

Petalinux Troubleshoot

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Petalinux 2023.2

General notes

Xilinx Release Notes available on: https://support.xilinx.com/s/article/000035572?language=en_US

BL31 gets Stuck during booting

Issue	Petalinux 2023.2 seems to have a Problem booting with UART1: It gets stuck on BL31 while trying to print a char to UART1 during booting. This error happens on Versal and Zynq Ultrascale+ devices. The error is that BL31 built by petalinux does not correctly take into account that UART1 is used, and tries to output on UART0
Workaround	This can be fixed by e.g. overriding yourself with creating arm-trusted-firmware_%.bbappend in meta-user/recipes-bsp/arm-trusted-firmware with content For Versal: ATF_CONSOLE = "pl011_1" For Zynq Ultrascale+: ATF_CONSOLE = "cadence1"

Modified FSBL is not containing patches

Issue	Trenz modified FSBL for petalinux is not taken into account from petalinux. This is only need on trenz project which has FSBL patch included inside the petalinux template. --><project folder>\os\petalinux\project-spec\meta-user\recipes-bsp\embeddedsw AMD has changed patch priority and petalinux ignores provided FSBL patch in \os\petalinux\project-spec\meta-user\recipes-bsp\embeddedsw
Workaround	In order for the patches to be used, the existing line BBFILE_PRIORITY_meta-user = "[VALUE]" must be set to 9 instead of the original value 7 in the Petalinux config file project-spec/meta-user/conf/layer.conf

Petalinux 2022.2

General notes

Xilinx Release Notes available on: https://support.xilinx.com/s/article/000034483?language=en_US

Petalinux Build

Command	Trenz modified FSBL for petalinux is not taken into account from petalinux. This is only need on trenz project which has FSBL patch included inside the petalinux template. --><project folder>\os\petalinux\project-spec\meta-user\recipes-bsp\embeddedsw
Error Message	AMD has changed patch priority and petalinux ignores provided FSBL patch in \os\petalinux\project-spec\meta-user\recipes-bsp\embeddedsw
Workaround	In order for the patches to be used, the existing line BBFILE_PRIORITY_meta-user = "[VALUE]" must be set to 9 instead of the original value 7 in the Petalinux config file project-spec/meta-user/conf/layer.conf

Command	petalinux-build
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Error Message	NOTE: Executing Tasks WARNING: libnsl2-2.0.0-r0 do_package_qa_setscene: Failed to fetch URL file:///d9/cf/ssstate:libnsl2:cortexa72-cortexa53-xilinx-linux:2.0.0:r0:cortexa72-cortexa53:7:d9cfc3b8d649a8ce19aabf8269165e1f73650ce67a2ceb8cff581836b80b5dc5_package_qa.tgz;downloadfilename=d9/cf/ssstate:libnsl2:cortexa72-cortexa53-xilinx-linux:2.0.0:r0:cortexa72-cortexa53:7:d9cfc3b8d649a8ce19aabf8269165e1f73650ce67a2ceb8cff581836b80b5dc5_package_qa.tgz, attempting MIRRORS if available ERROR: libnsl2-2.0.0-r0 do_package_qa_setscene: Fetcher failure: Unable to find file file:///d9/cf/ssstate:libnsl2:cortexa72-cortexa53-xilinx-linux:2.0.0:r0:cortexa72-cortexa53:7:d9cfc3b8d649a8ce19aabf8269165e1f73650ce67a2ceb8cff581836b80b5dc5_package_qa.tgz anywhere. The paths that were searched were: ./petalinux/build/ssstate-cache ./petalinux/build/ssstate-cache WARNING: libnsl2-2.0.0-r0 do_package_qa_setscene: No sstate archive obtainable, will run full task instead. ERROR: Logfile of failure stored in: ./petalinux/build/tmp/work/cortexa72-cortexa53-xilinx-linux/libnsl2/2.0.0-r0/temp/log.do_package_qa_setscene.22625 WARNING: Setscene task (./petalinux/components/yocto/layers/core/meta/recipes-extended/libnsl/libnsl2_git.bb:do_package_qa_setscene) failed with exit code '1' - real task will be run instead WARNING: petalinux-image-minimal-1.0-r0 do_rootfs: Enabling autologin to user root. This configuration should NOT be used in production! NOTE: Tasks Summary: Attempted 4491 tasks of which 3939 didn't need to be rerun and all succeeded.
Workaround	Run petalinux-build a second time, this normally works fine

Petalinux 2021.2

General notes

Xilinx Release Notes available on: https://support.xilinx.com/s/article/000032521?language=en_US

Petalinux 2020.2

General notes

Xilinx Release Notes available on: <https://www.xilinx.com/support/answers/75775.html>

Kernel changes with petalinux commands

Command	petalinux-config -c kernel petalinux-build -c kernel -x finish -f
Error Message	ERROR: Task do_finish does not exist for target virtual/kernel (<project dir>/components/yocto/layers/meta-xilinx/meta-xilinx-bsp/recipes-kernel/linux/linux-xlnx_2020.2.bb:do_finish) ERROR: Command execution failed: 1

Workaround	Export changes from yocto workspace to the user-layer
	<pre>petalinux-devtool finish linux-xlnx \${PWD}/project-spec/meta-user/ -f</pre>
	Note: Before "petalinux-config -c kernel" can be used again after export, run: <pre>petalinux-build -x mrproper -f</pre>

U-Boot changes with petalinux commands

Command	petalinux-config -c u-boot petalinux-build -c u-boot -x finish -f
Error Message	ERROR: Task do_finish does not exist for target virtual/bootloader (<project dir>/petalinux/components/yocto/layers/meta-xilinx/meta-xilinx-bsp/recipes-bsp/u-boot/u-boot-xlnx_2020.2.bb:do_finish) ERROR: Command execution failed: 1
Workaround	Export changes from yocto workspace to the user-layer
	<pre>petalinux-devtool finish u-boot-xlnx \${PWD}/project-spec/meta-user/ -f</pre>
	Note: Before "petalinux-config -c u-boot" can be used again after export, run: <pre>petalinux-build -x mrproper -f</pre>

Petalinux 2019.2

General notes

Xilinx Release Notes available on: [Xilinx AR#72950](#)

Installation failed

Command	./petalinux-v20183-final-installer.run /opt/pkg/petalinux
Error Message	could not install "..yocto/source" files during installation

Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux ./petalinux-v2018.3-final-installer.run /opt/pkg/petalinux</pre>
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Kernel changes are missing

Command	petalinux-config -c kernel petalinux-build -x mrproper
Error Message	<petalinuxproject>/project-spec/meta-user/recipes-kernel/ is missing after kernel config was changed or: cleaning failed with "WARNING: Workspace directory not empty:.../petalinux/components/plnx_workspace..."
Workaround	<pre>petalinux-build -c kernel -x finish -f</pre>

U-Boot changes are missing

Command	petalinux-config -c u-boot petalinux-build -x mrproper
Error Message	<petalinuxproject>/project-spec/meta-user/recipes-bsp/u-boot/files/*cfg is missing after u-boot config was changed or: cleaning failed with "WARNING: Workspace directory not empty:.../petalinux/components/plnx_workspace..."
Workaround	<pre>petalinux-build -c u-boot -x finish -f</pre>

Petalinux 2018.3

General notes

Xilinx Release Notes available on: [AR#71653](#)

Installation failed

Command	./petalinux-v2019.2-final-installer.run /opt/pkg/petalinux
Error Message	could not install "..yocto/source" files during installation

Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux/2019.2 ./petalinux-v2018.3-final-installer.run /opt/pkg/petalinux/2019.2</pre>
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Petalinux 2018.2

General notes

Xilinx Release Notes available on: [Xilinx AR#71201](#)

Installation failed

Command	<code>./petalinux-v2018.3-final-installer.run /opt/pkg/petalinux</code>
Error Message	could not install "..yocto/source" files during installation
Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux ./petalinux-v2018.2-final-installer.run /opt/pkg/petalinux</pre>

Petalinux 2017.4

General notes

Xilinx Release Notes available on: [AR#70277](#)

Installation failed

Command	<code>./petalinux-v2017.4-final-installer.run /opt/pkg/petalinux</code>
Error Message	could not install "..yocto/source" files during installation
Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux ./petalinux-v2017.4-final-installer.run /opt/pkg/petalinux</pre>

Petalinux 2017.2

General notes

Xilinx Release Notes available on: [AR# 69372](#)

Installation failed

Command	<code>./petalinux-v2017.2-final-installer.run /opt/pkg/petalinux</code>
Error Message	could not install "..yocto/source" files during installation
Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux ./petalinux-v2017.2-final-installer.run /opt/pkg/petalinux</pre>

Petalinux 2017.1

General notes

Xilinx Release Notes available on: [AR# 69074](#)

Installation failed

Command	<code>./petalinux-v2017.1-final-installer.run /opt/pkg/petalinux</code>
Error Message	could not install "..yocto/source" files during installation
Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux ./petalinux-v2017.1-final-installer.run /opt/pkg/petalinux</pre>

Build process failed

Command	<code>petalinux-build</code>
Error	Problems with device tree and serial port
Workaround	See: https://forums.xilinx.com/t5/Embedded-Linux/Petalinux-v2017-1-device-tree-and-serial-ports/td-p/764735

Petalinux 2016.4

General notes

Xilinx Release Notes available on: [AR# 68370](#)

Installation failed

Command	<code>sudo ./petalinux-v2016.4-final-installer.run /opt/pkg/petalinux</code>
Error Message	<pre>INFO: Checking installer checksum... INFO: Extracting PetaLinux installer... INFO: Installing PetaLinux... INFO: Checking PetaLinux installer integrity... INFO: Extracting Installation files... INFO: Checking installation environment requirements... INFO: Installing PetaLinux SDK to "/opt/Xilinx/petalinux-v2016.4-final/." INFO: Installing PetaLinux zynqMP Yocto SDK to "/opt/Xilinx/petalinux-v2016.4-final/./components/yocto/source/aarch64"... ***** ERROR: Failed to install Yocto SDK for zynqMP. *****</pre>
Workaround	Do not use root account to install petalinux. <pre>sudo chown <owner>:<owner> /opt/pkg/petalinux ./petalinux-v2016.4-final-installer.run /opt/pkg/petalinux</pre>

Kernel configuration failed

Command	<code>petalinux-config -c kernel</code>
Error Message	<pre>[INFO] generating Kconfig for project [INFO] sourcing bitbake [INFO] generating plnxtool conf [INFO] generating meta-plnx-generated layer <...> [INFO] generating machine configuration [INFO] configuring: kernel [INFO] generating kernel configuration files [INFO] bitbake virtual/kernel -c menuconfig Loading cache: 100% ##### ##### ETA: 00:00:00</pre>


```

Loaded 2938 entries from dependency cache.
Parsing
recipes: 100%
|#####|
#####|
Time: 00:00:06
Parsing of 2325 .bb files complete (2291 cached, 34 parsed). 2940 targets, 196 skipped, 0
masked, 0 errors.
NOTE: Resolving any missing task queue dependencies
NOTE: Preparing RunQueue
NOTE: Executing RunQueue Tasks
NOTE: Tasks Summary: Attempted 2 tasks of which 0 didn't need to be rerun and all succeeded.
Loading
cache: 100%
|#####|
#####|
ETA: 00:00:00
Loaded 2938 entries from dependency cache.
Parsing
recipes: 100%
|#####|
#####|
Time: 00:00:06
Parsing of 2325 .bb files complete (2291 cached, 34 parsed). 2940 targets, 196 skipped, 0
masked, 0 errors.
NOTE: Resolving any missing task queue dependencies
NOTE: Preparing RunQueue
NOTE: Checking sstate mirror object availability (for 2 objects)
NOTE: Executing SetScene Tasks
NOTE: Executing RunQueue Tasks
WARNING: linux-xlnx-4.6-xilinx+gitAUTOINC+2762bc9163-r0 do_menuconfig: Unsupported terminal
"screen", defaulting to "auto"
ERROR:
linux-xlnx-4.6-xilinx+gitAUTOINC+2762bc9163-r0 do_menuconfig: Unable to
spawn terminal screen: Execution of
'<...>/build/tmp/work/plnx_arm-xilinx-linux-gnueabi/linux-xlnx/4.6-
xilinx+gitAUTOINC+2762bc9163-r0/temp/run.do_terminal.10088'
failed with exit code -6:
Fatal Python error: Py_Initialize: Unable to get the locale encoding
ImportError: No module named 'encodings'
Current thread 0x00007faa3309f700 (most recent call first):
ERROR: linux-xlnx-4.6-xilinx+gitAUTOINC+2762bc9163-r0 do_menuconfig: Function failed:
do_menuconfig
ERROR:
Logfile of failure stored in:
<...>/build/tmp/work/plnx_arm-xilinx-linux-gnueabi/linux-xlnx/4.6-
xilinx+gitAUTOINC+2762bc9163-r0/temp/log.do_menuconfig.10088
ERROR: Task 7 (/opt/petalinux-v2016.4-final/components/yocto/source/arm/layers/meta-xilinx
/recipes-kernel/linux/linux-xlnx_4.6.bb, do_menuconfig) failed with exit code '1'
NOTE: Tasks Summary: Attempted 170 tasks of which 161 didn't need to be rerun and 1 failed.
Summary: 1 task failed:
/opt/petalinux-v2016.4-final/components/yocto/source/arm/layers/meta-xilinx/recipes-kernel
/linux/linux-xlnx_4.6.bb, do_menuconfig
Summary: There was 1 WARNING message shown.
Summary: There were 2 ERROR messages shown, returning a non-zero exit code.
ERROR: bitbake failed to configure kernel
ERROR: Failed to config kernel.
webtalk failed:PetaLinux statistics:extra lines detected:notsent_nofile!
webtalk failed:Failed to get PetaLinux usage statistics!

```

Workaround	Problem related to python environment and gnome-terminal. One of possible solutions is to remove gnome-terminal. Install terminator as replacement for gnome-terminal, or xterm can be used instead of gnome-terminal <pre>sudo apt-get install terminator sudo apt-get remove gnome-terminal</pre>
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Build process failed

Command	<pre>petalinux-build petalinux-config -c kernel</pre>
Error Message	<pre>sh: line 1: 29590 Segmentation fault /opt/pkg/tools/webtalk/bin/unwrapped/lrx64.o/xilproxy > /home/petalinux/SVN/cores/2016.4/design/TEC0053/ARTY_Z7_FULL/os/petalinux/.Xil/Webtalk-29586- petalinux-VirtualBox/webtalk/xilproxy.log 2>&1 /opt/pkg/tools/webtalk/bin/unwrapped/lrx64.o/xilproxy /opt/pkg/tools/webtalk/bin/unwrapped/lrx64.o/xilproxy: error while loading shared libraries: libtcmalloc.so.4: cannot open shared object file: No such file or directory</pre>
Workaround	Disable PetaLinux webtalk <pre>petalinux-util --webtalk off</pre>