Installing MySQL

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MySQL provides *binary* and *source* distributions. Unless you need to customise MySQL code and you have considerable experience with C/C++, go with a binary distribution, installation of which comes down to five main steps: choose a package for your operating system, download the package, unpack/install it, configure it, and test it.

What version, what operating system?

In mid-2009 MySQL published a new release model and temporarily *removed 6.0 from availability* (without an explicit announcement), leaving four active release tracks:

- ***4.1***: in production since October 2004, is now at version 4.1.25, bug-fix releases every 6-9 months since 2006.
- ***5.0***: in production since 5.0.15 (October 2005), added Stored Procedures, Triggers, Views, `information_schema`, XA transactions, NDB CLUSTER and FEDERATED engines, and much more to MySQL.
- ***5.1***: in production since 5.1.30 (November 2008), adds partitioning and an event scheduler, row-based replication and more logs, a plugin API, many improvements to the NDB CLUSTER storage engine, more `information_schema` tables, and a load emulator. 5.1 also accepts the blazingly fast, ACID-compliant PBXT storage engine plugin.
- ***5.4/5.5*** (*Azalea* in the new model): 5.4 was "Milestone 1" and 5.5 is "Milestone 2" in this series. 5.5 is of beta quality, and has the new INNODB engine with concurrency, thread and lock improvements; SIGNAL, RESIGNAL; LOAD XML and partitioning extensions; semisynchronous replication; performance enhancements for Solaris; and DTrace monitoring on some Solaris and MAC systems.

In early 2010 expect **5.7** (*Betony*) with online backup backported from 6.0, and in spring 2010 expect **6.0** (*Celosia*) to re-appear. Remember that production versions branch to freely downloadable *Community* and pay-by-subscription *Enterprise Server* editions.

How well MySQL performs on a particular operating system (OS) depends on:

- quality of the OS kernel and the file system,

- stability of the thread library,
- capacity of the kernel to use shared multi-processing,
- thread lock/unlock flexibility, and
- stability and robustness of a given OS build.

Thanks to open source, Linux kernels are blazingly fast. Windows programs ported to Linux tend to run 5-7 times faster. Nine of the world's ten fastest supercomputers run Linux. Other factors being equal, the OS of choice is Linux. Then is MySQL for Linux more popular than MySQL for Linux? No. As of mid-2007, MySQL for Windows was downloaded *three times more often* than MySQL for Linux. Why? The Windows user interface is much richer. The moral of the story seems to be: develop and maintain databases on Windows, but for performance, deploy the database on *Nix.

As the MySQL feature set grows, stability looms as more of an issue. Stability depends on which features you use. The bug list for 5.1 at the time of its General Availability release had more than 300 non-trivial entries. If you need the new features in a new release, check the bug list, and read Monty Widenius's "Oops we did it again" blog entry.

Whatever the OS, more memory is better. You need *at least* a few hundred MB of free disk space. See Chapter 17 for discussion of hardware configurations. Table 3-1 lists MySQL 5.0 packages available from http://dev.mysql.com/downloads/mysql/5.0.html. For 5.1 packages see http://dev.mysql.com/downloads/mysql/5.1.html. Be aware that the package specs change often. There are *three main package content patterns*:

- for Linux: *RedHat Package Manager* (RPM) bundles containing the `standard` server and client, plus add-on bundles containing the `-max` server (NDB, partition support), client libraries and embedded server;
- for Linux, Solaris, many UNIX flavours, Netware, DEC OSF and MAC OS: packages with two or all three of the `standard` server, the `-max` server, and the server compiled with debugging stubs;
- for Windows: a full version using the Windows installer, a full version without that installer, and a stripped down version you probably should avoid.

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