# Vaucanson Frequently Asked Questions

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Here are answers to different questions you may have while compiling or using Vaucanson.

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## Compilation Problems

### I have a "NAN undeclared" error. What can I do?

Your C++ compiler does not support the C99 standard library. This is a known bug (`NAN` should not be used without checking for its existence before) and will be corrected. Meanwhile, use another compiler, such as the GNU Compiler Collection version 3.3 or above.

### I have a conflit declaration for `int getopt()`.

The flag `HAVE_DECL_GETOPT` must be set. Compile with `-DHAVE_DECL_GETOPT`. To use this flag with the script `configure`, call it with:

```
configure CPPFLAGS='-DHAVE_DECL_GETOPT'
```

## Usage issues

### How can I choose a specific graph implementation?

Use `configure`'s `--with-default-graph-impl` option to control the default graph implementation of the library. The default is `bmig` (a graph represented using Boost Multi Indexes), the other choice is `listg` (a graph represented using adjacency lists). For instance if you want to compile Vaucanson using `listg` by default, use:

```
./configure --with-default-graph-impl=listg
```

The Vaucanson libraries will be compiled with this default implementation, but if you do not use these libraries you can switch the default graph implementation at any time using the `VCSN_DEFAULT_GRAPH_IMPL` preprocessor macro, for instance:

```
make CPPFLAGS=-DVCSN_DEFAULT_GRAPH_IMPL=listg myprogram
```