



Linaro GCC

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Error: lo register required

Linaro GCC » Bugs » **Bug #735951**Reported by [Barry Song](#) on 2011-03-16

This bug report was converted into a question: question #149381: [Error: lo register required](#).

This bug affects 1 person

[6](#)

Affects	Status	Importance	Assigned to	Milestone
Linaro GCC	Invalid	Undecided	Unassigned	

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Bug Description

I am using the following linaro GCC:

```
arm-linux-gnueabi-gcc-4.4 -v
Using built-in specs.
Target: arm-linux-gnueabi
Configured with: ../src/configure -v --with-pkgversion='Ubuntu/Linaro 4.4.4-14ubuntu4' --with-bugurl=file:///usr/share/doc/gcc-4.4/README.Bugs --enable-languages=c,c++,fortran,objc,obj-c++ --prefix=/usr --program-suffix=-4.4 --enable-shared --enable-multiarch --enable-linker-build-id --with-system-zlib --libexecdir=/usr/lib --without-included-gettext --enable-threads=posix --with-gxx-include-dir=/usr/arm-linux-gnueabi/include/c++/4.4.5 --libdir=/usr/lib --enable-nls --enable-clocale=gnu --enable-libstdcxx-debug --enable-objc-gc --disable-sjlj-exceptions --with-arch=armv7-a --with-float=softfp --with-fpu=vfpv3-d16 --with-mode=thumb --disable-werror --enable-checking=release --program-prefix=arm-linux-gnueabi- --includedir=/usr/arm-linux-gnueabi/include --build=x86_64-linux-gnu --host=x86_64-linux-gnu --target=arm-linux-gnueabi --with-headers=/usr/arm-linux-gnueabi/include --with-libs=/usr/arm-linux-gnueabi/lib
```

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[Barry Song](#)

May be notified

[Arun Thomas](#)[Dfalko89](#)

Thread model: posix
gcc version 4.4.5 (Ubuntu/Linaro 4.4.4-14ubuntu4)

And I can't pass the compiling of attached stubs.c, which can be compiled by old codesourcery toolchain. Log is:

```
arm-linux-gnueabi-gcc -g -O0 -fno-optimize-sibling-calls -fno-strict-aliasing
-fno-common -msoft-float -ffixed-r8 -D__KERNEL__ -DTEXT_BASE=0xC1000000 -
I/home/src/out/target/product/android/primacb/obj/bootloader/uboot/include2 -
I/home/src/out/target/product/android/primacb/obj/bootloader/uboot/include -
I/home/src/vendor/sirf/linux/bootloader/uboot/include -fno-builtin -
ffreestanding -nostdinc -isystem /usr/lib/gcc/arm-linux-gnueabi/4.4.5/include
-pipe -DCONFIG_ARM -D__ARM__ -march=armv6 -Wall -Wstrict-prototypes -c -o
/home/src/out/target/product/android/primacb/obj/bootloader/uboot/examples/
stubs.o stubs.c
```

{standard input}: Assembler messages:

```
{standard input}:38: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:39: Error: lo register required -- `ldr pc,[ip,#0]'
{standard input}:46: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:47: Error: lo register required -- `ldr pc,[ip,#4]'
{standard input}:54: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:55: Error: lo register required -- `ldr pc,[ip,#8]'
{standard input}:62: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:63: Error: lo register required -- `ldr pc,[ip,#12]'
{standard input}:70: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:71: Error: lo register required -- `ldr pc,[ip,#16]'
{standard input}:78: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:79: Error: lo register required -- `ldr pc,[ip,#20]'
{standard input}:86: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:87: Error: lo register required -- `ldr pc,[ip,#24]'
{standard input}:94: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:95: Error: lo register required -- `ldr pc,[ip,#28]'
{standard input}:102: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:103: Error: lo register required -- `ldr pc,[ip,#32]'
{standard input}:110: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:111: Error: lo register required -- `ldr pc,[ip,#36]'
{standard input}:118: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:119: Error: lo register required -- `ldr pc,[ip,#40]'
```

[Fathi Boudra](#)

[Linaro Toolchain ...](#)

[Michael Hope](#)

[Michael K. Edwards](#)

[Ramana Radhakrishnan](#)

[Rex Tsai](#)

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Related questions

Linaro GCC: [Error: lo register required](#)

Bug attachments

[stubs.c](#) (edit)

[Add attachment](#)

```
{standard input}:126: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:127: Error: lo register required -- `ldr pc,[ip,#44]'
{standard input}:134: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:135: Error: lo register required -- `ldr pc,[ip,#48]'
{standard input}:142: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:143: Error: lo register required -- `ldr pc,[ip,#52]'
{standard input}:150: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:151: Error: lo register required -- `ldr pc,[ip,#56]'
{standard input}:158: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:159: Error: lo register required -- `ldr pc,[ip,#60]'
{standard input}:166: Error: lo register required -- `ldr ip,[r8,#32]'
{standard input}:167: Error: lo register required -- `ldr pc,[ip,#64]'
```

Attached stubs.c

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Barry Song (21cnbao) wrote on 2011-03-16:	#1
stubs.c (4.9 KiB, text/plain)	

Ramana Radhakrishnan (ramana) wrote on 2011-03-16:	#2
<p>Are you looking for Thumb1 or thumb2 ?</p> <p>-march=armv6 -mthumb (or if compiler configured with --with-mode=thumb) => Thumb1 where such instructions are invalid .</p> <p>If you are looking for Thumb2 onwards I think you ought to use -march=armv6t2 here.</p> <p>Ramana</p>	

Barry Song (21cnbao) wrote on 2011-03-16:	#3
Ramana,	

Thanks! it works by both -march=armv5 and -march=armv6t2 .

i am using SoC with thumb1 support. after checking linaro uboot codes, i think i should change uboot compiling option to armv5 just like linaro-uboot, no matter armv6 and armv7, both use armv5 compiling option to support more compiler.

Check:

```
vmuser@ubuntu:~/development/git/linaro/u-boot-linaro-stable$ grep -r armv5 *
arch/arm/cpu/arm926ejs/config.mk:PLATFORM_CPPFLAGS += -march=armv5te
arch/arm/cpu/arm926ejs/davinci/config.mk:PLATFORM_CPPFLAGS += -march=armv5te
arch/arm/cpu/armv7/config.mk:PLATFORM_CPPFLAGS += -march=armv5
arch/arm/cpu/armv7/s5pc1xx/cache.S: @ but we compile with armv5
arch/arm/cpu/armv7/s5pc1xx/cache.S: @ but we compile with armv5
arch/arm/cpu/armv7/omap-common/config.mk:PLATFORM_CPPFLAGS += -march=armv5
arch/arm/cpu/armv7/omap3/cache.S: @ but we compile with armv5
arch/arm/cpu/armv7/omap3/cache.S: @ but we compile with armv5
arch/arm/cpu/armv7/omap3/cache.S: @ but we compile with armv5
arch/arm/cpu/armv7/omap3/cache.S: @ but we compile with armv5
arch/arm/cpu/arm1136/config.mk:PLATFORM_CPPFLAGS += -march=armv5
arch/arm/cpu/arm1176/config.mk:PLATFORM_CPPFLAGS += -march=armv5t
arch/arm/cpu/arm1176/s3c64xx/config.mk:PLATFORM_CPPFLAGS += -march=armv5t
arch/arm/cpu/pxa/config.mk:PLATFORM_CPPFLAGS += -march=armv5te -mtune=xscale
arch/arm/cpu/ixp/config.mk:PLATFORM_CPPFLAGS += -mbig-endian -march=armv5te -
mtune=strongarm1100
doc/README.omap3:with -march=armv5 to allow more compilers to work. For U-
Boot code this has
doc/README.s5pc1xx:with -march=armv5 to allow more compilers to work. For U-
Boot code this has
lib/asm-offsets.s: .arch armv5

-barry
```

Barry Song (21cnbao) wrote on 2011-03-17:

#4



-march=armv6 -mthumb (or if compiler configured with --with-mode=thumb) => Thumb1 where such instructions are invalid .

so it is not a bug, but a right report.

Changed in gcc-linaro:
status:New → Invalid

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