System App

'recording-status' chrome event

statusbar.js

platform: FirefoxOS(gonk)
branch: b2g18
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App

- play()
- pause()

Gaia side

Gecko side

parent side

child side

shell.js

"recording-device-events" event

nsIObserverService

"recording-device-events" event

ContentParent

IPC

ContentChild

video

window

navigator

mozCameras

nsHTMLMediaElement

nsPIDOMWindow

nsIDOMNavigatorCamera

nsIDOMCameraManager

nsHTMLVideoElement

check "camera" permission

Navigator

nsDOMCameraManager

create

nsIPermissionManager

check "camera" permission

nsIAudioChannelAgent

nsICameraControl

nsDOMCameraControl

ICameraControl

nsICameraCapabilities

DOMCameraCapabilities

camera thread

CameraControlImpl

nsIThread

- SendRecordingDeviceEvents()

nsIObserverService

"recording-device-events"

"file-watcher-notify"

RecorderProfileManager

GonkRecorderProfileManager

create

LayerManagerOGL

ShadowImageLayerOGL

nsVideoFrame

BasicShadowableImageLayer

nsDOMMediaStream

- ReceiveFrame()

- StartPreview()
- StopPreview()

MediaStreamGraph

DOMCameraPreview

- Started()
- Stopped()

nsGonkCameraControl

DeviceStorageFile

open

- SetCompositorIDForImage()
- GetSharedImageVersion()
- GetSharedImage()

ImageContainer

VideoFrameContainer

- SendImageAsync()
- SetIdle()

Image

GonkNativeWindowNewFrameCallback

- OnNewFrame()

- ReceiveFrame()

GonkCameraHardware

GonkRecorder

create

MediaSource

MPEG4Writer

write

ImageContainerParent

IPC

ImageContainerChild

create

create

GraphicBufferLocked

GonkIOSurfaceImage

CameraGraphicBuffer

Camera

ICamera

GonkCameraSource

OMXCodec

File descriptor

ImageBridgeParent

IPC

ImageBridgeChild

ISurfaceTexture

Binder IPC

SurfaceDescriptor

SurfaceDescriptor

create

GonkNativeWindow

- AllocSurfaceDescriptorGralloc()
- DeallocSurfaceDescriptorGralloc()

ISurfaceTexture

Binder IPC

ICamera

Binder IPC

IOMX

PGrallocBufferParent

IPC

PGrallocBufferChild

create

ANativeWindow

SurfaceTextureClient

CameraService::Client

OMX

alloc gralloc buffer

child side is initialized from handle

ANativeWindowBuffer

GraphicBuffer

GrallocBufferActor

GraphicBuffer

GraphicBuffer is deliverd to media server via Binder ipc

camera hw hal

CameraService

media server