



Document information

[XL C/C++ for AIX](#)

Documentation

Software version:
12.1

Operating system(s):
AIX

Reference #:
7022984

Modified date:
2012-05-08

Product documentation

Abstract

XL C and XL C/C++ provides the gxc and gxc++ utilities to map many GCC compiler options to their XL C and XL C/C++ counterparts. Mappings currently recognized by XL C and XL C/C++ are listed in this document.

Content

The **gxc** and **gxc++** utilities accept GNU C or C++ compiler options and translate them into comparable XL C or XL C/C++ options. Both utilities use the resulting XL C or XL C/C++ options to create an **xc** or **xc++** invocation command, which they then use to invoke the compiler.

These utilities are provided to help you reuse make files created for applications previously developed with GNU C/C++. However, to fully exploit the capabilities of the compiler, we recommend that you use the standard XL C or XL C/C++ invocation commands and their associated options.

The actions of **gxc** and **gxc++** are controlled by the gxc.cfg configuration file. The GNU C/C++ options that have an XL C or XL C++ counterpart are shown in this file. Not every GNU option has a corresponding XL C or XL C/C++ option, and **gxc** and **gxc++** will return warnings for input options that were not translated. You can modify the contents of the gxc.cfg configuration file to meet your specific compilation requirements.














The **gxc** and **gxc++** utilities will accept the following GNU C/C++ options and translate them to their corresponding XL C or XL C/C++ compiler options.


GCC option	Mapping to xc or xc++ option
-###	-#

<p>C</p> <p>-ansi</p>	<p>-qlanglvl=extc89</p> <p>-qnokeyword=inline</p> <p>-qnokeyword=typeof</p> <p>-qnokeyword=asm</p> <p>-qnocplusmt</p> <p>-D __STRICT_ANSI__</p>
<p>C++</p> <p>-ansi</p>	<p>-qlanglvl=strict98</p>
-B	-B
-C	-C
-c	-c
-Dmacro[= <i>defn</i>]	-Dmacro[= <i>defn</i>]
-dM	-qshowmacros
-E	-E
-e	-e
-fdollars-in-identifiers	-qdollar
<p>C++</p> <p>-fexceptions</p>	<p>-qeh</p>
-ffast-math	<p>-qignerrno</p> <p>-qnostrict</p> <p>-D __FAST_MATH__</p>
-ffixed- <i>reg</i>	-qreserved_reg= <i>registry_list</i>
<p>C++</p> <p>-ffor-scope</p>	<p>-qlanglvl=ansifor</p>
<p>C++</p> <p>-fno-for-scope</p>	<p>-qlanglvl=noansifor</p>
-ffunction-sections	-qfuncsect
<p>C++</p> <p>-fno-implicit-inline-templates</p>	<p>-qtmplinst=noinlines</p>
<p>C++</p> <p>-fno-implicit-templates</p>	<p>-qtmplinst=none</p>
-finline-functions	-qinline
-fkeep-inline-functions	-qkeepinlines
-finline	-qinline
<p>C++</p> <p>-fno-gnu-keywords</p>	<p>-qnokeyword=typeof</p>
<p>C++</p> <p>-fno-operator-names</p>	<p>-qnokeyword=and</p> <p>-qnokeyword=bitand</p> <p>-qnokeyword=bitor</p> <p>-qnokeyword=compl</p> <p>-qnokeyword=not</p> <p>-qnokeyword=or</p> <p>-qnokeyword=xor</p>
-fpascal-strings	-qmacpstr
-fPIC	-qpik=large
-fpic	-qpik=small

C++	-qrtti
-frtti	
-fshort-enums	-qenum=small
-fsigned-bitfields	-qbitfields=signed
-fsigned-char	-qchars=signed
-fstack-protector	-qstackprotect
-fstack-protector-all	-qstackprotect=all
-fstrict-aliasing	-qalias=ansi
-fno-strict-aliasing	-qalias=noansi
-fsyntax-only	-qsyntaxonly
C++	-qtemplatedepth= <i>N</i>
-ftls-model= <i>model</i>	-qtls= <i>model</i>
-funroll-all-loops	-qunroll=yes
-funroll-loops	-qunroll=yes
-funsigned-bitfields	-qbitfields=unsigned
-funsigned-char	-qchars=unsigned
C++	-qweaksymbol
-fweak	
-fwritable-strings	-qnoro
-g	-g
-g3	-g
-ggdb	-g
-gdwarf	-g -qdbgfmt=dwarf
-I <i>dir</i>	-I <i>dir</i>
-include <i>file</i>	-qinclude= <i>file</i>
-L <i>dir</i>	-L <i>dir</i>
-lgcc	-lgcc
-l <i>library</i>	-l <i>library</i>
-M	-qmakedep=gcc
-MD	-qmakedep=gcc
-MF *	-MF *
-maix32	-q32
-maix64	-q64
-maltivec	-qaltivec
-mcpu=403	-qarch=403
-mcpu=601	-qarch=601
-mcpu=602	-qarch=602
-mcpu=603	-qarch=603
-mcpu=604	-qarch=604
-mcpu=970	-qarch=ppc970
-mcpu=common	-qarch=com
-mcpu=power	-qarch=pwr

-mcpu=power2	-qarch=pwr2
-mcpu=power3	-qarch=pwr3
-mcpu=power4	-qarch=pwr4
-mcpu=power5	-qarch=pwr5
-mcpu=power6	-qarch=pwr6
-mcpu=power6x	-qarch=pwr6e
-mcpu=power7	-qarch=pwr7
-mcpu=powerpc	-qarch=ppc
-mcpu=powerpc64	-qarch=ppc64
-mcpu=rs64a	-qarch=rs64a
-mno-fused-madd	-qfloat=nomaf
-mfused-madd	-qfloat=maf
-mlong-double-64	-qnoldbl128
-mlong-double-128	-qldbl128
-mminimal-toc	-qminimaltoc
-mpower	-qarch=pwr
-mpower2	-qarch=pwr2
-mpowerpc	-qarch=ppc
-mpowerpc-gfxopt	-qarch=pwrgr
-mpowerpc64	-qarch=ppc64
-mtune=common	-qtune=com
-mtune=power	-qtune=pwr
-mtune=power2	-qtune=pwr2
-mtune=power3	-qtune=pwr3
-mtune=power4	-qtune=pwr4
-mtune=power5	-qtune=pwr5
-mtune=power6	-qtune=pwr6
-mtune=power6x	-qtune=pwr6e
-mtune=power7	-qtune=pwr7
-mtune=powerpc	-qtune=ppc
-mtune=powerpc64	-qtune=ppc64
-mtune=rs64a	-qtune=rs64a
-nodefaultlibs	-qnolib
-nostartfiles	-qno crt
-nostdinc	-qnostdinc
-nostdlib	-qnolib -qno crt
-O	-O
-O0	-qnoopt
-O1	-O
-O2	-O2
-O3	-O3

-Os	-O2 -qcompact
-o	-o
-P	-qnopline
-p	-p
-pg	-pg
--param ssp-buffer-size=N	-qstackprotect=size=N
-r	-r
-S	-S
-s	-s
-shared	-qmkshrobj
 -std=c89	-F:c89
 -std=iso9899:1990	-F:c89
 -std=iso9899:199409	-F:c89
 -std=c99	-F:c99
 -std=c9x	-F:c99
 -std=iso9899:1999	-F:c99
 -std=iso9899:199x	-F:c99
 -std=gnu89	-qlanglvl=extc89
 -std=gnu99	-qlanglvl=extc99
 -std=gnu9x	-qlanglvl=extc99
 -std=gnu1x	-qlanglvl=extc1x
 -std=c++98	-qlanglvl=strict98
 -std=gnu++98	-qlanglvl=extended:referencecollapsing
-time	-qphsinfo
-trigraphs	-qtrigraph
-U <i>macro</i>	-U <i>macro</i>
-u	-u
--version	-qversion
-Wformat	-qformat
-Wformat=2	-qformat=ALL:nonlt
-Wformat-extra-args	-qformat=exargs

-Wno-format-extra-args	-qformat=noexargs
-Wformat-nonliteral	-qformat=nlt
-Wno-format-nonliteral	-qformat=nonlt
-Wformat-security	-qformat=sec
-Wno-format-security	-qformat=nosec
-Wformat-y2k	-qformat=y2k
-Wno-format-y2k	-qformat=noy2k
-Wstack-protector	-qinfo=stp
-Wuninitialized	-qinfo=ini
-Wno-uninitialized	-qinfo=noini
-Wunreachable-code	-qinfo=eff
-Wno-unreachable-code	-qinfo=noeff
-Wunused-parameter	-qinfo=par
-Wno-unused-parameter	-qinfo=nopar
-Wunused-variable	-qinfo=use
-Wno-unused-variable	-qinfo=nouse
-Wstack-protector	-qinfo=stp
-Wno-stack-protector	-qinfo=nostp
-Wfatal-errors	-qmaxerr=1:e
 -Wno-reorder	-qsuppress=1540-5319
-Wno-div-by-zero	-qsuppress=1506-232:1540-1800
-Wendif-labels	-qlanglvl=notextafterendif
-Wno-endif-labels	-qlanglvl=textafterendif
-Wa, <i>option</i>	-Wa, <i>option</i>
-Wl, <i>option</i>	-Wl, <i>option</i>
-Wp,-MD,*	-Wp,-qmakedep=gcc,-MF*
-Wp, <i>option</i>	-Wp, <i>option</i>
-w	-w
-Xassembler <i>option</i>	-Wa, <i>option</i>
-Xlinker <i>option</i>	-Wl, <i>option</i>
-x assembler	-qsourcetype=assembler
-x assembler-with-cpp	-qsourcetype=assembler-with-cpp
-x c	-qsourcetype=c
-x c++	-qsourcetype=c++
-x none	-qsourcetype=default
-xassembler	-qsourcetype=assembler
-xassembler-with-cpp	-qsourcetype=assembler-with-cpp
-xc	-qsourcetype=c
-xc++	-qsourcetype=c++
-xnone	-qsourcetype=default
-Z	-Z

▶ C++ Starting from XL C/C++ V12.1 for AIX, **gxlc** passes the -
qlanglvl=referencecollapsing option to **xlc** by default for additional C++
compatibility.

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