Packages - Bug #3211

gdb broken on armv7h when linking to openssl

2022-04-01 10:00 PM - GNUtoo

Status:	unconfirmed	**% Done:**	0%
Priority:	bug		
Assignee:			
Category:			

Description

Hi,

If I link a hello world to libcrypto, I can't debug it anymore on armv7h:

```
$ make check
cc main.c -o main -lcrypto
gdb ./main < commands.txt
GNU gdb (GDB) 11.2
Copyright (C) 2022 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
Type "show copying" and "show warranty" for details.
This GDB was configured as "armv7l-unknown-linux-gnueabihf".
Type "show configuration" for configuration details.
For bug reporting instructions, please see:
<https://www.gnu.org/software/gdb/bugs/>.
Find the GDB manual and other documentation resources online at:
    <http://www.gnu.org/software/gdb/documentation/>.

For help, type "help".
Type "apropos word" to search for commands related to "word"...
Reading symbols from ./main...
(No debugging symbols found in ./main)
(gdb) Starting program: /home/replicant/gdb-test/main
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/usr/lib/libthread_db.so.1".

Program received signal SIGILL, Illegal instruction.
0xb6dec408 in ?? () from /usr/lib/libcrypto.so.1.1
(gdb) A debugging session is active.

    Inferior 1 [process 9953] will be killed.

Quit anyway? (y or n) [answered Y; input not from terminal]
```

Here libcrypto comes from OpenSSL:

```
$ pacman -Q -o /usr/lib/libcrypto.so.1.1
/usr/lib/libcrypto.so.1.1 is owned by openssl 1.1.1.n-1
```

I've tried recompiling gdb and openssl and it didn't change
anything (it still crashed).

I've restored Parabola's gdb and openssl (by reinstalling them)
before doing the test I pasted above.

On i686 however it works fine:

```
 make check
cc main.c -o main -lcrypto
gdb ./main < commands.txt
```

```
GNU gdb (GDB) 11.1
Copyright (C) 2021 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
Type "show copying" and "show warranty" for details.
This GDB was configured as "i686-pc-linux-gnu".
Type "show configuration" for configuration details.
For bug reporting instructions, please see:
<https://www.gnu.org/software/gdb/bugs/>.
Find the GDB manual and other documentation resources online at:
    <http://www.gnu.org/software/gdb/documentation/>.

For help, type "help".
Type "apropos word" to search for commands related to "word"...
Reading symbols from ./main...
(No debugging symbols found in ./main)
(gdb) Starting program: /tmp/tmp.OiT2tDGGNe/gdb-test/main
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/usr/lib/libthread_db.so.1".
Hello world
[Inferior 1 (process 28480) exited normally]
```

And here's OpenSSL version:

```
$ pacman -Q -o /usr/lib/libcrypto.so.1.1
/usr/lib/libcrypto.so.1.1 is owned by openssl 1.1.1.n-1.0
```

And on x86_64 I've also no issues:

```
# make check
cc main.c -o main -lcrypto
gdb ./main < commands.txt
GNU gdb (GDB) 11.2
Copyright (C) 2022 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
Type "show copying" and "show warranty" for details.
This GDB was configured as "x86_64-pc-linux-gnu".
Type "show configuration" for configuration details.
For bug reporting instructions, please see:
<https://www.gnu.org/software/gdb/bugs/>.
Find the GDB manual and other documentation resources online at:
    <http://www.gnu.org/software/gdb/documentation/>.

For help, type "help".
Type "apropos word" to search for commands related to "word"...
Reading symbols from ./main...
(No debugging symbols found in ./main)
(gdb) Starting program: /root/gdb-test/main
[Thread debugging using libthread_db enabled]
Using host libthread_db library "/usr/lib/libthread_db.so.1".
Hello world
[Inferior 1 (process 724520) exited normally]
```

And the OpenSSL version is the same than on armv7h:

```
# pacman -Q -o /usr/lib/libcrypto.so.1.1
/usr/lib/libcrypto.so.1.1 is owned by openssl 1.1.1.n-1
```

I've attached the files used during the test, though it's just
a hello world and it just runs it through gdb so there is nothing fancy.

History

#1 - 2022-04-01 10:00 PM - GNUtoo

- File main.c added

#2 - 2022-04-01 10:00 PM - GNUtoo

- File commands.txt added

Files

Makefile	86 Bytes	2022-04-01	GNUtoo
main.c	73 Bytes	2022-04-01	GNUtoo
commands.txt	9 Bytes	2022-04-01	GNUtoo