

# Obnam — a backup system

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## 1 Obnam — a backup system

Obnam2 is a project to develop a backup system.

For installation instructions and a quick start guide, see `tutorial.md`<sup>1</sup>. For more details on goals, requirements, and implementation details, see the `obnam.md`<sup>2</sup> subplot file.

## 2 Dependencies for build and test

The up-to-date, tested list of dependencies for building and testing Obnam are listed in the file `debian/control`<sup>3</sup>, in terms of Debian packages, and in `Cargo.toml`<sup>4</sup> for Rust. The Rust dependencies are handled automatically by the Cargo tool on all platforms. The other dependencies are, not including ones needed merely for building Debian packages:

- Rust<sup>5</sup> — the programming implementation. This can be installed via the standard Rust installer, `rustup`, or any other way. Obnam does not currently specify an explicit minimum version of Rust it requires, but its developers use whatever is the current stable version of the language.

On Debian, the `build-essential` package also needs to be installed to build Rust programs.

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<sup>1</sup><https://doc.obnam.org/tutorial.html>

<sup>2</sup><https://doc.obnam.org/obnam.html>

<sup>3</sup>`debian/control`

<sup>4</sup>`Cargo.toml`

<sup>5</sup><https://www.rust-lang.org/tools/install>

- `daemonize`<sup>6</sup> — a tool for running a command as a daemon in the background; needed for testing, so that the Obnam server can be started and stopped by the Obnam test suite.
- `SQLite`<sup>7</sup>, specifically its development library component — an SQL database engine that stores the whole database in a file and can be used as a library rather than run as a service.
- `OpenSSL`<sup>8</sup>, specifically its development library component known as `libssl-dev` — a library that implmets TLS, which Obnam uses for communication between its client and server parts.
- `moreutils`<sup>9</sup> — a collection of handy utilities, of which the Obnam test suite uses the `chronic` tool to hide output of successful commands. This is optional, but nice to have.
- `pkg-config`<sup>10</sup> — a tool for managing compile and link time flags; needed so that the OpenSSL library can be linked into the Obnam binaries.
- Python 3<sup>11</sup>, `Requests`<sup>12</sup>, `PYYAML`<sup>13</sup> — programming language and libraries for it, used by the Obnam test suite.
- `Subplot`<sup>14</sup> — a tool for documenting acceptance criteria and verifying that they are met.
- `TeX Live`<sup>15</sup> — a typesetting system for generating PDF versions of documentation. The LaTeX implementation and fonts are needed, not the full suite. None of Tex Live is needed, if PDFs aren't needed, but `./check` does not currently have a way to be told not to generate PDFs.
- `Summain`<sup>16</sup> — a tool for generating manifests of files. Used by the Obnam test suite to verify restored data matches the original data.

## 2.1 Legalese

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<sup>6</sup><http://software.clapper.org/daemonize/>

<sup>7</sup><https://sqlite.org>

<sup>8</sup><https://www.openssl.org>

<sup>9</sup><https://joeyh.name/code/moreutils/>

<sup>10</sup><http://pkg-config.freedesktop.org>

<sup>11</sup><https://www.python.org/>

<sup>12</sup><http://python-requests.org>

<sup>13</sup><https://github.com/yaml/pyyaml>

<sup>14</sup><https://subplot.liw.fi>

<sup>15</sup><http://www.tug.org/texlive/>

<sup>16</sup><https://summain.liw.fi>

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