Class

VTFrameProcessor

A class that creates a new frame processor for the configured video effect.

iOS 26.0+ | iPadOS 26.0+ | Mac Catalyst 26.0+ | macOS 15.4+ | tvOS 26.0+ | visionOS 26.0+

```
class VTFrameProcessor
```

Overview

Use this class to perform frame by frame processing on your video. Start by specifying a video effect by passing a VTFrameProcessorConfiguration object to the startSession(configuration:) call. Once the session is created, process(parameters: completionHandler:) is called in a loop to process your video's frames one at a time. Once all the frames are processed, call an endSession() to finish all pending processing.

For successful processing, the caller needs to ensure that all buffers passed to the processWithParameters interface are unmodified (including attachments) until the function returns or the callback is received in the case of asynchronous mode.

Topics

Creating a frame processor

`init()`

    Creates a new frame processor.

Processing frames

```
func startSession(configuration: any VTFrameProcessorConfiguration)
throws
```
Starts a new session and configures the processor pipeline.

```
func process(parameters: any VTFrameProcessorParameters, completion
Handler: (any VTFrameProcessorParameters, (any Error)?) -> Void)
```
Asynchronously performs the video effect specified in the start session.

```
func process(with: any MTLCommandBuffer, parameters: any VTFrame
ProcessorParameters)
```
Asynchronously performs the video effect specified in the start session specifically for Metal.

```
func endSession()
```
Performs all necessary tasks to end the session.

Instance Methods

```
func process(parameters: any VTFrameProcessorParameters) -> some Async
Sequence<VTFrameProcessorFrame.ReadOnlyFrame, any Error>
```

Relationships

Inherits From

```
NSObject
```

Conforms To

```
CVarArg
CustomDebugStringConvertible
CustomStringConvertible
Equatable
Hashable
NSObjectProtocol
```

See Also

Frame processor

{} Enhancing your app with machine learning-based video effects

Add powerful effects to your videos using the VideoToolbox VTFrameProcessor API.

class `VTFrameProcessorFrame`

An object that wraps video frames to send to the processor, as source, reference, or output frames.

protocol `VTFrameProcessorConfiguration`

A protocol that describes the configuration of a processor to use during a video processing session.

protocol `VTFrameProcessorParameters`

The base protocol for input and output processing parameters for a frame processor implementation.