LNX2.30 Baseline Pre-Integration

A SCT RM SW SHA

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Reference

- Layout Generator Integration¹
- XMI G3 Flashing guideline²
- Corbos Linux and Penta / Deca³
- Open Source Key Service List⁴
- Baseline(see page 4)
- Full Build Environment(see page 5)
- Standalone build environment (Linux) (see page 6)
 - Conan Environment(see page 6)

Component	Version	
ADG	2.9.0	
BSP	34.0	
EB Corbos Linux	2.30.0	
IPCF	4.5.0	
LLCE	1.0.2	
PFE	1.2.0	
HSE	0.0.21.0	
U-Boot	2020.04	

¹ https://confluence.auto.continental.cloud/display/SPACE1455/Layout+Generator+Integration 2 https://confluence.auto.continental.cloud/display/SPACE1484/XMI+G3+Flashing+guideline 3 https://confluence.auto.continental.cloud/pages/viewpage.action?pageId=542171518

⁴ https://confluence.auto.continental.cloud/display/SPACE1455/Open+Source+Key+Service+List

1 Baseline

- Software:
 - AP HPCg2 CW32
- CP int.face_ez1.int⁵
 Hardware Xiaomi VCCD A1
- Compiler
 - gcc 10.2.0

2 Full Build Environment

Start the docker container

```
docker run -it --rm -u $(id -u):$(id -g) -e USER_NAME=$(id -un) -e GROUP_NAME=$(id -gn) -e HOME -v $HOME:$HOME -v /PROJ:/PROJ:shared -v /srv:/srv -v $PWD:$PWD -w $PWD i-st-pd-docker-v.eu.artifactory.conti.de/oe:devenv.2022-02-24.110454
```

Initial build environment

```
repo init -u git@github-vni.geo.conti.de:xmi-ms11-24-ivs/manifest -b int.face_ez1.xm
i -g face_ez1,ebxelor,default --depth=1 --current-branch --no-tags
repo sync -d -c --force-sync --no-tags
repo forall -c 'git lfs pull; cp -LR .git .git.fixed; rm -fr .git;
mv .git.fixed .git; rm -f conanfile.py'
```

Exit from docker environment to native Ubuntu environment, we will use of another docker to build code.

Please apply patch firstly

```
cd <workdir>
sh ./xmi_ivs/hpc_gen2_xmi/tools/apply_patches.sh
```

Then run following command download the docker image and entry docker environment:

```
./ebxelor/config/docker/continental/hpc/docker.sh
```

Setup conan environment:

```
/workdir/ebxelor/config/conan/continental/hpc/setup.sh
```

Build source code

/workdir/ebxelor/config/valeria/continental/hpc/run.sh --variant face_ez1

3 Standalone build environment (Linux)

3.1 Conan Environment

Please edit /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/host/face_ez1

```
# Copyright 2021 Continental Automotive GmbH. All rights reserved
#include(../get_user_channel) ## edit here
CONAN_USER=swp
CONAN_CHANNEL=face_ez1

[settings]
```

Please edit /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/build/M7

```
#include(../get_user_channel)
CONAN_USER=swp
CONAN_CHANNEL=face_ez1
[settings]
```

After manual modification, please note you should run below command to setup conan environment again.

```
/workdir/ebxelor/config/conan/continental/hpc/setup.sh
```

run below command to compile conan package:

How to build linux penta only

```
cd /workdir

conan export /workdir/ebxelor/pkg/continental/hpc/hpc_layout_generator_xmi/conan swp/
face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_firmware_xmi/conan swp/face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_linux_penta_xmi/conan swp/
face_ez1

conan install xmi_hpc_linux_penta/0.0.3_g3@swp/face_ez1 --profile:host /workdir/
ebxelor/config/valeria/continental/hpc/face_ez1/profiles/host/face_ez1 --
profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/
```

build/linux_x86_64 --profile:build /workdir/ebxelor/config/valeria/continental/hpc/ face_ez1/profiles/build/M7 --profile:build /workdir/ebxelor/config/valeria/ continental/hpc/face_ez1/profiles/build/A53 --build

How to build linux deca only

```
cd /workdir
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_layout_generator_xmi/conan swp/
face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_firmware_xmi/conan swp/face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_linux_deca_xmi/conan swp/
face_ez1

conan install xmi_hpc_linux_deca/0.0.3@swp/face_ez1 --profile:host /workdir/ebxelor/
config/valeria/continental/hpc/face_ez1/profiles/host/face_ez1 --profile:build /
workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/build/linux_x86_64
--profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/
build/M7 --profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/
profiles/build/A53 --build
```

How to build linux flash only

```
cd /workdir
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_layout_generator_xmi/conan swp/
face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_firmware_xmi/conan swp/face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_bootloader_xmi/conan swp/
conan export /workdir/ebxelor/pkg/continental/hpc/eb_u-boot_xmi/conan swp/face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_linux_flash_xmi/conan swp/
face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/gcc10-arm64-linux/conan swp/
face_ez1
conan install xmi_hpc_linux_flash/0.0.3@swp/face_ez1 --profile:host /workdir/ebxelor/
config/valeria/continental/hpc/face_ez1/profiles/host/face_ez1 --profile:build /
workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/build/linux_x86_64
--profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/
build/M7 --profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/
profiles/build/A53 --build
```

How to build linux u-boot only

```
cd /workdir

conan export /workdir/ebxelor/pkg/continental/hpc/gcc10-arm64-linux/conan swp/
face_ez1
  conan export /workdir/ebxelor/pkg/continental/hpc/hpc_layout_generator_xmi/conan swp/
face_ez1
  conan export /workdir/ebxelor/pkg/continental/hpc/eb_u-boot_xmi/conan swp/face_ez1
  conan install xmi_eb_u-boot/0.8.2@swp/face_ez1 --profile:host /workdir/ebxelor/
  config/valeria/continental/hpc/face_ez1/profiles/host/face_ez1 --profile:build /
  workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/build/linux_x86_64
  --profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/
build/M7 --profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/
  profiles/build/A53 --build
```

How to build linux ATF only

```
cd /workdir

conan export /workdir/ebxelor/pkg/continental/hpc/gcc10-arm64-linux/conan swp/
face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_layout_generator_xmi/conan swp/
face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/eb_u-boot_xmi/conan swp/face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_firmware_xmi/conan swp/face_ez1
conan export /workdir/ebxelor/pkg/continental/hpc/hpc_atf_xmi/conan swp/face_ez1
conan install xmi_hpc_atf/0.0.1@swp/face_ez1 --profile:host /workdir/ebxelor/config/
valeria/continental/hpc/face_ez1/profiles/host/face_ez1 --profile:build /workdir/
ebxelor/config/valeria/continental/hpc/face_ez1/profiles/build/linux_x86_64 --
profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/profiles/
build/M7 --profile:build /workdir/ebxelor/config/valeria/continental/hpc/face_ez1/
profiles/build/A53 --build
```