Xilinx Zynq FPGA, TI DSP, MCU 기반의 회로 설계 및 임베디드 전문가 과정

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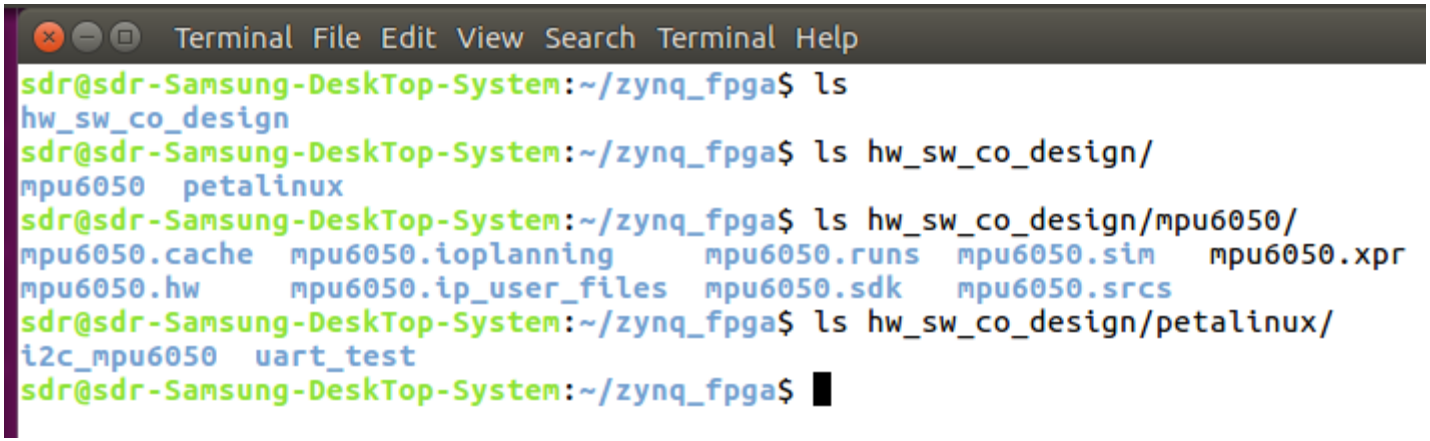
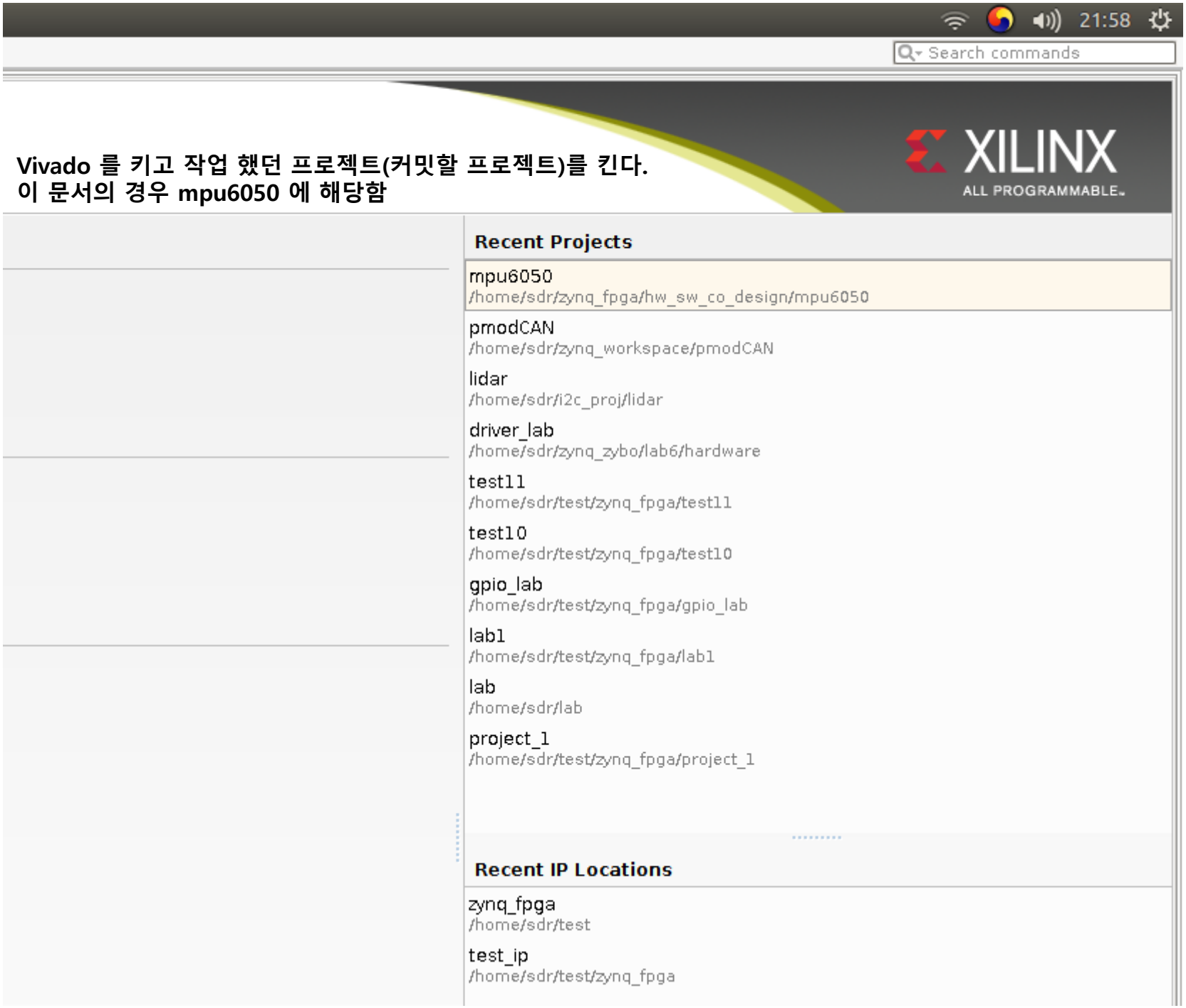
How to commit FPGA Petalinux Project ?

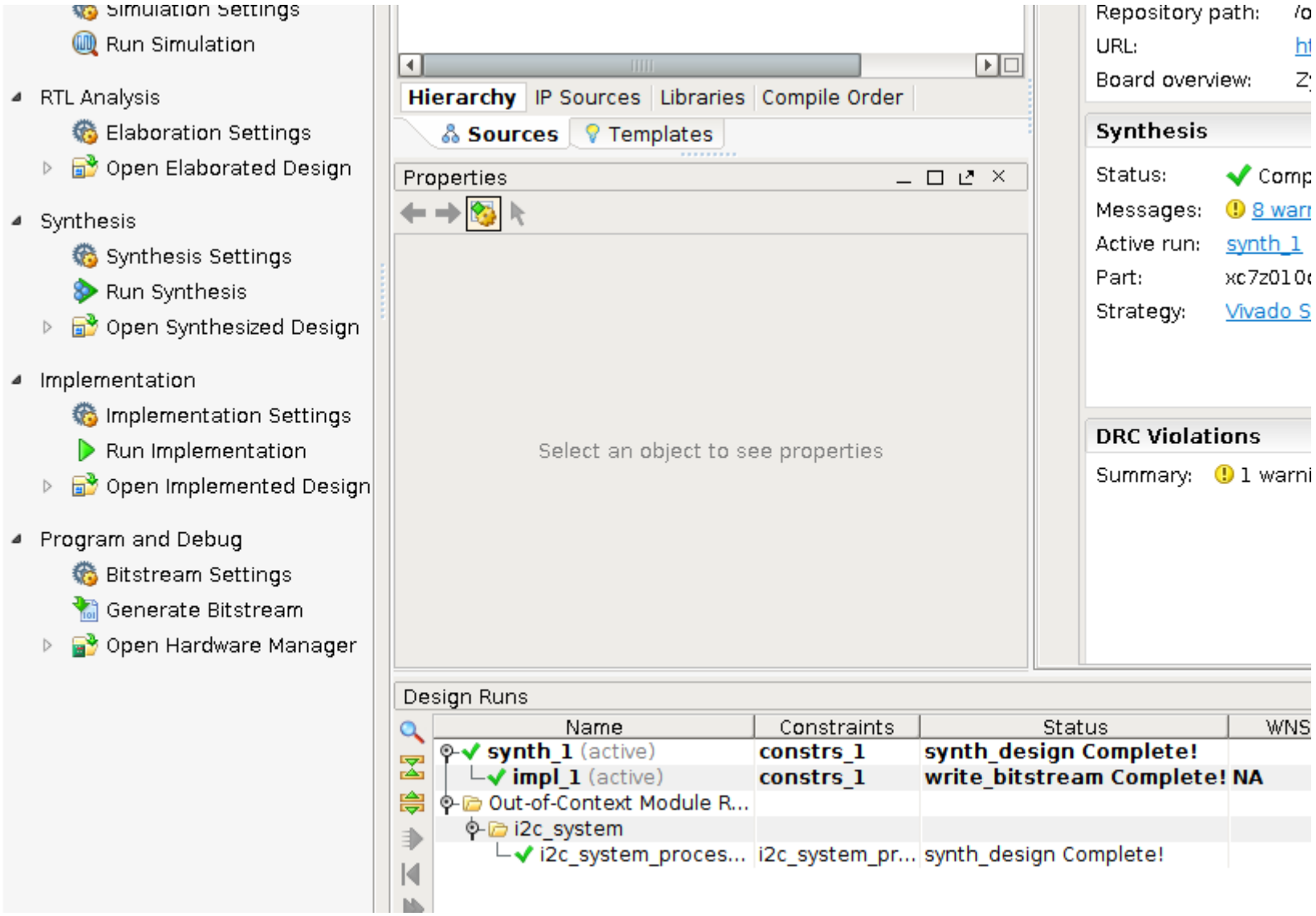
우선 커밋하고자 하는 HW 와 SW 작업한 디렉토리를 찾는다.

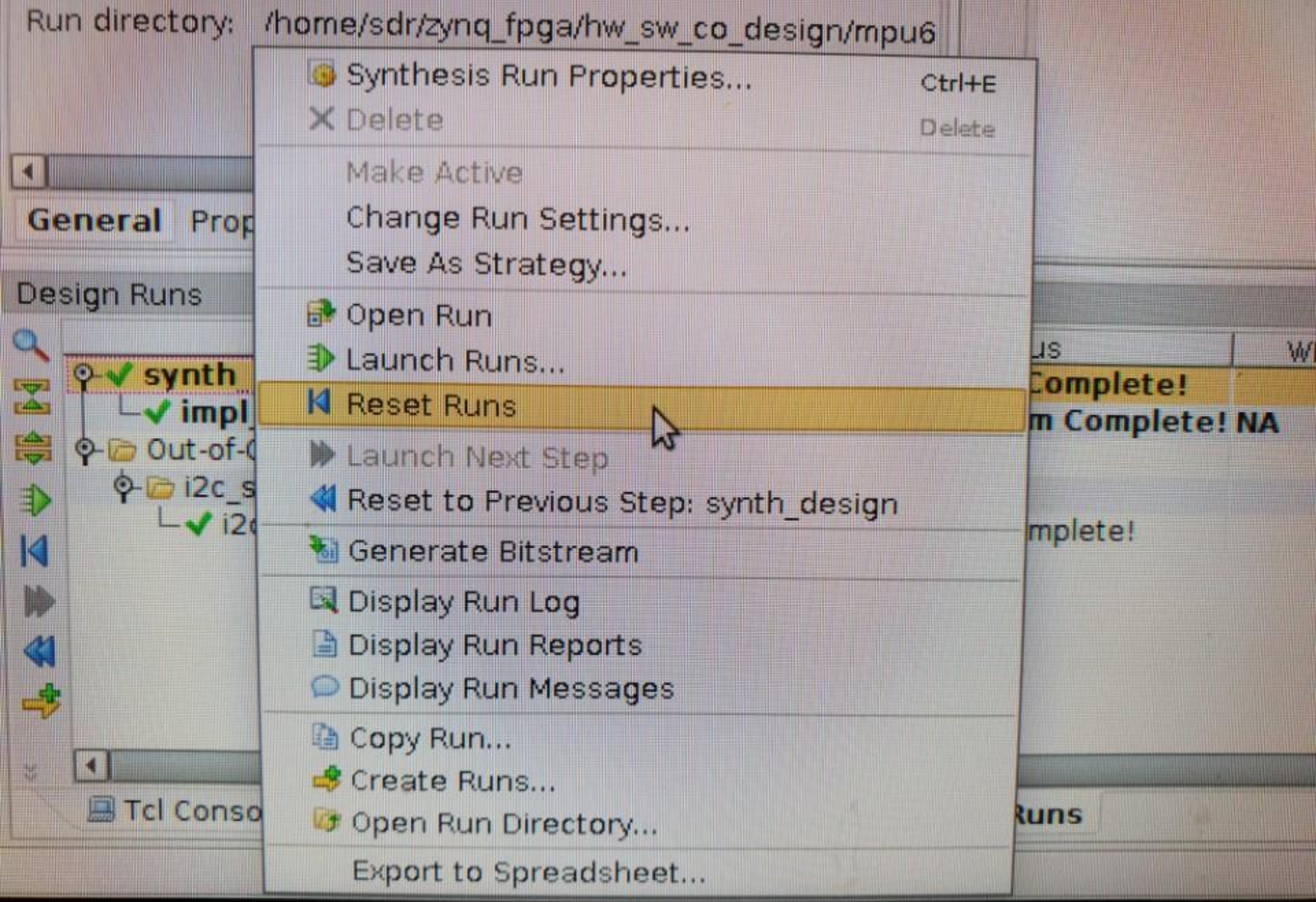




Vivado 를 키고 작업 했던 프로젝트(커밋할 프로젝트)를 킨다.
이 문서의 경우 mpu6050 에 해당함

잘 보면 하단에 체크 표시가 있는데 해당 부분들을 싹다 제거해줘야한다.




Run directory: /home/sdr/zynq_fpga/hw_sw_co_design/mpu6
Synthesis Run Properties... Ctrl+E
Delete Delete
Make Active
Change Run Settings...
Save As Strategy...
Open Run
Launch Runs...
Reset Runs
Launch Next Step
Reset to Previous Step: synth_design
Generate Bitstream
Display Run Log
Display Run Reports
Display Run Messages
Copy Run...
Create Runs...
Open Run Directory...
Export to Spreadsheet...
General
Design Runs
synth
impl
Out-of-
i2c_s
Tcl Conso
Complete!
m Complete! NA
mplete!
Runs

URL: http://www.digilentinc.com
Board overview: Zybo

Synthesis

Summary: 1 warning

Implementation

Status: Complete
Messages: 2 warnings
Active run: impl_1
Part: xc7z010clg400-1
Strategy: Vivado Implementation Defaults
Incremental compile: None

Summary Route Status

Timing

Worst Negative Slack (WNS): NA
Total Negative Slack (TNS): NA
Number of Failing Endpoints: NA
Total Number of Endpoints: NA

Implemented Timing Report

Setup Hold Pulse Width

Reset Runs

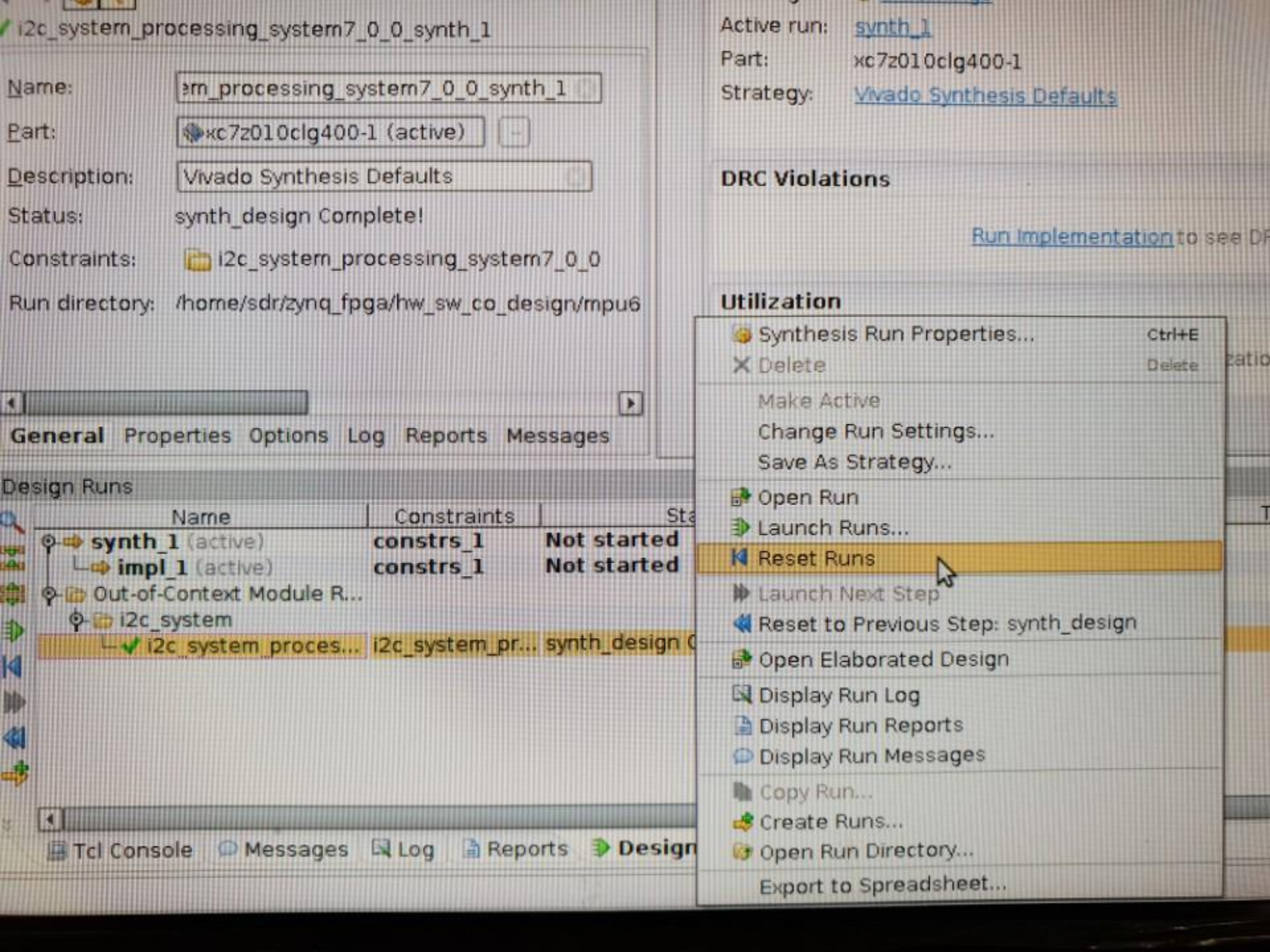
OK to reset run 'synth_1'? This will also reset 1 implementation run.

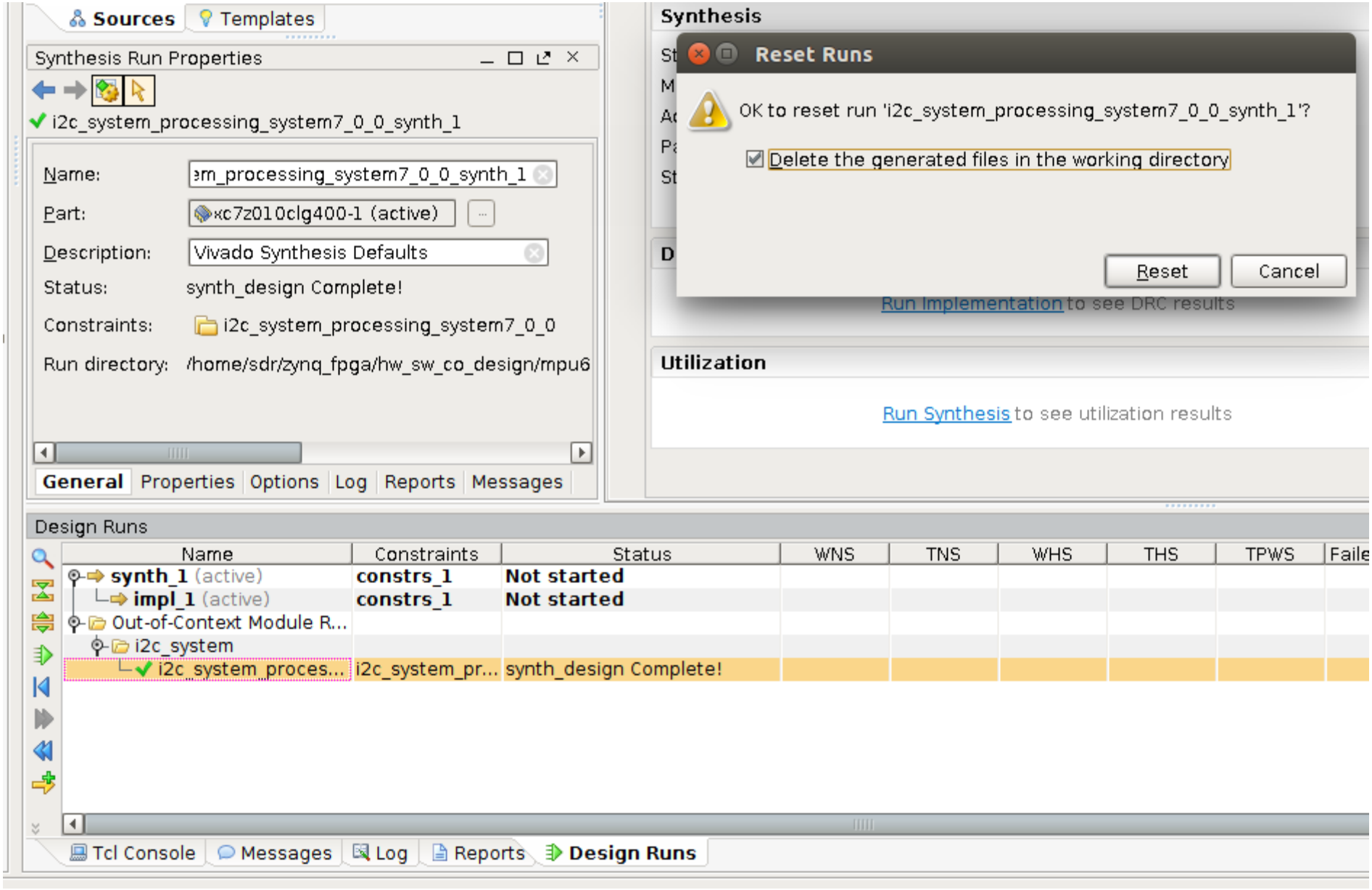
☑ Delete the generated files in the working directory

Reset Cancel

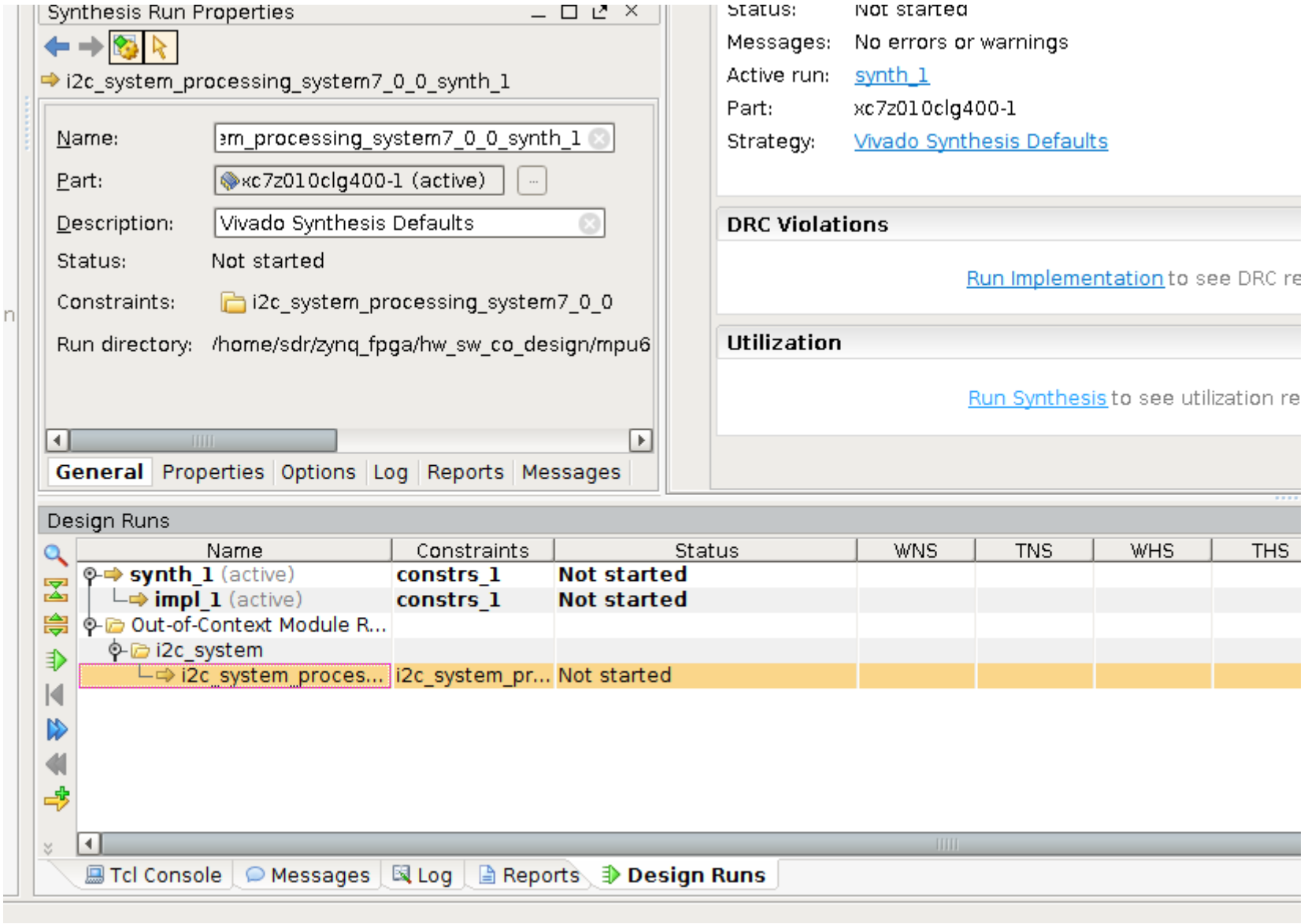
tus	WNS	TNS	WHS	THS	TPWS	Failed Ro...	LUT	FF	BRAM	URAM	DSP	Start
Complete!							**0**	**0**	**0**	**0**	**0**	**7/31/18 1:16 AM**
m Complete!	**NA**	**NA**	**NA**	**NA**	**0.000**	**0**	**2**	**0**	**0**	**0**	**0**	**7/31/18 1:17 AM**
omplete!							144	10	0	0	0	7/31/18 1:10 AM

Runs


i2c_system_processing_system7_0_0_synth_1
Name: em_processing_system7_0_0_synth_1
Part: xc7z010clg400-1 (active)
Description: Vivado Synthesis Defaults
Status: synth_design Complete!
Constraints: i2c_system_processing_system7_0_0
Run directory: /home/sdr/zynq_fpga/hw_sw_co_design/mpu6
General Properties Options Log Reports Messages
Active run: synth_1
Part: xc7z010clg400-1
Strategy: Vivado Synthesis Defaults
DRC Violations
Run Implementation to see DR
Utilization
Synthesis Run Properties... Ctrl+E
Delete Delete
Make Active
Change Run Settings...
Save As Strategy...
Open Run
Launch Runs...
Reset Runs
Launch Next Step
Reset to Previous Step: synth_design
Open Elaborated Design
Display Run Log
Display Run Reports
Display Run Messages
Copy Run...
Create Runs...
Open Run Directory...
Export to Spreadsheet...
Design Runs
Name
Constraints
synth_1 (active) constrs_1 Not started
impl_1 (active) constrs_1 Not started
Out-of-Context Module R...
i2c_system
i2c_system_proces... i2c_system_pr... synth_design
Tcl Console Messages Log Reports Design


Sources
Templates
Synthesis Run Properties
i2c_system_processing_system7_0_0_synth_1
Name:
em_processing_system7_0_0_synth_1
Part:
xc7z010clg400-1 (active)
Description:
Vivado Synthesis Defaults
Status:
synth_design Complete!
Constraints:
i2c_system_processing_system7_0_0
Run directory:
/home/sdr/zynq_fpga/hw_sw_co_design/mpu6
General
Properties
Options
Log
Reports
Messages
Synthesis
Reset Runs
OK to reset run 'i2c_system_processing_system7_0_0_synth_1'?
Delete the generated files in the working directory
Reset
Cancel
Run Implementation to see DRC results
Utilization
Run Synthesis to see utilization results
Design Runs
Name
Constraints
Status
WNS
TNS
WHS
THS
TPWS
synth_1 (active)
constrs_1
Not started
impl_1 (active)
constrs_1
Not started
Out-of-Context Module R...
i2c_system
i2c_system_proces...
i2c_system_pr...
synth_design Complete!
Tcl Console
Messages
Log
Reports
Design Runs

Reset 을 잘 해주면 아래와 같이 체크가 전부 사라진다.



다음으로 리눅스 상에서 모든 컴파일 바이너리를 싹 날려준다.
distclean 옵션을 통해 이를 수행할 수 있다.

```
Terminal File Edit View Search Terminal Help
sdr@sdr-Samsung-DeskTop-System:~$ cd zynq_fpga/
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga$ ls
hw_sw_co_design
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga$ cd hw_sw_co_design/
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design$ ls
mpu6050  petalinux
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design$ cd petalinux/
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux$ ls
i2c_mpu6050  uart_test
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux$ cd i2c_mpu6050/
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050$ ls
build  components  config.project  hw-description  images  subsystems
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050$ cd images/linux/
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050/images/linux$ ls
BOOT.BIN                image.ub        system.dtb        u-boot.elf    u-boot.srec      vmlinux
i2c_system_wrapper.bit  rootfs.cpio     System.map.linux  u-boot-s.bin  u-boot-s.srec    zImage
image.elf               rootfs.cpio.gz  u-boot.bin        u-boot-s.elf  urootfs.cpio.gz  zynq_fsbl.elf
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050/images/linux$
```

```
Terminal File Edit View Search Terminal Help
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050$ petalinux-build -x distclean
INFO: Checking component...
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050$ petalinux-build -x mrproper
INFO: Checking component...
sdr@sdr-Samsung-DeskTop-System:~/zynq_fpga/hw_sw_co_design/petalinux/i2c_mpu6050$
```

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forked from KOITT2/RC_Car

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이제 프로젝트를 커밋하기 위해서
먼저 본인이 fork 했던 저장소를 업데이트해야 한다.
이 일련의 절차를 진행하도록 한다.

498 commits | **1** branch | **0** releases | **19** contributors | GPL-3.0

Branch: **master** | **New pull request** | **Create new file** | **Upload files** | **Find file** | **Clone or downloa**

This branch is 249 commits behind KOITT2:master.

link180 MCU Proj Test Commit

circuit	Merge pull request #89 from HyunwooParkk/master	
cur_present	Merge pull request #99 from ynjw375812/master	
doc	TI AM5728 OpenCL Architecture	23 days a
dsp_proj	modify serv	24 days a
experiment	Ardu on Windows	23 days a
fpga_proj	FPGA Linux Kernel	a month a
mcu_proj	MCU Proj Test Commit	22 days a
member_profile	Add files via upload	26 days a
past_present	rename past present & add cur present	2 months a

Clone with HTTPS Use SS

Use Git or checkout with SVN using the web URL.

`https://github.com/link180/RC_Car.git`

Download ZIP

먼저 과거에 fork 했던 본인의 git 저장소를 clone 받도록 한다.

```
Terminal File Edit View Search Terminal Help
sdr@sdr-Samsung-DeskTop-System:~/lecture$ cd Test_RC_Car/
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car$ git clone https://github.com/link180/RC_Car.git
Cloning into 'RC_Car'...
remote: Counting objects: 15906, done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 15906 (delta 1), reused 0 (delta 0), pack-reused 15896
Receiving objects: 100% (15906/15906), 385.28 MiB | 1.24 MiB/s, done.
Resolving deltas: 100% (1820/1820), done.
Checking connectivity... done.
Checking out files: 100% (15378/15378), done.
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car$ clear

sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car$ ls
RC_Car
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car$ cd RC_Car/
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$
```

```
Terminal File Edit View Search Terminal Help
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car$ ls
RC_Car
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car$ cd RC_Car/
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ ls
circuit      doc       experiment  LICENSE   member_profile  pcb         real_test
cur_present  dsp_proj  fpga_proj   mcu_proj  past_present    README.md   test
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ cd fpga_proj/
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ ls
prepare.txt  xlnx-4.0
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$
```

KOITT2 / **RC_Car**

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현재 우리의 메인 저장소에 해당한다.

747 commits | **1** branch | **0** releases | **21** contributors | GPL-3.0

Branch: **master** | **New pull request** | **Create new file** | **Upload files** | **Find file** | **Clone or d**

silenc3502 delete wrong info

am5728_linux-4.9.69	What The Fuck ?!	
circuit	What The Fuck ?!	
cur_present	Server Design	
doc	What The Fuck ?!	
dsp_proj	audio proj	3
experiment	Fix Location	3
fpga_proj	delete wrong info	24 mir
mcu_proj	Merge pull request #141 from ahnsangjae/master	3
member_profile	What The Fuck ?!	6
past_present	What The Fuck ?!	6

Clone with HTTPS

Use Git or checkout with SVN using the web U

`https://github.com/KOITT2/RC_Car.git`

Download ZIP

Git 에 커밋하는 사람이 누구인지 명시적으로 설정해주도록 한다.
사용자는 본인의 계정이며 이메일 주소는 본인이 git 에 가입할때 사용했던 이메일을 사용해야만 한다.

여기서 원격 저장소를 우리의 실제 메인 저장소를 기준으로 업데이트를 받을 것임을 지정하게 된다.

```
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git config --global user.name "link180"
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git config --global user.email "silenc3502@naver
.com"
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ cd ..
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ git remote -v
origin  https://github.com/link180/RC_Car.git (fetch)
origin  https://github.com/link180/RC_Car.git (push)
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ git remote add upstream https://github.com/KOITT2/RC_Car.g
it
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ git remote -v
origin  https://github.com/link180/RC_Car.git (fetch)
origin  https://github.com/link180/RC_Car.git (push)
upstream        https://github.com/KOITT2/RC_Car.git (fetch)
upstream        https://github.com/KOITT2/RC_Car.git (push)
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ git fetch upstream
remote: Counting objects: 80993, done.
remote: Compressing objects: 100% (155/155), done.
remote: Total 80993 (delta 1563), reused 1726 (delta 1557), pack-reused 79254
Receiving objects: 100% (80993/80993), 367.90 MiB | 310.00 KiB/s, done.
Resolving deltas: 100% (21456/21456), completed with 867 local objects.
From https://github.com/KOITT2/RC_Car
 * [new branch]      master     -> upstream/master
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$
```

```
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/virtio-trace/README
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/virtio-trace/trace-agent-ctl.c
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/virtio-trace/trace-agent-rw.c
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/virtio-trace/trace-agent.c
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/virtio-trace/trace-agent.h
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/virtio_test.c
 create mode 100644 zynq-zybo_linux-4.0/tools/virtio/vringh_test.c
 create mode 100644 zynq-zybo_linux-4.0/tools/vm/.gitignore
 create mode 100644 zynq-zybo_linux-4.0/tools/vm/Makefile
 create mode 100644 zynq-zybo_linux-4.0/tools/vm/page-types.c
 create mode 100644 zynq-zybo_linux-4.0/tools/vm/page_owner_sort.c
 create mode 100644 zynq-zybo_linux-4.0/tools/vm/slabinfo.c
 create mode 100644 zynq-zybo_linux-4.0/usr/.gitignore
 create mode 100644 zynq-zybo_linux-4.0/usr/Kconfig
 create mode 100644 zynq-zybo_linux-4.0/usr/Makefile
 create mode 100644 zynq-zybo_linux-4.0/usr/gen_init_cpio.c
 create mode 100644 zynq-zybo_linux-4.0/usr/initramfs_data.S
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/Kconfig
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/arch_timer.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/vgic-v2-emul.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/vgic-v2.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/vgic-v3-emul.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/vgic-v3.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/vgic.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/arm/vgic.h
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/async_pf.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/async_pf.h
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/coalesced_mmio.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/coalesced_mmio.h
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/eventfd.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/iodev.h
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/irqchip.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/kvm_main.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/vfio.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/vfio.h
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ git merge upstream/master
```

아래 merge 명령을 쓰면 갱신이 진행됨

```
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/iodev.h
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/irqchip.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/kvm_main.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/vfio.c
 create mode 100644 zynq-zybo_linux-4.0/virt/kvm/vfio.h
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ ls
am5728_linux-4.9.69  cur_present  dsp_proj    fpga_proj  mcu_proj        past_present  README.md  te
circuit              doc          experiment  LICENSE    member_profile  pcb           real_test  zy
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car$ cd fpga_proj/
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ ls
mpu9250_time  prepare.txt  xlnx-4.0
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git status
On branch master
Your branch is ahead of 'origin/master' by 249 commits.
  (use "git push" to publish your local commits)
nothing to commit, working directory clean
```

이후 개인 저장소에 적용할 수 있도록 push 한다.

```
Username for 'https://github.com': ^C
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git push origin master
Username for 'https://github.com': link180
Password for 'https://link180@github.com':
Counting objects: 80993, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (59453/59453), done.
Writing objects: 100% (80993/80993), 368.84 MiB | 3.37 MiB/s, done.
Total 80993 (delta 20665), reused 79951 (delta 20442)
remote: Resolving deltas: 100% (20665/20665), completed with 40 local objects.
remote: warning: GH001: Large files detected. You may want to try Git Large File Storage - https
remote: warning: See http://git.io/iEPt8g for more information.
remote: warning: File dsp_proj/backup/kart.mp4 is 59.57 MB; this is larger than GitHub's recomme
of 50.00 MB
To https://github.com/link180/RC_Car.git
   5e62010..0d95961  master -> master
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$
```

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개인 저장소에 push 가 잘 된 모습임

747 commits | **1** branch | **0** releases | **19** contributors | GPL-3.0

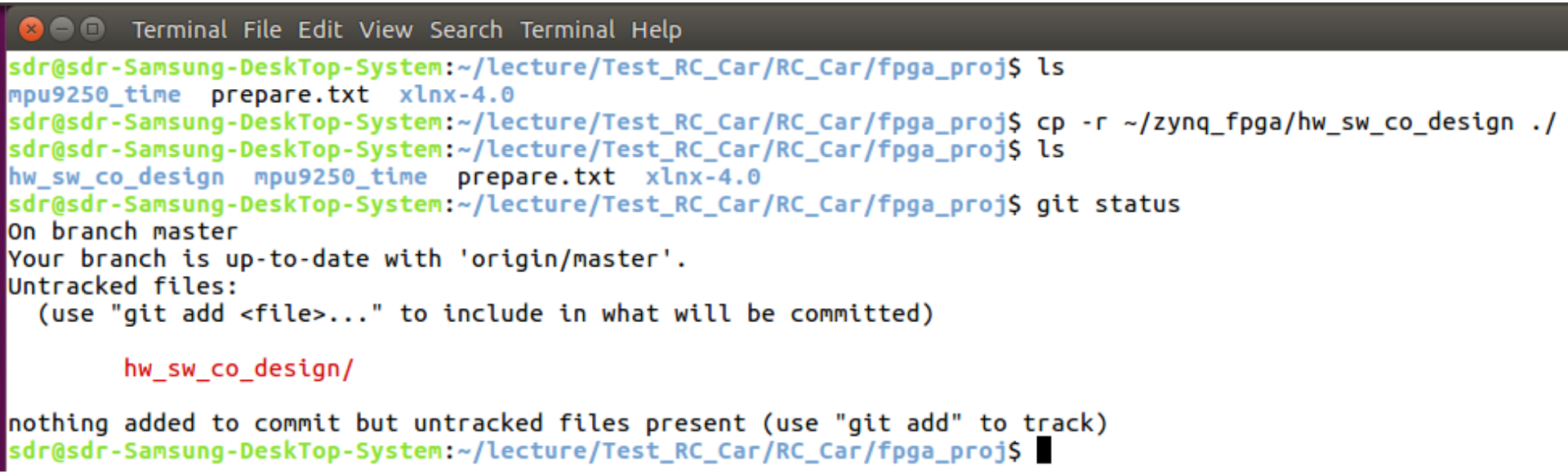
Branch: **master** | **New pull request** | **Create new file** | **Upload files** | **Find file** | **Clone or down**

This branch is even with KOITT2:master. | Pull request | Cor


silenc3502 delete wrong info — Latest commit 0d95961 2 hou

am5728_linux-4.9.69	What The Fuck ?!	6 day
circuit	What The Fuck ?!	6 day
cur_present	Server Design	2 day
doc	What The Fuck ?!	6 day
dsp_proj	audio proj	3 day
experiment	Fix Location	3 day
fpga_proj	delete wrong info	2 hour
mcu_proj	Merge pull request #141 from ahnsangjae/master	3 day
member_profile	What The Fuck ?!	6 day
past_present	What The Fuck ?!	6 day
pcb	What The Fuck ?!	6 day

이제 아까 각종 실행 파일들을 지워서 용량이 가벼워진 녀석을 프로젝트 디렉토리로 이동시키도록 한다.



그리고 git 에 commit 을 수행하도록 한다.

```
Terminal File Edit View Search Terminal Help
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git add hw_sw_co_design
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git commit -am "Add FPGA Proj"
[master 7619037] Add FPGA Proj
 810 files changed, 2004808 insertions(+)
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.cache/wt/java_command_handlers.wdf
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.cache/wt/project.wpc
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.cache/wt/synthesis.wdf
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.cache/wt/synthesis_details.wdf
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.cache/wt/webtalk_pa.xml
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.hw/mpu6050.lpr
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/README.txt
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/bd/i2c_system/hdl/i2c_syst
 create mode 100644 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/bd/i2c_system/ip/i2c_syste
em7_0_0/sim/i2c_system_processing_system7_0_0.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_apis.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_axi_acp.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_axi_gp.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_axi_hp.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_local_params.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_reg_init.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_reg_params.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_5_unused_ports.v
 create mode 100755 fpga_proj/hw_sw_co_design/mpu6050/mpu6050.ip_user_files/ipstatic/processing_syster
ocessing_system7_bfm_v2_0_afi_slave.v
```

```
Password for 'https://stellc3502@github.com':
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$ git push origin master
Username for 'https://github.com': link180
Password for 'https://link180@github.com':
Counting objects: 198, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (132/132), done.
Writing objects: 100% (198/198), 1.02 MiB | 0 bytes/s, done.
Total 198 (delta 41), reused 197 (delta 41)
remote: Resolving deltas: 100% (41/41), completed with 1 local object.
To https://github.com/link180/RC_Car.git
   0d95961..7619037  master -> master
sdr@sdr-Samsung-DeskTop-System:~/lecture/Test_RC_Car/RC_Car/fpga_proj$
```

link180 / **RC_Car**
forked from KOITT2/RC_Car

Push 까지 진행하면 아래와 같이
hw_sw_co_design 이 나타나는 것을 볼 수 있을 것이다.

Watch 0 | Star 0 | Fork 25

Code | Pull requests 0 | Projects 0 | Wiki | Insights | Settings

Branch: **master** | **RC_Car** / **fpga_proj** /

Create new file | Upload files | Find file | History

This branch is 1 commit ahead of KOITT2:master. | Pull request | Compare

link180 Add FPGA Proj — Latest commit 7619037 4 minutes ago

..

hw_sw_co_design	Add FPGA Proj	4 minutes ago
mpu9250_time	FPGA_MPU9250_TIME	4 days ago
xlnx-4.0	FPGA Linux Kernel	a month ago
prepare.txt	add project dir	a month ago

KOITT2 / **RC_Car**

Watch 2

Code | Issues 0 | Pull requests 3 | Projects 0 | Wiki | Insights

Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across fork

base fork: **KOITT2/RC_Car** base: **master** ← head fork: **link180/RC_Car** compare: **master**

✓ **Able to merge.** These branches can be automatically merged.

Create pull request Discuss and review the changes in this comparison with others.

1 commit **810** files changed **0** commit comments

Commits on Sep 03, 2018

link180 `Add FPGA Proj`

Showing **810 changed files** with **2,004,808 additions** and **0 deletions**.

5 ■■■■■ fpga_proj/hw_sw_co_design/mpu6050/mpu6050.cache/wt/java_command_handlers.wdf

```
... ...  @@ -0,0 +1,5 @@
1  + version:1
2  + 70726f6a656374:706c616e5f61686561645f75736167655c6a6176615f636f6d6d616e645f68616e646c657273:6d6
3  + 70726f6a656374:706c616e5f61686561645f75736167655c6a6176615f636f6d6d616e645f68616e646c657273:727
```

KOITT2 / RC_Car

Watch 2

Code | Issues 0 | Pull requests 3 | Projects 0 | Wiki | Insights

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also compare across forks.

base fork: KOITT2/RC_Car | base: master | head fork: link180/RC_Car | compare: master

✓ Able to merge. These branches can be automatically merged.

FPGA 프로젝트 커밋 방법(바이너리를 싹다 지워야함)

Write | Preview

Leave a comment

Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

Allow edits from maintainers. Learn more

Create pull request

KOITT2 / **RC_Car**

Watch 2

Code | Issues 0 | Pull requests 4 | Projects 0 | Wiki | Insights

FPGA 프로젝트 커밋 방법(바이너리를 싹다 지워야함) #149

Open **link180** wants to merge 1 commit into `KOITT2:master` from `link180:master`

Conversation 0 | Commits 1 | Checks 0 | Files changed 810

link180 commented just now — Member

No description provided.

Add FPGA Proj 7619037

Add more commits by pushing to the **master** branch on **link180/RC_Car**.

This branch has no conflicts with the base branch

Only those with write access to this repository can merge pull requests.

Write | Preview

Leave a comment

아래와 같이 커밋한 내용이 나타나면 된다.
이후 저장소 관리 마스터가 살펴보고 승인을 하면 프로젝트 커밋이 완료된다.