

Trac Installation Guide for 0.11

Trac is written in the Python programming language and needs a database, [SQLite](#), [PostgreSQL](#), or [MySQL](#). For HTML rendering, Trac uses the [Genshi](#) templating system.

What follows are generic instructions for installing and setting up Trac and its requirements. While you can find instructions for installing Trac on specific systems at TracInstallPlatforms on the main Trac site, please be sure to **first read through these general instructions** to get a good understanding of the tasks involved.

Short - Install a released version

For the quick install, make sure you have [Python-2.5](#), [easy_install](#) and SQLite-3.3.4 installed (or above).

```
sudo easy_install Trac==0.11
```

Requirements - also older versions possible

To install Trac, the following software packages must be installed:

- [Python](#), version ≥ 2.3
 - if using `mod_python` together with xml-related things, use `python-2.5`. `expat` is namespaced there and does not cause apache to crash any more (see [here](#) for details).
 - For RPM-based systems you might also need the `python-devel` and `python-xml` packages.
 - See instructions in [TracOnWindows/Python2.5?](#)
- [setuptools](#), version ≥ 0.6
- [Genshi](#), version $\geq 0.4.1$
- You also need a database system and the corresponding python drivers for it. The database can be either SQLite, PostgreSQL or MySQL (*experimental*).
- optional if some plugins require it: [ClearSilver](#)

For SQLite

- [SQLite](#), version 3.3.4 and above preferred.
- If not using Python-2.5: [PySQLite](#), version 1.x (for SQLite 2.x) or version 2.x (for SQLite 3.x), version 2.3.2 preferred. For details see PySQLite

Note: It appears that PySQLite 2.x is required for Trac 0.9+/SQLite 3.x if you plan to use the 'trac-post-commit-hook.py' script available from the 'contrib' section of the source repository.

Note: Users of Mac OS X please take care; the Apple-supplied SQLite contains additional code to support file locking on network filesystems like AFP or SMB. This is not presently (3.3.6) in the mainline sources, so if you build your own SQLite from source it will not function correctly on such filesystems - typically it gives the error "database is locked". [A patch](#) is available for version 3.3.6, based on Apple's code, otherwise you're probably best off using the Apple supplied version (presently 3.1.3).

For PostgreSQL

- [PostgreSQL](#)
- [psycopg2](#) or [pyPgSQL](#)

Warning: PostgreSQL 8.3 uses a strict type checking mechanism. To use Trac with the 8.3 Version of PostgreSQL, you will need [trac-0.11](#) or later.

For MySQL

Warning: MySQL support is currently *still* experimental. That means it works for some people, but several issues remain, in particular regarding the use of unicode and the key length in the repository cache. See MySQLdb for more detailed information.

- [MySQL](#), version 4.1 or later
- [MySQLdb](#), version 1.2.1 or later

Optional Requirements

Version Control System

Please note: if using Subversion, Trac must be installed on the **same machine**. Remote repositories are currently not supported.

[Subversion](#), version ≥ 1.0 . (versions recommended: 1.2.4, 1.3.2 or 1.4.2) and the *corresponding* Python bindings. For troubleshooting, check TracSubversion

- Trac uses the [SWIG](#) bindings included in the Subversion distribution, **not** [PySVN](#) (which is sometimes confused with the standard SWIG bindings).
- If Subversion was already installed without the SWIG bindings, on Unix you'll need to re-configure Subversion and make `swig-py`, make `install-swig-py`.
- There are [pre-compiled bindings](#) available for win32.
- Support for other version control systems is provided via third-parties. See PluginList and VersioningSystemBackend.

Web Server

- A CGI-capable web server (see [TracCgi](#)), or
- a [FastCGI](#)-capable web server (see [TracFastCgi](#)), or [Apache](#) with [mod_wsgi](#) (see [TracModWSGI?](#))
 - This should work with Apache 1.3, 2.0 or 2.2 and promises to deliver more performance than using `mod_python`. A little less mature than `mod_python`.

[Apache](#) with [mod_python 3.1.3+](#) (see [TracModPython](#))

- When installing `mod_python` the development versions of Python and Apache are required (actually the libraries and header files)

For those stuck with Apache 1.3, it is also possible to get Trac working with [mod_python 2.7](#) (see [TracModPython2.7?](#)). This guide hasn't been updated since 0.84, so it may or may not work.

Other Python Utilities

- [docutils](#), version $\geq 0.3.9$ for [WikiRestructuredText](#).
[Pygments](#) for [syntax highlighting](#), also [SilverCity](#) and/or [Enscript](#) may still be used.
 - Note that SilverCity 0.9.6 has a [bug](#) that breaks Python syntax highlighting in Trac. Until an update is made available, we recommend using version 0.9.5.
- [pytz](#) to get a complete list of time zones, otherwise Trac will fall back on a shorter list from an internal time zone implementation.

Attention: The various available versions of these dependencies are not necessarily interchangeable, so please pay attention to the version numbers above. If you are having trouble getting Trac to work please double-check all the dependencies before asking for help on the MailingList or IrcChannel.

Please refer to the documentation of these packages to find out how they are best installed. In addition, most of the [platform-specific instructions?](#) also describe the installation of the dependencies. Keep in mind however that the information there *probably concern older versions of Trac than the one you're installing* (there are even some pages that are still talking about Trac 0.8!).

Installing Trac

One way to install Trac is using `setuptools`. With `setuptools` you can install Trac from the subversion repository; for example, to install release version 0.11b2 do:

```
easy_install http://svn.edgewall.org/repos/trac/tags/trac-0.11b2
```

But of course the python-typical setup at the top of the source directory also works:

```
$ python ./setup.py install
```

Note: you'll need root permissions or equivalent for this step.

This will byte-compile the python source code and install it as an `.egg` file or folder in the `site-packages` directory of your Python installation. The `.egg` will also contain all other resources needed by standard Trac, such as `htdocs` and `templates`.

The script will also install the [trac-admin](#) command-line tool, used to create and maintain [project environments](#), as well as the [tracd](#) standalone server.

Advanced Options

To install Trac to a custom location, or find out about other advanced installation options, run:

```
easy_install --help
```

Also see [Installing Python Modules](#) for detailed information.

Specifically, you might be interested in:

```
easy_install --prefix=/path/to/installdir
```

or, if installing Trac to a Mac OS X system:

```
easy_install --prefix=/usr/local --install-dir=/Library/Python/2.5/site-packages
```

The above will place your `tracd` and `trac-admin` commands into `/usr/local/bin` and will install the Trac libraries and dependencies into `/Library/Python/2.5/site-packages`, which is Apple's preferred location for third-party Python application installations.

Creating a Project Environment

A [Trac environment](#) is the backend storage where Trac stores information like wiki pages, tickets, reports, settings, etc. An environment is basically a directory that contains a human-readable configuration file and various other files and directories.

A new environment is created using [trac-admin](#):

```
$ trac-admin /path/to/myproject initenv
```

[trac-admin](#) will prompt you for the information it needs to create the environment, such as the name of the project, the type and the path to an existing [source code repository](#), the [database connection string](#), and so on. If you're not sure what to specify for one of these options, just leave it blank to use the default value. The database connection string in particular will always work as long as you have SQLite installed. Leaving the path to the source code repository empty will disable any functionality related to version control, but you can always add that back when the basic system is running.

Also note that the values you specify here can be changed later by directly editing the [Trac.ini](#) configuration file.

Note: The user account under which the web server runs will require write permissions to the environment directory and all the files inside. On Linux, with the web server running as user `apache` and group `apache`, enter:

```
chown -R apache.apache /path/to/myproject
```

Running the Standalone Server

After having created a Trac environment, you can easily try the web interface by running the standalone server [tracd](#):

```
$ tracd --port 8000 /path/to/myproject
```

Then, fire up a browser and visit `http://localhost:8000/`. You should get a simple listing of all environments that `tracd` knows about. Follow the link to the environment you just created, and you should see Trac in action. If you only plan on managing a single project with trac you can have the standalone server skip the environment list by starting it like this:

```
$ tracd -s --port 8000 /path/to/myproject
```

Running Trac on a Web Server

Trac provides three options for connecting to a "real" web server: [CGI](#), [FastCGI](#) and [mod_python](#). For decent performance, it is recommended that you use either FastCGI or `mod_python`.

If you're not afraid of running development code, you can also try running Trac on [mod_wsgi?](#). This should deliver even better performance than `mod_python`, but the module is not considered stable just yet.

Configuring Authentication

The process of adding, removing, and configuring user accounts for authentication depends on the specific way you run Trac. The basic procedure is described in the [Adding Authentication](#) section on the [TracCgi](#) page. To learn how to setup authentication for the frontend you're using, please refer to one of the following pages:

- [TracStandalone](#) if you use the standalone server, `tracd`.
- [TracCgi](#) if you use the CGI or FastCGI methods.
- [TracModPython](#) if you use the `mod_python` method.

Trac 0.11 & SVN on Mac OS X Leopard (10.5)

- [TracOnLeopardServer](#)

Using Trac

Once you have your Trac site up and running, you should be able to browse your subversion repository, create tickets, view the timeline, etc.

Keep in mind that anonymous (not logged in) users can by default access most but not all of the features. You will need to configure authentication and grant additional [permissions](#) to authenticated users to see the full set of features.

Enjoy!

[The Trac Team?](#)

See also: [TracGuide](#), [TracCgi](#), [TracFastCgi](#), [TracModPython](#), [TracModWSGI?](#), [TracUpgrade](#), [TracPermissions](#)