

## Intel(R) C++ Compiler Help

=====

usage: icpc [options] file1 [file2 ...]

where options represents zero or more compiler options

fileN is a C/C++ source (.C .c .cc .cpp .cxx .c++ .i .ii),  
assembly (.s .S), object (.o), static library (.a), or other  
linkable file

Commonly used options may be placed in the icpc.cfg file.

### Compiler Option List

-----

#### Optimization

-----

- O1 optimize for maximum speed, but disable some optimizations which increase code size for a small speed benefit.
- O2 enable optimizations (DEFAULT)
- O3 enable -O2 plus more aggressive optimizations that may not improve performance for all programs
- O0 disable optimizations
- O same as -O2
- Os enable speed optimizations, but disable some optimizations which increase code size for small speed benefit
- fast enable -xT -O3 -ipo -no-prec-div -static  
Options set by -fast cannot be overridden, list options separately to change behavior
- falias assume aliasing in program (DEFAULT)
- fno-alias assume no aliasing in program
- ffnalias assume aliasing within functions (DEFAULT)
- fno-fnalias assume no aliasing within functions, but assume aliasing across calls
- inline-level=<n> control inline expansion:
  - n=0 disables inlining
  - n=1 inline functions declared with `__inline`, and perform C++ inlining
  - n=2 inline any function, at the compiler's discretion (same as -ip)
- f[no-]inline inline functions declared with `__inline`, and perform C++ inlining
- f[no-]inline-functions inline any function, at the compiler's discretion (same as -ip)
- finline-limit=<n>
  - set maximum number of statements a function can have and still be considered for inlining
- f[no-]builtin disable inline expansion of intrinsic functions
- fno-builtin-<func> disable the <func> intrinsic
- ffunction-sections separate functions for the linker (COMDAT)
- f[no-]exceptions enable(DEFAULT)/disable exception handling
- fdata-sections same as -ffunction-sections
- f[no-]omit-frame-pointer enable(DEFAULT)/disable use of EBP as general purpose register.

-fno-omit-frame-pointer replaces -fp  
-f[no-]keep-static-consts  
enable/disable(DEFAULT) emission of static const variables even  
when not referenced

#### Advanced Optimization

-----

-unroll[n] set maximum number of times to unroll loops. Omit n to use  
default heuristics. Use n=0 to disable loop unroller.  
-funroll-loops unroll loops based on default heuristics  
-nolib-inline disable inline expansion of intrinsic functions  
-[no-]alias-args enable(DEFAULT)/disable C/C++ rule that function  
arguments may be aliased; when disabling the rule, the  
user asserts that this is safe  
-[no-]alias-const enable/disable(DEFAULT) a heuristic stating that if two  
arguments to a function have pointer type, a pointer to  
const does not alias a pointer to non-const. Also known  
as the input/output buffer rule, it assumes that input  
and output buffer arguments do not overlap.  
-fargument-alias arguments may alias each other and may alias global  
storage. Replaces -alias-args  
-fargument-noalias arguments do not alias each other but may alias global  
storage. Replaces -no-alias-args  
-fargument-noalias-global  
arguments do not alias each other and do not alias  
global storage  
-[no-]scalar-rep enable(DEFAULT)/disable scalar replacement (requires  
-O3)  
-[no-]ansi-alias enable/disable(DEFAULT) use of ANSI aliasing rules in  
optimizations; user asserts that the program adheres to  
these rules  
-[no-]complex-limited-range  
enable/disable(DEFAULT) the use of the basic  
algebraic expansions of some complex arithmetic  
operations. This can allow for some performance  
improvement in programs which use a lot of complex  
arithmetic at the loss of some exponent range.  
-ftls-model=<model> change thread-local storage model, where <model> can  
be the following: global-dynamic, local-dynamic,  
initial-exec or local-exec

#### Code Generation

-----

-mcpu=<cpu> same as -mtune=<cpu>  
-mtune=<cpu> optimize for a specific cpu  
pentium3 - optimize for Pentium(R) III processors  
pentium4 - optimize for Pentium(R) 4 processor (DEFAULT)  
-march=<cpu> generate code exclusively for a given <cpu>  
pentium3 - streaming SIMD extensions  
pentium4 - Pentium(R) 4 New Instructions  
-msse generate code for Intel Pentium III and compatible Intel processors  
-msse2 generate code for Intel Pentium 4 and compatible Intel processors  
-msse3 generate code for Intel(R) Core(TM) Duo processors, Intel(R) Core(TM)  
Solo processors, Intel Pentium 4 and compatible Intel processors with  
Streaming SIMD Extensions 3 (SSE3) instruction support  
-ax<codes> generate code specialized for processors specified by <codes>  
while also generating generic IA-32 code. <codes> includes  
one or more of the following characters:

K Intel Pentium III and compatible Intel processors  
 W Intel Pentium 4 and compatible Intel processors  
 N Intel Pentium 4 and compatible Intel processors. Enables new optimizations in addition to Intel processor-specific optimizations  
 P Intel(R) Core(TM) Duo processors, Intel(R) Core(TM) Solo processors, Intel Pentium 4 and compatible Intel(R) processors with Streaming SIMD Extensions 3 (SSE3) instruction support  
 T Intel(R) Core(TM)2 Duo processors, Intel(R) Core(TM)2 Quad processors, and Intel(R) Xeon(R) processors with SSSE3  
 -x<codes> generate specialized code to run exclusively on processors indicated by <codes> as described below  
 K Intel Pentium III and compatible Intel processors  
 W Intel Pentium 4 and compatible Intel processors  
 N Intel Pentium 4 and compatible Intel processors. Enables new optimizations in addition to Intel processor-specific optimizations  
 P Intel(R) Core(TM) Duo processors, Intel(R) Core(TM) Solo processors, Intel Pentium 4 and compatible Intel(R) processors with Streaming SIMD Extensions 3 (SSE3) instruction support  
 T Intel(R) Core(TM)2 Duo processors, Intel(R) Core(TM)2 Quad processors, and Intel(R) Xeon(R) processors with SSSE3  
 O Intel(R) Core(TM)2 Duo processors. Code is expected to run properly on any processor that supports SSE3, SSE2 and SSE instruction sets

#### Language

-----

-[no-]restrict enable/disable the 'restrict' keyword for disambiguating pointers  
 -export enable the export template feature  
 -export-dir <dir> add directory to export template search path  
 -ansi equivalent to GNU -ansi  
 -strict-ansi strict ANSI conformance dialect  
 -std=c99 enable C99 support for C programs  
 -std=c++0x enable preliminary support for some C++0x features  
 -trigraphs support ISO C trigraphs; also enabled in ANSI and C99 modes  
 -Kc++ compile all source or unrecognized file types as C++ source files  
 -fno-rtti disable RTTI support  
 -x <type> all source files found subsequent to -x <type> will be recognized as one of the following types:  
     c - C source file  
     c++ - C++ source file  
     c-header - C header file  
     cpp-output - C pre-processed file  
     c++-cpp-output - C++ pre-processed file  
     assembler - assembly file  
     assembler-with-cpp - assembly file that needs to be preprocessed  
     none - disable recognition, and revert to file extension  
 -[no]align analyze and reorder memory layout for variables and arrays  
 -malign-double same as -align  
 -Zp[n] specify alignment constraint for structures (n=1,2,4,8,16)  
 -fshort-enums allocate as many bytes as needed for enumerated types  
 -fsyntax-only perform syntax and semantic checking only (no object file produced)  
 -funsigned-char change default char type to unsigned

-f[no-]unsigned-bitfields  
     change default bitfield type to unsigned  
 -fno-implicit-templates  
     never emit code for non-inline templates which are instantiated  
     implicitly; only emit code for explicit instantiations  
 -fno-implicit-inline-templates  
     do not emit code for implicit instantiations of inline templates  
 -ftemplate-depth-<n>  
     control the depth in which recursive templates are expanded  
 -fno-operator-names  
     disable support for operator name keywords  
 -fno-gnu-keywords  
     do not recognize 'typeof' as a keyword  
 -fpermissive  
     allow for non-conformant code  
 -f[no-]non-lvalue-assign  
     allow (DEFAULT) or disallow casts and conditional expressions to  
     be used as lvalues  
 -[no-]early-template-check  
     enable/disable (DEFAULT) semantic checking of function template  
     prototypes (before instantiation). Requires -gcc-version=340 or  
     later  
 -[no-]check-uninit  
     check for uninitialized variables

#### Compatibility

-----  
 -gcc-name=<name>  
     name and location of gcc if not where expected  
 -gcc-version=<version>  
     specify the <version> of gcc compatibility. Default value  
     matches gcc version installed. Major/Minor versions listed  
     but patch levels (i.e. 345) are permissible  
     320 - gcc 3.2.x compatibility  
     330 - gcc 3.3.x compatibility  
     340 - gcc 3.4.x compatibility  
     400 - gcc 4.0.x compatibility  
     410 - gcc 4.1.x compatibility  
     420 - gcc 4.2.x compatibility  
 -B<prefix> find libraries, headers and executables in <prefix>  
 -[no-]multibyte-chars  
     provide support for multi-byte characters  
 -fabi-version=<val>  
     directs the compiler to select a specific ABI implementation  
     0 - most recent ABI implementation  
     1 - g++ 3.2 compatible ABI implementation  
     2 - most conformant ABI implementation

#### Compiler Diagnostics

-----  
 -w disable all warnings  
 -w<n> control diagnostics:  
     n=0 display errors (same as -w)  
     n=1 display warnings and errors (DEFAULT)  
     n=2 display remarks, warnings, and errors  
 -wn<n> print a maximum of n errors  
 -wd<L1>[,<L2>,...] disable diagnostics L1 through LN  
 -we<L1>[,<L2>,...] change severity of diagnostics L1 through LN to error

-ww<L1>[,<L2>,...] change severity of diagnostics L1 through LN to warning  
 -wr<L1>[,<L2>,...] change severity of diagnostics L1 through LN to remark  
 -wo<L1>[,<L2>,...] issue diagnostics L1 through LN only once  
 -Werror force warnings to be reported as errors  
 -Wall enable all warnings  
 -Wbrief print brief one-line diagnostics  
 -Wcheck enable more strict diagnostics  
 -W[no-]format enable argument checking for calls to printf, scanf, etc  
 -W[no-]missing-declarations warn for global functions and variables without prior declaration  
 -W[no-]missing-prototypes warn for missing prototypes  
 -W[no-]strict-prototypes warn for functions declared or defined without specified argument types  
 -W[no-]pointer-arith warn for questionable pointer arithmetic  
 -W[no-]uninitialized warn if a variable is used before being initialized  
 -Winline enable inline diagnostics  
 -W[no-]deprecated print warnings related to deprecated features  
 -W[no-]abi warn if generated code is not C++ ABI compliant  
 -Wcontext-limit=<n> set maximum number of template instantiation contexts shown in diagnostic  
 -W[no-]unused-function warn if declared function is not used  
 -W[no-]unknown-pragmas warn if an unknown #pragma directive is used (DEFAULT)  
 -W[no-]main warn if return type of main is not expected  
 -W[no-]comment[s] warn when /\* appears in the middle of a /\* \*/ comment  
 -W[no-]return-type warn when a function uses the default int return type and warn when a return statement is used in a void function  
 -W[no-]extra-tokens warn about extra tokens after preprocessor directives  
 -W[no-]pragma-once warn about the use of #pragma once  
 -W[no-]shadow warn when a variable declaration hides a previous declaration  
 -W[no-]trigraphs warn about the recognition and conversion of trigraphs  
 -W[no-]multichar warn if a multicharacter constant ('ABC') is used  
 -Wp64 print diagnostics for 64-bit porting  
 -W[no-]shorten-64-to-32 warn for values implicitly converted from a 64-bit to a 32-bit type. Similar to -Wp64  
 -Weffc++ enable effective C++ diagnostic warnings  
 -[no]traceback specify whether the compiler generates data to allow for source file traceback information at runtime (only to be used when linking with Fortran programs)  
 -diag-enable <v1>[,<v2>,...] enable a specific diagnostic or a specified group of diagnostics  
 -diag-disable <v1>[,<v2>,...] disable a specific diagnostic or a specified group of diagnostics  
 -diag-error <v1>[,<v2>,...] make the specified diagnostic or group of diagnostics warnings when emitted  
 -diag-warning <v1>[,<v2>,...]

make the specified diagnostic or group of diagnostics remarks  
 when emitted  
 -diag-remark <v1>[,<v2>,...]
   
 make the specified diagnostic or group of diagnostics errors  
 when emitted  
 -diag-dump
   
 display the currently enabled diagnostic messages to stdout or to  
 a specified diagnostic output file. No compilation is performed  
 -diag-file[=<file>]
   
 <file> where diagnostics are emitted to. Not specifying this  
 causes messages to be output to stderr  
 -[no-]diag-id-numbers
   
 enable(DEFAULT)/disable the diagnostic specifiers to be output  
 in numeric form

## Inlining

-----  
 -inline-min-size=<n>
   
 set size limit for inlining small routines  
 -no-inline-min-size
   
 no size limit for inlining small routines  
 -inline-max-size=<n>
   
 set size limit for inlining large routines  
 -no-inline-max-size
   
 no size limit for inlining large routines  
 -inline-max-total-size=<n>
   
 maximum increase in size for inline function expansion  
 -no-inline-max-total-size
   
 no size limit for inline function expansion  
 -inline-max-per-routine=<n>
   
 maximum number of inline instances in any function  
 -no-inline-max-per-routine
   
 no maximum number of inline instances in any function  
 -inline-max-per-compile=<n>
   
 maximum number of inline instances in the current compilation  
 -no-inline-max-per-compile
   
 no maximum number of inline instances in the current compilation  
 -inline-factor=<n>
   
 set inlining upper limits by n percentage  
 -no-inline-factor
   
 do not set inlining upper limits  
 -inline-forceinline
   
 treat inline routines as forceinline

## Interprocedural Optimizations (IPO)

-----  
 -ip enable single-file IP optimizations (within files)  
 -ipo[n] enable multi-file IP optimizations (between files)  
 -ipo-c generate a multi-file object file (ipo\_out.o)  
 -ipo-S generate a multi-file assembly file (ipo\_out.s)  
 -ip-no-inlining disable full and partial inlining (requires -ip or -ipo)  
 -ip-no-pinlining disable partial inlining (requires -ip or -ipo)  
 -ipo-separate create one object file for every source file  
 (overrides -ipo[n])  
 -ipo-jobs<n> specify the number of jobs to be executed simultaneously  
 during the IPO link phase

## Profile Guided Optimization (PGO)

```

-----
-prof-dir <d>      specify directory for profiling output files (*.dyn and *.dpi)
-prof-file <f>    specify file name for profiling summary file
-prof-gen[x]      instrument program for profiling; with the x qualifier, extra
                  information is gathered
-prof-use         enable use of profiling information during optimization
-prof-gen-sampling
                  prepare code for use with profrun sample gathering tool
-[no-]func-groups
                  enable(DEFAULT with PGO)/disable function grouping
-p               compile and link for function profiling with UNIX gprof tool
-f[no-]instrument-functions
                  determine whether function entry and exit points are
                  instrumented

```

## Optimization Reports

```

-----
-vec-report[n]   control amount of vectorizer diagnostic information:
                  n=0 no diagnostic information
                  n=1 indicate vectorized loops (DEFAULT)
                  n=2 indicate vectorized/non-vectorized loops
                  n=3 indicate vectorized/non-vectorized loops and prohibiting
                      data dependence information
                  n=4 indicate non-vectorized loops
                  n=5 indicate non-vectorized loops and prohibiting data
                      dependence information

-opt-report [n]      generate an optimization report to stderr
                    0      disable optimization report output
                    1      minimum report output
                    2      medium output (DEFAULT when enabled)
                    3      maximum report output
-opt-report-file<file>
                    specify the filename for the generated report
-opt-report-level[level]
                    specify the level of report verbosity (min|med|max)
-opt-report-phase<name>
                    specify the phase that reports are generated against
-opt-report-routine<name>
                    reports on routines containing the given name
-opt-report-help     display the optimization phases available for
                    reporting

-tcheck [mode]      enable analysis of threaded applications (requires
                    Intel(R) Thread Checker; cannot be used with compiler
                    alone)
                    tci    instruments a program to perform thread-count-
                          independent analysis
                    tcd    instruments a program to perform thread-count-
                          dependent analysis (DEFAULT when mode is not used)
                    api    instruments a program at the api-imports level
-tprofile           generate instrumentation to analyze multi-threading
                    performance (requires Intel(R) Thread Profiler; cannot
                    be used with compiler alone)
-tcollect[=<lib>]   insert instrumentation probes calling the Intel(R)
                    Trace Collector API. The library -l<lib> is linked in
                    the default being -lVT (requires Intel(R) Trace
                    Collector)

```

## OpenMP and Parallel Processing

```

-----
-openmp            enable the compiler to generate multi-threaded code

```

based on the OpenMP directives

-openmp-profile enable analysis of OpenMP application when the Intel(R) Thread Profiler is installed

-openmp-stubs enables the user to compile OpenMP programs in sequential mode. The openmp directives are ignored and a stub OpenMP library is linked (sequential)

-openmp-report{0|1|2} control the OpenMP parallelizer diagnostic level

-parallel enable the auto-parallelizer to generate multi-threaded code for loops that can be safely executed in parallel

-par-report{0|1|2|3} control the auto-parallelizer diagnostic level

-par-threshold[n] set threshold for the auto-parallelization of loops where n is an integer from 0 to 100

-opt-streaming-stores <arg>  
 specifies whether streaming stores are generated  
 always - enables generation of streaming stores under the assumption that the application is memory bound  
 auto - compiler decides when streaming stores are used (DEFAULT)  
 never - disables generation of streaming stores

## Floating Point

-----

-fp-model <name> enable <name> floating point model variation  
 [no-]except - enable/disable floating point semantics  
 double - rounds intermediates in 53-bit (double) precision  
 extended - rounds intermediates in 64-bit (extended) precision  
 fast[=1|2] - enables more aggressive floating point optimizations  
 precise - allows value-safe optimizations  
 source - enables intermediates in source precision  
 strict - enables -fp-model precise -fp-model except, disables contractions and enables pragma stdc fenv\_access

-fp-speculation<mode>  
 enable floating point speculations with the following <mode> conditions:  
 fast - speculate floating point operations (DEFAULT)  
 safe - speculate only when safe  
 strict - same as off  
 off - disables speculation of floating-point operations

-mp maintain floating point precision (disables some optimizations)

-mp1 improve floating-point precision (speed impact is less than -mp)

-m[no-]ieee-fp  
 same as -mp

-[no-]prec-sqrt  
 determine if certain square root optimizations are enabled

-[no-]fp-port round fp results at assignments & casts (some speed impact)

-fp-stack-check enable fp stack checking after every function/procedure call

-pc32 set internal FPU precision to 24 bit significand

-pc64 set internal FPU precision to 53 bit significand

-pc80 set internal FPU precision to 64 bit significand (DEFAULT)

-rcd rounding mode to enable fast float-to-int conversions

-[no-]prec-div  
 improve precision of floating-point divides (some speed impact)

-ssp enable software-based speculative pre-computation

## Preprocessor

-----



-A<name>[(val)] create an assertion 'name' having value 'val'  
 -A- remove all predefined macros  
 -C don't strip comments  
 -D<name>[=<text>] define macro  
 -E preprocess to stdout  
 -EP preprocess to stdout omitting #line directives  
 -P preprocess to file omitting #line directives  
 -I<dir> add directory to include file search path  
 -idirafter<dir>  
     add directory to the second include file search path (after -I)  
 -isystem<dir>  
     add directory to the start of the system include path  
 -iprefix <prefix>  
     use <prefix> with -iwithprefix as a prefix  
 -iwithprefix <dir>  
     append <dir> to the prefix passed in by -iprefix and put it on  
     the include search path at the end of the include directories  
 -iwithprefixbefore <dir>  
     similar to -iwithprefix except the include directory is placed  
     in the same place as -I command line include directories  
 -iquote <dir>  
     add directory to the front of the include file search path for  
     files included with quotes, but not brackets  
 -U<name> remove predefined macro  
 -imacros <file>  
     treat <file> as an #include file, but throw away all preprocessing  
     while macros defined remain defined  
 -X remove standard directories from include file search path  
 -nostdinc same as -X  
 -nostdinc++  
     remove standard C++ directories from include file search path  
 -H print include file order  
 -M generate makefile dependency information  
 -MM similar to -M, but do not include system header files  
 -MG similar to -M, but treat missing header files as generated files  
 -MD preprocess and compile, generating output file containing  
     dependency information ending with extension .d  
 -MMD similar to -MD, but do not include system header files  
 -MF<file> generate makefile dependency information in file (must specify -M  
     or -MM)  
 -MP add a phony target for each dependency  
 -MT<target>  
     change the default target rule for dependency generation  
 -MQ<target>  
     same as -MT, but quotes special Make characters  
 -dM output macro definitions in effect after preprocessing (use with -E)  
 -dD same as -dM, but output #define directives in preprocessed source  
 -dN same as -dD, but #define directives contain only macro names  
 -gcc Predefine the \_\_GNUC\_\_, \_\_GNUC\_MINOR\_\_, and \_\_GNUC\_PATCHLEVEL\_\_  
     macros (DEFAULT).  
 -no-gcc Do not predefine GNUC macros listed in -gcc mode. Warning: can  
     prevent correct system header compilation, see -gcc-sys  
 -gcc-sys same as -no-gcc, except that the GNU macros are defined only  
     while preprocessing the system include headers  
 -no-icc do not predefine the \_\_ICC and \_\_INTEL\_COMPILER macros.  
     Warning: can prevent correct Intel header compilation  
 -pragma-optimization-level=[Intel|GCC]  
     process #pragma optimize using Intel (DEFAULT) or GCC syntax

## Output, Debug, PCH

-----

-c compile to object (.o) only, do not link  
-S compile to assembly (.s) only, do not link (\*I)  
-[no-]use-asm  
    produce objects through assembler  
-use-msasm Support Microsoft style assembly language insertion using MASM  
    style syntax  
-fcode-asm produce assembly file with optional code annotations (requires -S)  
-fsource-asm  
    produce assembly file with optional source annotations (requires -S)  
-f[no-]verbose-asm  
    produce assembly file with compiler comments (DEFAULT) (requires -S)  
-o<file> name output file  
-g produce symbolic debug information in object file (implies -O0 when  
    another optimization option is not explicitly set)  
-g0 disable generation of symbolic debug information  
-gdwarf-2 enable generation of debug information using the DWARF2 format  
-debug [keyword]  
    enable debug information and control output of enhanced  
    debug information.  
    keywords: all, full, minimal, none, [no]inline-debug-info,  
    [no]variable-locations, [no]semantic-stepping, extended,  
    [no]expr-source-pos  
-inline-debug-info preserve the source position of inlined code instead  
    of assigning the call-site source position to inlined code  
-ftrapuv trap uninitialized variables  
-pch enable automatic precompiled header file creation/usage  
-pch-create <file> create precompiled header file  
-pch-use <file> use precompiled header file  
-pch-dir <dir> name precompiled header directory  
-map-opts enable option mapping tool  
-print-multi-lib  
    print information about libraries being used

## Data

----

-f[no-]pic, -f[no-]PIC  
    required to build fully preemptable and position independent code  
    for shared objects (OFF by default)  
-fvisibility=[extern|default|protected|hidden|internal]  
    Global symbols (data and functions) will get the visibility  
    attribute given by default. Symbol visibility attributes  
    explicitly set in the source code or using the symbol visibility  
    attribute file options will override the -fvisibility setting  
-fvisibility-extern=<file>  
    Space separated symbols listed in the <file> argument will get  
    visibility set to extern  
-fvisibility-default=<file>  
    Space separated symbols listed in the <file> argument will get  
    visibility set to default  
-fvisibility-protected=<file>  
    Space separated symbols listed in the <file> argument will get  
    visibility set to protected  
-fvisibility-hidden=<file>  
    Space separated symbols listed in the <file> argument will get  
    visibility set to hidden

-fvisibility-internal=<file>  
     Space separated symbols listed in the <file> argument will get  
     visibility set to internal  
 -fvisibility-inlines-hidden  
     mark inline member functions as hidden  
 -fminshared    Compilation is for the main executable. Absolute addressing can  
     be used and non-position independent code generated for symbols  
     that are at least protected  
 -f[no-]common Enables the compiler to treat common variables as if they were  
     defined. That in turn allows the use of gprel addressing of  
     common data variables  
 -fpack-struct pack structure members together  
 -freg-struct-return  
     return struct and union values in registers when possible  
 -f[no-]math-errno  
     set ERRNO after calling standard math library functions  
 -fstack-security-check  
     enable overflow security checks  
 -long-double   enable 80-bit 'long double'  
 -no-bss-init   disable placement of zero-initialized variables in BSS (use DATA)  
 -[no-]global-hoist  
     enable(DEFAULT)/disable external globals are load safe

#### Miscellaneous

-----  
 -V            display compiler version information  
 --version     display GCC style version information  
 -dumpversion display the compiler version number only  
 -dryrun       show driver tool commands but do not execute tools  
 -v [file]     show driver tool commands and execute tools  
 -[no-]sox     enable/disable(DEFAULT) saving of compiler options and version  
               in the executable  
 -save-temps   Store the intermediate files in current directory and name  
               them based on the source file.  
 -f[no-]keep-static-consts  
               enable/disable(DEFAULT) emission of static const variables even  
               when not referenced

#### Component Control

-----  
 -Qoption,<str>,<opts>   pass options <opts> to tool specified by <str>  
 -Qlocation,<str>,<dir>   set <dir> as the location of tool specified by <str>  
 -Qinstall <dir>        set <dir> as root of compiler installation

#### Linking/Linker

-----  
 -L<dir>        instruct linker to search <dir> for libraries  
 -l<string>     instruct the linker to link in the -l<string> library  
 -shared-intel link Intel provided libraries dynamically  
 -static-intel link Intel provided libraries statically  
 -shared-libgcc link libgcc dynamically  
 -static-libgcc link libgcc statically  
 -dynamic-linker<file>  
               select dynamic linker other than the default  
 -[no-]cxxlib   do not link in C++ runtime libraries  
 -cxxlib[=dir] link using C++ run-time libraries provided with gcc  
               dir is an optional top-level location for the gcc  
               binaries and libraries

-nodefaultlibs do not use standard libraries when linking  
 -nostartfiles do not use standard startup files when linking  
 -nostdlib do not use standard libraries and startup files when linking  
 -static prevents linking with shared libraries  
 -shared produce a shared object  
 -Bstatic specify following libraries are linked statically  
 -Bdynamic specify following libraries are linked dynamically  
 -static-libcxa link Intel libcxa C++ library statically  
 -shared-libcxa link Intel libcxa C++ library dynamically, overrides the default behavior when -static is used  
 -pthread use pthreads library for multithreading support  
 -cxxlib-<mode> tell the compiler which C++ run-time libraries to use  
     nostd - do not link in standard C++ library  
 -u <symbol> pretend the <symbol> is undefined  
 -T <file> direct linker to read link commands from <file>  
 -Xlinker <val> pass <val> directly to the linker for processing  
 -Wa,<o1>[,<o2>,...] pass options o1, o2, etc. to the assembler  
 -Wl,<o1>[,<o2>,...] pass options o1, o2, etc. to the linker for processing  
 -Wp,<o1>[,<o2>,...] pass options o1, o2, etc. to the preprocessor  
  
 -help [category] print full or category help message  
 Valid categories include  
     advanced - Advanced Optimization  
     codegen - Code Generation  
     compatibility - Compatibility  
     component - Component Control  
     data - Data  
     deprecated - Deprecated Options  
     diagnostics - Compiler Diagnostics  
     float - Floating Point  
     help - Help  
     inline - Inlining  
     ipo - Interprocedural Optimizations (IPO)  
     language - Language  
     link - Linking/Linker  
     misc - Miscellaneous  
     openmp - OpenMP and Parallel Processing  
     opt - Optimization  
     output - Output  
     pgo - Profile Guided Optimization (PGO)  
     preproc - Preprocessor  
     reports - Optimization Reports

Copyright (C) 1985-2007, Intel Corporation. All rights reserved.

\* Other brands and names are the property of their respective owners.