



PostgreSQL Database System

Usability • Portability • Compatibility • Robustness • Cost Effectiveness

April 26, 2006

presented by

Made to Order Software Corporation

9275 Blue Oak Drive
Orangevale, CA 95662
U.S.A.

Tel: 916 988 1450

email: contact@m2osw.com

Copyright © 2006 by Made to Order Software Corporation

PostgreSQL, a Complete Database System

We have been using PostgreSQL at Made to Order Software Corporation since 1999. This robust database system runs on many operating system platforms (many Unices including Linux and Mac OS/X and of course Microsoft Windows).

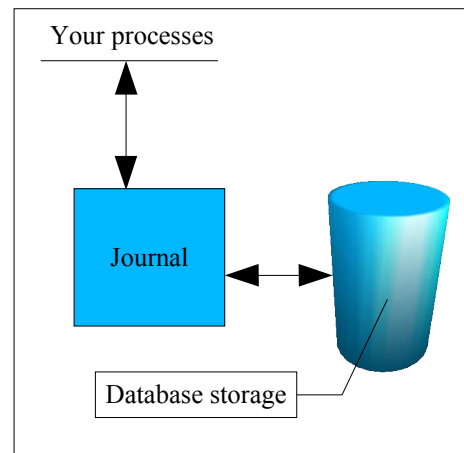
PostgreSQL is a relational database which means it works a lot like the best commercial database systems out there. Nothing is missing, not even support (commercial and otherwise) and there are more and more companies which can help in that arena, including Made to Order Software Corporation.

PostgreSQL was designed from day-one with compatibility in mind. For this reason, the SQL language used is defined according to the SQL92 standard. The features which are not following the standard are, for most, extensions, some added so as to make PostgreSQL compatible with other database systems such as Oracle and MySQL. This makes PostgreSQL easy to use for any engineer who has some experience in any database system.

PostgreSQL is fast. It will query large databases as quickly as any advanced commercial database system. It has been used and performed well with databases including tables with over 150 millions rows.

PostgreSQL is robust. It has a complete journaling system which ensures data consistency. This means that if your computer crashes, your database will still be consistent and work correctly.

The PostgreSQL server is multitasking: it can be accessed by many processes simultaneously. It supports several access methods which means you can adapt the system to pretty much any application.



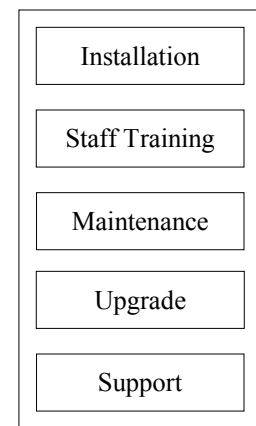
PostgreSQL: How Much Does It Cost?

The most important points with regard to any DBMS are the costs. The fact that PostgreSQL is free software means that you do not have to pay any upfront fee to start using it (it is under the BSD license). However, this is not the only thing you want to consider. The other questions of interest which also have a financial impact are: How can you maintain the system (maintenance & updates)? How much training is require for personnel? How well is the DBMS supported? Is the system secure?

The fact that PostgreSQL is free software means many features are in general added faster to PostgreSQL than in commercial DBMS. The development can be fast since there are many users who will quickly test it and report bugs which also get fixed quickly. This, by itself, is a great advantage.

The training for personnel remains minimal since PostgreSQL functions in a very similar way as most other database systems. The few tricks specific to PostgreSQL will be learned in just a few days.

Free PostgreSQL support is available on their website. If one of your programmers finds a bug, he or she can also post it so the fix is integrated in the next release of PostgreSQL. Also, commercial PostgreSQL support is available via many different large and small companies, including Made to Order Software Corporation.



And at last, but certainly not the least important: *security*. Since the PostgreSQL codebase is open source, anyone can review it, so you can conduct your own audit if you'd like. Not only that, but when a security problem *is* found, most of the time it doesn't take very long for a fix to be posted. This increases security very much. This is an incredible advantage in comparison to any proprietary DB system which will usually be worked on by a relatively limited team of programmers. You are also very unlikely to have the right to audit the code (without paying immense sums for the right).

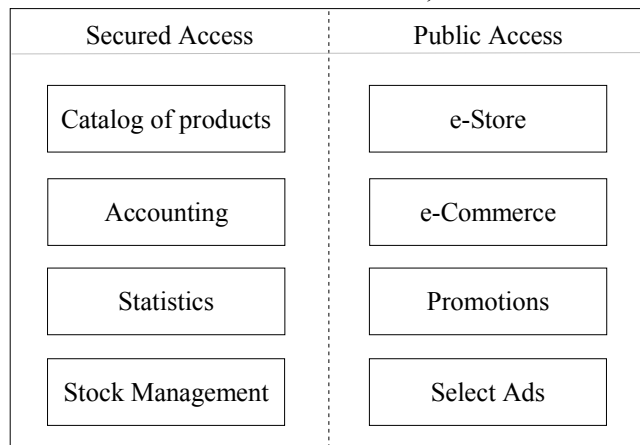
PostgreSQL: Building Complex Applications

PostgreSQL can be used to create all sorts of applications. Made to Order Software has successfully created several applications that it uses internally and for its clients. We will describe two of them here.

On-line Store Functionality

Made to Order Software can create your on-line store including all the following features:

1. A catalog of products; each product can include multiple descriptions in multiple languages, multiple prices, weight, sizes, shipping costs,
2. A PHP front end to display products available in your catalog, to perform searches, and to display teasers and special offers,
3. A cart to let customers select products, and a wish list to know what customers want,
4. A credit card payment system linked to the database to ensure proper data entry by the end users (valid state and country names, valid zip codes);
5. A record of all the invoices to later create reports and investigate problems. Since PostgreSQL is a relational database system, in general, a single SQL order will be required to generate any report. Reports can include:
 - 5.1) earnings,
 - 5.2) costs,
 - 5.3) orders which failed and why,
 - 5.4) customers' wish lists,
 - 5.5) statistics (for example, products which sell best and poorly), and
 - 5.6) stock and inventory management,
6. A set of tools to make use of captured statistics (for example, what people bought and put in their wish list to better tailor what to offer them on their next visit on your website).



Localization and Internationalization

The staff at Made to Order Software Corporation has been designing and deploying robust websites since 1996. In 1999, when Made to Order Software Limited was formed, we created on-line software to allow localization and internationalization (that is, display a single website in multiple languages in a seamless manner). The localization software uses PostgreSQL as the back-end.

When creating a website solution, we write one query for anything which will be translated (a word, a sentence, a paragraph or even a page). When we generate the page, the software takes care of selecting the text according to the current language. We even added speed optimization features to cache the frequently accessed pages, regenerating changes from the database only when needed. Another feature which works with the help of PostgreSQL: any entry in the database has a start and end publication date. These are used to know whether an entry should be part of the website (current) or not (past or future). For instance, you

can avoid publishing really old news articles or make sure to publish new ones only on the required date (and not before).

Made to Order Software employs these two on-line applications for its own e-commerce website. With these features, we are able to keep our web-pages up to date with a minimum amount of work. We even have a module to handle sales and reports automatically. Without these key features, we would have so much work running our website that we wouldn't have time to do anything else.

All of this would not have been possible without PostgreSQL.

PostgreSQL: Experts at Your Service

If you have a need to create a complex set of web-based applications which require a robust database system, we at Made to Order Software Corporation can help you get your system up and running.

We are experts in:

- Database design and analysis
- Process flow analysis
- Complete installation of PostgreSQL
- Transfer of data from another database system to a PostgreSQL database
- Maintenance and enhancement of legacy systems
- On site training of your personnel
- Security Audit of your public Networks

We are located in California, USA and we also have an offshore office in London, UK.

Please contact us by phone at +1 (916) 988 1450 or by email at contact@m2osw.com .