Compile Augentix SDK as a beginner

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Download SDK/HDK

To download specific SDK and HDK based on your requirement. Download Center.

Download SDK from FTP

FTP Download info (Filezilla recommended)

Download HDK from web link

Please download the HDK for your preferred SoC.
HDK/tools download: https://support.augentix.com/projects/general/wiki/HDK_download_center.

Install Build Prerequisites

1. Install the following build prerequisites on Ubuntu 16.04:

```
$ sudo apt-get update
$ sudo apt-get install -y \
    bc \
    bsdmainutils \
    build-essential \
    ca-certificates \
    cpio \
    fakeroot \
    file \
    kmod \
    libjson0-dev \
    libncurses-dev \
    libsqlite3-dev \
    mtd-utils \
    python \
    rsync \
    u-boot-tools \
    unzip \
    wget \
    apt-transport-https \
    ca-certificates \
    curl \
    software-properties-common
$ sudo add-apt-repository ppa:git-core/ppa
$ curl -s https://packagecloud.io/install/repositories/github/git-lfs/script.deb.sh | sudo bash
$ sudo apt-get install -y git git-lfs
```

```
$ git lfs install
$ sudo apt-get install -y vim tmux openssh-client qemu-user  # Install dev tools
```

2. If you use Ubuntu 20.04, replace **`libjson0-dev`** with **`libjson-c-dev`** in the build prerequisites.
3. Install CMake v3.22.6. For more details, see Cmake_install.

Build a Firmware

1. Environment Setup for customer, SDK r3.17.0-rc11 as an Example.
   1. Extract ./r3.17.0-rc11/sdk_release_jpl-r3.17.0_1703_1705_1715_1723_1753_1783s.tgz file.

      ```
      tar -zxf sdk_release_jpl-r3.17.0_1703_1705_1715_1723_1753_1783s.tgz
      ```

   2. Extract buildroot

      ```
      tar -zxf sdk_release_jpl-r3.17.0_20231208_buildroot.tgz
      ```

   3. Copy toolchain into <SDK> folder

      ```
      cp -r ./toolchain_jpl-r3.17.0_20231208/toolchain/ ./SDK_release_3170/
      ```

   4. Configure the cross-compile tools

      ```
      cd ~/Path/To/SDK_release_3170/build
      . set_env_var.sh -h
      . set_env_var.sh <CHIP_TYPE>
      . set_env_var.sh show
      ```

   5. Build a product firmware

      ```
      // show reference product
      make config-list
      // configure hc1783s-fpu-agt200-20_defconfig as the product
      make hc1783s-fpu-agt200-20_defconfig
      make clean
      make all
      ```

   6. The firmware can be found at:

      ```
      ${SDK_DIR}/build/output/
      ```

   7. Copy the firmware to Windows, then use the Flash Programmer to download it to the machine.

Files