Technical support Note : Installation of GCC in Angstrom on BeagleBoard-xM

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The GNU Compiler Collection (GCC) is a compiler system produced by the GNU Project supporting various programming languages.It is the main component of the compilation process.It encompasses the C preprocessor and the translator, which converts the C code into the target CPU assembly language.

GCC is not only a native compiler, it can also cross-compile any program, producing executable files for a different system from the one used by GCC itself. This allows software to be compiled for embedded systems which are not capable of running a compiler.

First of all, GCC is a portable compiler, it runs on most platforms available today, and can produce output for many types of processors. In addition to the processors used in personal computers, it also supports ARM processors like BeagleBoard-xM. In this post let us see how to install GCC on BeagleBoard-xM.Prior to install gcc make sure that internet connected to BeagleBoard-xM.

1. The GCC package can be installed in Angstrom using the following commands in the terminal.

```
opkg update
opkg install gcc
opkg install task-native-sdk
```

2. Open a file with your favorite editor and write a C program.

3. Compile it using GCC compiler as follows

```
gcc -o outputfile filename.c
```

4. After compiling your program, if you get following errors while execution

```
/usr/lib/gcc/arm-angstrom-linux-gnueabi/4.3.3/../../../../arm-angstrom-linux-
gnueabi/bin/ld:cannot find -lgcc_s
```

collect2: ld returned 1 exit status

Try below commands to fix up symlinks for GCC.

```
ln -s /lib/libgcc_s.so.1 /usr/lib/libgcc_s.so
ln -s /lib/libgcc_s.so.1 /usr/lib/libgcc_s.so.1
```

5. Now you can compile and execute any C program on Angstrom as follows.

```
gcc -o outputfile filename.c
./outputfile
```