Hello,

We are using Code Composer Studio CCS7 and TI TTOS to develop applications for Beagle Bone Black Wireless board.

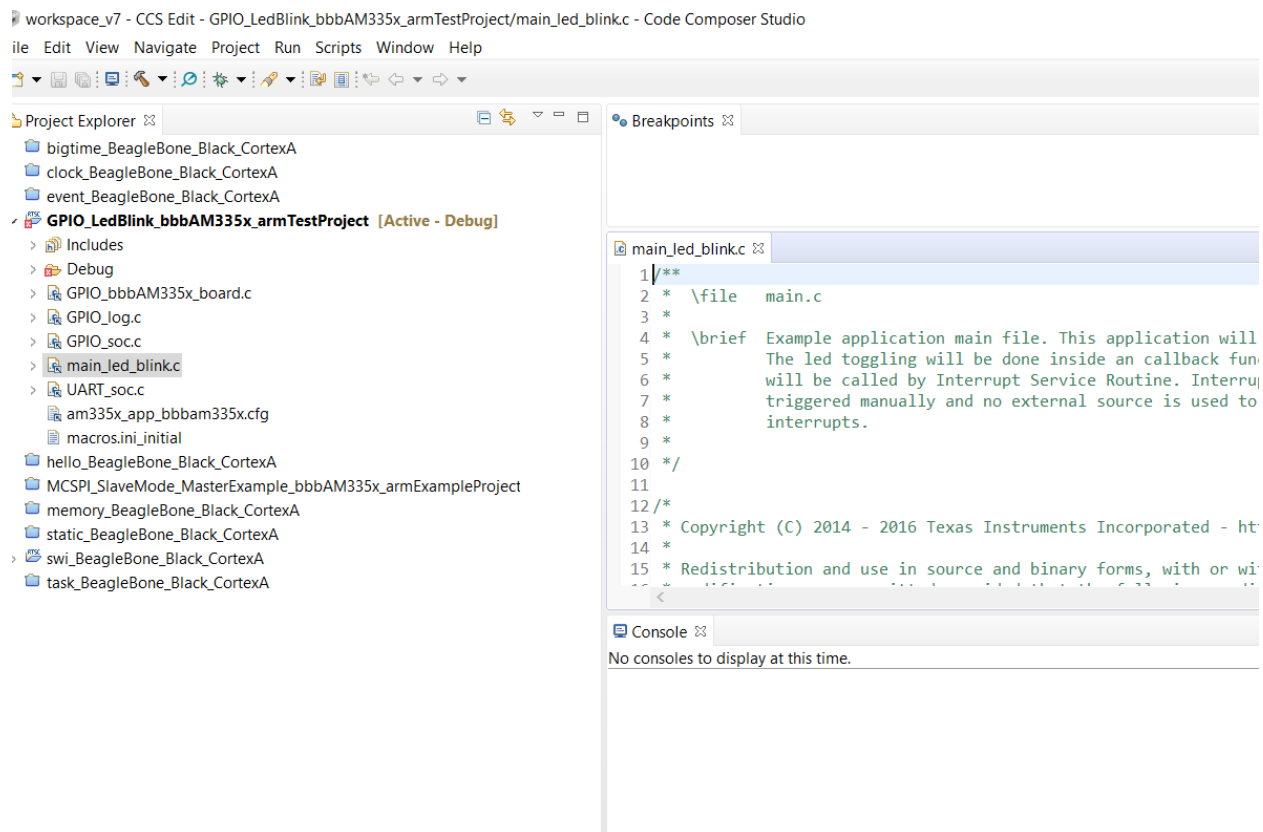We have soldered JTAG connector in, and we are using Black Hawk probe.

Everything seems to work when we tried run and step through Hello program run under SYS-BIOS

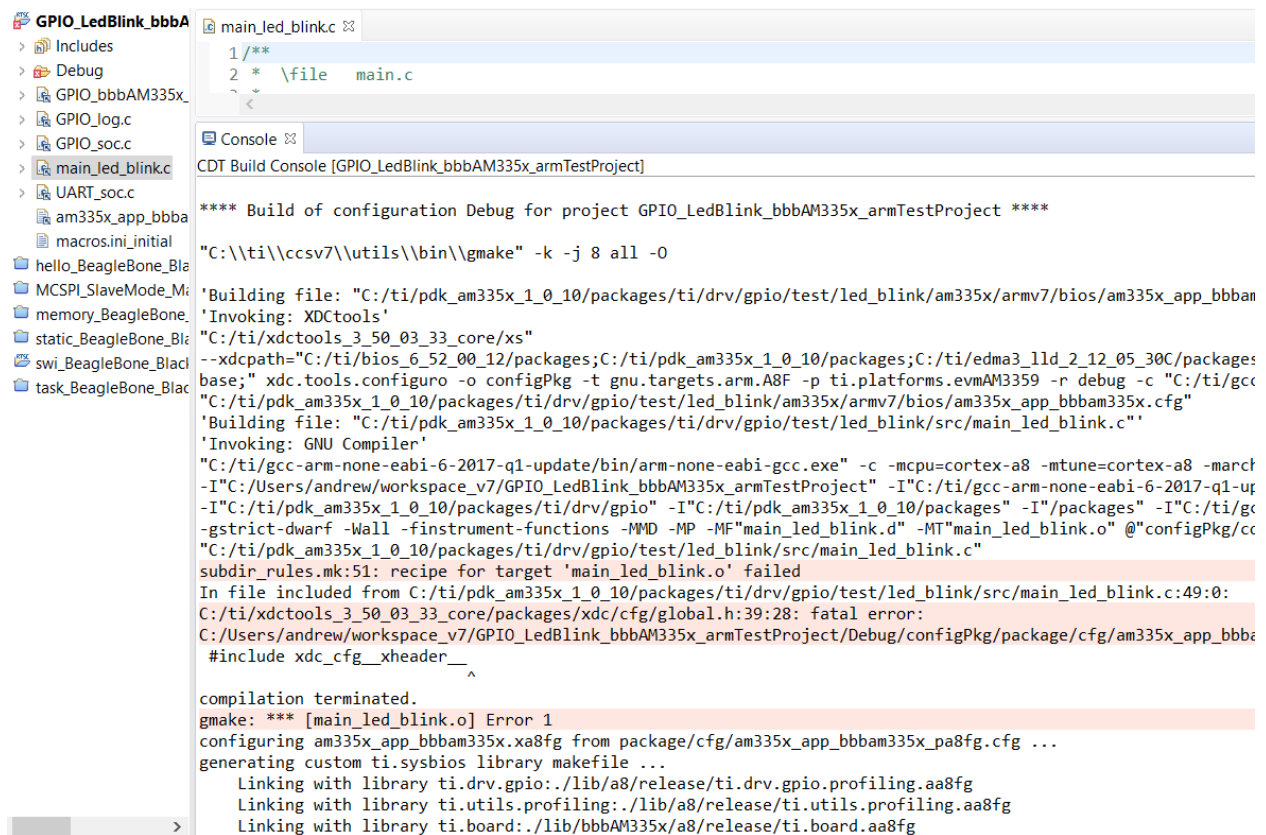However when we have made demo projects for TI-RTOS we were not able to run them in CCS environment.

Examples were made using gmake with limits: board bbbAM335x processor am335x.

Projects were than imported to the CCS and here are results when we try to build project gpio

Start screen:

Compile result:

```
> Includes
> Debug
> GPIO_bbbAM335x_
> GPIO_log.c
> GPIO_soc.c
> main_led_blink.c
> UART_soc.c
  am335x_app_bbba
  macros.ini_initial
hello_BeagleBone_Bla
MCSPI_SlaveMode_Ma
memory_BeagleBone_
static_BeagleBone_Bla
swi_BeagleBone_Black
task_BeagleBone_Black
```

main_led_blink.c ⊠

```
1 /**
2 *  \file   main.c
```

Console ⊠

CDT Build Console [GPIO_LedBlink_bbbAM335x_armTestProject]

```
**** Build of configuration Debug for project GPIO_LedBlink_bbbAM335x_armTestProject ****

"C:\\ti\\ccsv7\\utils\\bin\\gmake" -k -j 8 all -O

'Building file: "C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/am335x/armv7/bios/am335x_app_bbbam
'Invoking: XDCtools'
"C:/ti/xdctools_3_50_03_33_core/xs"
--xdcpath="C:/ti/bios_6_52_00_12/packages;C:/ti/pdk_am335x_1_0_10/packages;C:/ti/edma3_lld_2_12_05_30C/packages
base;" xdc.tools.configuro -o configPkg -t gnu.targets.arm.A8F -p ti.platforms.evmAM3359 -r debug -c "C:/ti/gcc
"C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/am335x/armv7/bios/am335x_app_bbbam335x.cfg"
'Building file: "C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/src/main_led_blink.c"'
'Invoking: GNU Compiler'
"C:/ti/gcc-arm-none-eabi-6-2017-q1-update/bin/arm-none-eabi-gcc.exe" -c -mcpu=cortex-a8 -mtune=cortex-a8 -march
-I"C:/Users/andrew/workspace_v7/GPIO_LedBlink_bbbAM335x_armTestProject" -I"C:/ti/gcc-arm-none-eabi-6-2017-q1-up
-I"C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio" -I"C:/ti/pdk_am335x_1_0_10/packages" -I"/packages" -I"C:/ti/gc
-gstrict-dwarf -Wall -finstrument-functions -MMD -MP -MF"main_led_blink.d" -MT"main_led_blink.o" @"configPkg/cc
"C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/src/main_led_blink.c"
subdir_rules.mk:51: recipe for target 'main_led_blink.o' failed
In file included from C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/src/main_led_blink.c:49:0:
C:/ti/xdctools_3_50_03_33_core/packages/xdc/cfg/global.h:39:28: fatal error:
C:/Users/andrew/workspace_v7/GPIO_LedBlink_bbbAM335x_armTestProject/Debug/configPkg/package/cfg/am335x_app_bbba
 #include xdc_cfg__xheader__
                            ^
compilation terminated.
gmake: *** [main_led_blink.o] Error 1
configuring am335x_app_bbbam335x.xa8fg from package/cfg/am335x_app_bbbam335x_pa8fg.cfg ...
generating custom ti.sysbios library makefile ...
    Linking with library ti.drv.gpio:./lib/a8/release/ti.drv.gpio.profiling.aa8fg
    Linking with library ti.utils.profiling:./lib/a8/release/ti.utils.profiling.aa8fg
    Linking with library ti.board:./lib/bbbAM335x/a8/release/ti.board.aa8fg
```

Continue:

```
    Linking with library ti.drv.i2c:./lib/am335x/a8/release/ti.drv.i2c.aa8fg
subdir_rules.mk:40: recipe for target 'build-861389649-inproc' failed
js: "C:/ti/pdk_am335x_1_0_10/packages/ti/drv/uart/package.xs", line 124: Error:     Library not found: C:/ti/pdk_am335x_1_0_1
xdctools_3_50_03_33_core\gmake.exe: *** [package/cfg/am335x_app_bbbam335x_pa8fg.xdl] Error 1
xdctools_3_50_03_33_core\gmake.exe: *** Deleting file `package/cfg/am335x_app_bbbam335x_pa8fg.xdl'
xdctools_3_50_03_33_core\gmake.exe: *** [package/cfg/am335x_app_bbbam335x_pa8fg.xdl] Deleting file `package/cfg/am335x_app_bb
xdctools_3_50_03_33_core\gmake.exe: *** [package/cfg/am335x_app_bbbam335x_pa8fg.xdl] Deleting file `package/cfg/am335x_app_bb
js: "C:/ti/xdctools_3_50_03_33_core/packages/xdc/tools/Cmdr.xs", line 52: Error: xdc.tools.configuro: configuration failed du
gmake[1]: *** [build-861389649-inproc] Error 1
gmake: *** [build-861389649] Error 2
subdir_rules.mk:37: recipe for target 'build-861389649' failed
gmake: Target 'all' not remade because of errors.

**** Build Finished ****
```

The first error:

C:/Users/andrew/workspace_v7/GPIO_LedBlink_bbbAM335x_armTestProject/Debug/configPkg/package/cfg/am335x_app_bbbam335x_pa8fg.h: No such file or directory

 #include xdc_cfg__xheader__

In fact there is no such file. Here is screen shot of the file structure:

We are also providing information about files or libraries compiler should find because they are in place.

Errors text:

```
build-861389649:

        @$(MAKE) --no-print-directory -Onone -f subdir_rules.mk build-861389649-inproc


build-861389649-inproc:
C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/am335x/armv7/bios/am335x_
app_bbbam335x.cfg

        @echo 'Building file: "$<"'

        @echo 'Invoking: XDCtools'

        "C:/ti/xdctools_3_50_03_33_core/xs" --
xdcpath="C:/ti/bios_6_52_00_12/packages;C:/ti/pdk_am335x_1_0_10/packages;C:/ti/edma3_
lld_2_12_05_30C/packages;C:/ti/ndk_2_26_00_08/packages;C:/ti/uia_2_21_02_07/packages;
C:/ti/ccsv7/ccs_base;" xdc.tools.configuro -o configPkg -t gnu.targets.arm.A8F -p
ti.platforms.evmAM3359 -r debug -c "C:/ti/gcc-arm-none-eabi-6-2017-q1-update" "$<"

        @echo 'Finished building: "$<"'
```

```
        @echo ' '


configPkg/linker.cmd: build-861389649
C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/am335x/armv7/bios/am335x_
app_bbbam335x.cfg

configPkg/compiler.opt: build-861389649

configPkg/: build-861389649


main_led_blink.o:
C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/src/main_led_blink.c
$(GEN_OPTS) | $(GEN_HDRS)

        @echo 'Building file: "$<"'

        @echo 'Invoking: GNU Compiler'

        "C:/ti/gcc-arm-none-eabi-6-2017-q1-update/bin/arm-none-eabi-gcc.exe" -c -
mcpu=cortex-a8 -mtune=cortex-a8 -march=armv7-a -marm -mfloat-abi=hard -Dam3359 -
DSOC_AM335x -DbbbAM335x -
I"C:/Users/andrew/workspace_v7/GPIO_LedBlink_bbbAM335x_armTestProject" -I"C:/ti/gcc-
arm-none-eabi-6-2017-q1-update/arm-none-eabi/include/newlib-nano" -
I"C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio" -I"C:/ti/pdk_am335x_1_0_10/packages"
-I"/packages" -I"C:/ti/gcc-arm-none-eabi-6-2017-q1-update/arm-none-eabi/include" -g -
gdwarf-3 -gstrict-dwarf -Wall -finstrument-functions -MMD -MP -MF"$(@:%.o=%.d)" -
MT"$(@)" $(GEN_OPTS__FLAG) -o"$@" "$<"

        @echo 'Finished building: "$<"'

        @echo ' '
```

```
  main_led_blink.c      package.xs      subdir_rules.mk ⊠

34        @echo ' '
35
36 build-861389649:
✗37        @$(MAKE) --no-print-directory -Onone -f subdir_rules.mk build-861389649-inproc
38
39 build-861389649-inproc: C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/am335x/armv7/bios/am335x_app_bbbam335x.cfg
✗40        @echo 'Building file: "$<"'
41        @echo 'Invoking: XDCtools'
42        "C:/ti/xdctools_3_50_03_33_core/xs" --xdcpath="C:/ti/bios_6_52_00_12/packages;C:/ti/pdk_am335x_1_0_10/packages;C:/ti/edma3_l
43        @echo 'Finished building: "$<"'
44        @echo ' '
45
46 configPkg/linker.cmd: build-861389649 C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/am335x/armv7/bios/am335x_app_b
47 configPkg/compiler.opt: build-861389649
48 configPkg/: build-861389649
49
50 main_led_blink.o: C:/ti/pdk_am335x_1_0_10/packages/ti/drv/gpio/test/led_blink/src/main_led_blink.c $(GEN_OPTS) | $(GEN_HDRS)
✗51        @echo 'Building file: "$<"'
52        @echo 'Invoking: GNU Compiler'
53        "C:/ti/gcc-arm-none-eabi-6-2017-q1-update/bin/arm-none-eabi-gcc.exe" -c -mcpu=cortex-a8 -mtune=cortex-a8 -march=armv7-a -mar
54        @echo 'Finished building: "$<"'
55        @echo ' '
56
57
```

We are also attaching info about our installation:

| Installed Software | Installation History | Features | Plug-ins | Configuration |

type filter text

Name	Version	Id	Provider
am335x PDK	1.0.10	com.ti.pdk.am335x.product_1.0.10.feature.gro...	Texas Instruments Inc.
Analysis Suite	4.1.0.201710271629	com.ti.dvt2.analysis.suite.feature.group	Texas Instruments
ARM Compiler Help	16.9.0.201610261703...	com.ti.cgt.arm.16.9.help.feature.group	Texas Instruments
ARM Compiler Tools	16.9.7	com.ti.cgt.tms470.16.win32.feature.group	Texas Instruments
BeagleBone FTDI Drivers	2.8.30.20140130	com.ti.ftdi.drivers.win.feature.group	Texas Instruments
Blackhawk CCSv6.2 Emulation Update	6.2.0.009	com.bh.ccstudio.emulation.win32.feature.group	Blackhawk
C/C++ Development Tools	9.0.0.201606062011	org.eclipse.cdt.feature.group	Eclipse CDT
C/C++ GCC Cross Compiler Support	9.0.0.201606062011	org.eclipse.cdt.build.crossgcc.feature.group	Eclipse CDT
C/C++ Memory View Enhancements	9.0.0.201606062011	org.eclipse.cdt.debug.ui.memory.feature.group	Eclipse CDT
C/C++ Remote Launch	9.0.0.201606062011	org.eclipse.cdt.launch.remote.feature.group	Eclipse CDT
C6000 7.4.0 Help Feature	7.4.0.201303051055	com.ti.cgt.c6000.7.4.help.feature.group	Texas Instruments
C6000 Compiler Tools	8.2.3	com.ti.cgt.c6000.8.2.win32.feature.group	Texas Instruments
CCS and SAT Common Components Feature	7.4.0.201711260800	com.ti.tools.common.feature.group	Texas Instruments
CCS Documentation	7.4.0.20171207	com.ti.ccstudio.doc.win32.feature.group	Texas Instruments
CCS Flash Content	8.1.0.1297	com.ti.dsflash.win32.feature.group	Texas Instruments
CCS Launcher	7.0.0.20161020	com.ti.ccstudio.launcher.win32.feature.group	Texas Instruments
CCS Utilities	1.0.0.20160210	com.ti.ccstudio.utils.cli.win32.feature.group	Texas Instruments
CCStudio p2 Tool Feature	7.0.0.201611291427	com.ti.ccstudio.p2tool.feature.group	Texas Instruments
Chromium Browser Feature	7.3.0.201711260800	com.ti.chromium.browser.feature.group	Texas Instruments
Code Composer Studio Base Components	7.4.0.01313	com.ti.ccstudio.base.feature.group	Texas Instruments
Code Composer Studio IDE ARM Components	7.4.0.201711260800	com.ti.ccstudio.tms470.feature.group	Texas Instruments
Code Composer Studio IDE Main Feature	7.4.0.201711260800	com.ti.ccstudio.idemain.feature.group	Texas Instruments
Code Composer Studio IDE Workflow	7.4.0.201711260800	com.ti.ccstudio.workflow.feature.group	Texas Instruments
Compiler Tools On-line Documentation	1.1.5	com.ti.cgt.dmed.win32.feature.group	Texas Instruments
Debug Server - Win32	7.4.0.1313	com.ti.ccstudio.debugserver.win32.feature.gro...	Texas Instruments
DVT - Graph Visualization	4.1.0.201710271629	com.ti.dvt2.graph.visualization.feature.group	Texas Instruments
DVT - Profiler Analysis Manager	4.1.0.201710271629	com.ti.dvt2.profileanalysismanager.feature.gr...	Texas Instruments
DVT - Resource Explorer	4.1.0.201710271629	com.ti.dvt2.resource.explorer.feature.group	Texas Instruments
DVT - System Analyzer	4.1.0.201710271629	com.ti.dvt2.uia.feature.group	Texas Instruments

Continue:

Name	Version	Id	Provider
DVT - Trace Control	4.1.0.201710271629	com.ti.dvt2.trace.control.feature.group	Texas Instruments
Eclipse Git Team Provider	4.4.0.201606070830-r	org.eclipse.egit.feature.group	Eclipse EGit
Eclipse Help System	2.2.0.v20160606-1100	org.eclipse.help.feature.group	Eclipse.org
Eclipse Platform	4.6.0.I20160607-1100	org.eclipse.platform.ide	Eclipse.org
EDMA3	2.12.5	com.ti.sdo.edma3.product_02.12.05.feature.gr...	Texas Instruments Inc.
Equinox p2, Discovery UI support	1.0.400.v20160504-14...	org.eclipse.equinox.p2.discovery.feature.featu...	Eclipse.org - Equinox
Equinox p2, Provisioning for IDEs.	2.2.200.v20160606-13...	org.eclipse.equinox.p2.user.ui.feature.group	Eclipse.org - Equinox
GCC ARM Compiler Tools	6.3.1.2017-q1-update...	com.ti.gcc.arm.win32.feature.group	Texas Instruments
GEF (MVC)	3.11.0.201606061308	org.eclipse.gef.feature.group	Eclipse GEF
Graphical Modeling Framework (GMF) Runtime Third-Party Compc	1.10.0.201606071959	org.eclipse.gmf.runtime.thirdparty.feature.gro...	Eclipse Modeling Project
GUI Composer Backplane Feature	6.1.0.201711260800	com.ti.gc.backplane.feature.group	Texas Instruments
GUI Composer Program Model Feature	7.2.0.201711260800	com.ti.gc.pm.feature.group	Texas Instruments
IDE - Debug Server Integration Feature	6.0.1.201711260800	com.ti.debug.server.feature.group	Texas Instruments
Image Analyzer	4.1.0.201710271629	com.ti.dvt2.via.ccs.feature.group	Texas Instruments
LWInstaller	7.4.0.00015	com.ti.ccstudio.installer.win32.feature.group	Texas Instruments
Marketplace Client	1.5.0.v20160608-1804	org.eclipse.epp.mpc.feature.group	Eclipse Marketplace Client
MSVC 2012 Redistributable	11.0.61030	com.ti.ccstudio.installer.msvc.2012.win32.feat...	Texas Instruments
NDK (IDE Client)	2.26.0.08	com.ti.rtsc.NDK.product.ui.feature.group	Texas Instruments
NDK (Target Content)	2.26.0.08	com.ti.rtsc.NDK.product_2.26.0.08.feature.group	Texas Instruments
Node.js	6.9.1	com.ti.ccstudio.nodejs.win32.feature.group	Texas Instruments
p2appf	7.4.0.201711260800	com.ti.ccstudio.p2appf.feature.group	Texas Instruments
Pin Mux	4.0.1470	com.ti.ccstudio.pinmux.win32.feature.group	Texas Instruments
PRU Compiler Tools	2.2.1	com.ti.cgt.pru.2.2.win32.feature.group	Texas Instruments
Remote System Explorer End-User Runtime	3.7.1.201603211627	org.eclipse.rse.feature.group	Eclipse TM Project
ROV	4.1.0.201710271629	com.ti.dvt2.rov.feature.group	Texas Instruments
RTSC/XDCtools (IDE Client)	3.50.4.43	org.eclipse.rtsc.xdctools.product.ui.feature.gro...	Texas Instruments
RTSC/XDCtools (Target Runtime Support)	3.50.4.43	org.eclipse.rtsc.xdctools.product_3.50.4.43.fea...	Texas Instruments
RTSC/XDCtools (Target Runtime Support)	3.50.3.33	org.eclipse.rtsc.xdctools.product_3.50.3.33.fea...	Texas Instruments
RTSC/XDCtools (Target Runtime Support)	3.32.2.25	org.eclipse.rtsc.xdctools.product_3.32.2.25.fea...	Texas Instruments
RXTX End-User Runtime	2.1.8.0_201606281300	gnu.io.rxtx.feature.group	RXTX.org

Continue:

Name	Version	Id	Provider
Shared Device Support	1.0.9	com.ti.ccstudio.shared.devicesupport.win32.fe...	Texas Instruments
Sitara device support	1.3.8	com.ti.ccstudio.sitara.devicesupport.win32.fea...	Texas Instruments
SYS/BIOS (IDE Client)	6.52.0.12	com.ti.rtsc.SYSBIOS.product.ui.feature.group	Texas Instruments
SYS/BIOS (Target Content)	6.52.0.12	com.ti.rtsc.SYSBIOS.product_6.52.0.12.feature....	Texas Instruments
System Analyzer (UIA Target) (IDE Client)	2.21.2.07	com.ti.uia.product.ui.feature.group	Texas Instruments
System Analyzer (UIA Target) (Target Content)	2.21.2.07	com.ti.uia.product_2.21.2.07.feature.group	Texas Instruments
TargetDB Default Props	7.4.0.N201711260800	com.ti.ccstudio.targetdb.props.default.win32.f...	Texas Instruments
TI Cloud Agent	0.5.1463	com.ti.ccstudio.cloudagent.win32.feature.group	Texas Instruments
TI Emulators	7.0.188.0	com.ti.emulation.pack.win32.feature.group	Texas Instruments
TI Target Content	1.0.0.201711131054	com.ti.targetcontent.feature.group	Texas Instruments
TIREX Desktop	3.6.3.201712041223	com.ti.tirex.feature.group	Texas Instruments
TM Terminal	4.1.0.201606052351	org.eclipse.tm.terminal.feature.feature.group	Eclipse.org - Target Management
Trace Analyzer	4.1.0.201710271629	com.ti.dvt2.trace.ccs.feature.group	Texas Instruments
XDCtools Core Update Feature	3.32.2.25	com.ti.xdctools_3_32.update.feature.group	Texas Instruments

What is wrong with our software/installation build process ???

Thank you.

If needed we can provide additional information.