

Tutorial - Directory Structure

Customized Embedded Processor Design

Application Specific Instruction-Set Processors- ASIP
Lab (Praktikum)

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DIRECTORY STRUCTURE -TUTORIAL

An Example Directory Structure

A. Setting up your first ASIP project directory structure:

1. Login to any *i83labpcXX.itec.kit.edu* directly or using SSH or using X2Go Client. For example, login as *asip-sajjad04* into *i83labpc02.itec.kit.edu*
2. Open shell terminal from the start menu. It should be in your default home directory. Type “*pwd*”

```
asip04@i83labpc04:~:~$pwd
/home/asip04
```

3. Create a new directory for your Lab e.g., “*ASIP_SS17*”

```
asip04@i83labpc04:~:$mkdir ASIP_SS17
asip04@i83labpc04:~:$cd ASIP_SS17/
```

4. Create a new directory for your lab session in “*ASIP_SS17*” e.g. “*Session1*”

```
asip04@i83labpc04:~/ASIP_SS17:$mkdir Session1
asip04@i83labpc04:~/ASIP_SS17:$cd Session1/
```

5. Create a directory for your ASIP project in “*Session1*”

```
asip04@i83labpc04:~/ASIP_SS17/Session1:$mkdir
ASIPMeisterProjects
asip04@i83labpc04:~/ASIP_SS17/Session1:$cd
ASIPMeisterProjects/
```

6. Copy template project and rename it e.g. “*brownie*”

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects:$cp
-r /home/ces-asip00/epp/ASIPMeisterProjects/TEMPLATEPROJECT ./brownie
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects:$ls
brownie
```

7. Set the parameters and settings of the ASIP project in “*env_settings*” file.
8. For each application, create a new directory into “*Application*” directory e.g. for example for application “*Arith*”

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects:$cd
brownie/Applications/
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications:$ls
Bootloader TestPrint
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications:$
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications:$mkdir
Arith
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications:$cd
Arith/
```

9. Copy your application .c or .s file into “**Arith**” e.g. in this case copy “**1_Arith.s**” into your application directory

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications/Arith:$cp
/home/ces-asip00/Session1/1_Arith.s .
```

10. Copy the Makefile from any other application to your application

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications/Arith:$cp
../TestPrint/Makefile .
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications/Arith:$ls
1_Arith.s Makefile
```

11. For other application, create a new directory into “**Application**” directory e.g. “**LS**”

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications:$mkdir
LS
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications:$cd
LS/
```

12. Copy your application .c or .s file into “**LS**” e.g. in this case copy “**2_LoadStore.s**” into your application directory

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications/LS:$cp
/home/ces-asip00/Session1/2_LoadStore.s .
```

13. Copy the Makefile from any other application to your application

```
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications/LS:$cp
../TestPrint/Makefile .
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects/brownie/Applications/Arith:$ls
2_LoadStore.s Makefile
```

B. Creating new ASIP project in the same session:

14. Create a new directory “**brownieBGEU**” for new project under ASIPMeisterProjects.

```
asip04@i83labpc04:~:$cd
ASIP_SS17/Session1/ASIPMeisterProjects/
asip04@i83labpc04:~/ASIP_SS17/Session1/ASIPMeisterProjects:$cp
-r /home/ces-asip00/ASIPMeisterProjects/TEMPLATEPROJECT ./brownieBGEU
```

15. Follow the same steps (7-12) to create different application under this project

16. **Creating new Session e.g. “Session2”**

17. Creating new directory for new session under ASIP_SS17 directory

```
asip04@i83labpc04:~/ASIP_SS17:$mkdir Session2
asip04@i83labpc04:~/ASIP_SS17:$ls
Session1 Session2
asip04@i83labpc04:~/ASIP_SS17:$
```

18. Follow the same steps (6-14) to create different application under this project