PetaLinux Tools Documentation

First Boot Checklist

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Revision History

Date	Version	Notes
11/24/2014	2014.4	Initial public release for PetaLinux Tools 2014.4
08/17/2015	2015.2	Updated for PetaLinux Tools 2015.2 release
08/25/2015	2015.2.1	Updated for PetaLinux Tools 2015.2.1 release

Online Updates

Please refer to the PetaLinux v2015.2.1 Master Answer Record (Xilinx Answer Record #55776) for the latest updates on PetaLinux Tools usage and documentation.

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First-Boot Checklist

Topic	
Hardware Configuration (Vivado)	
AXI peripherals have interrupt lines connected	
System includes a timer peripheral (ARM: TTC; MicroBlaze: AXI Timer)	
UART is configured based on system requirements (eg, baud rate, parity)	
System-Level	
Default boot medium specified (eg, device which stores FS-BOOT (MicroBlaze) or BOOT.BIN (ARM))	
Default networking interface specified (multi-interface environments) in system-level configuration	
IP address allocation specified (eg, DHCP or static IP) in system-level configuration	
Default kernel storage medium specified in system-level configuration	
U-Boot Configuration	
(Optional) `#define CONFIG_` options added to U-Boot `platform-top.h`	
(Optional) U-Boot environment variables specified in U-Boot `platform-top.h`	
Device Tree Configuration	
(Optional) Board-level interfaces (eg, SPI, I^2C, etc.) added to `system-top.dts`	
Ethernet PHY device node(s) added to `system-top.dts`	
Linux Kernel	
(Optional) Kernel boot arguments updated in system-level configuration	
All needed device drivers are included in kernel configuration	
Root Filesystem	
(Optional) Flash partition specified in system-level configuration	
(Optional) Root filesystem package list updated in rootfs configuration	
Root filesystem type specified (eg, INITRAMFS, on-disk) in system-level configuration	
Raw root filesystem contents available in `<project_dir>/build/linux/rootfs/targetroot`	
Output Collateral	
(SoC Only) BOOT.BIN created with `petalinux-package`	
(FPGA Only) PROM MCS file created with Vivado	

IMPORTANT: *Re-synchronize hardware modifications with the PetaLinux project using `petalinux-config -get-hw-description <path_containing_hdf>`*

IMPORTANT: *See UG1144 - PetaLinux Reference Guide for details on the various PetaLinux workflows*

Additional Resources

References

PetaLinux Tools Documentation is available at http://www.xilinx.com/petalinux.