Comparison of cc Options A

The following table shows a comparison between `cc` options supported in Sun C (bundled compiler) in SunOS 4.1.x, in Sun ANSI C (SC 2.0.1) on SunOS 4.x, and in ANSI C (SC 2.0.1) on SunOS 5.x.

Please note the following:

- A *yes* in any column indicates that the option is supported by that compiler.
- A *no* is shown in the column if the option is not supported by that compiler.
- If the option has changed, the new functionality is listed.
- A + in the ANSI C SunOS 5.x column indicates an option required by SVID specifications.

Note – SC 2.0.1 runs on SunOS 5.x and on SunOS 4.x. SC refers to a SPARCompiler.

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Table A-1 Comparison of cc Options (Sheet 1 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-#`	`-v`	`-v`	yes	Verbose mode
`-###`	`-dryrun`	`-dryrun`	yes	Show compiler steps but don't execute
`-A`	no	yes	yes	Preprocessor predicate assertion
`-a`	yes	yes	`-xa`	Count # basic block executions
`-align` *x*	yes	yes	no	Page align and pad symbol *x* (for `ld`)
`-assert` *x*	yes	yes	no	Specify link time assertion
`-B`*binding_option*	yes	yes	yes	Specify binding type (dynamic, static)
`-bsdmalloc`	no	yes	no	Bundled options to use BSD `malloc()`
`-C`	yes	yes	+yes	Preserve comments from preprocessor
`-c`	yes	yes	+yes	Produce `.o` file
`-cb`	yes	no	no	Collect information for code browser
`-cg87`	no	yes	no	Sets `fp` option to `-cg87`
`-cg89`	yes	yes	no	Sets `fp` option to `-cg89` (default)
`-cg92`	no	yes	`-xcg92`	Floating point library
`-D`*symbol*`[=`*def*`]`	yes	yes	yes	Define *symbol* to *def*
`-d[y|n]`	`-B`*x*	`-B`*x*	yes	Dynamic linking[yes|no]
`-dalign`	yes	yes	yes	Assume doubles are doubleword aligned
`-dryrun`	yes	yes	`-###`	Show commands constructed by driver
`-E`	yes	yes	+yes	Run source through preprocessor
`-F`*option*	no	no	yes	Reserved for floating point
`-f`*option*	yes	no	no	Floating-point generation code
`-fast`	yes	yes	yes	Options for best performance

Table A-1 Comparison of cc Options (Sheet 2 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-flags`	`-help`	`-help`	yes	Print available options
`-fnonstd`	no	yes	yes	Non-standard float option
`-fsingle`	yes	yes	yes	Floats are single precision
`-fsingle2`	yes	no	no	Pass float as float not double
`-fstore`	yes	no	no	Force writes on store
`-G`	no	no	yes	`-dy`, but no `crt1.o` is linked
`-g`	yes	yes	+yes	Generate info for `dbx`
`-go`	yes	no	no	Generate info for `adb`
`-H`	yes	yes	yes	Print paths of included files
`-h`	no	no	yes	Name a shared dynamic library
`-help`	yes	yes	`-flags`	Lists options
`-I`*x*	yes	yes	+yes	Add *x* to include path
`-i`	no	no	yes	Ignore `LD_LIBRARY_PATH` setting
`-J`	yes	no	no	Generate 32-bit offsets in switch statement labels (only on Sun-2 and Sun-3 systems)
`-KPIC`	`-PIC`	`-PIC`	yes	Position independent code with long offset
`-Kpic`	`-pic`	`-pic`	yes	`PIC` with short offsets
`-keeptmp`	no	yes	yes	Retain temporary files
`-L`*x*	yes	yes	yes	Add *x* to `ld` library path
`-l`*x*	yes	yes	yes	Read object library (for `ld`)
`-libmieee`	no	yes	`-xlibmiee`	Force IEEE 754 style return values for math routines
`-libmil`	yes	yes	`-xlibmil`	Pass `libm.il` as part of `-fast`
`-M`	yes	yes	`-xM`	Collect dependencies (calls preprocessor)
`-misalign`	yes	yes	yes	Handle misaligned Sun-4 data

Table A-1 Comparison of cc Options (Sheet 3 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-native`	yes	yes	no	Use appropriate fp math library
`-noc2`	yes	yes	no	Don't do peephole optimization, even if `-O` is used
`-nolib`	no	yes	`-xnolib`	Suppress all automatic library linking
`-nolibmil`	yes	yes	`-xnolib-mil`	Don't pass `libm.il` with `-fast`
`-noqueue`	no	yes	yes	Don't queue license requests
`-O`	yes	yes	+yes	Generate optimized code
`-O[1,2,3,4]`	yes	yes	`-xO[1,2,3,4]`	Generate optimized code (level 1, 2, 3, 4)
`-o` *file*	yes	yes	+yes	Set name of output file
`-P`	yes	yes	+yes	Run source through preprocessor, output to `.i`
`-PIC`	yes	yes	`-KPIC`	Generate `pic` code with long offset
`-p`	yes	yes	+yes	Collect data for `prof`
`-pg`	yes	yes	`-xpg`	Collect data for `gprof`
`-pic`	yes	yes	`-Kpic`	`pic` code with short offset
`-pipe`	yes	no	no	Use pipes instead of temp files
`-purecross`	yes	no	no	Pure cross-compilation; use no files from `/`
`-Q[y|n]`	no	no	yes	Add/ don't add version stamp info
`-Qdir` *x*	yes	yes	`-Yc`, *dir*	Look for compiler passes in *x*
`-Qoption acomp` *x*	yes	yes	use `-W` option	Pass option *x* on to program `acomp`
`-Qoption as` *x*	yes	yes	use `-W` option	Pass option *x* on to program `as`
`-Qoption asS` *x*	yes	no	no	Pass option *x* on to program `asS`
`-Qoption c2` *x*	yes	no	no	Pass option *x* on to program `c2`

Table A-1 Comparison of cc Options (Sheet 4 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-Qoption ccom` *x*	yes	no	use `-W`*x* `acomp`	Pass option *x* on to program `ccom`
`-Qoption cg` *x*	yes	yes	use `-W` option	Pass option *x* on to program `cg`
`-Qoption cpp` *x*	yes	yes	use `-W` option	Pass option *x* on to program `cpp`
`-Qoption iropt` *x*	yes	yes	use `-W` option	Pass option *x* on to program `iropt`
`-Qoption ld` *x*	yes	yes	use `-W` option	Pass option *x* on to program `ld`
`-Qpath` *x*	yes	yes	`-Y`*c*, *dir*	Same as `Qdir`
`-Qproduce .c`	yes	yes	no	Produce type `.c` file (C source)
`-Qproduce .i`	yes	yes	no	Produce `.i` file (source after preprocessor)
`-Qproduce .o`	yes	yes	no	Produce type `.o` file (Object file)
`-Qproduce .s`	yes	yes	no	Produce type `.s` file (Assembler source)
`-qdir` *x*	yes	yes	`-Y`*c*, *dir*	Look for compiler passes in *x*
`-ql`	no	no	+yes	Collect data for `lprof`
`-qoption acomp` *x*	yes	yes	use `-W` option	Pass option *x* on to program `acomp`
`-qoption as` *x*	yes	yes	use `-W` option	Pass option *x* on to program `as`
`-qoption cg` *x*	yes	yes	use `-W` option	Pass option *x* on to program `cg`
`-qoption cpp` *x*	yes	yes	use `-W` option	Pass option *x* on to program preprocessor
`-qoption inline` *x*	yes	yes	use `-W` option	Pass option *x* on to program `inline`
`-qoption iropt` *x*	yes	yes	use `-W` option	Pass option *x* on to program `iropt`

Table A-1 Comparison of cc Options (Sheet 5 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-qoption ld` *x*	yes	yes	use `-W` option	Pass option *x* on to program `ld`
`-qp`	`-p`	`-p`	+yes	Collect data for `prof`
`-qpath` *x*	yes	yes	`-Yc`, *dir*	Same as `Qdir`
`-qproduce .o`	yes	yes	no	Produce type `.o` file (Object file)
`-qproduce .s`	yes	yes	no	Produce type `.s` file (Assembler source)
`-qproduce .c`	yes	yes	no	Produce type `.c` file (C source)
`-qproduce .i`	yes	yes	no	Produce `.i` file (source after preprocessor)
`-R`	yes	yes	`-xMerge`	Merge data into text segment
`-R`*dir*`[:`*dir*`]`	no	no	yes	Specify library search directories to dynamic linker `(ld)`
`-S`	yes	yes	+yes	Product `.s` file only
`-s`	yes	yes	yes	strip (4.1); pass to `ld` (5.x)
`-sb`	yes	yes	`-xsb`	Collect info for code browser
`-sbfast`	no	yes	-xsbfast	Collect info for code browser, no compile
`-strconst`	no	yes	`-xstr-const`	Insert string literals in text segment
`-sun2`	yes	no	no	Generate code for a Sun-2 system
`-sun3`	yes	no	no	Generate code for a Sun-3 system
`-sun3x`	yes	no	no	Generate code for a Sun-3x system
`-sun386`	yes	no	no	Generate code for a Sun-386 system
`-sun4`	yes	yes	no	Generate code for a Sun-4 system
`-sun4c`	yes	no	no	Generate code for a Sun-4c system
`-sys5`	no	yes	no	Set driver to sys5 version
`-target` *arch*	yes	yes	no	Set target architecture to arch
`-temp=dir`	yes	yes	no[1]	Set directory for temps to `<dir>`

[1]Replaced by the environment variable `TMPDIR`.

Table A-1 Comparison of cc Options (Sheet 6 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-time`	yes	yes	no	Report the execution times
`-U`*x*	yes	yes	+yes	Undefine preprocessor symbol *x*
`-unroll=`*x*	no	yes	`-xunroll`	Set loop unrolling to *x*
`-V`	yes	yes	+yes	Report versions of programs
`-v`	yes	yes	`-#`	Verbose mode
`-vc`	no	yes	`-v`	Stricter semantic checking
`-W`	no	no	+yes	Arguments to other components
`-w`	yes	yes	yes	Do not print warnings
`-X[s]`	no	yes	yes	Sun C compatibility option
`-X[t,a,c]`	no	yes	yes	Compatibility options
`-xa`	`-a`	`-a`	yes	Collect data for `tcov`
`-xcg89`	no	`-cg89`	yes	Floatingpoint library (default)
`-xcg92`	no	`-cg92`	yes	Floatingpoint library
`-xF`	no	no	yes	Produce reorder-able code
`-xinline =`x_1{`,...,`x_n}	`-Qoption inline` *x*	`-inline=`*x*	yes	Suggestion to optimizer to inline x_1,...x_n
`-xlibmieee`	no	`-libmieee`	yes	Force IEEE 754 style return values for math routines in exceptional cases
`-xlibmil`	`-libmil`	`-libmil`	yes	Use inline templates (used with `-fast`)
`-xlicinfo`	no	yes	yes	Return license status information
`-xM`	`-M`	`-M`	yes	Collect makefile dependencies
`-xMerge`	`-R`	`-R`	yes	Merge data segment into text segment
`-xnolib`	no	`-nolib`	yes	Don't add any default libraries at link time
`-xnolibmil`	`-nolibmil`	`-nolibmil`	yes	Don't use inline templates
`-xO[1,2,3,4]`	`-O[1-4]`	`-O[1-4]`	yes	Generate optimized code

Table A-1 Comparison of cc Options (Sheet 7 of 7)

Option or Flag	Sun C (SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 4.x)	ANSI C (SC 2.0.1, SunOS 5.x)	Description
`-xpg`	`-pg`	`-pg`	yes	Collect data from `gprof`
`-xs`	no	no	yes	Put all stabs in `.stabs` section
`-xsb`	`-sb`	`-sb`	yes	Collect SourceBrowser info
`-xsbfast`	no	`-sbfast`	yes	Same as `-xsb` but no compilation
`-xstrconst`	no	`-strconst`	yes	Place string literals in read-only data segment
`-xunroll=`*x*	no	`-unroll=`*x*	yes	Set loop unrolling to *x*
`-Y`*c*, *dir*	no	no	+yes	Change pathname to components
`-YI`, *dir*	no	no	yes	Change search directory for `include` files
`-YP`, *dir*	no	no	yes	Change default directory for library files
`-YS`, *dir*	no	no	yes	Change default directory for start up files
`-yX`	`no`	yes	no	Trace symbol

Table A-2 File Suffixes

Suffix `.a`	Object library
Suffix `.il`	Inline expansion file
Suffix `.o`	Object file
Suffix `.so`	Shared object
Suffix `.s`	Assembler source
Suffix `.S`	Assembler source for preprocessor
Suffix `.c`	C source
Suffix `.i`	C source after preprocessor