**Problem**
Having real-time, ad hoc, relational access to the data stored in the SUPRA PDM DBMS. Many SUPRA PDM users have implemented relational access strategies to their PDM data through Extract, Transform, and Load (ETL) processes. This is usually a custom set of procedures that extracts the PDM data, transforms it into relational tables, and then loads it into a relational database. While an ETL tool can be used effectively, the extracted data may not be current. Any new requirements for additional data can involve complex database development projects.

**Challenge**
To provide the ability for SUPRA end-users to access their PDM data in real time using relational access tools. SUPRA DBAs must be able to implement this relational access to PDM data quickly and easily, and meet the end-users’ performance expectations.

**Solution**
Provide the SUPRA Relational Access Kit (RAK) to the SUPRA PDM community. This solution:
- Provides an easy-to-install and use relational interface to PDM data
- Requires no custom programming to access the PDM data
- Requires no rewriting of applications to get to the PDM data

The SUPRA Relational Access Kit (RAK) enables you to access SUPRA PDM data using standard tools you use every day, since it supports the industry-standard ODBC API (Application Programming Interface). SUPRA RAK eliminates the custom code necessary to access your PDM data for analytical purposes, or to integrate a data source into a website, which means less testing, greater reliability, and faster development. Using SQL to access data in real time, the SUPRA RAK minimizes the time required to develop new applications, reduces development costs, and extends the life of your SUPRA PDM DBMS-based systems.
Getting Value From Your PDM Data

The SUPRA Relational Access Kit (RAK) puts you in touch with your PDM data without data extracts, data conversions, or changes to your existing application suite. The SUPRA RAK helps you transform your data into useful information that you can use to meet both immediate objectives and long-term business goals.

With the capabilities of the SUPRA RAK, you can easily:

- Improve information analysis
- Target market demographics
- Spot buying trends
- Up-sell and cross-sell to your customers
- Increase customer buying

The SUPRA RAK puts your PDM data into the hands of people who can use it best. Decision-makers throughout the organization can now access and query PDM data using relational tools to make strategic business decisions as easily as they can access any relational DBMS.

The SUPRA RAK enables you to:

- Provide dynamic and real-time access to PDM data using the industry-standard ODBC relational API.
- Use common desktop tools to access non-relational PDM data that is difficult to manipulate outside its SUPRA environment.
- Access your PDM data directly in real time, unlike ETL approaches that copy the PDM data into relational data sources for future querying. This gives access to current business information for real-time decision-making, rather than guesswork based on outdated information.

Product Overview

In SUPRA Relational Access, the metadata for the fields in a PDM file are mapped into an entity called a foreign table and stored in a repository in the Windows server. The foreign table definitions are made available to the ODBC tools. It is important to note that the PDM data is not copied into the repository; the SUPRA RAK provides direct access to live PDM data. The access strategy is optimized using the PDM linkpaths, indices, and control keys. The SUPRA Relational Access Kit delivers:

SUPRA Relational ODBC Driver

The SUPRA RAK provides a standard ODBC driver as a relational interface for the end-user’s use. The SUPRA RAK ODBC driver makes calls into and receives results from the SUPRA Relational Access Server.

SUPRA Relational Access Server

Since SUPRA Server PDM supports a virtually infinite number of data models, and because the data model itself can be implemented in the application logic, the SUPRA Relational Access Server provides mapping tools that facilitate the creation of optimized relational maps of the PDM’s non-relational data. The SUPRA Relational Access Server optimizes access to SUPRA data based on the information that it retrieves from the PDM directory (linkpaths, indices, and control keys). The metadata for the PDM fields are mapped into an entity called a foreign table and stored in a repository on the Windows server. The foreign table definitions (relational maps) are made available to the Relational Access Client. The Relational Access Server maintains joining, query optimization, query execution, row qualification data, and PDM Directory information.

SUPRA Relational Access Listener

Provides execution services such as sorting, transaction management, query optimization, and result set management. It also communicates with SUPRA PDM for transaction management, buffer management, and physical I/O to the database.

Figure 1. Relational Access Kit
Easy to Use

From defining the SUPRA PDM database and creating a foreign table (with field names and data types) to retrieving the data, it is a simple matter of using Visual SQL. VSQL provides dialog boxes, which you can easily fill in to complete the required information.

For example:

1. Define the PDM Database by selecting “Register New.” This stores the definition in the SUPRA Relational Access Server named SupraRA.

2. Next, create a foreign table (map) of a PDM file. The field names and data types will be retrieved from the PDM Directory by simply clicking “Create Foreign Table.”

3. Then review the definition making any required changes (e.g., foreign table name, column/attribute names) prior to saving it by simply clicking “Create Foreign Table.”

4. And current data can be retrieved from the PDM database.
**Supported Platforms**

**Client Environment**

**Hardware**
- Windows PC

**Operating System**
- Windows 2000
- Windows XP
- Windows Server 2003

**Server Environment - Middleware**

**Hardware**
- Windows PC

**Operating System**
- Windows 2000
- Windows XP
- Windows Server 2003

**Database Server**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Op. System</th>
<th>SUPRA PDM Release</th>
</tr>
</thead>
<tbody>
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<td>IBM z/series</td>
<td>z/OS</td>
<td>2.7.00</td>
</tr>
<tr>
<td>HP Alpha and Itanium Servers</td>
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**About Cincom**

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