

NB: remember Esc is undo in CelAction!!
Username = uni password = educate

CELACTION BEGINNERS

The purpose of this workshop is to introduce students to the CelAction interface and pipeline.

The aim is to rig a simple ball **actor**, load this into a scene, and animate a bouncing ball sequence.

There are 3 main steps to using CelAction. The first is creating your artwork/bitmaps in PhotoShop/Illustrator (you cannot create artwork in CelAction itself). CelAction has 2 modes- ASSEMBLE mode and ANIMATE mode.

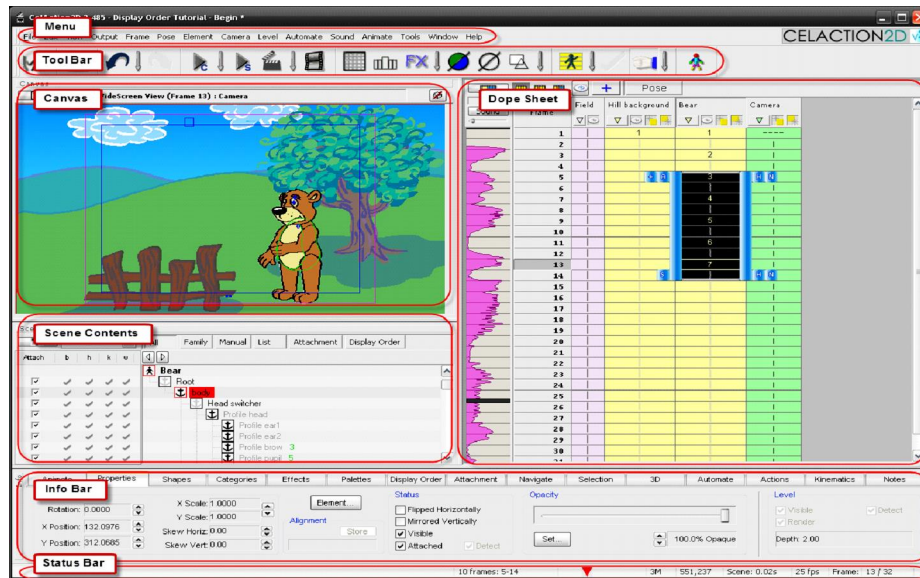
ASSEMBLE MODE is where you 'rig' your ACTORS. You load a bitmap file from PhotoShop or Illustrator - with your elements on different layers - link your elements together in a hierarchy skeleton, set the display order and set anchor points. This is also where you create Limbers.

LIMBERS refers to a style of rigging that gives you 2 or more bezier points with which to animate with at either end of your element, this bends your element. For example an arm can be a limber, with a point at either end, which means you can have 1 whole element for an arm instead of 2 pieces (upperarm and forearm). Limber elements need to be created horizontally or vertically. The trouble with limbers is they slow down the file considerably so need to be used sparingly.

ACTORS relates to anything you build/rigg in CelAction- this includes your backgrounds. Actors consist of **ELEMENTS**, and elements can contain **SHAPES** - for example a Mouth element might contain a number of different SHAPES.

ANCHOR POINT is the same as PIVOT POINT. Element - properties - Anchor point. KSC = a

ANIMATION MODE is where you load in your ACTORS and animate them using a DOPESHEET style timeline. You add sound and animate cameras here.



To rig a character/ACTOR -

POOL OF ELEMENTS is like the Library.

ACTOR ELEMENTS is where you move your elements from the *POOL OF ELEMENTS* to be assembled as an ACTOR.



Make sure you are in ASSEMBLE MODE - (top right of the TOOL BAR)

File - New actor - NAME YOUR ACTOR - Ball01

Create a Dummy - Pool -Create - Dummy or KSC = Alt D

Name your Dummy Move. Create 2 other Dummies called Position and Character.

By Alt and clicking each dummy, arrange your dummies like so =

-Pool of Elements

-Dummies

-Position

-Move

-Character

Move your hierarchy into the Actor Elements at the top by select and Alt clicking the Position to the Root.


Next you need to load in your artwork...

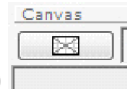



- Click - the man in a pool - on the tool bar and load your .psd/.svg file. Your elements will show up in the POOL OF ELEMENTS
- Link your Tennis ball shapes onto the CHARACTER dummy in the ACTOR ELEMENTS window by selecting Ball Fill and Ball Line and Alt clicking the CHARACTER dummy
- Set the display order of your elements by clicking D

- Set the pivot point/anchor point by selcting the wireframe/fill toggle - in the tool

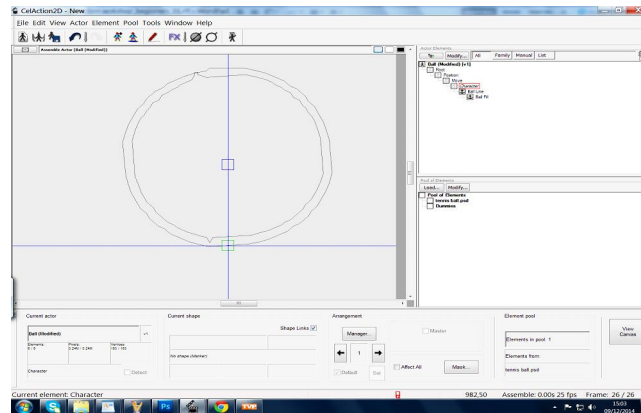


bar -  and clicking A on keyboard, then click to set pivot/anchor point. To COPY anchor points select element you want to copy to and click Ctrl A - select the element you want to copy from. Set the anchor point at the base of the Ball for the CHARACTER DUMMY and centre of the Ball Line and Ball Fill (we will use this dummy for rotation).



NB: The canvas options box (top left of canvas)  has some useful options - such as MAGNIFICATION and FIT ACTOR IN WINDOW - Shift + @

So you should have an ACTOR that looks like this ...




SAVE YOUR ACTOR!!

To animate a character/ACTOR -

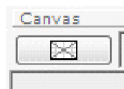


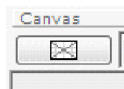
Switch to ANIMATE MODE - right side of tool bar



Click on CREATE ACTOR LEVEL - left side of tool bar  select your Ball and ADD AND EXIT.

To REMOVE/DELETE an Actor from a scene, use the Level Manager - LEVEL - MANAGER - select your actor and REMOVE.



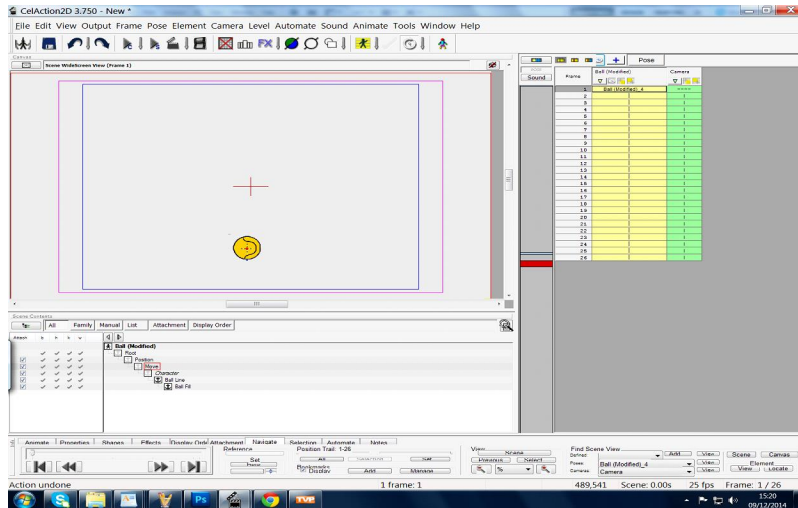
The canvas options box (top left corner of canvas)  has some useful options like - CHANGE VIEW and MAGNIFICATION.

To scale your ball select the CHARACTER dummy and CTRL Q/W.
To MOVE your ball, select the CHARACTER dummy and Z. To ROTATE your ball select BALL FILL

dummy and X.

To add frames to your DOPE SHEET click CTRL F and add 25 frames.

You should have a scene that looks something like this...



Now we will animate the ball bouncing on the spot!!

Click on the frame you want to add your first ball move and use CTRL SHIFT - UP AND DOWN ARROWS - to move your ball up and down.

Continue to add keyframes for your ball bouncing on the spot.

To add SQUASH and STRETCH use CTRL Y / T and CTRL K / L


To COPY and PASTE keys - either right click - Pose-Copy to Clipboard/Paste from Clipboard or KSC= NumPad +/Insert

NB: CelAction creates a 'safeframe' underneath the frame that you've pasted - this is a copy of the original frame, incase you need to keep it. You can delete this.

SCROLL THROUGH FRAMES = UP AND DOWN ARROWS ON KEYPAD

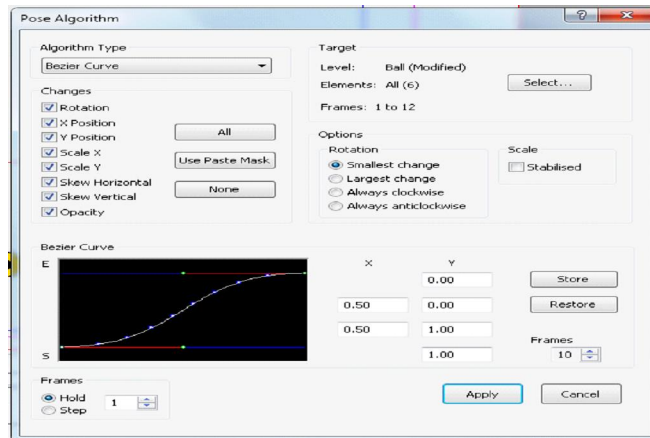
Colour your keyframes by selecting them and clicking Ctrl and a number. This will help you to see where your key poses are after.



To use ONION SKINNING =  Choose Adjacent Frames Onion Skins, then Setup Adjacent Onion Skins.

Next we will create a TWEEN between the keys. Called POSE ALGORITHM

Click F6 to open the POSE ALGORITHM task box.



Top left is the Algorithm Type dropdown where you can chose for example Ease In/Out. Select the type of algorithm you want, and adjust the type accordingly then APPLY.

You will see that CelAction has created keys between your keyframes.

Do the same for the next poses and play your animation.

You can now adjust your keys and values to improve your animation.

If you look at the top left of your DOPE SHEET there are 3 boxes with yellow, red and blue columns. These are the DOPE SHEET MODES. The first mode is POSE MODE, the second is SINGLE ELEMENT MODE - youll get a CHARACTER colomn open up like below. The row of letters above this represent the properties within this element for example **xy** shows you the x and y position properties for this element.

Frame	Ball (Modified)	Character	Camera
1	Ball (Modified)_12	-	----
2	Ball (Modified)_13	-	
3	Ball (Modified)_14	-	
4	Ball (Modified)_15	-	
5	Ball (Modified)_16	-	
6	Ball (Modified)_17	-	
7	Ball (Modified)_18	-	
8	Ball (Modified)_19	-	
9	Ball (Modified)_20	-	
10	Ball (Modified)_21	-	
11	Ball (Modified)_22	-	
12	Ball (Modified)_11	-	
13	Ball (Modified)_23	-	
14	Ball (Modified)_24	-	
15	Ball (Modified)_25	-	
16	Ball (Modified)_26	-	
17	Ball (Modified)_27	-	
18	Ball (Modified)_28	-	
19	Ball (Modified)_29	-	
20	Ball (Modified)_30	-	
21	Ball (Modified)_31	-	
22	Ball (Modified)_32	-	
23	Ball (Modified)_33	-	
24	Ball (Modified)_12	-	

Animating the camera

CelAction has a camera included in the scene in Animate Mode. The camera is the green column on the dope sheet. You can create new cameras - CAMERA - CREATE. Treat a camera like you would an Actor in the scene. So to move your camera - Z. To zoom in/out - **Ctrl Q** or **W**. To switch between camera view and scene view - **space bar**.

Adding sound

You can also add sound to your animation in the DOPE SHEET. Click on the SOUND button - top left corner of dope sheet.

CELACTION TIPS

- **NB: If you need to change your actor/character rig after you've added it in the Animate mode scene** - go to Assemble mode - make your changes - (you can use ACTOR - MODIFY to re-link elements). Then in Animator mode - TOOLS - REPLACE ACTOR WIZARD.
- If your elements are all RED it means CelAction has lost the path to your psd/shape file. Go to Assemble mode - ACTOR - SHAPES - FILE -SET to reload your image file.
- Animate Mode - TOOLS - OPTIONS = there's some useful options in here!
- To update shapes/image file = Animate Mode - POSE - SHAPES - UPDATE
- TO COPY AND PASTE ANIMATION FROM A CHARACTER/ACTOR TO ANOTHER CHARACTER/ACTOR- Animation Mode - AUTOMATE - ANIMATION CLIPBOARD - COPY/PASTE NB: elements need to be named the same or you'll need to match up the different elements.

SEE THE INTERMEDIATE HANDOUT FOR A GUIDE TO BUILDING/RIGGING A FULL CHARACTER