PUTTING KINETIC PHOTOGRAPHS on the WEB

HTML5 makes it very easy to place video files on a web page. The only problem is that every browser has different formats that it can display. The solution is to have several versions of the video on the web server so the browser can choose which one it will actually display. All of this activity handled automatically so the page is not encumbered by extra code, and the processing is transparent to the viewer.

Image Quality

MP4 video using the H.264 codec has the best image quality of the set. This is the format to use for original compositions, and is the format of choice by media professionals. This is because it is the format that is supported by all professional video software. Ogg Theora on the other hand has the lowest quality, with WebM sitting in the middle.

Browser Compatibility

Different browsers support different formats. Native means the format will run right out of the box. 'With install' means the individual user would have to install a plug-in.

	H.264 (mp4)	WebM (VP8)	Ogg Theora
Safari	**native**	with install	no
Firefox	with install	**native**	**native**
Chrome	with install	**native**	**native**
Opera	no	**native**	**native**
Explorer	**native**	with install	with install

To have the widest comparability, especially for older computers, it is important to have all 3 file formats available:

For browsers on a computer we need **MP4, WEBM** and **OGG** format video files.

kinetic.mp4 (the original from After Effects)
kinetic.webmhd.webm
kinetic.oggtheora.ogv (becoming obsolete)

Smartphone Video

Smartphone are another matter. The first consideration is the actual resolution of the video file. If the file is too big it will not play, period. Smartphones should all be able to handle mp4 (H.264) files up to a maximum of 1080/1280 x 720, or at least 960/1136 x 640 that is native on the iPhone 4. It is reassuring to that this format is the highest quality of the video codecs, (aka, format). Android 2.2 and later supports **HTML5** video but uses the native player. It is better to use Firefox on these phones. As a provider, however, we have no control on how viewers use their devices, or even if they keep them u[dated.

For smartphones running Apple and Android OS we only really need 1 format:

kinetic.iphone4.mp4
kinetic.evo4g.mp4 (optional)

note: all of the Apple formats output by MIRO produce the same resolution and quality video files.

PREPARING KINETIC PHOTOS for the WEB

Overview / Checklist

Here is the recipe to render a set of video files that will be playable in all of the popular browsers for computers as well as most up-to-date Smartphones:

- create a folder on your computer named `your_nameC4`
- rescale the Original Video File to web size
  - create a Poster Image during this process (Miro calls this a Thumbnail)
- create 4 video files from Rescaled file; MP4, WebM HD, Ogg Theora, iPhone4
- copy video files and Poster Image from Miro folder to your folder
- create a Thumbnail from the Poster Image at 150 pixels on the SHORT side
- edit the Kinetic template web page (just edit your name)
- upload the folder to your site and to the OWLbox folder for this project

Download Special Software that converts rendered video to different formats

download MIRO Video Converter http://www.mirovideoconverter.com
copy it to the Desktop (not the Applications folder)
open MIRO Video Converter

Create a Folder for the Video Project Files

create a folder on your computer
name it `your_nameC4`
save all files created below into this folder

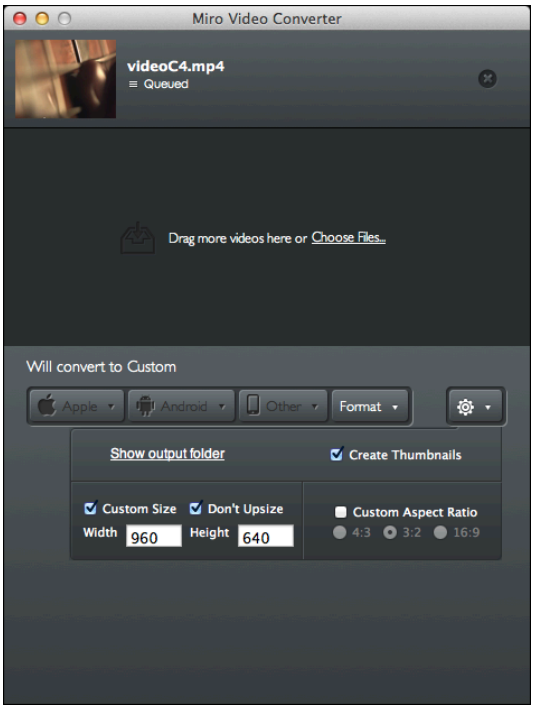
Process the Original Video File

The original video created in AfterEffects file should be at 1080p for maximum quality. Save a copy of this file as the master. The filename should `kinetic.master.mp4`.

A good size for a horizontal video file on a 15" MacBook Pro is 640 pixels high by either 960 or 1136 pixels wide (2:3 Photo or 16:9 HD format). This is also the native resolution of the iPhone. MIRO can be used to create a rescaled version of the original video to this size.

Run MIRO Video Rescale

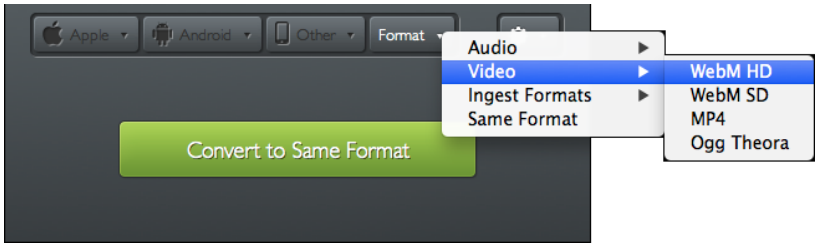
drag the video file into MIRO,
or hit **CHOOSE FILE** to browse
open the **SETTINGS** panel
(small wheel icon on far right)
  click on custom size
  enter the desired height
  and width parameters
close the **SETTINGS** panel
hit the green
CONVERT TO SAME FORMAT
button
  the file will be in the
  MOVIES> MIRO VIDEO CONVERTER folder
rename the **rescaled** MP4 video file
as `kinetic.mp4`
  remove the words **same format**
  use this file as the **source**
  for all following conversions



KINETIC PHOTO VIDEO CONVERSIONS for the WEB

Run MIRO Video Conversion

drag the **rescaled** video file into MIRO,
or hit **CHOOSE FILES** to browse to **MOVIES> MIRO VIDEO CONVERTER** folder
open the **SETTINGS** panel
turn on create thumbnails
close the **SETTINGS** panel
choose **FORMAT> VIDEO> WEBM_HD**
hit the green **CONVERT** button to make `kinetic.webmhd.webm`
this will also produce the file `kinetic.sameformat.mp4.png`



Repeat this Process for Each Filetype Needed:

open the **SETTINGS** panel
turn off create thumbnails (only 1 is needed)
select the following other formats and convert 2 more times:
make an **OGG THEORA** file: `kinetic.oggtheora.ogv`
make an **APPLE IPHONE4** file: `kinetic.iphone4.mp4`

A Poster Image is created by MIRO as a full-size video frame, called thumbnail, saved as **PNG.**

the 'Poster' image is named `kinetic.mp4.png`
create a web thumbnail by reducing the Poster image
use **PHOTOSHOP> SAVE 4 WEB**
JPEG HIGH preset, 100 pixels on **short** side
e.g. 100 x 150 pixels or 100 x 178 pixels [2:3 or 16:9}
name it `your_nameC4T.jpg` (case is critical)

Bring the Files Together

find the output files and move them to your web folder
look in the **MOVIES> MIRO VIDEO CONVERTER** folder
drag everything into the video folder created at the start

EDITING KINETIC PHOTO WEB PAGES

Edit the **HTML5** Video Web Page

open the example page on the class web site
save as to your computer as `your_nameC4.html`
edit your name in the Video Web Template **HTML** page
edit the title of the page with your name - video
save the edited page into the same folder as the video files

Make sure all files are in the crit4 folder, named `your_nameC4`

rename `kineticC4.someformat.mp4.png` to `kineticC4.mp4.png`

If the video file is NOT a standard size, e.g. 640 x 960 (2:3 photo) or 640 x 1138 (16:9 video), or if the piece is vertical, then the specs in the web page need to be altered.

near the top of the page, in the css section:

change

```
#mainVideo {
        margin: auto;
                height: 640px;
                width: 1138px;
```

to match the specs of the file

near the bottom of the page, in the video tag:

change `<video width="1138" height="640" controls . . .`

to match the specs of the file

Final Checklist

The final roundup of all files inside should be as follows (in Finder alphabetical order):

`your_nameC4`	folder
`kinetic.iphone4.mp4`	
`kinetic.mp4`	rescaled from original After Effects file
`kinetic.mp4.png`	Poster image
`kinetic.oggtheora.ogv`	
`kinetic.webmhd.webm`	
`your_nameC4.html`	video web page
`your_nameC4T.jpg`	thumbnail for Student Gallery web page

note: the way **HTML** works, the browser builds the page line by line, from the top down. When it sees the `<video>` tag, it looks for a video file it can play. If the first one is not compatible, it goes to the second, and so on, until it finds a file it *can* play. If it finds none, it will say, "Your browser does not support the video tag." on the viewer's screen.

Publish all Files

upload the final folder into OWLbox

Everything will be uploaded to our web servers for all the world to enjoy!