Android Camera2 API专题

第35讲
AE手动曝光实战

课程体系

getSystemService(CAMERA_SERVICE)

create request → Capture Request

Camera Manager —open→ Camera Device —create session→ Camera CaptureSession

capture

get info

Camera Characteristics

outputs: Surface 1 | Surface 2 | Surface 3

capture complete

Capture Result

I/O

© Google

AE — **We are here**

Flash

Zoom

AF

AWB

FD
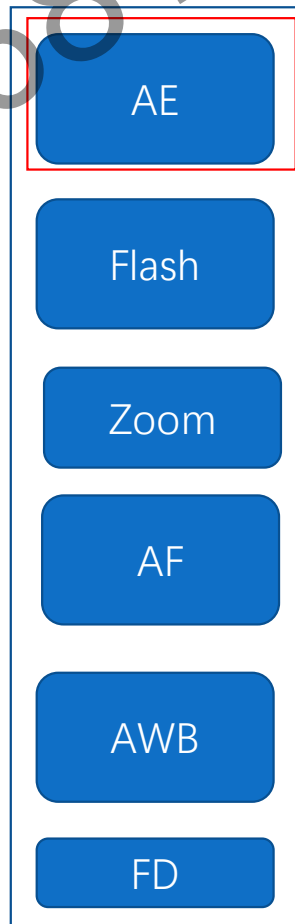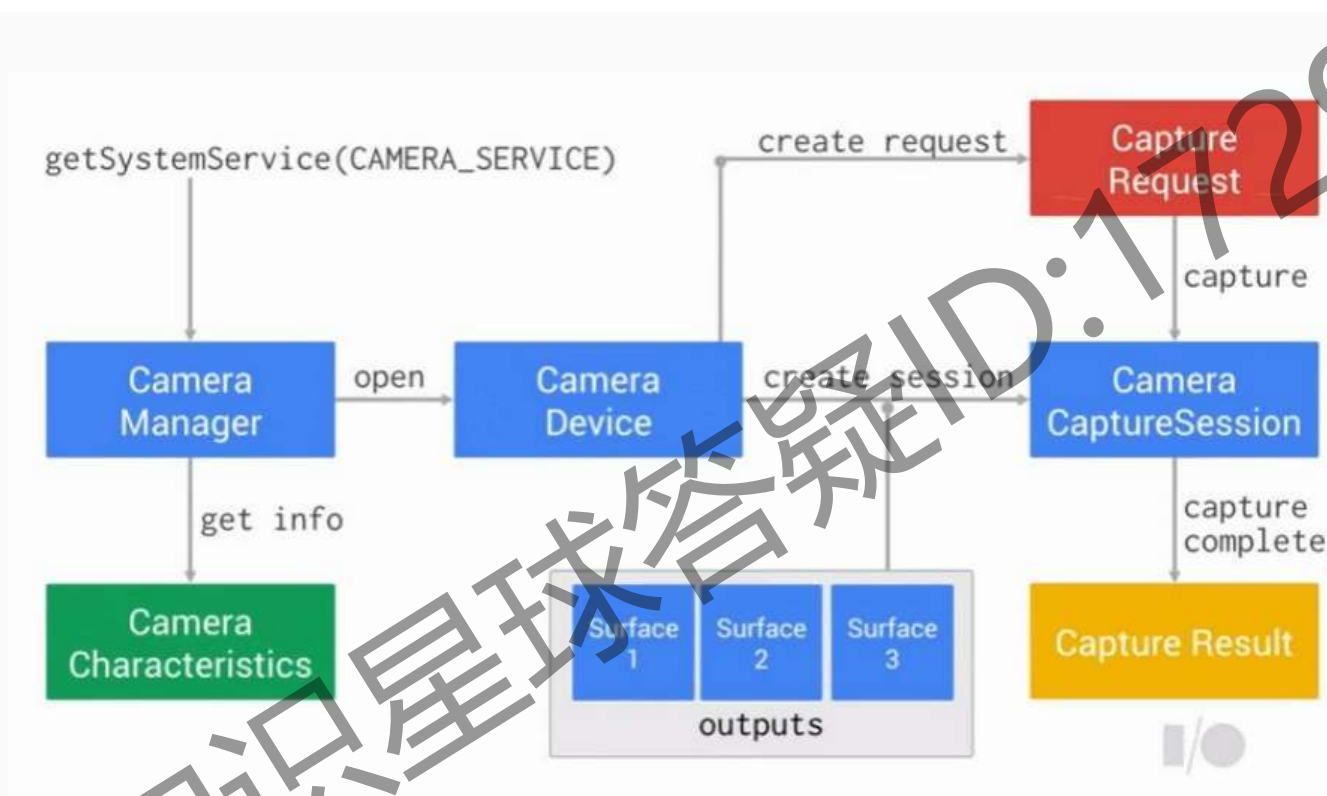
Agenda

1. 手动调整ISO
2. 手动调整曝光时间

@2021 极客笔记 All rights reserved. 主讲: Charles 3

手动调整ISO

- GeekCamera2
  - UI Setup

```
MainActivity#cameraSetup
 |--> final SeekBar iso_seek_bar = findViewById(R.id.iso_seekbar);
 |--> iso_seek_bar.setOnSeekBarChangeListener(null);
 |--> iso_seek_bar.setOnSeekBarChangeListener(new OnSeekBarChangeListener()
```

  - UI调整ISO流程

```
MainActivity#iso_seek_bar#onProgressChanged
 |--> Preview#setISO
  |--> CameraController2#setISO
   |--> CameraSetting#setAEMode
    |--> CaptureRequest.CONTROL_AE_MODE to OFF
    |--> CaptureRequest.SENSOR_SENSITIVITY to iso
    |--> CaptureRequest.SENSOR_EXPOSURE_TIME to exp_time
    |--> CaptureRequest.SENSOR_FRAME_DURATION to sensor_frame_duration
```

手动调整曝光时间

- GeekCamera2
  - UI Setup

MainActivity#cameraSetup
  |--> final SeekBar exposure_time_seek_bar = findViewById(R.id.exposure_time_seekbar);
  |--> exposure_time_seek_bar.setOnSeekBarChangeListener(null);
  |--> exposure_time_seek_bar.setOnSeekBarChangeListener(new OnSeekBarChangeListener

  - UI调整曝光时间

MainActivity#exposure_time_seek_bar#onProgressChanged
  |--> Preview#setExposureTime
    |--> CameraController2#setExposureTime
      |--> CameraSetting#setAEMode
       |--> CaptureRequest.CONTROL_AE_MODE to OFF
       |--> CaptureRequest.SENSOR_SENSITIVITY to iso
       |--> CaptureRequest.SENSOR_EXPOSURE_TIME to exp_time
       |--> CaptureRequest.SENSOR_FRAME_DURATION to sensor_frame_duration

Thanks