsoft Access
- Microsoft Word
- Microsoft Query
- Visual Basic products
- Business Objects' Crystal Reports

## Relational Database Features

A relational database is fundamentally defined by the organization of data within collections of tables consisting of columns and rows. AcuXDBC has been engineered to create a Vision database by restructuring Vision XFD files into corresponding Vision tables.

AcuXDBC comes equipped with a SQL command-line query tool (XDBCQuery) as well as a special utility that creates and populates a system catalog with information obtained from your XFDs (**xdbcutil**). No special restructuring of your data files is required to gain relational database-like functionality.

AcuXDBC supports most SQL commands, such as CREATE and DROP, which enables the creation and deletion of new tables or views based on conditional operators and multiple fields/columns.

Additionally, through the use of DDL (Data Definition Language) commands GRANT and REVOKE, AcuXDBC provides data security options at both database-wide and object-specific levels. For example, one table from a database can be read-only for certain users while another table within the same database can be read/write accessible by either the same or different users. Combining views and object level security permits even column level security.

## Easy to Deploy

Setup and administration of AcuXDBC is simplified by an included script file that automatically invokes the system catalog utility and passes it the necessary commands to create the system catalog and base tables that serve as the core of your database. Once this information is loaded, AcuXDBC no longer requires your XFDs. Instead, it refers to the system catalog and base tables to obtain the information needed to construct and distribute your Vision tables. This means you do not need to distribute your XFDs to end users. You supply end users the system catalog.

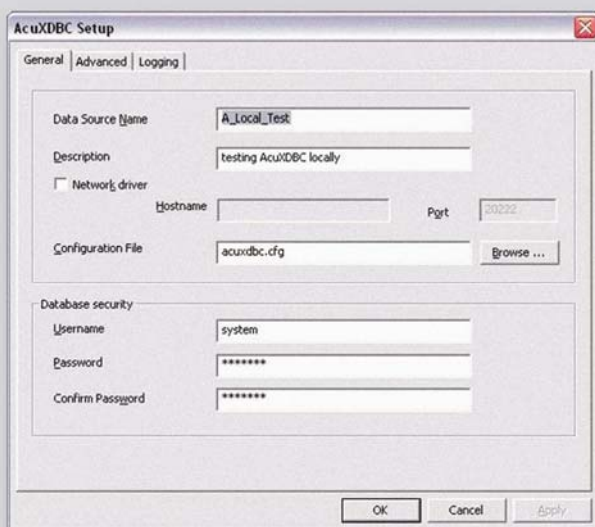
After this step, you can then use AcuXDBC-supplied utilities and drivers to create access to your system catalog from a wide variety of client applications, such as Microsoft Office, Business Intelligence tools and custom-built ODBC/JDBC enabled applications. Access to your system catalog can all occur locally on a client machine or the catalog can be accessed on a server machine by adding AcuXDBC Server.

## Flexibility

With AcuXDBC, you have your choice of file location and execution path. Your Vision files can reside on the client for use in standalone environments, on a mapped network drive, or on a server in a client/server network. Remote processing requires the AcuXDBC Server add-on.

## High Performance

AcuXDBC has been geared for high performance. Its re-engineered drivers and SQL processor results in a fast execution of many complex SQL commands on large data sets. It also has an advanced rules-based optimizer that utilizes the described key information to determine what keys to push for the WHERE and/or ORDER BY clause.



Windows DSN setup screen

## ACUXDBC VERSION 8 FEATURES AND BENEFITS

FEATURE	BENEFIT
<b>Standards Conformance</b>	
<b>SQL conformance</b>	AcuXDBC supports 92 ANSI standard SQL commands, as well as most SQL grammatical functions from all three levels of compliance: minimum, core and extended. This allows users to issue precise data queries.
<b>Ease of Use</b>	
<b>Setup</b>	AcuXDBC includes a configuration file designed for ease in system catalog setup and XFD-to-table conversion. Because specific settings are determined in a reusable configuration file, DSN settings become universal, meaning you don't have to set them individually each time you create a DSN. This greatly simplifies DSN setup.
<b>Transparent data access</b>	Once AcuXDBC is set up, ACUCOBOL-GT data files can be imported easily into Windows applications. The access is typically transparent to users. Users don't even know they're looking at COBOL files.
<b>Flexibility</b>	
<b>Multiple architecture support</b>	AcuXDBC can be used on stand-alone machines, or in client/server networking configurations. With AcuXDBC Server, SQL processing can take place on a remote server. This provides flexibility in how you use AcuXDBC.
<b>End user benefits</b>	With AcuXDBC, users can utilize popular Windows productivity applications to generate their own reports and to meet other needs. Windows users gain access to vital corporate COBOL data. With AcuXDBC Enterprise Edition, you can take advantage of a Java (JDBC) interface. AcuXDBC Enterprise Edition also permits support for UNIX client access to corporate COBOL data as well. This gives you more on the job flexibility for your users.
<b>Multi-company support</b>	AcuXDBC offers two convenient means of managing multiple company data sets. Wildcards can be used to identify which company file to access. This is defined in the AcuXDBC configuration file. Or, you can assign table ownership to the different companies and then issue a single query to access all the data files. This allows you additional control over how your data is accessed.
<b>Directives support</b>	AcuXDBC supports the use of "directives" to let you control the way that AcuXDBC maps COBOL records to application data fields. Directives are placed into COBOL FDs. This lets you hide, protect, group, rename or specify the data type for COBOL data fields in your Windows application.

## Data Security

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### Passwords

AcuXDBC uses SQL-based security methods to create user IDs and passwords and manage database access. This provides a great degree of flexibility in the way you control access to your database.

### Multi-level security

Through the use of DDL commands GRANT and REVOKE, AcuXDBC provides data security options at both database-wide and object-specific levels. For example, one table from a database can be read-only for certain users while another table within the same database can be read/write accessible by either the same or different users. By combining views and object level security, even column level security is available. This helps prevent unwarranted access to your corporate data.

### Transaction processing protection

In transaction processing environments, AcuXDBC can provide transaction management, logging, locking, and other key functions to your Vision files. This helps you preserve the integrity of data used within transactions.

## Troubleshooting

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### Trace file usage

AcuXDBC offers three different trace files to simplify troubleshooting during development:

- Log Vision file operations performed by AcuXDBC
- Log SQL command operations performed by AcuXDBC
- Log calls that the ODBC Administrator is passing between the ODBC driver and the application driver

### Error messaging

Error messages are provided from three different sources. SQL state errors report the state of the SQL query; native Vision errors report Vision access problems; and application errors report application-specific problems that may be encountered. This simplifies troubleshooting during development and deployment.

## PLATFORM SUPPORT

### Server Platforms

- UNIX
- Linux
- Windows NT Server
- Windows 2000
- Windows 2003 Server (32-bit)

### Client Platforms

- Windows XP
- Windows NT Server
- Windows 2000
- UNIX/Linux

## REQUIREMENTS

### Clients

- Approximately 3 MB disk space
- 570 KB memory plus memory for open files
- 32-bit Windows operating system
- ODBC Data Source Administrator Version 3.5 or later. (Part of Windows operating system. Automatically updated during AcuXDBC installation if necessary.) (Windows only)
- Microsoft ODBC Driver Manager Version 3.5 or later. (Provided by most ODBC-enabled applications. Automatically updated during AcuXDBC installation if necessary.) (Windows only)
- ODBC driver such as UnixODBC (UNIX/Linux only)

### Servers

For AcuXDBC Server remote processing configurations, servers require:

- Approximately 2 MB disk space plus space for data files
- 1 MB memory plus memory for open files
- TCP/IP networking software
- 32-bit, server version of Windows, UNIX or Linux operating system
- ACUCOBOL-GT indexed, relative or fixed-length sequential files

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