Core Image

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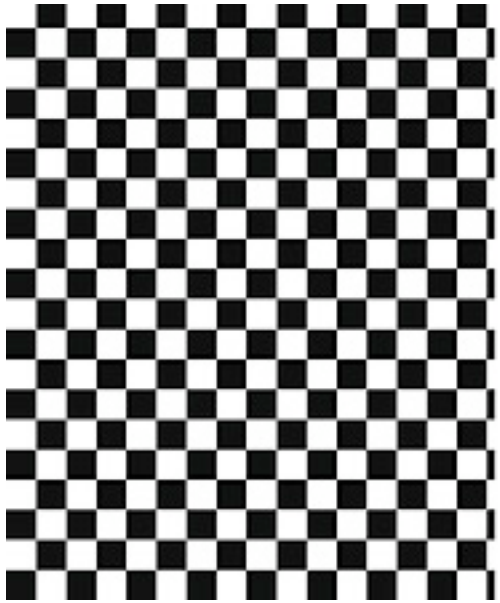
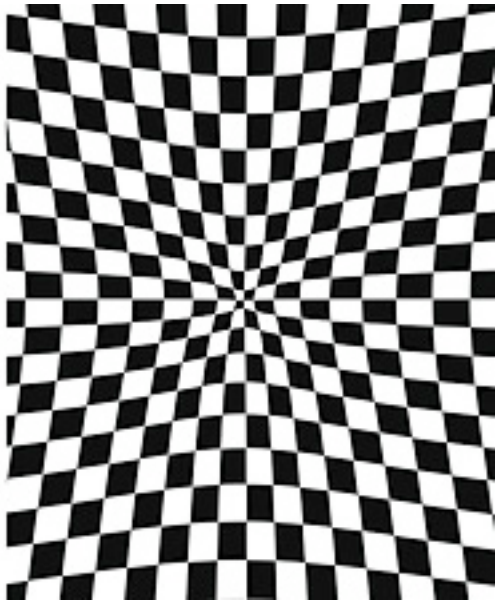
What is Core Image?

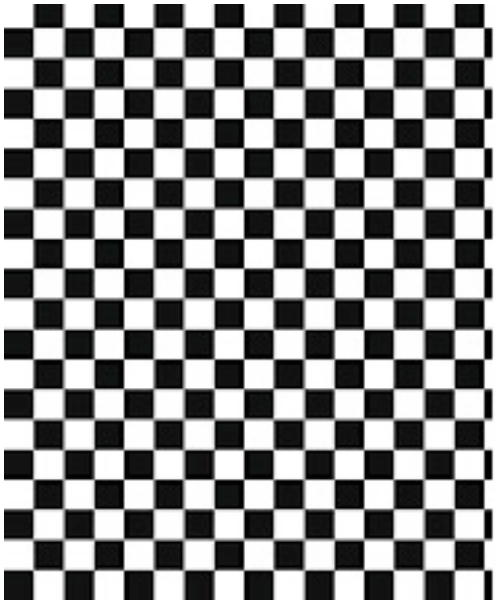
“Core Image allows developers to easily leverage [...] programmable GPUs for blistering-fast image processing that can eliminate rendering time delays.” – apple.com

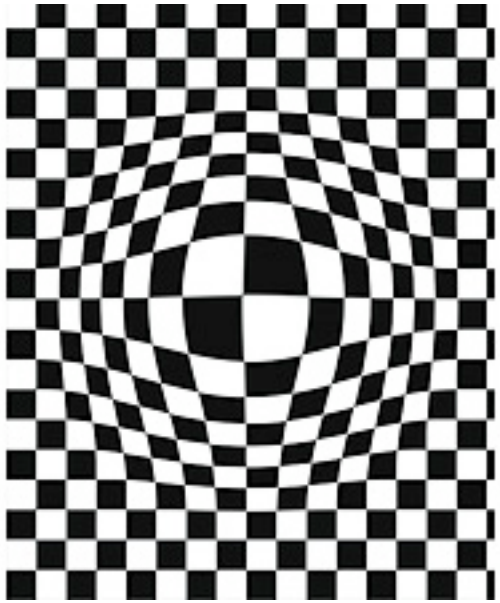
Effects

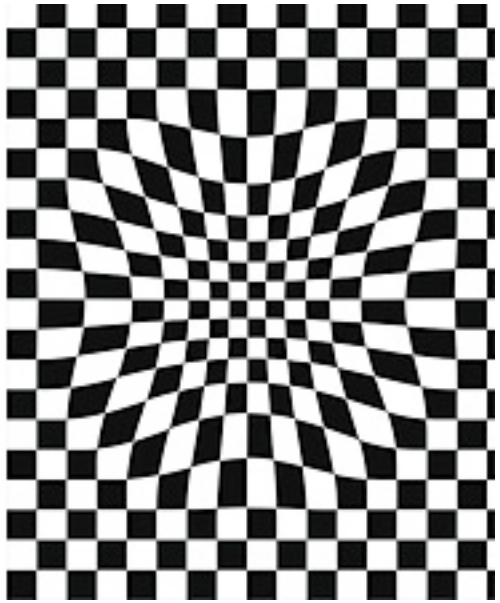
More Effects











Transitions

More Transitions

How do you use it?

```
#import <QuartzCore/QuartzCore.h>
```

Main Classes

- CIImage
- CIFilter
- CIContext

Processing an Image

1. Create a CIContext object.
2. Create a CIImage to process.
3. Create a CIFilter object for the filter to apply to the image.
4. Set the default values for the filter.
5. Set the filter parameters.
6. Apply one or more filters.
7. Draw the processed image.

Drawing an Image

1. Create a CIContext object.
2. Create a CIImage from a file.
3. Draw the image.

Demos

Developer Resources

- Core Image Examples
  - CIExposureSample, CITransitionSelectorSample
- Reducer Sample Code
  - Tab view with CI transitions
- Core Transitions Framework, By Ankur Kothari
- Quartz Composer
- Core Image Fun House

How to determine if GPU accelerated

- Read Technical Q&A QA1416
    - “Q: Which processor will Core Image use for rendering, and how can I specify it?”
- Check for OpenGL “GL_ARB_fragment_program” extension

Core Image Kernels

- A function called for every pixel in final image
- Written in a subset of OpenGL Shading Language (GLSL, GLSLang)
    - C-style syntax

Custom Filter Demo

Questions and Beer!