

Q. Getting below (attached screen shot) error while running cocotb.

```
ccache g++ -I. -MMD -I/usr/local/share/verilator/include -I/usr/local/share/verilator/include/vltstd -DVM_COVERAGE=0 -DVM_SC=0 -DVM_TRACE=0 -DVM_TRACE_FST=0 -falign -Wno-sign-compare -Wno-uninitialized -Wno-unused-but-set-variable -Wno-unused-parameter -Wno-unused-variable -Wno-shadow -std=gnu++14 -Os -c -o verilator.o /n3.10/site-packages/cocotb/share/lib/verilator/verilator.cpp
ccache g++ -I. -MMD -I/usr/local/share/verilator/include -I/usr/local/share/verilator/include/vltstd -DVM_COVERAGE=0 -DVM_SC=0 -DVM_TRACE=0 -DVM_TRACE_FST=0 -falign -Wno-sign-compare -Wno-uninitialized -Wno-unused-but-set-variable -Wno-unused-parameter -Wno-unused-variable -Wno-shadow -std=gnu++14 -Os -c -o verilated.o /p
/usr/local/share/verilator/include/verilated.cpp: In function 'IData VL_FGETS_NI(std::string&, IData)':
/usr/local/share/verilator/include/verilated.cpp:1303:36: error: 'numeric_limits' is not a member of 'std'
1303 |     return getLine(dest, fpi, std::numeric_limits<size_t>::max());
      |                                ^
/usr/local/share/verilator/include/verilated.cpp:1303:57: error: expected primary-expression before '>' token
1303 |     return getLine(dest, fpi, std::numeric_limits<size_t>::max());
      |                                     ^
/usr/local/share/verilator/include/verilated.cpp:1303:60: error: 'std::max' has not been declared; did you mean 'std::max'?
1303 |     return getLine(dest, fpi, std::numeric_limits<size_t>::max());
      |                                     ^~~~~
      |                                     std::max
In file included from /usr/include/c++/11/algorithm:62,
                 from /usr/local/share/verilator/include/verilated_heavy.h:29,
                 from /usr/local/share/verilator/include/verilated_imp.h:29,
                 from /usr/local/share/verilator/include/verilated.cpp:25:
/usr/include/c++/11/bits/stl_algo.h:3467:5: note: 'std::max' declared here
3467 |     max(initializer_list<Tp> __l, _Compare __comp)
      |     ^~~~
make[2]: *** [/usr/local/share/verilator/include/verilated.mk:241: verilated.o] Error 1
```

Sol. When verilator v4.106 is installed in Ubuntu 22.04 LTS, above error occurs.

Steps to resolve this issue -

1. open read-only file with permission to edit

\$ sudo gedit /usr/local/share/verilator/include/verilated.cpp

2. Add **#include <cstdlib>** and **#include <limits>** (refer below screen shot) to the file

```
/*=====
//
// file
// \brief Verilator: Linked against all applications using Verilated source.
//
// This file must be compiled and linked against all objects
// created from Verilator.
//
// Code available from: https://verilator.org
//=====
#define _VERILATED_CPP_
#include "verilatedos.h"
#include "verilated_imp.h"
#include "verilated_config.h"
#include <algorithm>
#include <cctype>
#include <cerrno>
#include <sstream>
#include <sys/stat.h> // mkdir
#include <unistd.h>
#include <utility>
// clang-format off
#if defined(_WIN32) || defined(__MINGW32__)
# include <direct.h> // mkdir
#endif
// clang-format on
// Max static char array for VL_VALUE_STRING
constexpr unsigned VL_VALUE_STRING_MAX_WIDTH = 8192;
//=====
```

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#include <cctype>
#include <cerrno>
#include <cstdlib>
#include <sstream>
#include <sys/stat.h> // mkdir
#include <iist>
#include <limits>
#include <utility>
// clang-format off
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# include <direct.h> // mkdir
#endif
// clang-format on
// Max static char array for VL_VALUE_STRING
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```

3. save the file