# 编译MPP程序

### PC主机端要求:

- 内存4GB以上
- 硬盘50GB以上 (建议100GB以上)
- 系统: Windows10/11系统

请确保电脑可以正常运行虚拟机!!!

在开始请先确保已经完成《全志SDK编译》,可以正常编译SDK和打包镜像!

## 1.配置MPP程序

在Tina V853上,我们可以通过修改Tina的配置,选中 select mpp sample 之后,所有支持的示例程序都会显示,默认都为不选中状态,我们可以勾选我们想要测试的示例程序,并切保存配置,再执行重新编译MPP命令即可。

注意: 在开始前需要先激活环境, 并选择方案。

在终端输入:

make menuconfig

执行完成后会进入一个配置界面,如下图所示:

```
File Edit View Search Terminal Help

.config - Tina Configuration
     Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----).
     Highlighted letters are hotkeys. Pressing <Y> includes, <N> excludes, <M> modularizes features. Press <Esc> to exit, <?> for Help, </> for Search. Legend: [*] built-in [ ] excluded
     <M> module < > module capable
                     Target System (v853-100ask) --->
Target Profile (tina) --->
                           Target Images --->
                          Global build settings --->
                          System init (busybox-init) --->
                        ] Advanced configuration options (for developers) ----
                      [*] Image configuration --->
                          Package features --->
                          Base system --->
                           Administration --->
                          Allwinner --->
Development --->
                          Firmware --->
                           Gui --->
                          Kernel modules --->
                          Languages --->
Libraries --->
                           LuCI --->
                           Multimedia --->
                           Network --->
                           Neural Network --->
                          Security --->
Sound --->
                          TestTools --->
TestUnit --->
Utilities --->
                              <Select>
                                           < Exit > < Help > < Save > < Load >
```

```
$ make menuconfig
Allwinner --->
    eyesee-mpp --->
    [*] select mpp sample
```

选择完成后可以看到所有可测试的示例程序

```
config - Tina Configuration
Allwinner > eyesee-mpp ——
                                                   eyesee-mpp
  Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----).
  Highlighted letters are hotkeys. Pressing <Y> includes, <N> excludes, <M> modularizes features. Press <Esc> to exit, <?> for Help, </> for Search. Legend: [*] built-in [] excluded
  <M> module < > module capable
                          select gps pack method in mp4 file (pack in mdat) --->
                        enable demuxer component
                        enable adas detect
                        enable adas_v2 detect
                        enable aec
                        enable soft drc
                        enable ai agc
                        enable ans
                       select specified ans library (enable ans library of webrtc) --->
support usb video camera, enable uvc component
                        enable iommu
                        select compile mpp as static/dynamic library (compile static lib) --->
                       use aw systrace to analyse enable filerepair
                        select mpp sample configfileparser
                      select mpp sample
mpp sample adec
                          mpp sample adec2ao
                          mpp sample aec
                          mpp sample aenc
                          mpp sample ai
                          mpp sample ai2aenc
                          mpp sample ai2ao
                          mpp sample ai2aenc2muxer
                          mpp sample ao
                          mpp sample ao_resample_mixer
                          mpp sample ao2ai_aec
```

这里我选择编译 sample\_hello

```
config - Tina Configuration
   Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----).
   Highlighted letters are hotkeys. Pressing <Y> includes, <N> excludes, <M> modularizes features. Press <Esc> to exit, <?> for Help, </> for Search. Legend: [*] built-in [ ] excluded
   <M> module < > module capable
                          mpp sample adec
                          mpp sample adec2ao
                          mpp sample aec
                          mpp sample aenc
                          mpp sample ai
                          mpp sample ai2aenc
                          mpp sample ai2ao
                          mpp sample ai2aenc2muxer
                          mpp sample ao
                          mpp sample ao_resample_mixer
                          mpp sample ao2ai_aec
                          mpp sample ao2ai_aec_rate_mixer
                          mpp sample aoSync
                          mpp sample CodecParallel
                          mpp sample demux
                          mpp sample demux2adec
                          mpp sample demux2adec2ao
                          mpp sample demux2vdec
                          mpp sample demux2vdec_saveFrame
                          mpp sample demux2vdec2vo
                          mpp sample driverVipp
                          mpp sample file_repair
                          mpp sample g2d
                           mpp sample glog
                          mpp sample hello
                          mpp sample hello 100ask
                          mpp sample MotionDetect
                          <Select>
                                       < Exit >
                                                    < Help >
                                                                 < Save >
                                                                               < Load >
```

选中后,保存并退出配置界面。

# 2.清理和编译MPP程序

清理MPP程序可在终端输入:

```
cleanmpp
```

执行该命令会去清理MPP编译后的应用程序,可用于在编写程序后,需要重新编译应用程序的场景使用。

#### 编译MPP程序可在终端输入:

```
mkmpp
```

执行该命令会去编译menuconfig中选中的所有应用程序。

编译后 MPP sample 测试程序和配置文件存放位置

```
有两个位置:
(1)每个 MPP sample 的源码目录下
tina\external\eyesee-mpp\middleware\sun8iw21\sample\sample_xxx\
(2)统一存放到bin目录下
tina\external\eyesee-mpp\middleware\sun8iw21\sample\bin\
```

注意:

由于 MPP sample 测试程序个数较多,且每个测试程序大小约 10M 左右,故不方便打包 到文件系统中,测试时需要接 SD 卡,同时把测试程序和配置文件放到 SD 卡中进行测试。