

AFTER EFFECTS NOTES version CS4

This document is still being updated and formatted

Don Ritter 2012.4.1

HELP	3
ONLINE VIDEO HELP	3
OVERVIEW OF PROCESS	3
POTENTIAL SOURCE MEDIA	3
INTERFACE WINDOWS/PANELS	3
SETTING A PROJECT'S TYPE OF TIME CODE	4
MEMORY PROBLEMS AND DISK CACHE	4
KEY COMMANDS	4
In Composition Window	4
In Timeline	4
In Selected Layer in Timeline	4
USING THE PROJECT WINDOW	5
common files types supported for import	5
importing footage	5
importing a sequence of frames	5
setting a frame rate for an imported sequence of still images:	6
creating a folder within project window	6
USING THE COMPOSITION WINDOW	6
COMPOSITION SETTINGS FOR DV FOOTAGE	6
COMPOSITION SETTINGS FOR 720P	6
COMPOSITION SETTINGS FOR 1080P	6
NAVIGATING IN TIME IN TIMELINE WINDOW	8
WORKING WITH LAYERS IN TIMELINE WINDOW	8

MODIFYING DIRECTION AND SPEED OF A LAYER	10
COMPOSITING AND LAYERING	11
EFFECTS	13
AFFECTING MULTIPLE LAYERS	14
ANIMATING LAYER PROPERTIES	14
ANIMATING VECTOR OR BITMAP GRAPHICS WITH PUPPET	16
MOTION PATHS	16
3D LAYERS	17
3D FUNCTIONS	17
TEXT	17
GRAPHICAL SHAPES	18
USING MOTION TRACKER/STABILIZER	18
WORKING WITH INTERLACED VIDEO	18
RENDERING	19

HELP

Complete help manual available in under menu: HELP>AFTER EFFECTS HELP
 Search help: enter topic in top right hand corner of wok space

Online video help

CS4: <http://tv.adobe.com/show/learn-after-effects-cs4>

CS5: <http://tv.adobe.com/show/learn-after-effects-cs5>

<http://slodive.com/design/after-effects-tutorials/>

OVERVIEW OF PROCESS

1. create or obtain source media(movie clips, 3D animation, single frames, audio files, etc)
3. start After Effects
4. import source media
5. create composition with desired resolution, frame rate and pixel aspect ratio
6. place source media, or compositions, into desired composition onto different layers
7. adjust primary properties for layers(scale, position, rotation, opacity)
7. add effects and adjust keyframes of layers in Timeline window
8. render output(Make Movie)
9. view full screen rendered clip in editing software or media player software
10. import rendered clips into video editing software and edit with sound
11. render final movie
12. distribute

POTENTIAL SOURCE MEDIA

- digital video footage: various resolutions and codecs; interlaced or non-interlaced footage
- analog video footage that has been digitized
- digital photographic images in various resolutions and formats
- scanned images of hand drawn/painted imagery
- scanned photographs
- CG images: bitmap and vector graphics
- 3D animated footage or individual frames
- vector graphic imagery created within After Effects
- audio files

INTERFACE WINDOWS/PANELS

- Application Window: all other windows are within in the application window in an arrangement called a workspace
- Project panel: contains compositions and available media that have imported
- Composition panel: provides visual frame with layers that can be scaled, moved and rotated using mouse or can adjust anchor point
- Timeline Panel: change layers name, stacking order, position layer in time, or to change properties numerically or through a graphs, adjust keyframe values and interpolation
- Tool panel: tools for editing in Layer and Composition Windows
- Effects panel: adjust, delete, copy and edit effects for a layer
- Layer panel: trim layers in/out point or edit masks for the selected layer
- Preview panel: contains player controls for previewing selected composition
- Render Que: lists different compositions to be rendered, can adjust render settings, output module and file name

video: <http://tv.adobe.com/watch/learn-after-effects-cs5/gs02-panels-and-workspaces/>

to dock an undocked panel: select gripper in upper right or left corner and move to desired location

SETTING A PROJECT'S TYPE OF TIME CODE

to set permanently:

1. select FILE>PROJECT SETTINGS
2. select desired TIMECODE BASE: AUTO, 24, 25, etc
3. if working with NTSC footage, select NTSC: Dope frame
4. if working in Frame numbers rather than SMPTE, select: Frames

switching between SMPTE time code and frame numbers temporarily

1. hold <CMD> and click on the time display in Composition or Timeline window(toggles frames-SMPTE)

MEMORY PROBLEMS and DISK CACHE

If the After Effects Crashes or if you get a message that the program is running out of memory, turn on the disk cache:

1. select Preferences>Media & Disk Cache
2. turn on ENABLE DISK CACHE
3. select CHOOSE FOLDER and select disk location for the cache

KEY COMMANDS

•for PC version, use <ctrl> instead of <cmd>

In Composition Window

don't update composition window: <caps lock pressed>

adjust location of layer X or Y direction: arrow keys or drag with mouse

move view of composition in window: hold space bar and drag

zoom in: <cmd> = (lower case +)

zoom out: <cmd> -

In Timeline

move forward one frame: <cmd>+arrow right,

move backward one frame: <cmd>+arrow left,

set work area to beginning and end of selected layer: <cmd> +<option>+

set beginning of work area to current time: set end of work area to current time: <n>

go to beginning or work area: <command><option> left arrow key

go to end or work area: <command><option> right arrow key

zoom in time: <=> zoom out time: <->

toggle frame view <;>;

In Selected Layer in Timeline

scroll current layer at top of window <x>

scroll current time to center of window <d>

go to layer's in point <i>

go to layer's out point <o>

split layer <cmd><shift> <d>

opening a layer's properties:

position <p>

scale <s>

opacity <t>
 effects <cmd><shift><t>
 multiple properties can be displayed with a key command by holding the <shift> key
 set in point <]>
 set out point <]>
 open layer's Layer window to adjust in/out or mask: double click on layer
 open timeline if layer is a composition: <alt> and double click layer

USING THE PROJECT WINDOW

this window contains moving footage, static images and sounds which can be used as source material

common files types supported for import

motion footage: .mov, .mp4 and .avi (on PC only)

bitmapped graphics:

Adobe Photoshop (filename.psd)
 Targa (filename.tga)
 TIFF (filename.tif)
 BMP (filename.bmp)

alpha channel support:

.mov uncompressed
 .tga (32 bit)

vector graphics:

Adobe Illustrator (filename.ai, filename.eps)

audio:

windows sound file (filename.wav)
 Quicktime (filename.mov)
 AIFF (on Macintosh version only)

importing footage

1. click on project window to make active
2. click on right mouse button and select IMPORT>FOOTAGE FILE
3. select desired footage file (can use shift click to import multiple items in same folder)
4. use IMPORT>FOOTAGE FILES to import multiple items
 use IMPORT>FOOTAGE AS to specify file type

importing a sequence of frames

1. create a series of files in a supported format (TGA suggested); files must be in the following format:
 FILENAME####.TGA
2. set duration of each frame under AFTER EFFECTS>PREFERENCES>IMPORT
3. for 1 frame per imported frame, select LENGTH OF COMPOSITION or enter desired duration
4. select frame rate under SEQUENCE FOOTAGE
5. close preferences
6. drag folder from desktop into After Effects Project window, or select FILE>IMPORT>FILE
7. in the file requester, select the first file in the sequence
8. at the bottom left corner of the requester, set the SEQUENCE switch on
9. select open
10. if imported frames have an alpha channel, select STRAIT – UNMATTED in Alpha requester

setting a frame rate for an imported sequence of still images:

1. select still sequence in project window
2. select FILE>INTERPRET FOOTAGE >MAIN
3. click ASSUME THIS FRAME RATE and enter desired rate

creating a folder within project window

1. FILE>NEW>NEW FOLDER
2. press <RETURN> key and enter new name for folder followed by a <RETURN>

renaming folders in project window

1. select folder icon, press <enter>
2. type new name, press <enter> again

moving footage file into folder: drag item into folder**locating a composition which contains a footage item:**

1. select footage file in Project window
2. at top of window is a pull down menu within the file information; select this pull down menu and select desired composition

arranging items in project window

1. items can be arranged according to label, size or duration by clicking on the field name
2. a specific item can be labeled with a color by selecting the item's label with the right mouse button

USING THE COMPOSITION WINDOW**create a new composition**

1. select NEW COMPOSITION icon in lower left corner of Project window, or <cmd>N, or COMPOSITION>NEW COMPOSITION
2. adjust settings as desired
(a single project can contain nested compositions)

composition settings for DV footage

select NTSC DV,720x480 preset
 Frame size: width = 720, height = 480
 Pixel Aspect ratio: D1/DV NTSC
 Resolution: Full
 Frame Rate: 29.97
 Duration: adjust as desired

composition settings for 720p

select HDV/HDTV 720 29.97 preset or HDV/HDTV 720 25
 Frame size: width = 1280, height = 720
 Pixel Aspect ratio: square
 Resolution: Full
 Frame Rate: 29.97 or 25
 Duration: adjust as desired

composition settings for 1080p

select HDV 1080 29.97 preset or HDV 10180 25
 Frame size: width = 1920, height = 1080
 Pixel Aspect ratio: square
 Resolution: Full
 Frame Rate: 29.97 or 25

Duration: adjust as desired

selecting a composition

1. if more than one composition exists within a project, they can be opened by double clicking the desired composition in the project window
2. in the composition window, select along the top

changing composition settings for an existing composition

1. select composition in project window
2. select COMPOSITION>COMPOSITION SETTINGS
or hold down right mouse button in the Composition window and select Composition Settings
3. adjust settings as desired

setting background color for a Composition

1. select desired composition:
2. select COMPOSITION>BACKGROUND COLOR
3. click on color square to access palette
4. to show background as transparent, select TRANSPARENCY GRID icon at bottom of composition window, left of Active Camera button

Placing guidelines in a composition

1. turn rulers on with <cmd> r or with VIEW>SHOW RULERS
2. place mouse in region of vertical or horizontal ruler and drag into image area
3. to hide guides, select VIEW>HIDE GUIDES
4. to snap items to guides, check that VIEW>SNAP TO GUIDES is on

placing a footage file into Composition

1. drag footage file from Project window onto Composition Window or into Timeline Window(will be centered)

placing a Composition into Composition

1. drag desired composition from Project window onto desired Composition Window or into Timeline Window(will be centered)
2. when placing item in timeline window, location placed indicates placement of in point of clip

using nested compositions

compositions can be used as layers of other compositions, best way to organize a complex project; render time can be reduced

composition 1.....)
 composition 2.....)
 composition 3.....)-----5 compositions nested into ---->composition 6
 composition 4.....)
 composition 5.....)

zooming composition window

1. select magnifying glass tool and click on composition window, hold <option/alt> key to zoom out
or. select Magnification popup from lower left hand corner of window

display Title-Safe Grid: click on icon in lower right corner of window

move to a desired time: click on time indicator in lower right corner and enter desired time; can specify relative move with - and + sign(eg. +30 = forward 30 frames)

moving layer: select arrow tool and move layer to desired position

rotating layer: select rotate tool and rotate layer to desired orientation

adjusting size of layer:

- in composition panel, select layer handles in corner or sides and drag as desired

adjusting anchor point(pivot point) of a layer:

1. open layer in Layer panel window
2. if anchor point is not displayed, select View: Anchor Point path in Layer panel
3. move anchor point as desired using PAN BEHIND TOOL

inverting a layer horizontally or vertically: select one of the side handles of layer and drag to opposite side

select resolution of display of composition window:

select gray box near bottom center of window and select desired resolution; this only affects display in composition window, not the final rendered resolution

turn off Composition Window Update: press <caps lock> key

RAM Preview

this function permits a preview playback of rendered audio and video. The number of frames previewed is dependent on the amount of available RAM and the specified work area.

1. define work area
2. set desired resolution of Composition window(FULL/HALF/THIRD/CUSTOM)
3. open Time control Palette with WINDOW>SHOW TIME CONTROLS
4. select far right icon to create RAM Preview
5. use Time control commands to view preview

NAVIGATING IN TIME IN TIMELINE WINDOW**moving to a desired location**

1. move time marker to desired location, or
2. click on Current Time display and enter new time, or
3. <cmd><g> and enter desired time

adding a marker

1. move to desired time and select LAYER>ADD MARKER
2. double click on marker and name as desired

selecting the work area

time defined as the work area will be rendered

1. drag Work Area Start and End icons to desired time location
2. or can set beginning with key and ending with key <n>
3. or can select a layer and press <cmd> +Alt+ to match work area with layer's duration

WORKING WITH LAYERS IN TIMELINE WINDOW

all footage placed in composition window will appear in the Timeline Window, to view the associated composition window for the active Timeline Layout, select window and its associated Composition window, click on the COMP FAMILY icon(3rd down on upper right); similar button in upper right corner of Composition window

types of layers:

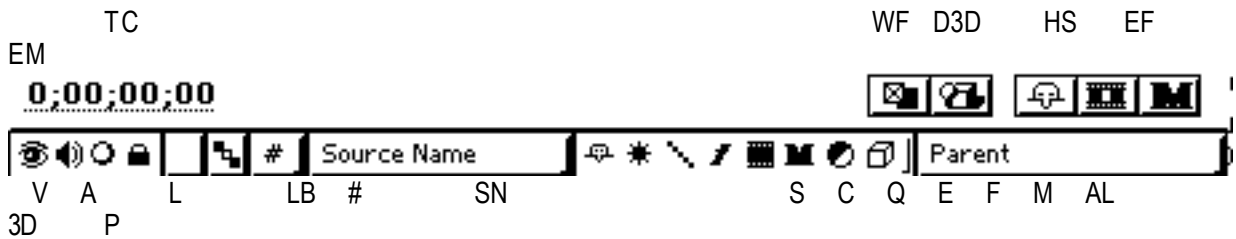
- Video and audio layers that have been imported, such as still images, movies, and audio tracks
- null layer: can use as a parent layer for multiple layers

- adjustment layer: property adjustments on this layer affect all layers beneath the adjustment layer
- Layers that you create within After Effects to perform special functions, such as cameras, lights,
- Solid-color layers created within After Effects
- Synthetic layers that hold visual elements that you create within After Effects, such as shape layers and text layers
- Precomposition layers which are comprised of other compositions

Layers are listed in the following manner

Layer 1 ;top layer
 Layer 2 ;below layer 1
 Layer 3 ;below layer 2
 etc.

layer switches



- TC time code display
- WF wireframe interactions
- D3D draft 3D
- HS hide shy layers
- EF enable frame blending for selected layers
- EM enable motion blur for selected layers
- V video switch, displays layer in composition window when on
- A Audio switch, toggles audio layer on or off
- L Locked layer ; cannot be selected or edited
- LB Label (use right mouse button to set)
- # Layer number
- SN Source name (if clicked will display layer name which can be edited)
- S Shy switch, layer not shown in timeline
- C Collapse Transformations/Continuously rasterize; improves image quality for nested compositions; if layer is an Illustrator file, file is rasterized for each edit(higher quality)
- Q Quality of Layer \=draft X=wireframe /=high
(this setting can be over ridden in RENDER QUE>RENDER SETTINGS window)
- E Effects switch. displays a layer's effects
- F Frame blending; interpolates between frames using a frame rate different from source
(must also turn on main switch at top)
- M Motion blur. Applies motion blur to animated layer(must also turn on main switch at top)
- AL Adjustment layer
- 3D 3D control on/off
- P parent of layer

creating a solid color layer : select LAYER>NEW SOLID

arranging layers: select layer name from list and drag up or down

duplicating layers: select layer name and EDIT>DUPLICATE or <cmd>D

deleting layers: select layer name and EDIT>DELETE or <cmd>X

Renaming a layer

1. switch at top of layer list must be set to LAYER NAME
2. select layer in Time Layot and <return>
3. enter desired name followed by <return>
4. this only changes layer name in poject, will not effect layer name on disk

Adjusting Layer scale, rotation and opacity

- in timeline, open scale property for selected layer <s> and adjust % values, or hold <ctrl) and select (scale)>Edit Value for pixel adjustment

trimming(setting in out points)

1. select layer
2. move time marker arrow to desired position
3. <alt> [sets in and <alt> } sets out

accessing layer property settings: select arrow to left of layer name

splitting a layer

1. select a layer to be split
2. move time marker to split position
3. select EDIT>SPLIT LAYER
4. two layers will result

open timeline window for nested composition

1. click on the composition layer with <option> pressed

MODIFYING DIRECTION AND SPEED OF A LAYER

changing speed of a Layer

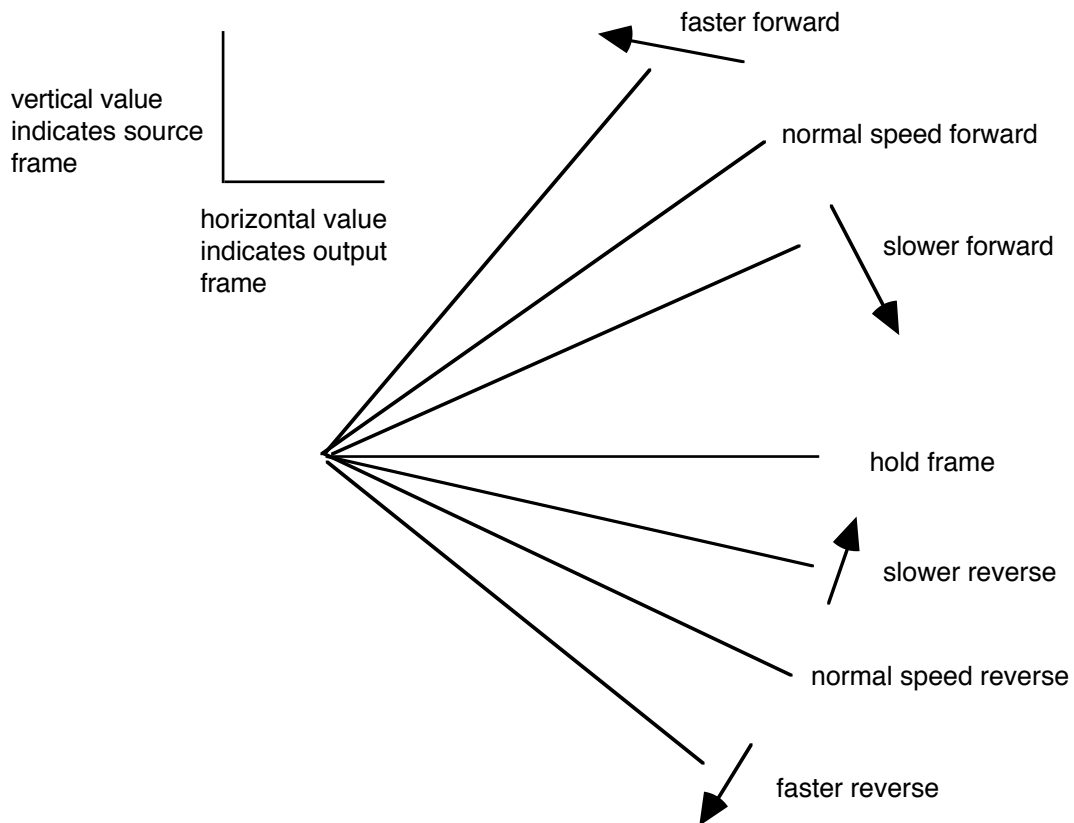
1. select layer
2. select LAYER>TIME >TIME STRETCH
3. enter stretch factor as % or number of frames
4. when speed is decreased (<100%) interpolated new frames will be created if Frame Blend is turned on in Timeline window for desired layer

reversing direction of a layer

1. select layer
2. selecr LAYER>TIME-REVERSE LAYER
3. or, select LAYER>TIME >TIME STRETCH and enter a negative (-) number

variable change in speed of a layer

1. select layer
2. select LAYER>ENABLE TIME REMAPPING
3. in the Timeline window, open the TIME REMAP property for the selected layer
4. the angle of the displayed graph represents normal speed; by adding keyframes and adjusting their values, the video and audio can speed up or slow down according to the following conventions:



layers can speed up, slow down, or move in reverse
 can adjust interpolation by selecting <ctl>keyframe and adjusting handles in graph

COMPOSITING and LAYERING

Methods of creating multiple layers:

- decrease opacity setting on top layers
- use alpha channel on top layers(created in other software)
- create a mask in the layer panel
- use a layer mode to indicate how layer blends with layers beneath
- use a luma key(brightness value becomes transparent)
- use a chroma key(color value becomes transparent)
- use a track matte
- place smaller layer on top of larger sized layer

adjusting opacity of a layer

- select layer name
- select LAYER>TRANSFORM>OPACITY or select layer and <t> or open Opacity properties setting for layer in Timeline window
- enter desired Opacity

keying on an Alpha Channel

- create frames in another application, such as 3DSMax,
- render these frames with an Alpha channel, such as 32 bit TGA files
- import files into After effects project
- background of frames will be transparent

note: movie codecs that support alpha channel include QuickTime animation and TGA sequence

adjusting layer transfer modes

layer modes control how a layer blends or reacts with layers beneath it; layer modes cannot be animated(no keyframes); select layer name and LAYER>TRANSFER MODE>desired mode

keying a layer on luminance

1. select layer to be keyed
 2. select EFFECT>KEYING>LUMA KEY
 3. Choose Key Type:
 - Key Out Brighter keys out values greater than the threshold value.
 - Key Out Darker keys out values less than the threshold value.
 - Key Out Similar keys out values within the tolerance value of the threshold value.
 - Key Out Dissimilar keys out values outside the tolerance value of the threshold value.
 4. Drag the Threshold slider on the Effect Controls window to set the luminance value to key
 5. Drag the Tolerance slider to specify the range of values to be keyed out.
 6. Drag the Edge Thin slider to adjust the width of the keyed area's border.
 7. Drag the Edge Feather slider to specify the softness of the edge
- in Effects Control Window, select type of luma key: BRIGHTER,DARKER,SIMILAR, DISSIMILAR

keying a layer on color(Chrominance)

1. arrange layers as desired in Composition window
 2. select layer to be keyed
 3. select EFFECT>KEYING>(desired key type, such as COLOR KEY)
- in Effects Control Window, select color to key with; use eye dropper to pick color from image
4. increase Color Tolerance control to cause similar to key
 5. increase Edge Thin color to increase width of the keyed areas border
 6. increase the Edge Feather to increase softness of key edge
- note: multiple Key effects can be added to the same layer

creating a track matte

1. arrange layers in timeline window, matte layer is on top of fill layer
2. display Transfer Controls within second column of Timeline window(<SWITCHES/MODES>)
3. in the TrkMat pop up window for second layer, chooseselected matt type(this layer will become transparent)

USING THE LAYER PANEL AND MASKS

To open a layer in the Layer panel:

- double click on layer name in Timeline panel
- or, select layer in Timeline panel and select menu LAYER>OPEN LAYER

trimming(setting in out points):

1. move time cursor to desired time and click on in point icon { or out point icon }

controls in layer window

(selected under > in upper right hand corner>:

- none: permits moving and adjusting of entire mask
- masks: permits adjustmnt of a mask and its vertices
- anchor point path: permits moving of mask's anchor point

masks: a path or outline that modifies a layer's alpha channel to create areas of transparency; a mask belongs to a specific layer but a layer can have more than one mask

creating a layer mask

1. double click on layer name to open its Layer Window
2. select MASK>NEW MASK
3. select rectangle, oval, or pen tool

4. create mask as desired
5. for mask drawn with pen tool, click draws straight line, drag draws bezier

creating additional masks on a layer

1. open layer and select MASK>NEW MASK
2. create new mask as desired

selecting a mask

1. select mask with the TARGET pull down in the bottom center of the layer window

deleting a mask

1. open layer and select desired mask with the mask TARGET pop up window in lower right corner of layer window
2. select LAYER>MASK>REMOVE MASK
3. to remove all masks on a layer select LAYER>MASK>REMOVE ALL MASKS

changing mask from straight line to bezier

1. select desired mask
2. select selection tool
3. hold <cmd> and click on node

creating a feathered mask

1. create mask or select an existing mask with target pull down
2. select LAYER>MASK>MASK FEATHER
3. adjust Horizontal and Vertical Feather settings in pixels

combining masks

various methods are available for combining multiple masks on a layer

1. open layer window for desired layer and create multiple masks
2. select a mask
3. select LAYER>MASK>MODE>desired mode

creating an inverted mask

1. create mask or select existing mask
2. select LAYER>MASK>INVERSE

editing the mask

1. select desired mask with the target pull down
2. use selection tool to move entire mask or single control point(drag box over desired point)
3. use Add Control Point pen to add point
4. uses Delete Control Point pen to delete a control point
5. use Convert Control Point to convert control point from linear to bezier

EFFECTS

adding an effect

1. select layer in Timeline window
2. select EFFECT>desired effect
3. adjust effect settings in Effects window as desired

adjusting a layer's brightness and contrast

1. select layer and add EFFECT>IADJUST>BRIGHTNESS AND CONTRAST

adjusting a layer's color balance and saturation

1. select layer and add EFFECT>ADJUST>HUE/SATURATION
2. adjust SATURATION and HUE settings as desired

displaying effects window

1. select a layer in Timeline Window
2. select LAYER>OPEN EFFECTS CONTROL or <shift><cmd><t>

deleting an effect

1. open effects window for desired layer
2. select effect name in window
3. select EDIT>DELETE or press <delete> button

turning off an effect

1. open effects window for desired layer
2. locate desired effect and turn check box off <f>

copying effects

1. open effects windows source
2. select name(will turn black)
3. execute copy command(EDIT>PASTE)
4. open effects window for source
5. execute paste(EDIT>PASTE)

AFFECTING MULTIPLE LAYERS

Adjustment Layers

adjustment layers permit applying effects to multiple layers simultaneously; any properties added to an adjustment layer will be applied to layers listed underneath it in the timeline window

1. arrange layers as desired
2. add adjustment layer with LAYER>NEW ADJUSTMENT LAYER
3. add effects to adjustment layer
4. if adjustment layer is moved or rotated, the effects will move accordingly

Creating a Parent for a Layer

1. in the parent field pull down of a select layer, select the layer which will be a parent
2. geometric transformation made to a parent will also affect the children

Expressions

1. to be added...
- ANIMATION>ADD EXPRESSION

ANIMATING LAYER PROPERTIES

Anchor Point

Transformations, such as rotation and scale, occur around the anchor point (sometimes called transformation point or transformation center). By default, the anchor point for most layer types is at the center of the layer.

1. in the layer window, open up the desired layer property with the arrows on the right of the window
2. move time marker to desired location

3. set desired value for property
4. click on the stop watch icon beside the property name to create a keyframe at desired time
5. move time marker to desired location
6. enter desired value for property in Timeline window (to right of property) or in Effects window
7. repeat steps 5 and 6 as needed

adjusting keyframes in time

1. in timeline window, open control list by clicking on arrow to left of layer's property
2. keyframes can be moved in time by selecting in time line and dragging left or right; multiple keyframes can be selected by dragging box around keyframes or holding down <shift button>

adjusting property's value for a keyframe

1. locate keyframe in Timeline window
2. double click on keyframe and enter new value

adjusting keyframes in the graph editor

1. select property in timeline window
2. select Graph Editor icon in Timeline Window

deleting a keyframe

select keyframe icon and press <delete>

deleting all keyframes for a property

click on the stop watch icon

copying keyframe to another layer

1. select desired keyframe or keyframes
2. select EDIT>COPY
3. select a different layer
4. select EDIT>PASTE ; keyframe will be pasted relative to location of time marker

selecting all keyframes for a property: select the property name

selecting multiple keyframes: hold down <shift> key and select desired keyframes

snapping the time marker to a keyframe

1. hold down <shift> button as time marker is dragged

moving a keyframe to a precise point in time

1. move time marker to desired time by clicking on Current Time display
2. drag keyframe icon to time marker with shift button pressed

editing keyframes in the Value Graph

1. open graph by selecting arrow to left of property name
2. to change value, use selection tool and move points up or down
3. to add a point(keyframe), select pen tool and click on graph

Temporal and Spatial Interpolation

temporal interpolation: interpolation of keyframe values over time(eg. rate of opacity over time); all layer properties use temporal interpolation

spatial interpolation: interpolation between motion path keyframes through space; only used with keyframes that involve motion, such as position and anchor point

Controlling Interpolation of Keyframes

1. select desired keyframe or keyframes with right mouse button
2. select KEYFRAME INTERPOLATION
3. select desired interpolation type:

LINEAR: linear change between keyframe values, constant velocity

BEZIER: permits manual adjustment of shape of value graph on both sides of the key frame;
most versatile

CONTINUOUS BEZIER: reduces the rate of change on both sides of a keyframe automatically, interpolation can be set manually after affecting the incoming and outgoing rates of change equally, but can be manually adjusted to be asymmetrical

AUTO BEZIER: automatically reduces the rate of change equally on both sides of a keyframe. even when values are changed

HOLD: value of previous keyframe is held until next keyframe is encountered in time

To display a graph of the interpolation, select the property in the time line and then select the Graph Editor button at the top of the time line

Descriptions of interpolation types:

<http://www.peachpit.com/articles/article.aspx?p=1327260&seqNum=2>

Parenting

Parenting affects all transform properties except Opacity: Position, Scale, Rotation, and (for 3D layers) Orientation.

ANIMATING VECTOR OR BITMAP GRAPHICS WITH PUPPET

1. create a vector graphic or place bitmap graphic onto layer
2. move time cursor to location of first key frame
3. add pins using pin tool at desired locations
4. to restrict distortion of select parts of the image, use the starch (under puppet tool menu) tool at those locations and adjust expansion
5. to control which shapes are in front of other shapes, add the Puppet overlap point at those locations, adjust expansion
6. the deformation mesh can be displayed with the show mesh switch (to right of puppet tool)
6. adjust pin tools to get start shape (key frame set automatically)
6. move time cursor for next key frame location, and move pins to desired location
7. keyframes and motion paths can be adjusted as with other properties
8. can display the keyframes of the puppet pins using the <u> key

• can record animation on real-time by moving pin and holding (command key on mac) or (ctrl key on pc)

online video: http://www.adobe.com/designcenter-archive/video_workshop/?id=vid0274

<http://vimeo.com/27429750>

MOTION PATHS

can animate the position of a layer, position of a layer's anchor point or rotation.

uses spatial interpolation

motion paths can be edited in the Composition window or in the value graph using the pen tool

if motion paths are not displayed in composition window, check preferences under PREFERENCES > DISPLAY (set Motion Path -> all key frames)

to create a motion path for a layer:

1. create layer
2. locate layer at starting position at desired keyframe
3. in timeline window, open position property and select its stop watch icon to create first keyframe
4. move time marker to next time for keyframe
5. move layer to desired position
6. repeat steps 4 and 5 as desired

to set spatial interpolation for motion path:

1. expand position property for desired layer
2. select all or desired keyframe icons
3. select LAYER>KEYFRAME INTERPOLATION
4. select desired SPATIAL INTERPOLATION
5. can adjust the path in composition window with arrow tool and add points with pen tool

editing motion path in composition window

1. select layer in timeline windows
 2. edit motion path with selection and pen tools
 3. can move, add or delete points
- *if motion path is not displayed completely, set PREFERENCES>DISPLAY>MOTION PATHS>all

sketching a motion path

1. select desired layer in timeline window
2. in time layout window, define work area(duration) of sketch
3. select WINDOW>PLUG IN PALETTES>MOTION SKETCH
4. select WIRE frame display and if desired KEEP BACKGROUND
5. select START CAPTURE, motion drawn will be captured in real time

3D layers

- layers can be adjusted as a 2D layer within a 3 dimensional space
1. select layer
 2. turn on 3D layer switch(next to parent switch)
 3. open orientation properties<r> and adjust x, y, z values

3D FUNCTIONS

1. in selected composition, create a new 3d object with LAYER>NEW>Light/Camera/Null Object
2. in the timeline window, turn on the #D LAYER switch for the selected layer
3. in teh composition window, select teh desired viewing window>FRONT/LEFT/CUSTOM VIEW?etc.
4. adjust or animate objects as desired

TEXT

Primary Text properties:

Font: type of font

Size: size of font

Tracking: horizontal spacing between groups of characters

Kerning: horizontal spacing between two specific characters

Leading: vertical space between liens of text

Color:

Rotation:

three methods to use text

1. use Basic Text for screens of text(cannot adjusting tracking or leading)
2. use Path text (can adjust and animate tracking, leading, kerning and other attributes on one line of text)
3. import screen of text created in Adobe Illustrator

Using Basic Text

1. select Type tool(horizont or vertical) from tool bar
2. drag mouse over composition layer to locate text
3. enter text and select color, font, size, tracking, leading, and kerning from character panel

Using Text on a Path

1. create a new text layer using the Type tool
2. with the text layer selected, use the pen or mask tool to draw a mask
3. In the Timeline panel, expand the *Path Options* property for the text layer and select the desired path(mask) from the Path menu.
4. adjust or animate properties under path options: adjust First Margin property to move text along path
5. if text is upside down, set Reverse Path switch on

Importing Text Screens from Illustrator

1. create text or graphics file in Illustrator or Free Hand(under Windows or Mac)
2. save file in Illustrator format (if using AE version below 4.1, convert to paths in Illustrator)
3. turn rasterization on in the Timeline Window

GRAPHICAL SHAPES

1. create a new composition or select a composition to hold the shape
 2. create a new shape layer with LAYER>NEW>SHAPE LAYER or have no layer selected in the composition window
3. select shape from tool menu: rectangle, ellipse, polygon, star or pen tools
4. select desired fill and stroke colours
5. draw shape in composition

note: the anchor point for the shape layer will be at the center of the composition, but the anchor point for the shape will be at the center of the object. If the shape will be animated, move anchor point of the layer to the anchor point of the shape using <Pan Behind Tool> key: Y
http://www.adobe.com/designcenter-archive/video_workshop/?id=vid0274

USING MOTION TRACKER/STABILIZER

1. select desired layer in a composition
2. select ANIMATION>TRACKER/STABILIZER
3. ...

WORKING WITH INTERLACED VIDEO

- digitized video footage must be de-interlaced, otherwise scan lines may appear when imagery is resized
- if final output is video tape, field rendering must be turned on in the Render Queue

to de-interlace footage

note: footage may be de-interlaced automatically, dependent on the codec; if done automatically it will be indicated at the top of the project window as "separating (Lower)"

to de-interlace manually:

1. select footage in Project Window
2. select FILE>INTERPRET FOOTAGE>MAIN
3. under "Fields and Pull Down," set Separate Fields to desired field order
(for DV footage use <LOWER FIELD FIRST>)
4. select OK

to de-interlace all footage

1. select a footage item in project window that has been de-interlaced
2. select FILE>INTERPRET FOOTAGE>REMEMBER INTERPRETATION
3. select all files which need to be -deinterlaced
4. select FILE>INTERPRET FOOTAGE>APPLY INTERPRETATION

rendering final output with field rendering

1. create composition as desired
2. create output with COMPOSITION>MAKE MOVIE
3. in the render Queue, click on Current Settings after Render Settings and set Field Render to desired order, the format for the output device
(for DV devices use <LOWER FIELD FIRST>)
note: if the wrong field order is used, an object moving in one direction will appear to move forward and back

RENDERING

adding a composition to render que:

1. select desired timeline or composition window
2. in timeline window, set begin and end points of work area (black triangles) or use and <n>
3. select COMPOSITION>MAKE MOVIE or <cmd> <M>

4. set settings as desired under RENDER SETTINGS and OUTPUT MODULE

to create a 720p or MP4 file using H.264 codec:

5. under RENDER SETTINGS check for the following settings:
Quality: BEST
Resolution: FULL
Effects: Current Settings
Frame Blending: On for Checked layers
Field Render: OFF
Frame Rate: use comp's frame rate (should be 25 or 29.97)
6. under OUTPUT MODULE check for the following settings: (this may appear different under CS3 or 5)

Format: H.264

Video output is checked
Audio output is checked if audio required

Select FORMAT OPTIONS under Video Output:

Under video tab select:

Frame rate: 25 or 29.97
Pixel aspect ratio: square
Profile: high
Level: 5.1
Bitrate encoding: VBR, 1 pass
Target Bitrate: 25 Mbps
Maximum bitrate: 50 Mbps
→select OK

If audio is needed, under Video tab select:

Audio format: AAC
Output channels: stereo
Frequency: 44.1 Khz or 48Khz
Bitrate: 320 kbps
→select OK

7. in the Render Que, select the name and file location after OUTPUT TO:
8. if required, add additional compositions to que with steps 1 through 10
9. select RENDER button in upper right hand corner of Render Que to begin rendering

arranging items in que:

1. select and drag to desired location

to duplicate selected que item:

1. select item in Que
2. select EDIT>DUPLICATE or <cmd><d>
3. enter name of output file under OUTPUT TO: