Petalinux Auto Login
/ Autorun

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<Pmod CAN>

-PeatLinux Tools Documentation Reference Guide UG1144(v2019.1) 참조

[구현 기능]

- Zybo z7 10 PetaLinux에서 Auto Login / Autorun 기능을 구현함.

[준비물]

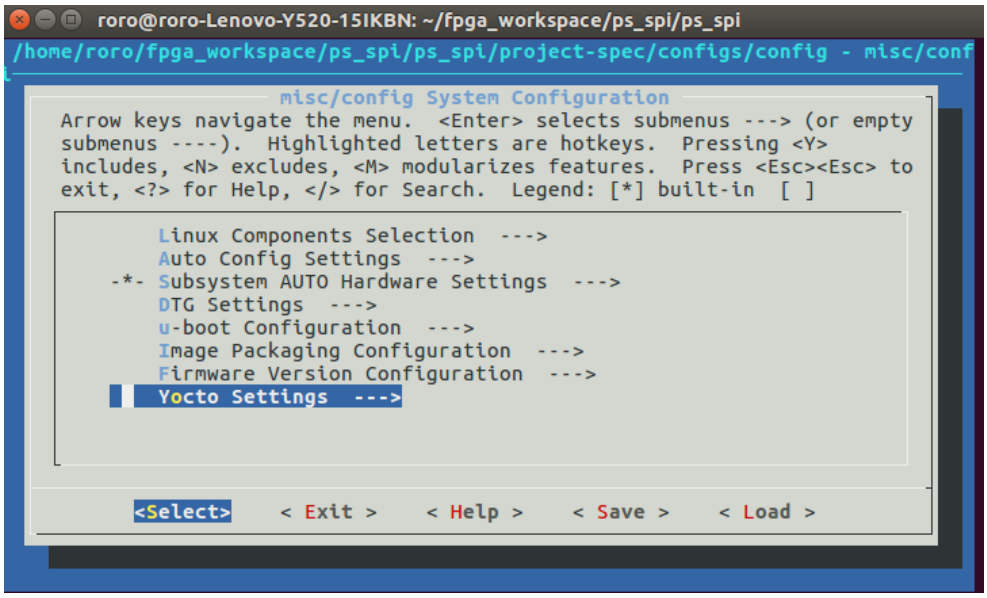
- Zybo z7 10
- Pmod CAN

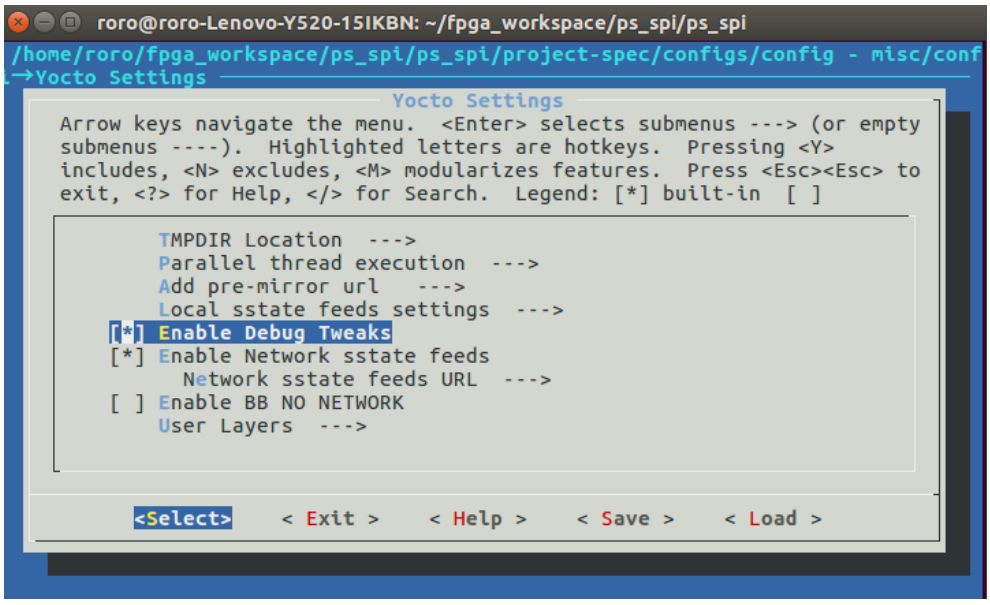
[Petalinux Auto Login]

1) petalinux-config 시 Yocto Setting → Enable Debug Tweaks 활성화

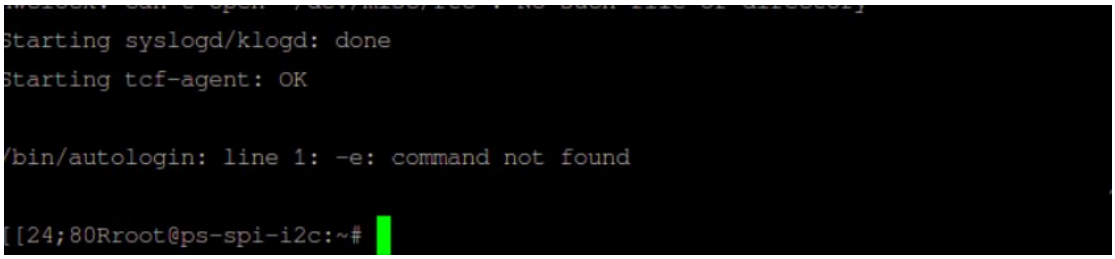
- 명령어 : petalinux-config - -get-hw-description=<.hdf 나 .sda 파일이 있는 디렉터리>

```
roro@roro-Lenovo-Y520-15IKBN:~/fpga_workspace/ps_spi_i2c/ps-spi-i2c$ petalinux-c
onfig --get-hw-description=/home/roro/fpga_workspace/ps_spi_i2c/ps_spi_i2c.sdk
```





2) 동작 확인


Starting syslogd/klogd: done
Starting tcf-agent: OK
/bin/autologin: line 1: -e: command not found
[[24;80Rroot@ps-spi-i2c:~#

[Petalinux Autorun]

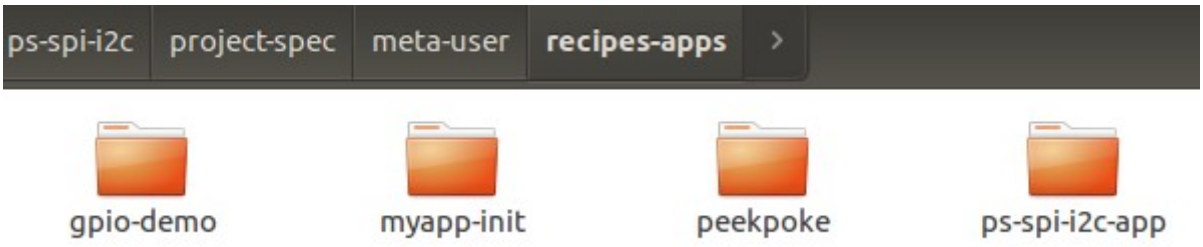
- 시스템 부트 시 실행되는 shell script 작성

1) install 형식의 app 생성

```
cd <plnx-proj-proot>/petalinux-create -t apps --template install -n
myapp-init  --enable
```

```
roro@roro-Lenovo-Y520-15IKBN:~/fpga_workspace/ps_spi_i2c/ps-spi-i2c$ petalinux-c
reate -t apps --template install -n myapp-init --enable
```

- <petalinux project 디렉터리>/project-spec/meta-user/recipes-apps 디렉터리에 myapp-init 폴더가 생성된 것을 확인



2) bb 파일 수정

- project-spec/meta-user/recipes-apps/myapp-init/myappinit.bb 파일 수정
- do_install() 함수에서 myapp-init을 init.d에 등록함.

```
#
# This file is the myapp-init recipe.
#
SUMMARY = "Simple myapp-init application"
SECTION = "PETALINUX/apps"
LICENSE = "MIT"
LIC_FILES_CHKSUM =
"file://${COMMON_LICENSE_DIR}/MIT;md5=0835ade698e0bcf8506ecda2f7b4f302"

SRC_URI = "file://myapp-init \
          "
S = "${WORKDIR}"

FILESEXTRAPATHS_prepend := "${THISDIR}/files:"

inherit update-rc.d
```

```
INITSCRIPT_NAME = "myapp-init"
INITSCRIPT_PARAMS = "start 99 S ."

do_install() {
        install -d ${D}${sysconfdir}/init.d
        install -m 0755 ${S}/myapp-init ${D}${sysconfdir}/init.d/myapp-
init
}
FILES_${PN} += "${sysconfdir}/*"
```

3) shell script 작성
- project-spec/meta-user/recipes-apps/ myapp-init/files/myapp-init 수정
- DAEMON 변수로 자동으로 실행시킬 프로그램의 파일을 설정함.
- start() 함수 실행 시 “Starting myapp”이 출력
  stop() 함수 실행 시 “Stoping myapp”출력

```
3 DAEMON=/usr/bin/ps-spi-i2c-app
```

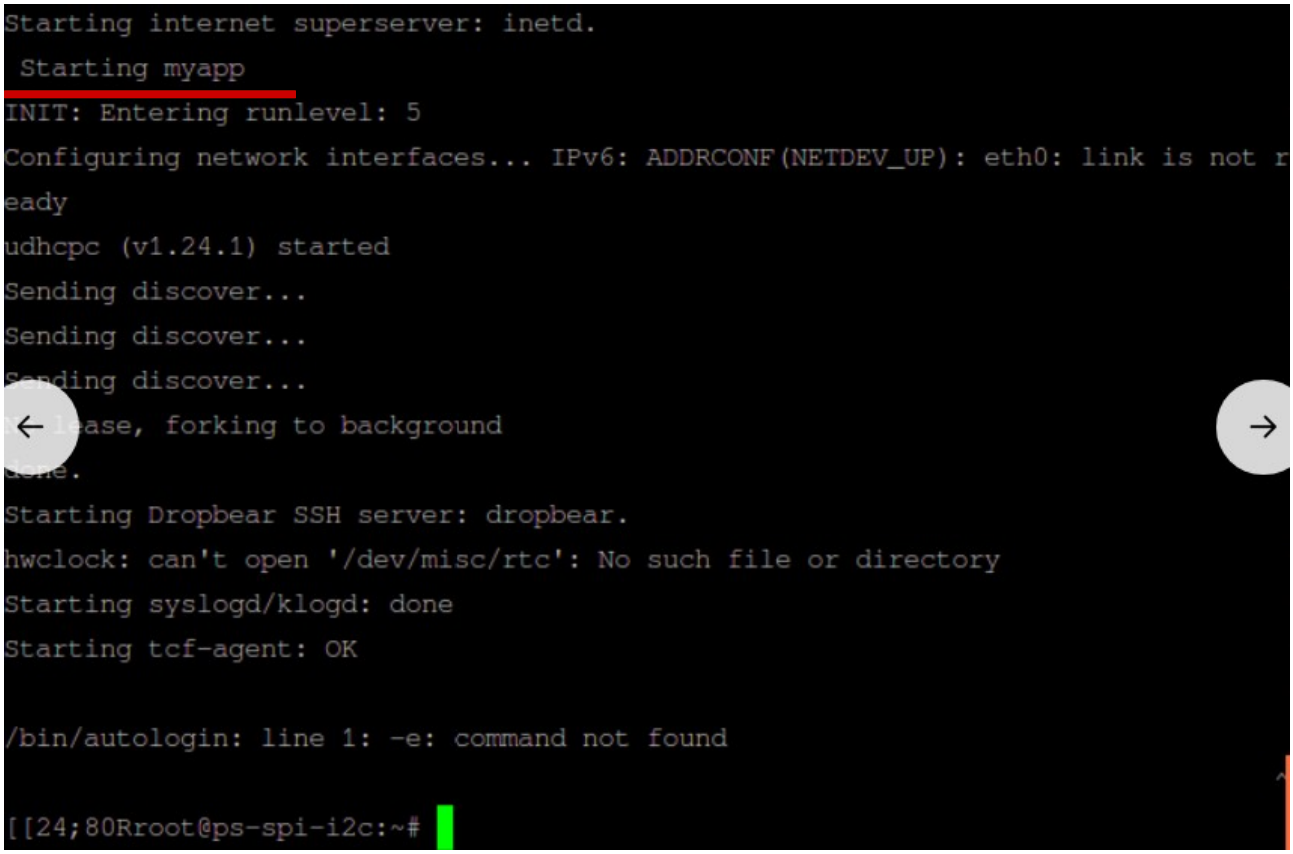
```
#!/bin/sh
DAEMON=/usr/bin/myapp
start ()
{
        echo " Starting myapp"
        start-stop-daemon -S -o --background -x $DAEMON
}
stop ()
{
        echo " Stoping myapp"
        start-stop-daemon -K -x $DAEMON
}
restart()
{
        stop
        start
}
[ -e $DAEMON ] || exit 1

        case "$1" in
                start)
                        start; ;;
                stop)
                        stop; ;;
                restart)
                        restart; ;;
                *)
                        echo "Usage: $0 {start|stop|restart}"
                        exit 1
        esac
exit $?
```

4) petalinux-build

```
roro@roro-Lenovo-Y520-15IKBN:~/fpga_workspace/ps_spi_i2c/ps-spi-i2c$ petalinux-b
uild
```

5) 동작 확인

- 부팅 시 “Starting myapp” 출력 확인



- ps 명령어로 실행되는 프로세스(ps-spi-i2c) 확인