Yocto BSP and SDK Build Guide

Version 1.1.0

Display Audio

Solution Team

Release information

The following changes have been make to this document.

Change History

Date	Change
08 Dec. 2017	First release for v1.0.0
15 Nov. 2018	Second release for v1.1.0

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Chap 1. Yocto BSP

1.1 Introduction

We release the source compilation and fusing script files of kernel and u-boot developed by Nexell using Yocto Poky system.

The meta-nexell layer is configured to minimize the dependency on the host PC compile environment of the 3rd party or end-user and to reduce the difficulty in configuring the root file system.

1.2 Features and Functionality

- linux kernel, u-boot, bl1 build & release
- Binary files packaging & fusing scripts
- Available Image type
  - QT5

1.3 Build and configuration

1.3.1 Source download

```
$ mkdir myrepo
$ cd myrepo
$ repo init -u ssh://{USER_ID}@git.nexell.co.kr:29418/nexell/yocto/manifest -b yocto-sumo
$ repo sync
```

If you do not have an ssh account.

```
$ repo init -u http://git.nexell.co.kr:8080/nexell/yocto/manifest -b yocto-sumo
$ repo sync
```

1.3.2 Environment setup

```
$ myrepo/tools/yocto_build_environment.sh
```

1.3.3 Build

1.3.3.1 Fully build

```
$ ./tools/build.sh <boardname> <imagetype>
Example> ./tools/build.sh s5p4418-daudio-ref qt
```

1.3.3.2 Help

```
$ ./tools/build.sh –h
```

1.3.4 Fusing

If you need usb boot

Set the boot mode switch on the debug board to usb boot mode.

On the host PC side

```
$ cd yocto/out/ result-<boardname>-<imagetype>/tools
$ ./standalone-uboot-by-usb-download.sh
```

On the target board side

```
$ fastboot 0
```

On the host PC side

```
$ ./standalone-fastboot-download.sh
```

For more information.

```
$ ./standalone-fastboot-download.sh –h
```

Chap 2. Poky SDK toolchain

2.1 Description

You need a toolchain to develop an app or library outside the Yocto environment.

2.2 Build

```
$ cd yocto/build
$ source ../poky/oe-init-build-env SDK-build-s5p4418-qt
$ bitbake nexell-qt-sdk
```

2.3 SDK toolchain installation

```
$ cd tmp/work/s5p4418_daudio_ref-poky-linux-gnueabi
$ cd nexell-qt-sdk/1.0-r0/x86_64-deploy-nexell-qt-sdk-populate-sdk
$ ./poky-glibc-x86_64-nexell-qt-sdk-cortexa9hf-neon-toolchain-2.5.1.sh
```

2.4 Environment setup

```
$ source /opt/poky/2.5.1/environment-setup-cortexa9hf-neon-poky-linux-gnueabi
```