

# Installation instructions for Vaucanson

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Installation instructions for [Vaucanson](#), a C++ generic library for weighted finite state machine. See also the file `README`.

## Contents

[Installation](#)

[Additional features](#)

[Tweaking compilation options](#)

[Requirements](#)

[Licence](#)

## Installation

To install Vaucanson on your system, type in the classical sequence at the command prompt:

```
./configure
make sanity-check
make check ([1])
make install (as root)
```

Note that an installation is specific to the compiler used to install it. Indeed, the call to `./configure` enables some workarounds and, consequently, users must compile with the same compiler to avoid compatibility problems.

[1]: Optional: check the whole library. Note that this process takes about 1.5 Go of free space (memory swap included) and several hours.

## Additional features

There is a Python interpreter in the package. It is disabled by default because its compilation takes several hours. If you have time to spare, use instead:

```
./configure --enable-vaucanswig
```

There is an XML I/O subsystem in the library. It is enabled by default, but requires a working installation of another software package called Xerces-C++. If you do not have this package, or if you do not want to use XML I/O in Vaucanson, you can use:

```
./configure --disable-xml
```

## Tweaking compilation options

Use `CXXFLAGS_DEBUG` or `CXXFLAGS_OPTIMIZE` to pass debug or optimization flags, not `CXXFLAGS`. For example:

```
./configure CXXFLAGS_DEBUG='-fstack-check -fbounds-check -ggdb'
```

This is because Vaucanson tries to use some particular default flags with some specific compilers such as GCC or ICC. Using `CXXFLAGS` conflicts with those specific flags; `CXXFLAGS_DEBUG` and `CXXFLAGS_OPTIMIZE` override these default flags.

## Requirements

Vaucanson was tested with the [GNU C++ Compiler \(GCC\)](#) version 3.[234], and should work with [ICC](#) 8.1. The code is written in respect to the ISO-IEC 14882 (ISO C++) standard to permit a higher portability in the future.

Moreover, high verbose mode of the testing suites uses the AT&T dot format to save automaton in a human readable file. Use [Graphviz](#) to visualize these .dot files.

If you want to use the XML I/O system, you will need the Apache [Xerces-C++](#) library version 2.3 or above.

## Licence

Vaucanson is released under the GNU General Public Licence. See the file `COPYING` for details.