Overview of gecko video playback and rendering

Parent side | **Child side**

branch: Firefox 53

schedule next composition if Compositor has CompositeUntilTime

- GetCompositeUntilTime()

LayerManagerComposite

- NotifyImageComposites()

- ExtractImageCompositeNotifications()

ClientLayerManager

- CreateImageLayer()

video

HTMLVideoElement

- AppendImageCompositeNotification()

LayerManagerComposite

create

create

nsVideoFrame

- GetImageContainer()

HTMLMediaElement

control

MediaDecoder

control

Encapsulate the decoding and reading of media data

ImageLayerComposite

ClientImageLayer

create

MediaDecoderStateMachine

MediaFormatReader

ImageClientBridge

GetAsyncContainerID()

VideoFrameContainer

- SetCurrentFrames()

VideoSink

MediaDataDecoder

used to check client side's lifetime

ImageContainerParent

ImageContainerChild

- SetCurrentImages()

ImageContainer

Since Bug 1143575 fix, ImageContainer could hold multiple images

Derived class implements actual decoding task.

- NotifyCompositeInternal()

create

ImageBridgeParent

- NotifyComposite()

ImageBridgeChild

- CreateImageClient()

Image

create

create

ImageHost

create

ImageClientSingle

create

TextureClient

create

Compositor

- CompositeUntil()

TextureHost

Request next composition if ImageHost has future time TextureHost