

> Product
Pervasive.SQL

> Platforms
Windows, Linux, NetWare

> Highlights
Power, Embeddability, Low TCO, Security

9 Reasons to Buy Pervasive PSQL v9

With the release of Pervasive PSQL v9, we have made a number of improvements to the previous release. With specific improvements to performance, scalability, management, and international capabilities, Pervasive PSQL v9 continues to raise the bar for embedded database applications.

Improved Performance and Reporting: 30 New Performance Optimizations

Pervasive PSQL v9 includes over 30 separate optimizations that improve performance over previous versions. These optimizations impact all of the SQL interfaces (ADO.net, JDBC, ODBC, and OLE DB), and the improvements result in faster standard and ad-hoc reporting.

- Aggregate queries (those containing GROUP BY clauses)
- Sub queries using IN, NOT IN, or =ANY predicates
- Sub queries containing expressions
- Join queries containing HAVING predicates
- Queries returning multiple rows from a particular table using an index
- Forward-only, read-read only cursors
- Prepared statement execution
- INSERT statements that affect a single table
- Cursor processing
- BLOB/CLOB processing
- Transaction logging

Easier Design Process:

New SDK Components

Along with all the tools available on disk or online at the Pervasive Development Center, the Software Development Kit for Pervasive PSQL v9 includes:

- **DDF Builder 4.0:** Pervasive PSQL v9 introduces a brand new version of the SmithWare favorite, making it easier for you to describe existing data files for SQL access. Completely redesigned, this version has been rewritten in Java on the Eclipse framework.
- **Full Text Search (FTS):** FTS allows developers to incorporate text searches in new application development. FTS provides Google-like searching of Pervasive SQL data including text string, number, date and Boolean searches, support for wild cards, "AND" and "OR" searches.

Easier Development and Management of Applications: Brand New GUI

All new **Pervasive.SQL Control Center (PCC)** has been rewritten in Java on the Eclipse framework. PCC will provide a foundation for all future GUI tools, meaning that the development and maintenance GUI will be shared across Pervasive PSQL platforms.

- **SQL Outline View** – provides developers a way to view, dissect, and understand large queries (new feature)
- **SQL Editor** – allows interactive SQL execution from PCC (replaces SQL Data Manager)
- **Table Editor** – allows you to create & edit tables from PCC (replaces Table Designer)

Improved Scalability:

Increased Maximum File and Page Sizes

Pervasive PSQL v9 offers twice the maximum file size and page file of the previous version. PSQL v9 includes an ability to retrieve files up to the 128GB maximum, reducing the number of archives and improving file management.

	PSQL v9	PSQL v8
Max File Size	128 GB	64 GB
Page file	8K	4K

Reduced Need for Cross-Platform Porting & Management:

SQL Functionality, Grammar, and Syntax Improvements

We are committed to helping minimize time required to deploy and maintain multiple version of your applications. Pervasive PSQL v9 introduces improvements to the SQL interface, and improved compatibility with international standards and other relational DBMSs.

STRENGTHS:

- Performance
- Embeddability
- Low TCO
- Security
- Flexibility
- Extensive Standard Support
- Full Suite Of GUI Utilities

SUPPORTED PLATFORMS:

Server

- Windows NT 4.0 (SP6a or higher)
- Windows 2000/2003
- NetWare 5.1, 6, 6.5 or higher
- Linux (Kernel 2.4 or 2.6)

Client Requestors

- Windows NT 4.0* (SP6a or higher)
- Windows 2000/2003*
- Windows 98/ME/XP*
- DOS 5.0 or higher
- Linux (Kernel 2.4 or 2.6)

Workgroup/Workstation

- Windows NT 4.0* (SP6a or higher)
- Windows 2000/2003*
- Windows 98/ME/XP*

*Supports DOS, Win 16 and Win 32 applications

SQL Functionality

- **Use defined functions** – CREATE FUNCTION syntax added for user-defined scalar functions
- **System stored procedures**
- **CAST scalar functions** – To change data types when selecting a column. Useful for:
 - Concatenating strings
 - Joining columns that were not initially envisioned as related
 - Performing mathematical operations on columns that were defined as character but which contain numbers
- **COALESCE scalar function** – Returns the value of the first non-null expression among the “n” expressions that are passed to the function as arguments
- **@@SPID** – Returns a server process ID of the current thread assigned by the server for each connection

SQL Syntax and Grammar

- **Sub queries as expressions** – Permit the use of a SELECT sub query as an expression
- **DEFAULT constraints** – Permits the use of functions such as USER(), CURDATE(), and other expressions as default constraints for a column
- **Bitwise operators** – for AND (&), NOT (~), OR (|), exclusive OR (XOR)
- **NULL in an expression** – v9 permits the use of the NULL keyword as part of an expression
- **Supports ANSI JOIN Syntax** – Makes the specification of the JOIN type optional
- **Complex VIEW Syntax** – Whereas v8 restricts the syntax of queries that can be defined in a stored view, v9 extends the VIEW syntax to overcome these issues
- **CASE expression** – Enhanced in v9 to produce more streamlined code
- **EXEC function** - Allows invocation of a user-defined procedure or a stored procedure (the ability to build a query on the fly in a stored procedure using parameters passed in, then execute that stored procedure)
- **EXISTS syntax in sub query in Stored Procedures** – Pervasive PSQL v9 emulates MS SQL Server syntax for EXISTS as a predicate of a sub query in a stored procedure (one less hassle to deal with when migrating between the two platforms)
- **ISNULL** – Emulate SQL Server syntax for ISNULL function

Easier International Releases: Standards Conformance

Pervasive PSQL v9 conforms to ODBC 3.51 (vs. ODBC 2.5 in Pervasive PSQL v8), enabling support for Unicode.

All the features of SQL, for use with legacy applications without code rewrite: COBOL/ISAM Support

Pervasive PSQL v9 is the most economical and safest way to provide SQL access and new features to a legacy application. With the addition of support for ISAM data constructs, Pervasive PSQL v9 provides COBOL developers a way to modernize their application with SQL access without having to redesign, reengineer, or rewrite their code.

- **Variable record layout support** – Many ISAM applications utilize multiple record layouts in a single file, which can present problems for some relational DBMS engines. Pervasive PSQL v9 provides an enhanced catalog system that will provide accurate column information regardless of the irregularity of the record layouts.
- **Support for Shifted/Unshifted Numerics** – v9 provides two settings for updating signed numeric values from the SQL interfaces. This update will allow Fujitsu COBOL applications to use both Btrieve and relational interfaces.
- **Support for OCCURS** – Pervasive PSQL v9 includes support for the COBOL OCCURS clause in the relational engine. OCCURS data can be queried as if it were a separate table.
- **Support for Partial Redefines** – Redefinition of a portion of data within a record (instead of redefinition of the entire record – variable record layout)

Faster Running Applications on the Linux Platform: Improvements for Linux

Linux performance improvements and a new GUI (in Pervasive PSQL v9 SP1) help developers increase their sales potential for applications in the Linux community. Relational and Btrieve access on Linux has been improved through the use of common address space technology, which was previously used only on Windows. Additionally, the Pervasive.SQL JCL has been ported to Linux to provide dual access in Java applications.

Reduced ISV Support Costs (Lower TCO): Improved Installation Process and Compatibility

Better handling of settings conflicts and version-related installation problems, as well as improved networking further reduce ISV time required to support installations and updates. Our new high performance bulk data utility reduces the time required for initial data loading into Pervasive PSQL v9 tables.

ABOUT PERVASIVE SOFTWARE



Pervasive Software is a global value leader in data infrastructure software. The company's award-winning products enable customers to manage, integrate, analyze and secure their critical data, providing the industry's best combination of performance, reliability and cost. Pervasive's strength is evidenced by the size and diversity of its customer base, serving tens of thousands of customers in nearly every industry market around the world. With headquarters in Austin, Texas, Pervasive was founded in 1994 and sells its products into more than 150 countries.

FOR MORE INFORMATION

- To learn more about Pervasive Software and our solutions, please visit www.pervasive.com.
- To reach the North American sales office, call **1.800.287.4383, extension 2**.
- For Latin, Central and South America, Australia and New Zealand, call **+1.512.231.6000**.
- In Europe, for Belgium, France, Germany, Italy, Luxembourg, The Netherlands, Spain, Sweden, Switzerland and the United Kingdom, call **+800.12.12.34.34**.
- For any other European, Middle Eastern, African or Asian countries (excluding Japan), call **+32.70.23.37.61**.
- For Japan, please call **+81.3.3293.5300**, or visit www.pervasive.co.jp.