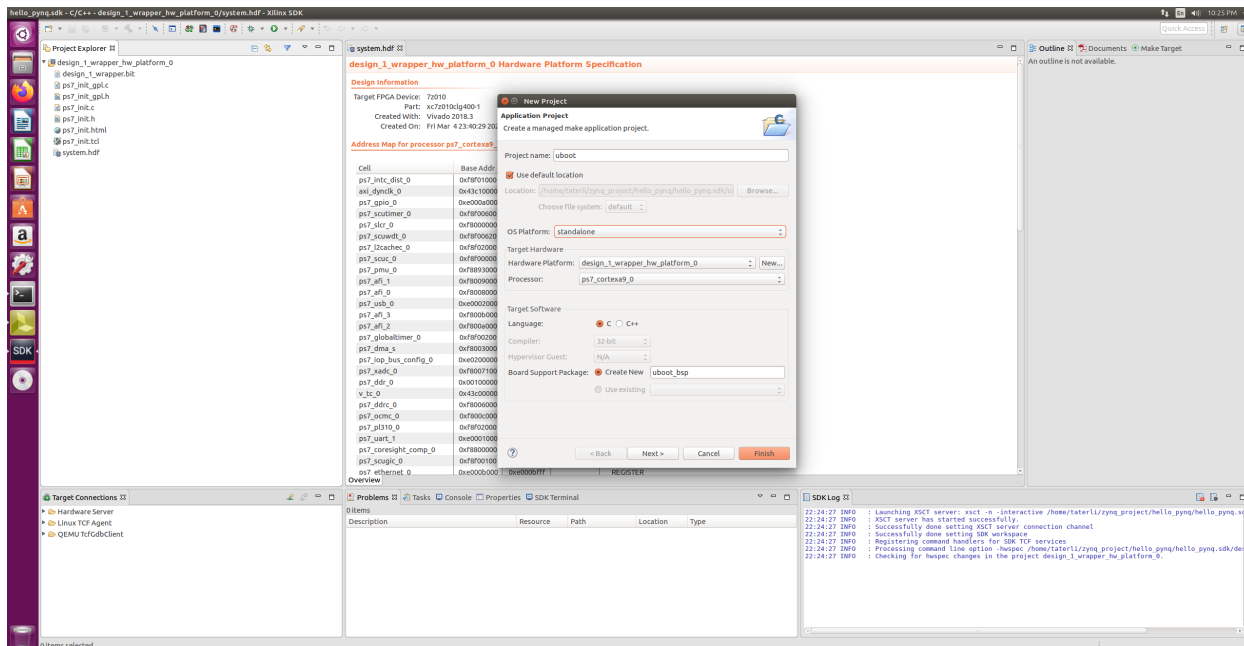
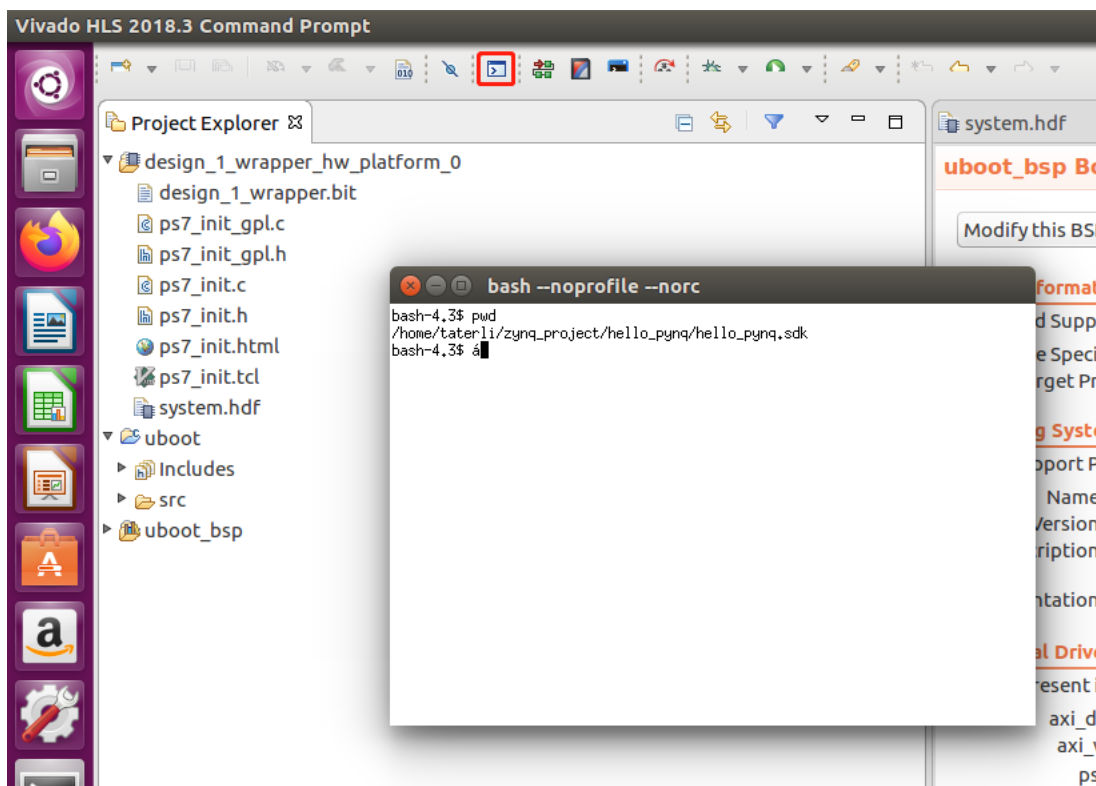


[L18]U-Boot 开发入门

我们可不可以用SDK直接调试U-Boot呢,当然可以,首先打开一个支持PetaLinux的SDK,就是工程里带有HDF文件能启动Linux,创建一个工程名字叫uboot,搞一个空白文件.



通过这个方法可以知道目前的路径.



比如我的工程的主要代码就在以下目录.

```
/home/taterli/zynq_project/hello_pynq/hello_pynq.sdk/uboot/src
```

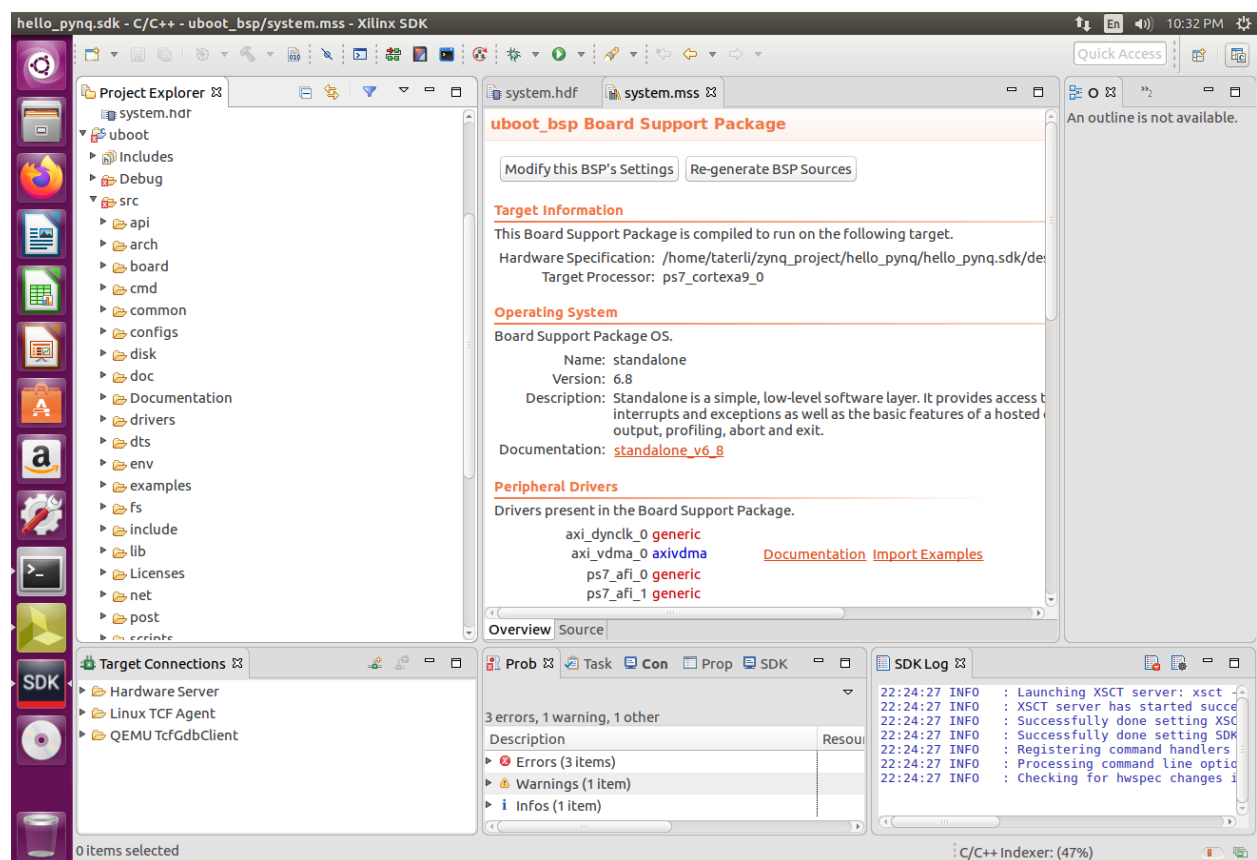
其中U-Boot官方源码路径(自行下载petalinux-v2018.3-open_components并解压):

```
/home/taterli/petalinux-v2018.3-open_components/components/u-boot-plnx
```

所以现在可以把代码复制过去.

```
cp -R /home/taterli/petalinux-v2018.3-open_components/components/u-boot-plnx/* /home/taterli/zynq_project/hello_pynq/hello_pynq.sdk/uboot/s
```

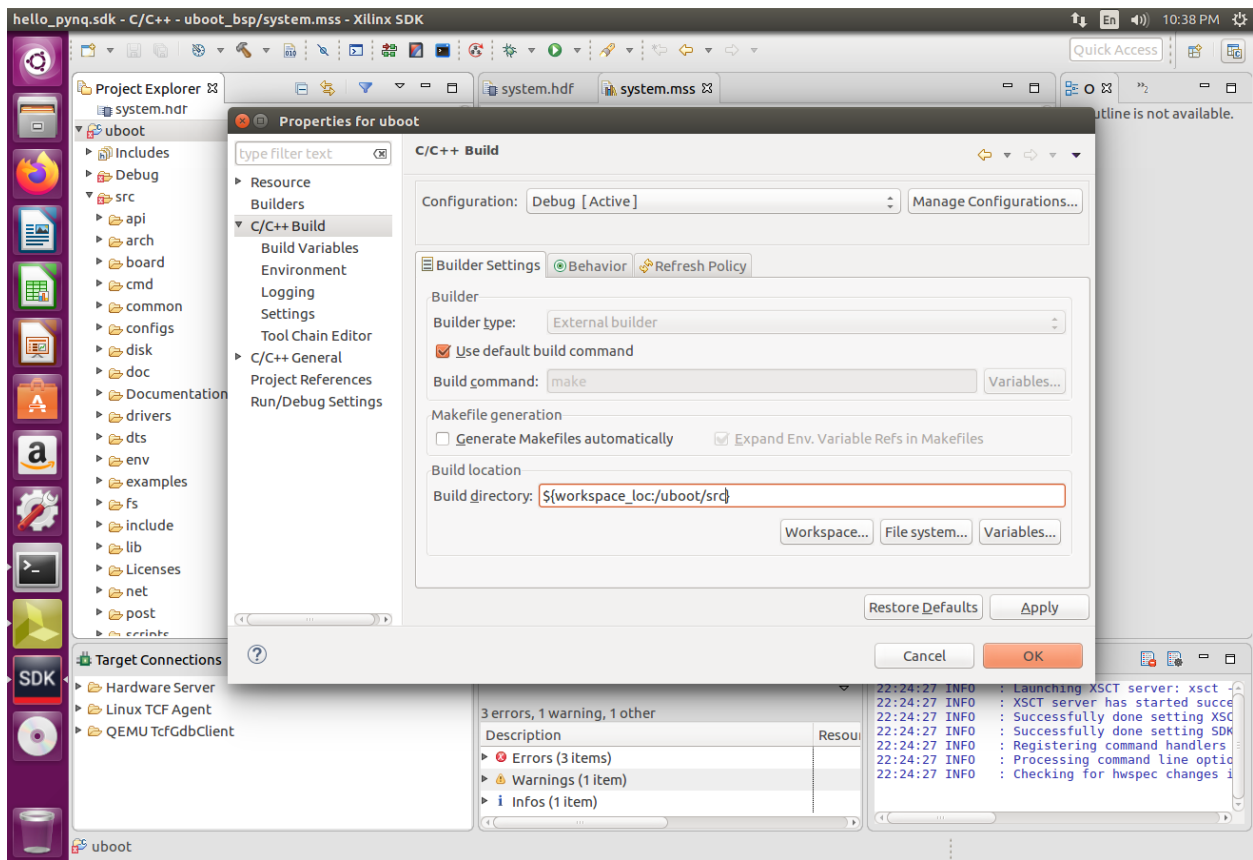
按F5刷新一下工程就看到内容了,很多X但是不用怕.



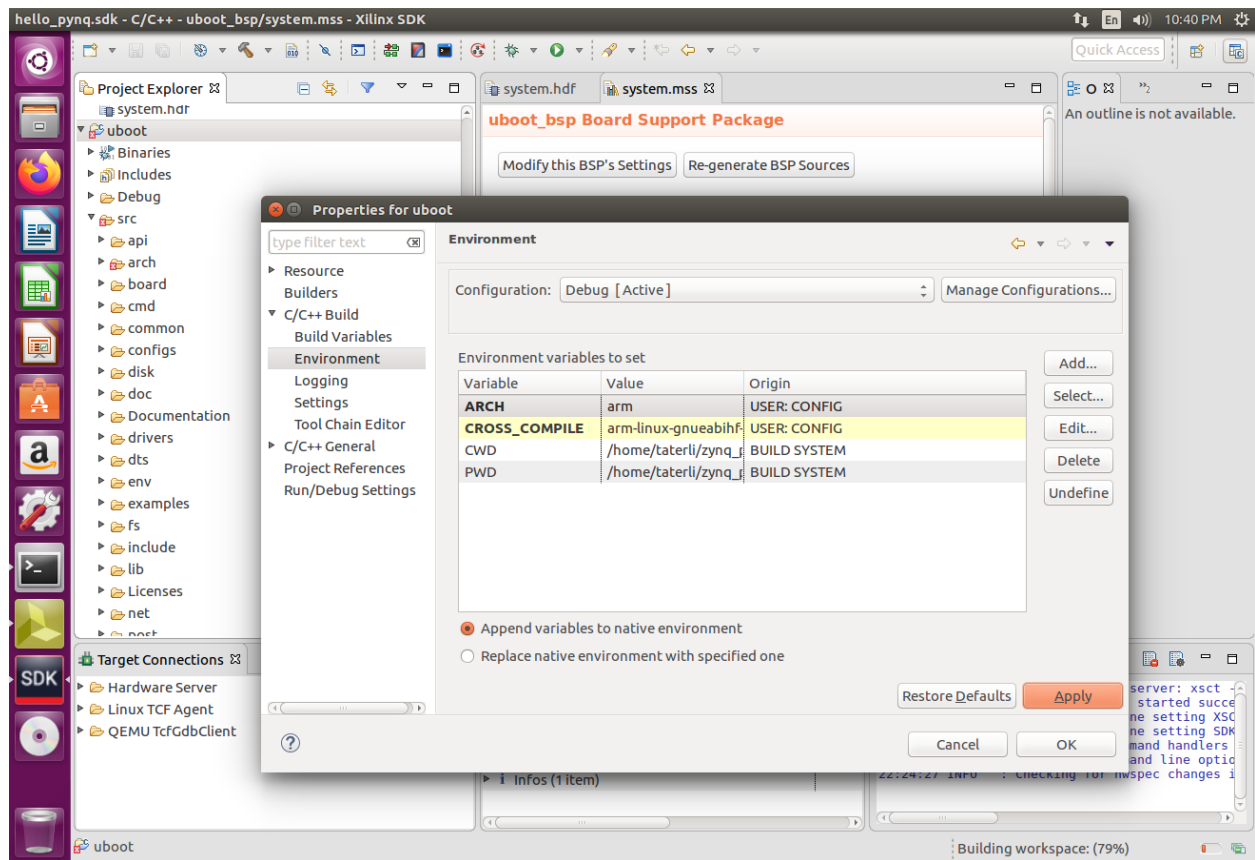
然后到U-Boot目录生成一下配置,我们用默认试试.

```
taterli@taterli-VirtualBox:~/zynq_project/hello_pynq/hello_pynq.sdk/uboot/src$ make ARCH=arm CROSS_COMPILE=arm-linux-gnueabihf- zynq_zc702_
#
# configuration written to .config
#
taterli@taterli-VirtualBox:~/zynq_project/hello_pynq/hello_pynq.sdk/uboot/src$
```

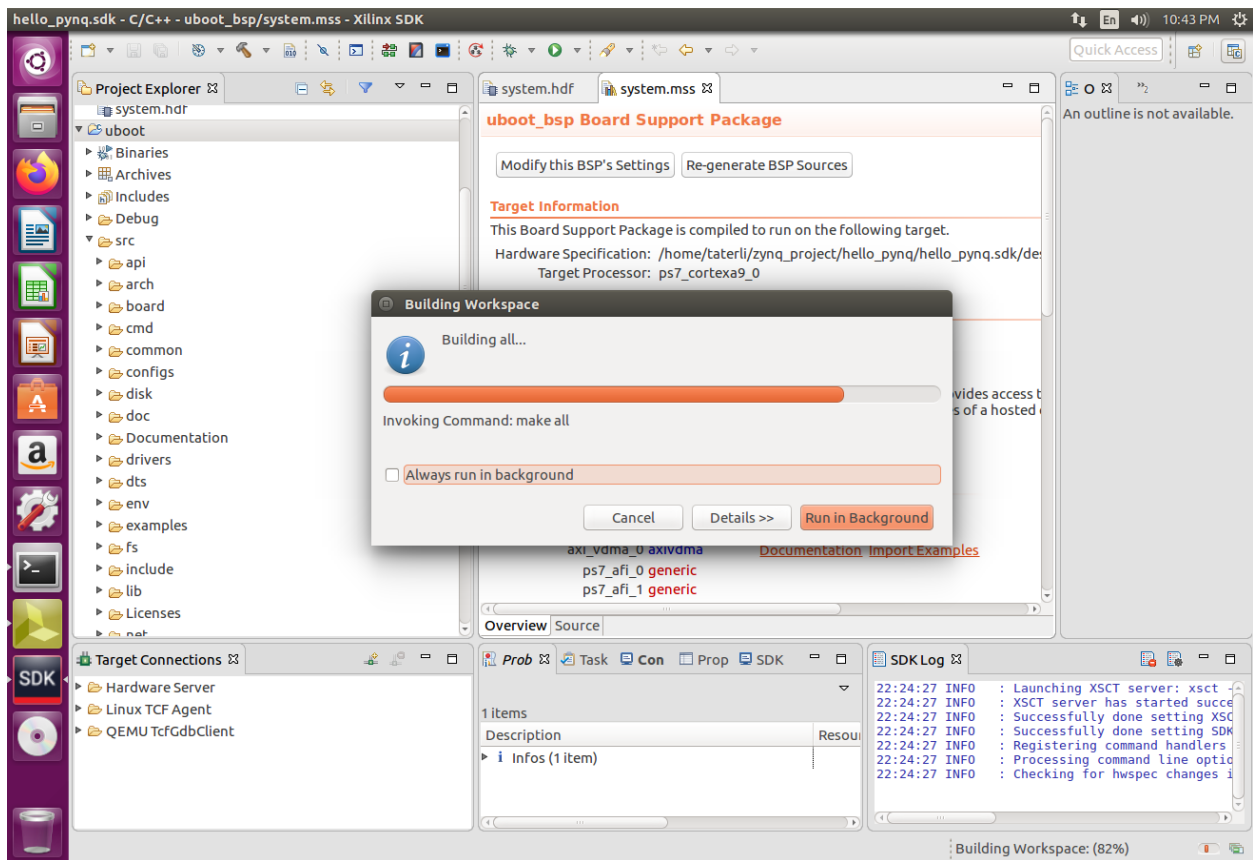
然后设置工程目录.



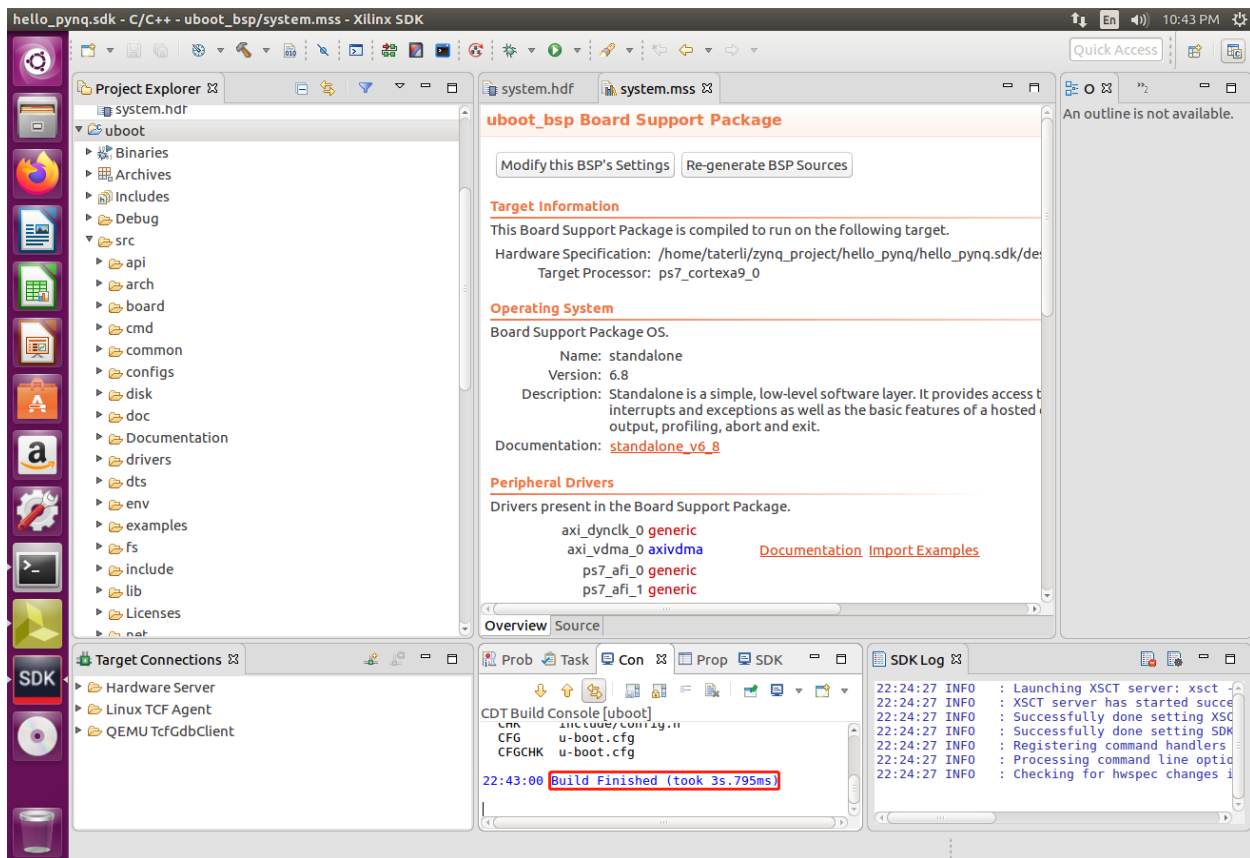
设置环境变量,就是我们make时候套的变量.



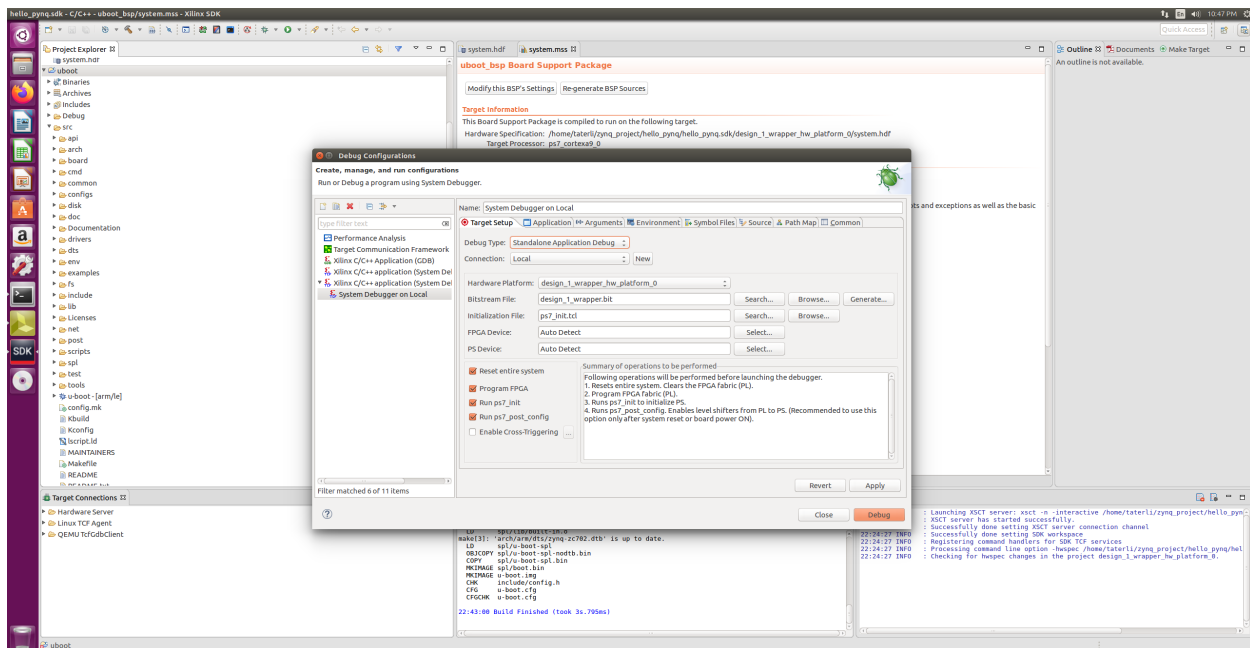
这个时候已经没有了,并且可以编译了.



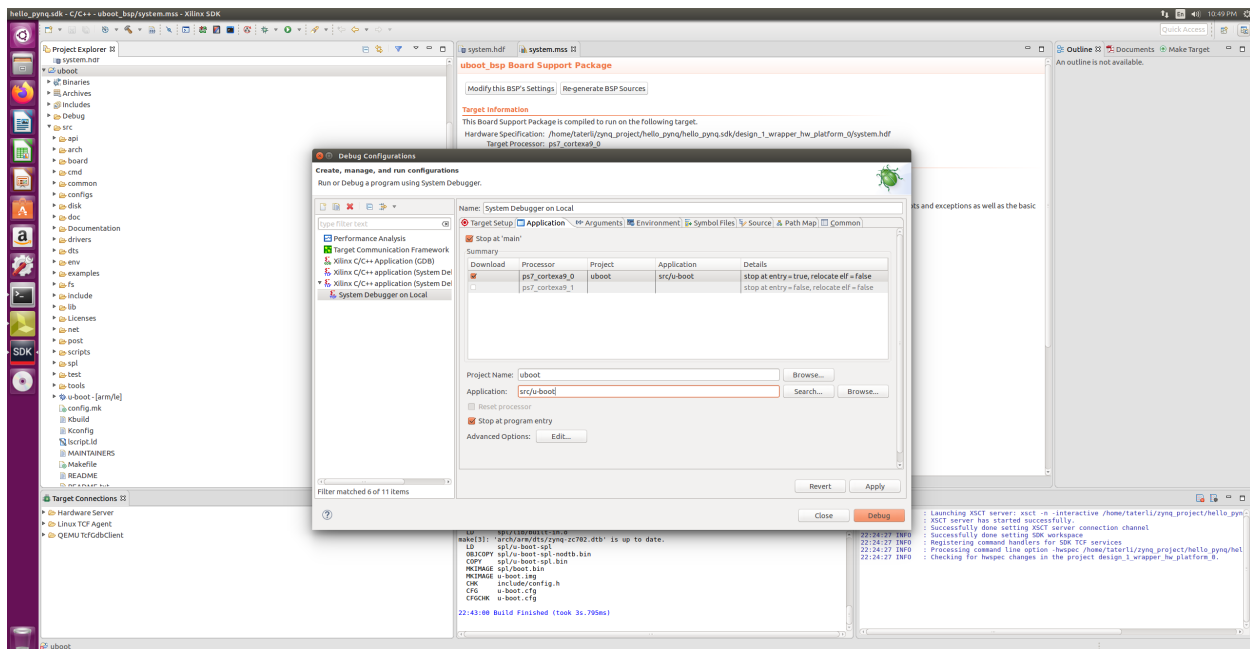
编译成功提示。



设置FPGA编程.



设置在哪个核心启动,然后让他停在入口.

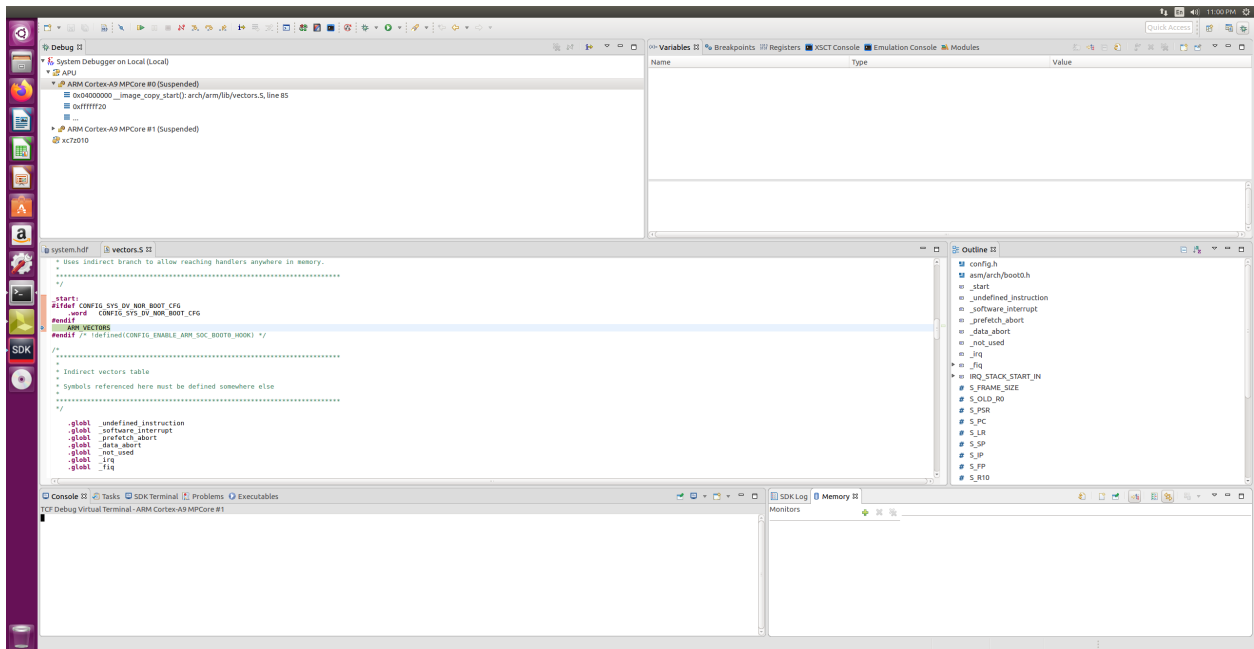


然后记得安装驱动。

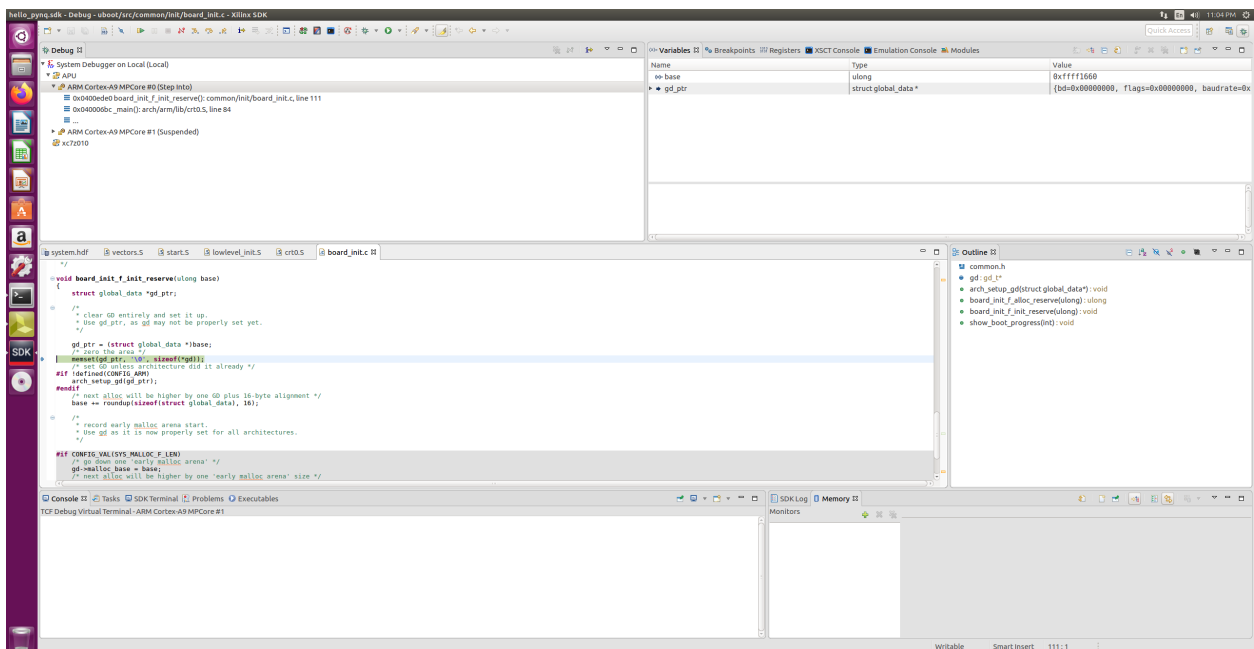
```
taterli@taterli-VirtualBox:~/Xilinx_Vivado_SDK/Vivado/2018.3/data/xicom/cable_drivers/lin64/install_script/install_drivers$ sudo ./install_
INFO: Installing cable drivers.
INFO: Script name = ./install_drivers
INFO: HostName = taterli-VirtualBox
INFO: Current working dir = /home/taterli/Xilinx_Vivado_SDK/Vivado/2018.3/data/xicom/cable_drivers/lin64/install_script/install_drivers
INFO: Kernel version = 4.15.0-112-generic.
INFO: Arch = x86_64.
Successfully installed Digilent Cable Drivers
--File /etc/udev/rules.d/52-xilinx-ftdi-usb.rules does not exist.
--File version of /etc/udev/rules.d/52-xilinx-ftdi-usb.rules = 0000.
--Updating rules file.
--File /etc/udev/rules.d/52-xilinx-pcusb.rules does not exist.
--File version of /etc/udev/rules.d/52-xilinx-pcusb.rules = 0000.
--Updating rules file.

INFO: Digilent Return code = 0
INFO: Xilinx Return code = 0
INFO: Xilinx FTDI Return code = 0
INFO: Return code = 0
INFO: Driver installation successful.
CRITICAL WARNING: Cable(s) on the system must be unplugged then plugged back in order for the driver scripts to update the cables.
```

终于进入复位向量了。



当然实验才刚刚开始,现在可以开始进行调试.可以一步一步跟踪.



接下来要花一些时间好好分析这里的内容,这里提一句,如果运行到复制到片外的状态后,记得修改gdb的映射关系,否则无法查看源码.