

QuickTime 2.2d16 Changes for accelerated video support

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QuickTime 2.2d16 contains changes that may affect developers of transfer codecs designed to take advantage of 2.2's support for accelerated video. This document describes changes for 2.2d16 only. It does not attempt to describe all the issues involving accelerated video support.

The biggest change is that a codec can now support multiple destination pixel types. Cinepak currently supports destination types of 'yuvs' and 'yuvu'. 'yuvs' is a YUV format with u and v components signed (center point at \$00), while 'yuvu' has the u and v component centered at \$80.

In the `CodecDecompressParams` structure, the field:

```
OSType wantedDestinationPixelFormat;
```

Has been changed to:

```
OSType **wantedDestinationPixelTypes;
```

In the `ImageCodecPreDecompress` call, a codec should fill this field with a handle to a zero-terminated list of pixel types that it can blit to. The ICM immediately makes a copy of the handle. Cinepak, for example, returns a twelve-byte handle containing 'yuvs', 'yuvu', and \$00000000. As `ImageCodecPreDecompress` can be called often, it is suggested that codecs allocate this handle when their component is opened and simply fill in the `wantedDestinationPixelTypes` field with this handle during `ImageCodecPreDecompress`. Components that use this method should be sure to dispose the handle at close.

When the ICM is forced to create an offscreen for a codec (i.e., when that codec cannot blit directly to the screen), it will try to use a transfer codec of one of the subtypes requested in `wantedDestinationPixelTypes`. If no such codecs cannot be found, or the codecs do not support the `ImageCodecNewImageBufferMemory` call, then the ICM will use an RGB offscreen with the raw codec to do the transfer.