

Andrew M Dunstan

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Summary

- A Core Committer on the PostgreSQL project and PostgreSQL Specialist
- An experienced Solutions Architect, Development Manager, and Developer/Consultant who is strongly oriented to helping organizations achieve their IT goals on time and on budget

Recent Experience

April 2007 – present: Dunslane Consulting, LLC – President/*Principal Consultant:*

Project Description: Started my own consulting business focused on improving usability and function of the legendary software PostgreSQL with over 1400 hours billed for 4 clients during this first year.

August 2006 – April 2007: Anchorage Capital Group - *Senior Developer / Administrator:*

Project Description: maintain, improve and extend a trading system for a hedge fund, interfacing with third party systems and trading partners. Implement sound backup and disaster recovery procedures. Develop new systems as required. **Skills/Technology Used:** PostgreSQL, SlonyI, Perl, C, Subversion, Trac, SQLServer, ODBC, XML, Linux, Bacula, rsync, Catalyst

July 2004 – July 2006: HCS Systems / Ringsphere Technologies - *Consultant / Senior Developer:*

Project Description: renovate, maintain, and produce next generation of Ringsphere, a tool for gathering, replicating and displaying time series metrics, principally network metrics. Also provide consulting services to HCS clients as needed. **Skills/Technology Used:** TCP/UDP/ICMP/IP, HTTP, HTML, Apache, SSL, FastCGI, Perl, Template Toolkit, SNMP, nmap, RRDTOol, tcpdump, tcptrace, vtun, Subversion, Gforge, Linux, VMWare, PostgreSQL, PHP

June 2003 – June 2004: HCS Systems / North Carolina State Highway Patrol - *Consultant / Architect:*

Project Description: Design, develop and deploy a pilot program to deliver facial images of persons of interest to law enforcement officers in the field over a low bandwidth network, using XML based on Justice XML Data Dictionary as medium of data exchange, and using only free / open source technology. **Skills/Technology Used:** TCP/IP, HTTP, HTML, FTP, Tomcat, Java, Ant, Servlets, JSP, JSTL, JAI, Jpeg2000, rsync, ssh, XML, XSL, Xerces, Xalan, JusticeXML, PostgreSQL

July 2000 - April 2003: AnyDevice / HiddenMind - *Senior Solutions Architect, Development Director/Manager, Technical Lead, Senior Developer:*

Company Description: Software development, tools and platform, both custom and shrink-wrapped, targeted at small, wirelessly/intermittently connected devices (Palm, PocketPC, RIM pager, WML/HDML phones, etc.)

Skills/Technology Used: TCP/IP, HTTP, HTML, HDML, WML, WAP, Apache, SSL, FastCGI, Perl, Tomcat, CVS, Linux, Solaris, VMWare, Windows, WindowsCE, ADOCE, PostgreSQL, MySQL, Oracle, MS SQLServer, HSQL, Javascript, Java, Servlets, JSP, Tiles, JSTL, XML, XSL, Xerces, Xalan,

PostgreSQL Project

I first became involved in PostgreSQL community in 2003. In 2004, in addition to my development work, I created the PostgreSQL Build Farm, a distributed build and test system which has had a profound effect on our development processes. I was also one of the original administrators of pgFoundry, the site for third party community developments. I am still the principal maintainer of the Build Farm software, and continue to be an administrator of pgFoundry. In 2005, I was made a committer for the core PostgreSQL code.

Below is a list of my major feature contributions (sometimes in cooperation with others) to the PostgreSQL project over the last 5 years:

Release 8.3

- Allow server log output in comma-separated value (CSV) format which can easily be loaded into a database table
- Arrays of composite types
- Improve efficiency of LIKE/ILIKE, especially for multi-byte character sets like UTF-8
- Close all known holes by which invalidly encoded data could be stored in tables.
- Allow type-name arguments to PL/Perl `spi_prepare()`, PL/Python `plpy.prepare()` and PL/Tcl `spi_prepare` to be data type aliases in addition to names found in `pg_type`
- Enable `\timing` output for `\copy`
- Enable server core dump generation in `pg_regress` on supported operating systems
- Add a `pg_ctl` option to control generation of server core dumps
- Interpret the `dbName` parameter of `PQsetdbLogin()` as a `conninfo` string if it contains an equals sign

Release 8.2

- Increase default values for `shared_buffers` and `max_fsm_pages`
- Add DROP object IF EXISTS for many object types
- For security's sake, modules used by a PL/PerlU function are no longer available to PL/Perl functions
- Add `TG_table_name` and `TG_table_schema` to trigger parameters for PL/PgSQL and `table_name` and `table_schema` to trigger parameters for PL/Python
- Make `$_TD` trigger data a global variable in PL/Perl
- Run PL/Perl and PL/PerlU in separate interpreters, for security reasons

Release 8.1

- Properly process carriage returns and line feeds in COPY CSV mode
- Add COPY WITH CSV HEADER to allow a header line as the first line in COPY
- Add a validator function for PL/Perl
- Allow PL/Perl to return a Perl array when the function returns an array type
- Allow Perl nonfatal warnings to generate NOTICE messages
- Allow Perl's strict mode to be enabled
- Add a PGPASSFILE environment variable to specify the password file's filename
- Allow `pg_config` to be compiled using MSVC - This is required to build DBD::Pg using MSVC
- Allow IPv6 connections to be used on Windows

Release 8.0

- Allow the database server to run natively on Windows
- Rewrite `initdb`, `pg_ctl` and other shell script utilities completely in C
- Allow COPY to read and write comma-separated-value (CSV) files
- Implement dollar quoting to simplify single-quote usage
- Major PL/Perl overhaul and feature boost
- Allow logging of session disconnections using server configuration `log_disconnections`
- Add new server configuration parameter `log_line_prefix` to allow control of information emitted in each log line
- Replace the `virtual_host` and `tcpip_socket` parameters with a unified `listen_addresses` parameter
- Listen on localhost by default, which eliminates the need for the `-i` postmaster switch in many scenarios

Release 7.4

- Allow `pg_hba.conf` to accept netmasks in CIDR format
- Allow IPv6 server connections

Other

- Devised abstract schema mechanism used by Bugzilla project to support multiple database backends, with first support for PostgreSQL.