



# Keyframing

Keyframing is an animation technique commonly used to produce a smooth transition between a defined start and end point. In Animation Pro, it is possible to create either a smooth camera, figure or item transition between two frames. Furthermore, you can define which properties of the camera, figure or item are 'keyed' and exactly how the transition should ease-in or ease-out.

## TOPICS

### Camera Keyframing

['Key Camera' Popover](#)

[Controlling the 'Key Camera' Transition](#)

[Starting the 'Key Camera' Operation](#)

### Figure Keyframing

['Key Figure/Clone' Popover](#)

[Controlling the 'Key Figure' Transition](#)

[Starting the 'Key Figure' Operation](#)

[Important 'Key Figure' Considerations](#)

### Item Keyframing

['Key Figure/Clone Item' popover](#)

[Controlling the 'Key Item' Transition](#)

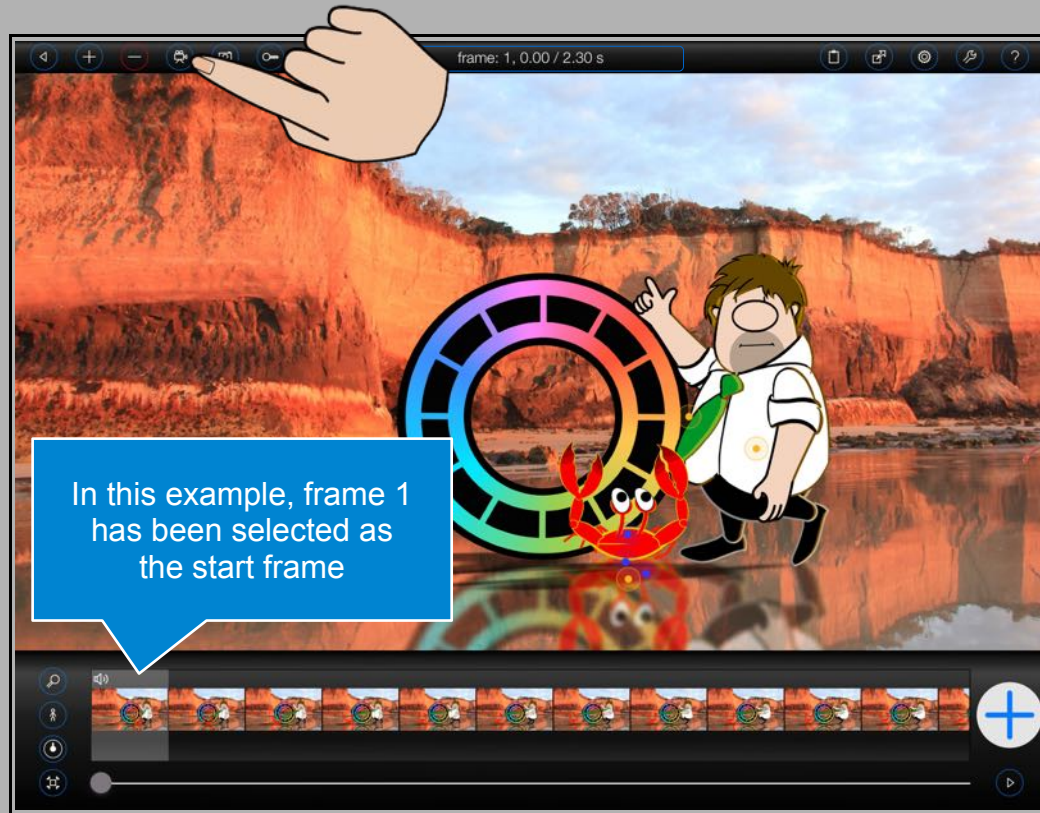
[Starting the 'Key Item' Operation](#)


[Important 'Key Item' Considerations](#)




## Camera Keyframing

Begin by setting up the camera on the start frame:



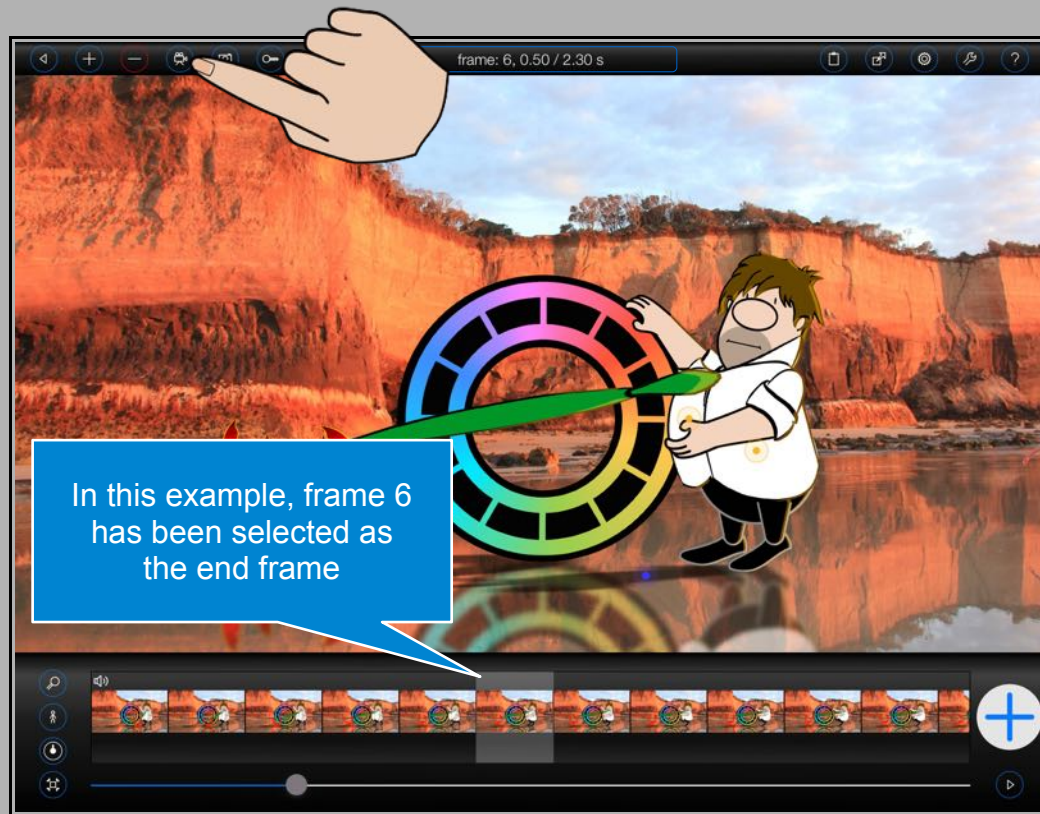
1. Press the  button to display the 'Camera Adjustment' options.




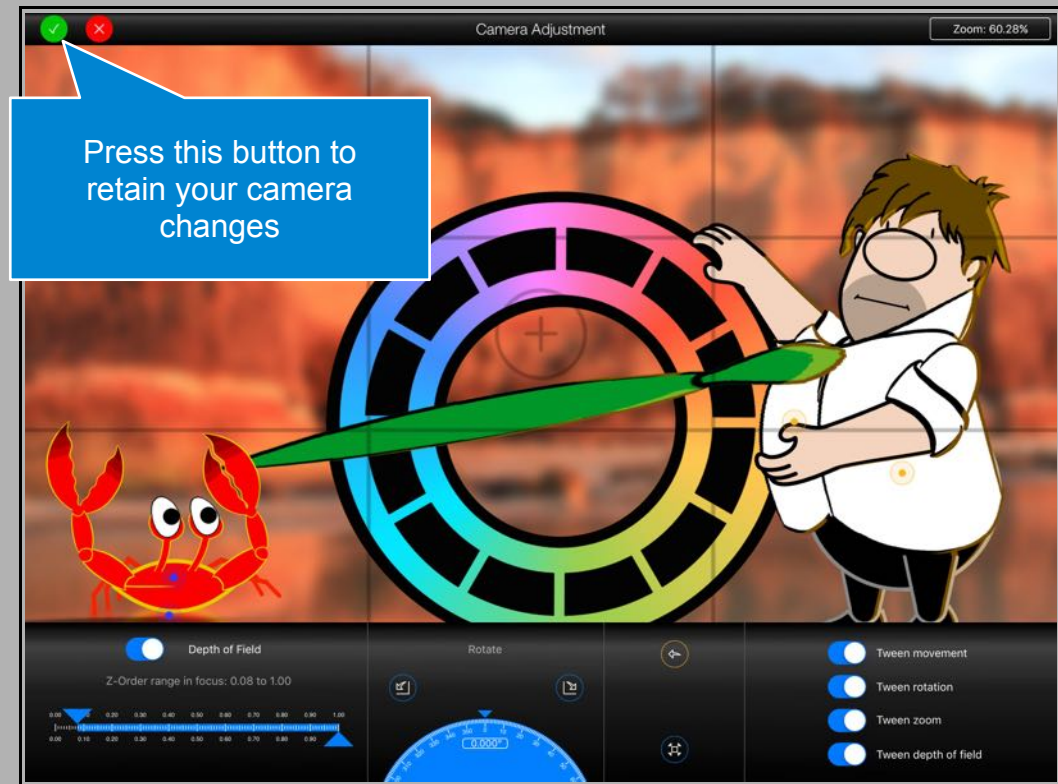
2. Set up the camera as you'd like it and press .




Next, set up the camera on the end frame:



1. Press the  button to display the 'Camera Adjustment' options.



2. Set up the camera as you'd like it and press .

Select the start frame and then press the  button to open the 'Key' menu:



Select 'Camera' from the 'Key' menu.

Animation Pro will display the 'Key Camera' popover:

The image shows the 'Key Camera' popover interface in Animation Pro. The popover is titled 'Key Camera - Select Key Frames' and features a central 'Frames' timeline with a blue line indicating the selected range from frame 1 to frame 6. The interface includes preview windows for the 'Start Key Frame' and 'End Key Frame', a 'Transition' slider, and toggle switches for 'Key movement', 'Key zoom', 'Key rotation', and 'Key depth of field'. At the bottom, there are buttons for 'Key User Tweens', 'Select All', and 'Deselect All', along with a 'Frames Selected: 6' indicator and a green checkmark button.

Press to close the 'Key Camera' popover (or abort a 'key' operation that is in progress).

Control the transition (see next page).

Use these controls to select the end frame. The end frame must be separated from the start frame by at least one frame.

Select which of the camera's properties are to be 'keyed'.

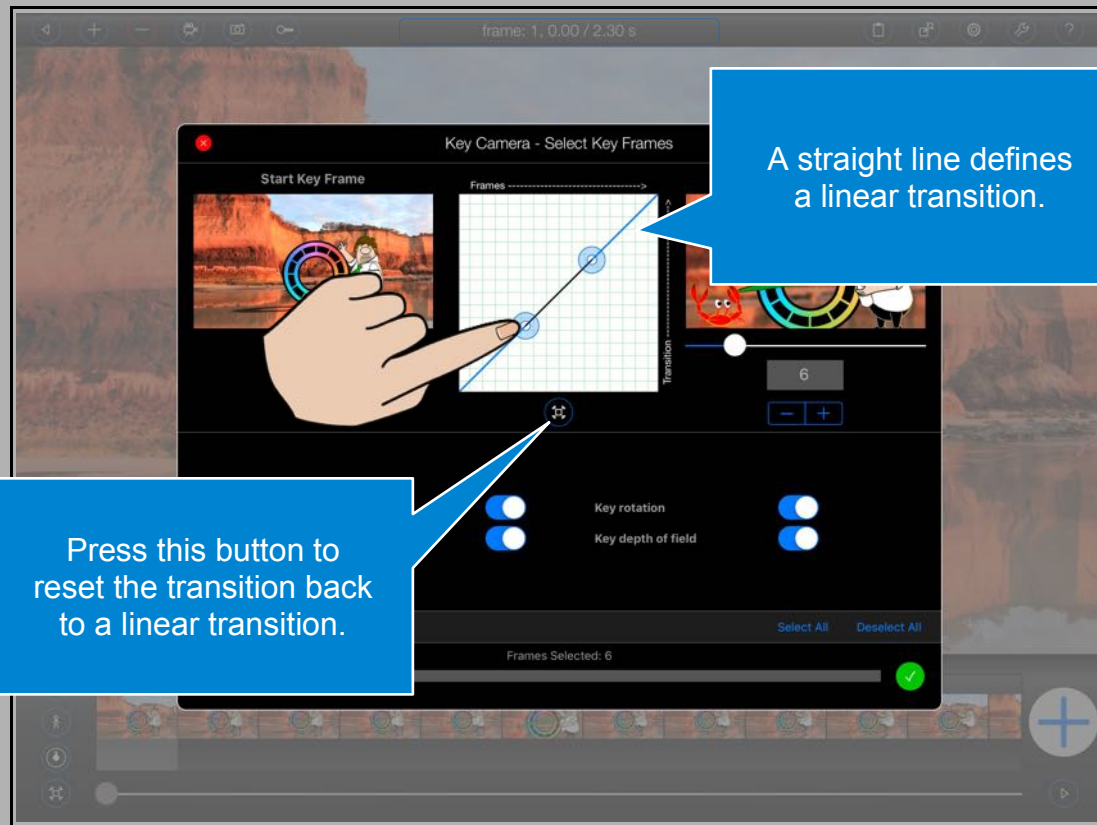
Specify whether the camera should be 'keyed' in 'user tweens'.


Press this button to 'key' the selected camera properties across the range of frames specified.

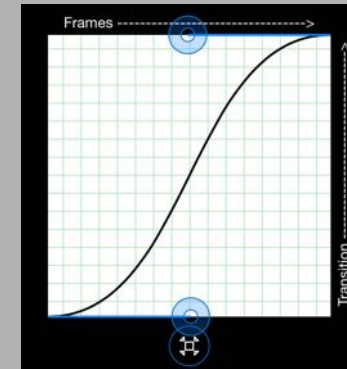


## Controlling the Transition

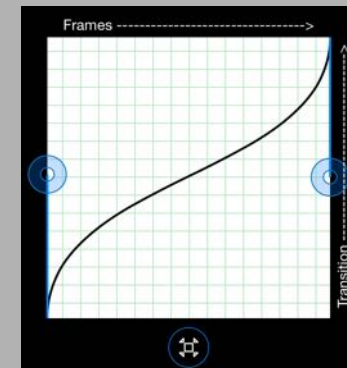
By default, Animation Pro will create a smooth linear transition, between the start frame and the end frame, of the selected camera properties. This linear transition is represented by the straight line in the 'transition graph', as shown below:



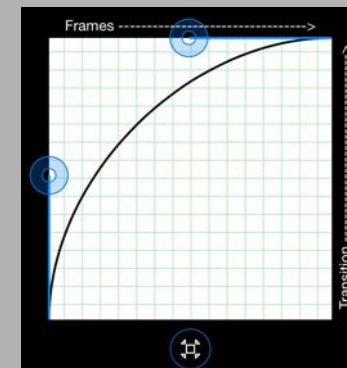
You can drag the  handles to create other transitions, see right:



This transition will ease in and ease out slowly




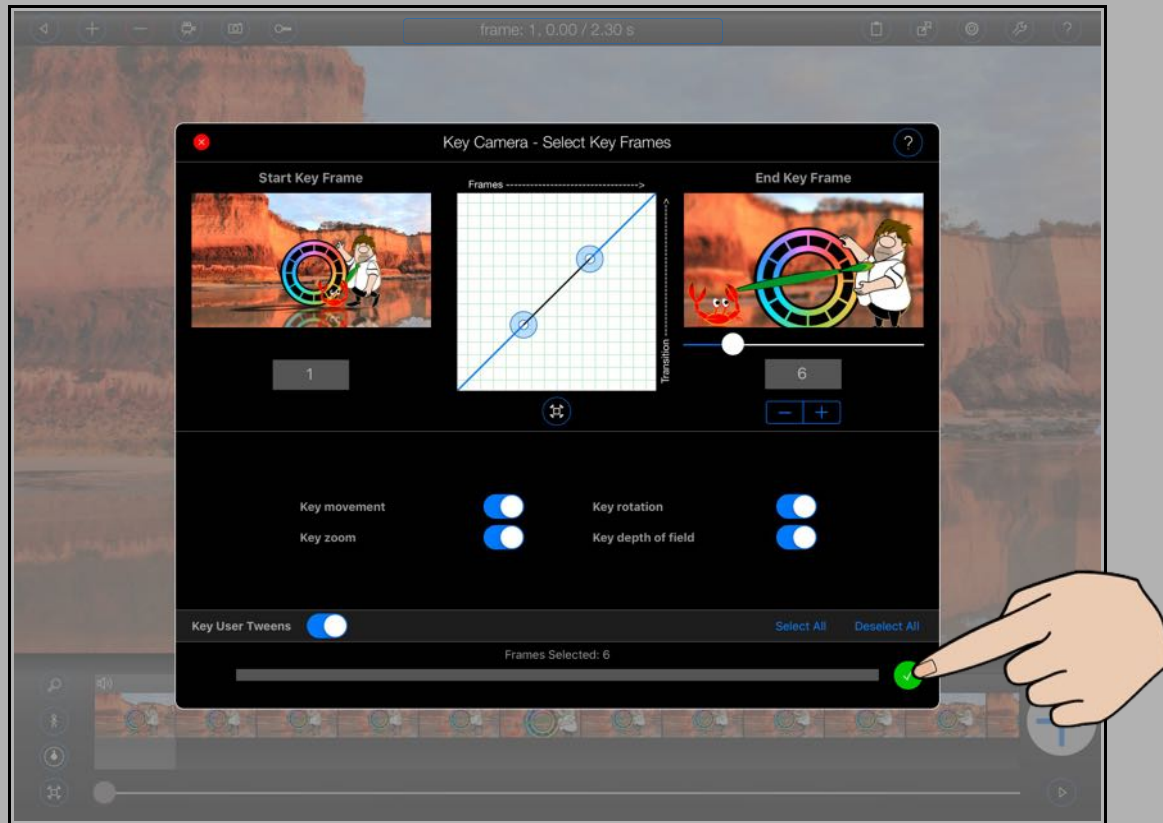
This transition will ease in and ease out fast



This transition will ease in very fast and ease out slowly

## Starting the 'Key Camera' Operation

Once you've set up the parameters on the 'Key Camera' popover, press the  button to process the frames:



Animation Pro will 'key' the selected camera properties between the start frame and the end frame to produce a smooth transition:



Frame 2



Frame 3



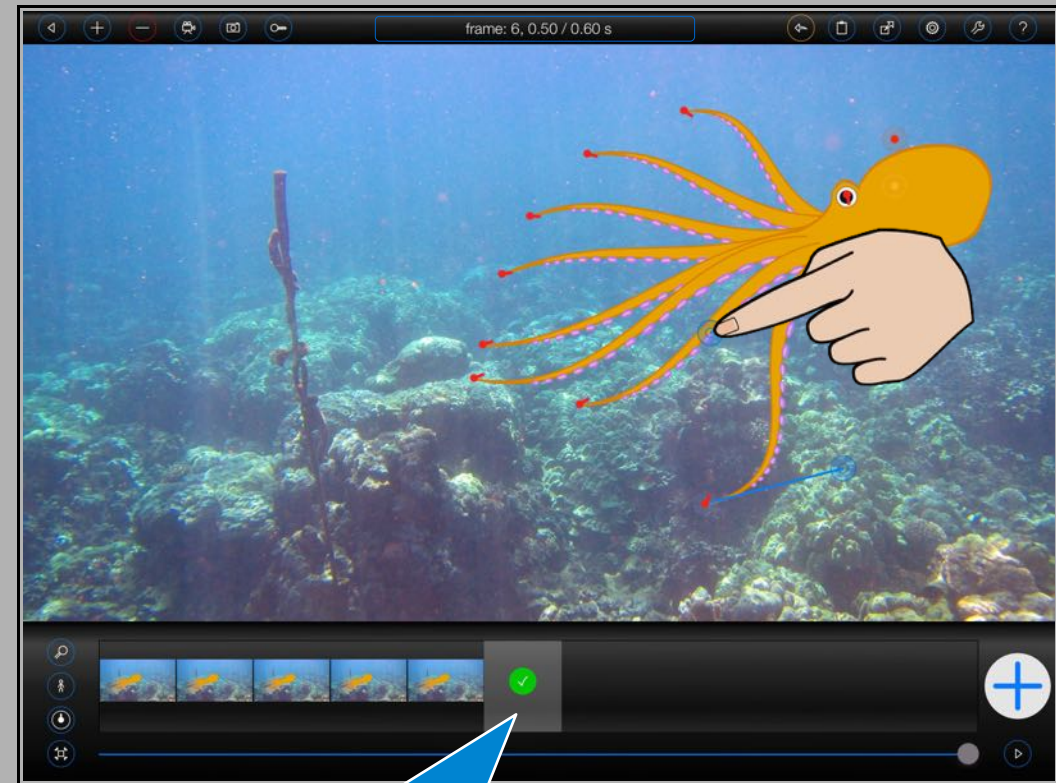
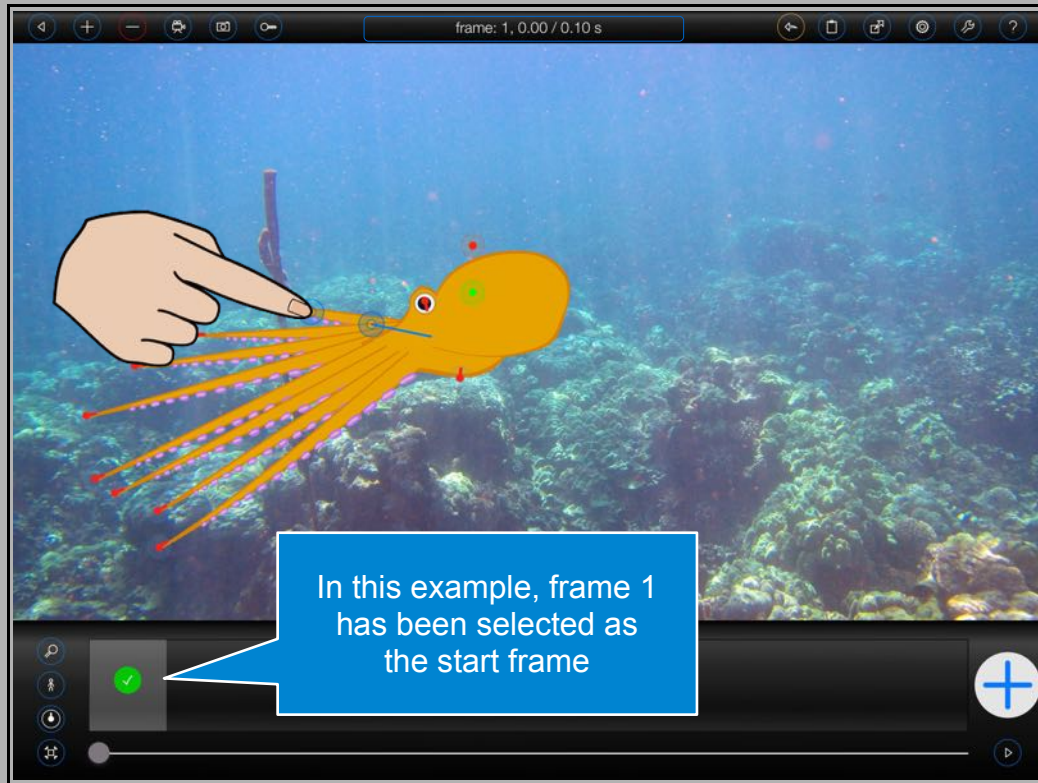
Frame 4




Frame 5

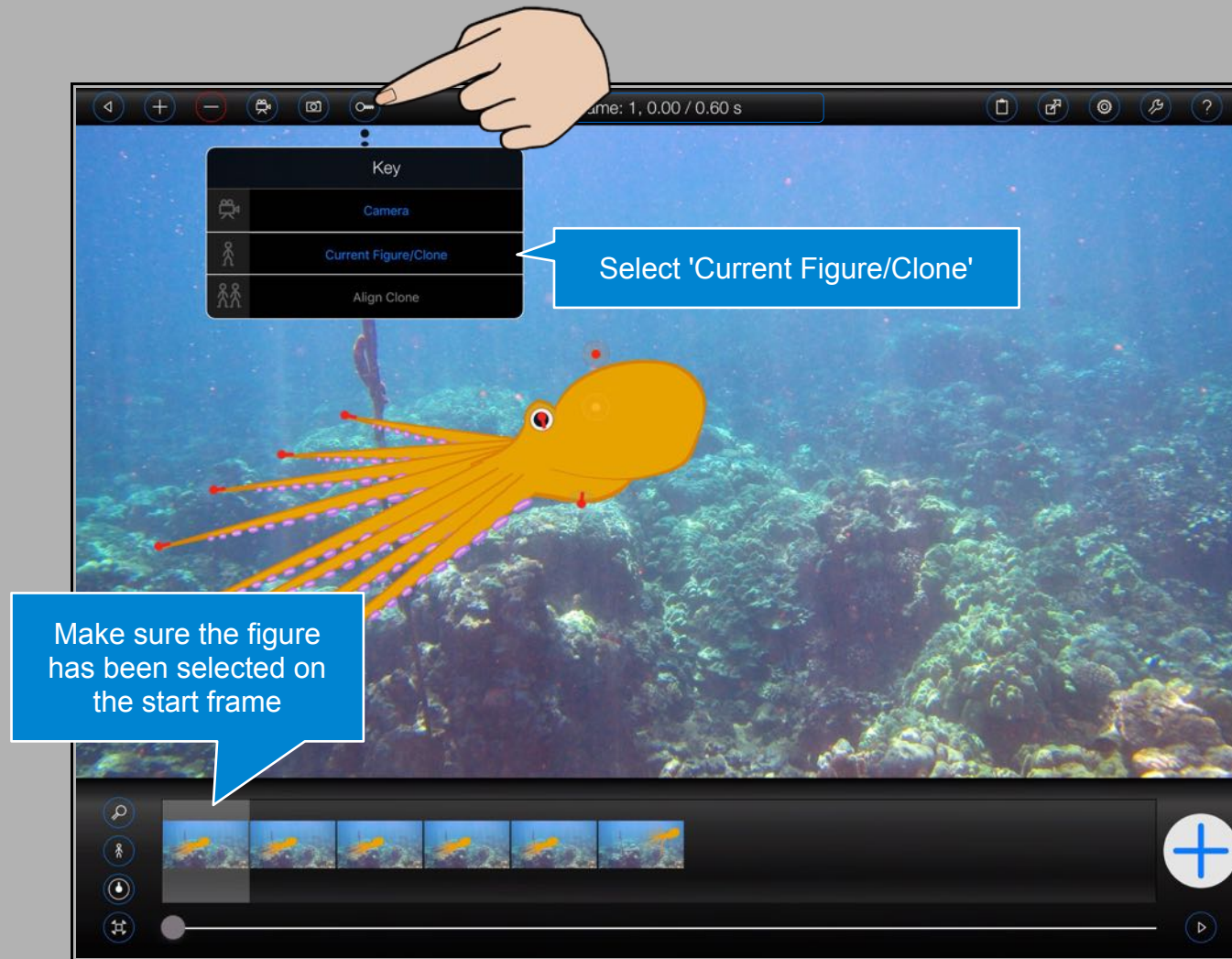
## Figure Keyframing

Set up your figure on a start frame and (optionally) an end frame:





Select the figure on the start frame and then press the  button to open the 'Key' menu:



Select 'Current Figure/Clone' from the 'Key' menu.

Animation Pro will display the 'Key Figure/Clone' popover:

Press to close the 'Key Figure/Clone' popover (or abort a 'key' operation that is in progress).

Control the transition (see next page).

Use these controls to select the end frame. The end frame must be separated from the start frame by at least one frame.

Select which of the figure's properties are to be 'keyed'.

Specify whether the figure should be 'keyed' in 'user tweens'.

Specify whether the figure should be automatically added to frames where it doesn't exist.

Specify whether figure substitutes should have the selected properties 'keyed'.

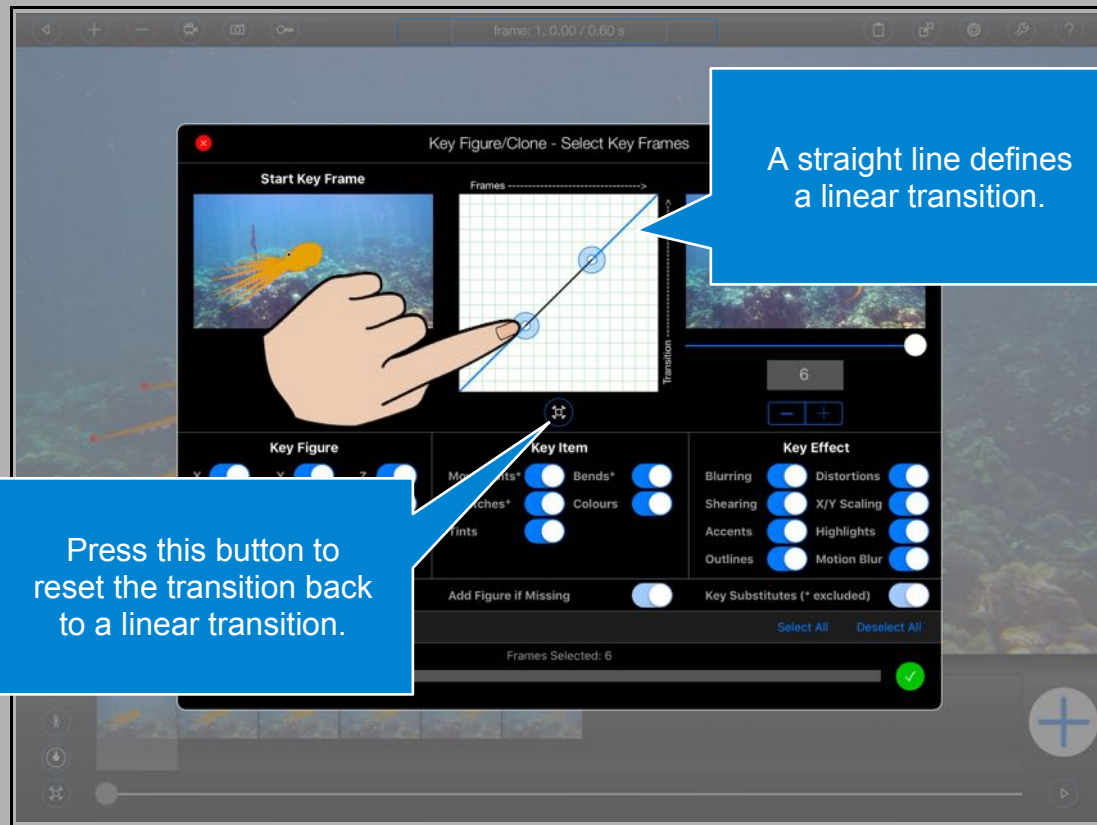
Press this button to 'key' the selected figure properties across the range of frames specified.


The interface shows a central timeline with a grid. The 'Start Key Frame' is set to 1 and the 'End Key Frame' is set to 6. The 'Key Figure' section has toggles for X, Y, Z, Rotation, Scaling, and Opacity. The 'Key Item' section has toggles for Movements\*, Stretches\*, Tints, Bends\*, and Colours. The 'Key Effect' section has toggles for Blurring, Shearing, Accents, Outlines, Distortions, X/Y Scaling, Highlights, and Motion Blur. There are also buttons for 'Add Figure if Missing', 'Key User Tweens', 'Key Substitutes (\* excluded)', 'Select All', and 'Deselect All'. A green checkmark button is at the bottom right.

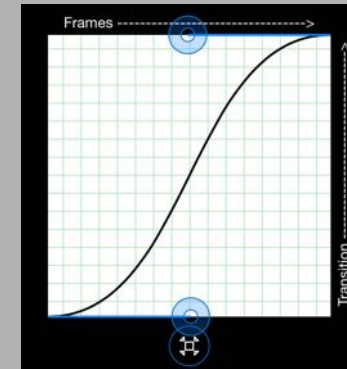


## Controlling the Transition

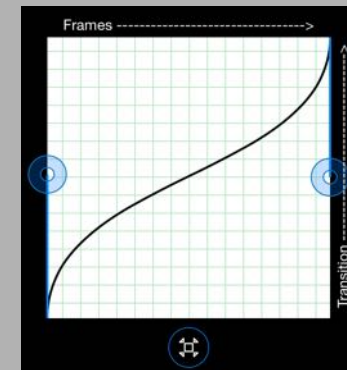
By default, Animation Pro will create a smooth linear transition, between the start frame and the end frame, of the selected figure properties. This linear transition is represented by the straight line in the 'transition graph', as shown below:



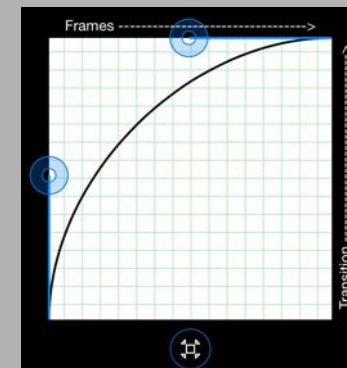
You can drag the  handles to create other transitions, see right:



This transition will ease in and ease out slowly




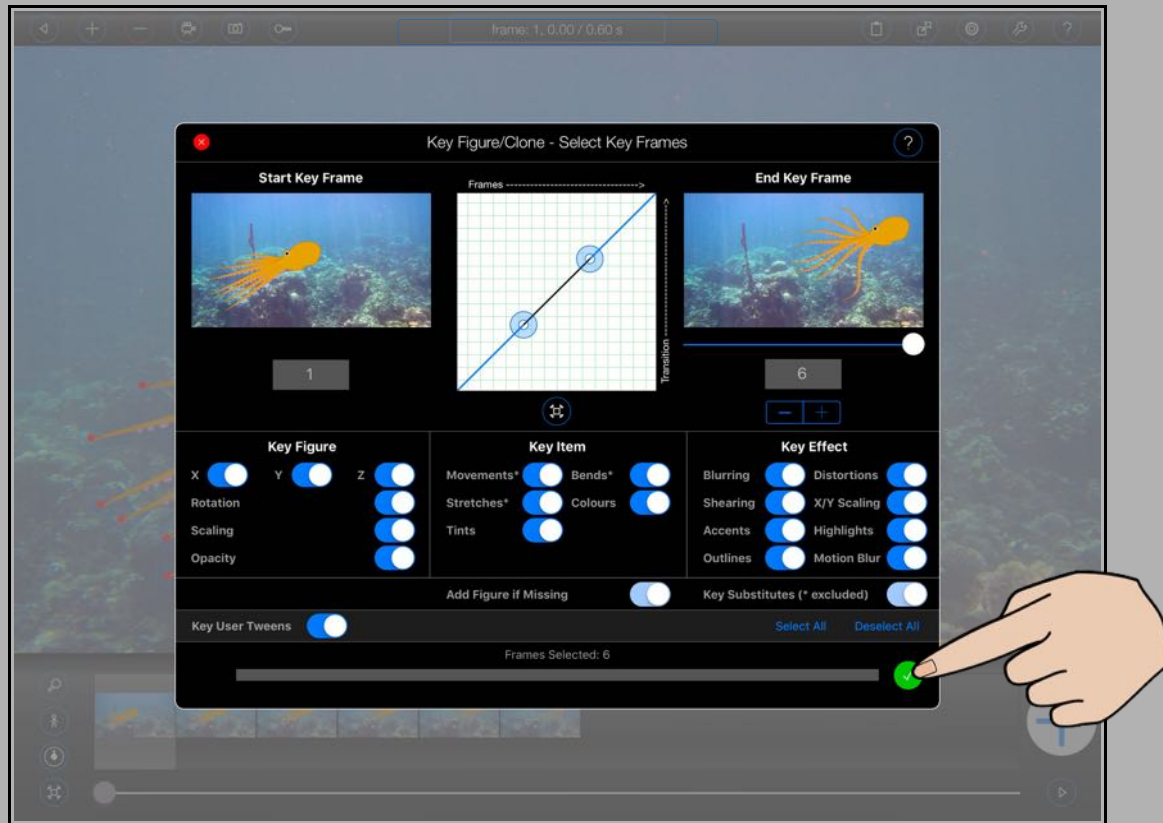
This transition will ease in and ease out fast



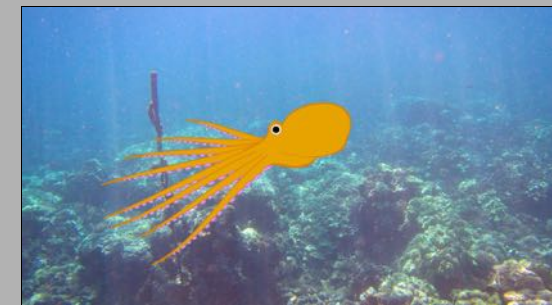
This transition will ease in very fast and ease out slowly

## Starting the 'Key Figure' Operation

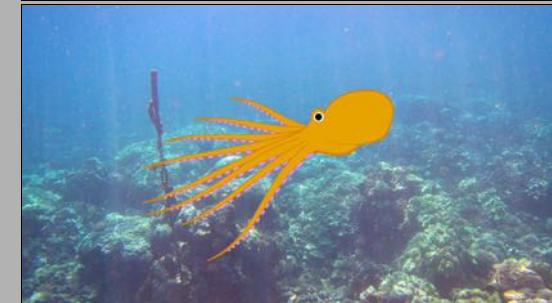
Once you've set up the parameters on the 'Key Figure/Clone' popover, press the  button to process the frames:



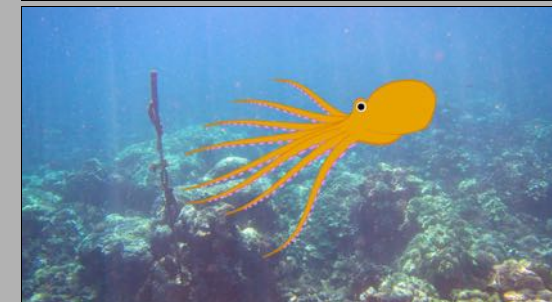
Animation Pro will 'key' the selected figure/clone properties between the start frame and the end frame to produce a smooth transition:



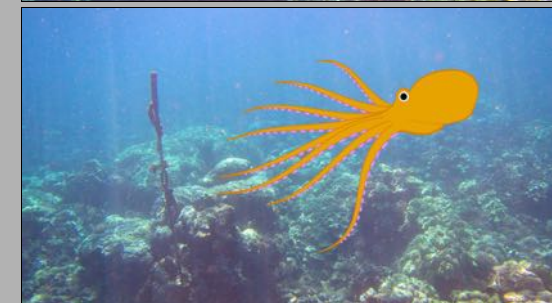
Frame 2



Frame 3



Frame 4



Frame 5



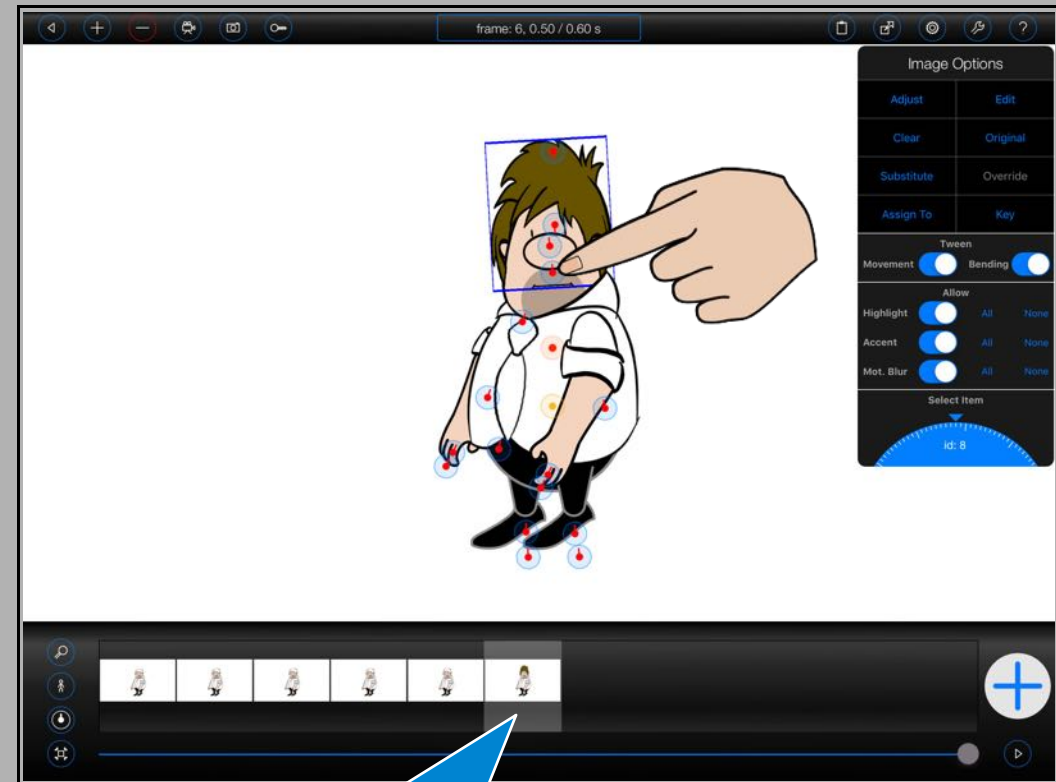
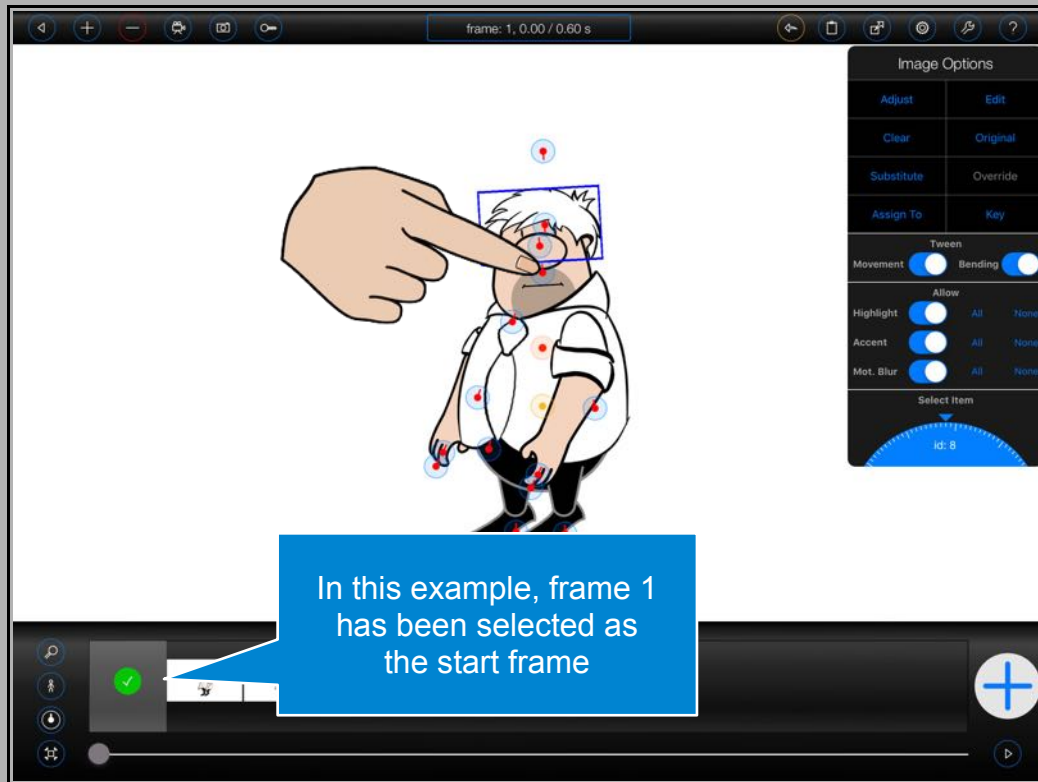
## Important 'Key Figure/Clone' Considerations

1. 'Item Movements', 'Item Bends' and 'Item Stretches' will not be 'keyed' in figure substitutes even where the 'Key Substitutes' switch is turned on. This would most likely destroy the geometry of the substituted figure, so it not permitted.
2. Where 'Item Tints' are to be 'keyed', please ensure that the blend modes applied to the items are the same on the start frame and the end frame.
3. Where the 'keyed' figure has clones, those clones will be updated according to their 'Clone' settings in the 'Figure Inspector'. If, for example, a clone has its movement reversed in the 'Clone' settings, it will be moved to the right when the selected figure is 'keyed' to the left.
4. You can use the 'Key Figure/Clone' popover to add a figure to multiple frames by selecting the 'Add Figure if Missing' option. Please note that where the selected figure does not exist in the end frame, it will be added there as well. In that case, regardless of the properties selected, the figure will be exactly the same across all of the selected frames upon the completion of the 'Key Figure' operation.
5. You may get unexpected results when a clone (or a shadow) is 'keyed'. Clones generally copy one or more of the settings of their parent figure (as controlled by the 'Clone' settings in the 'Figure Inspector'). 'Keying' will thus have no effect on the properties of a clone that are copied (cloned) from a parent figure.

## Item Keyframing

Animation Pro allows individual items, within figures, to be 'keyed'.

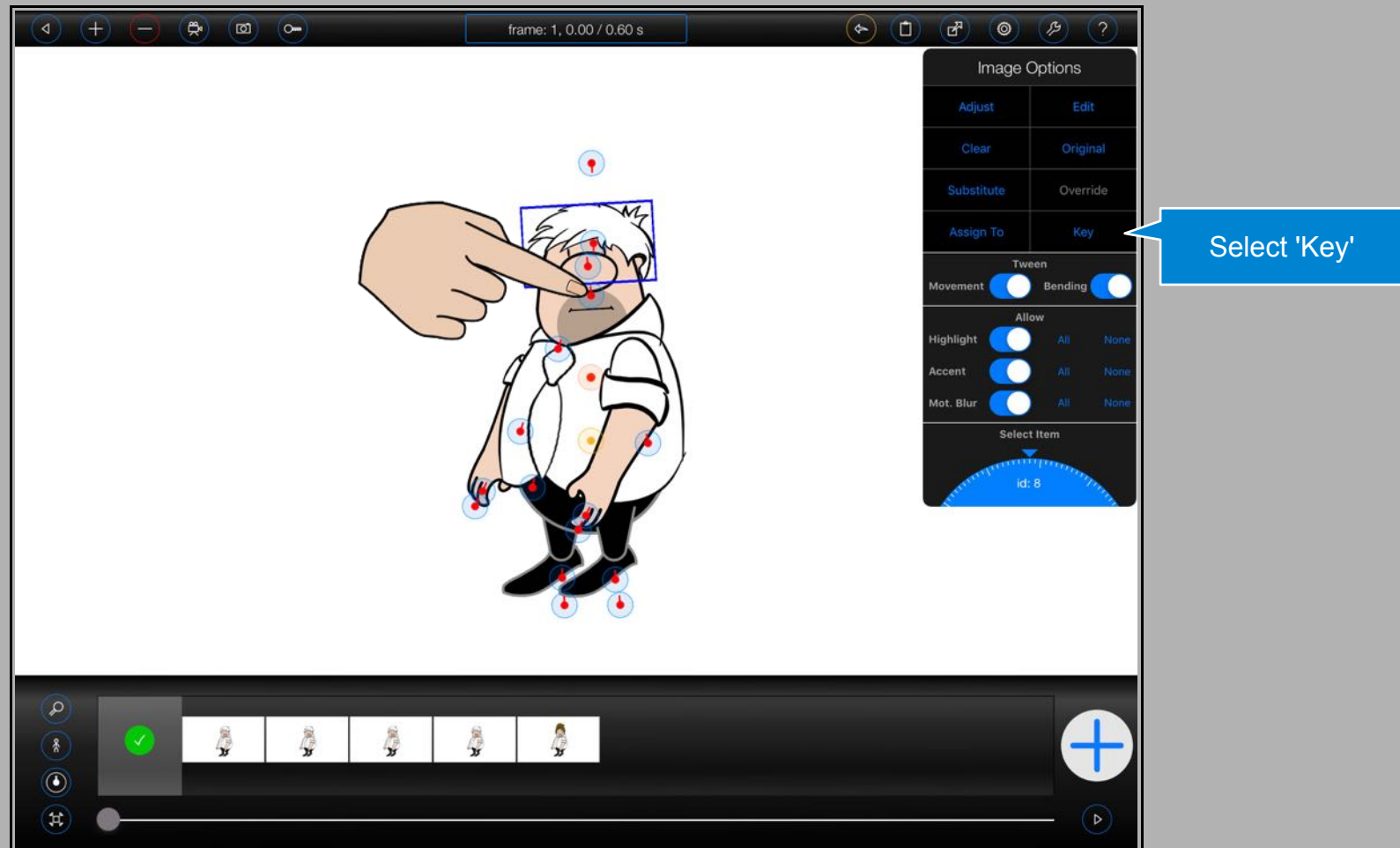
Set up the item (in your figure) on a start frame and (optionally) an end frame:



In this case, the hair on the figure has been scaled and tinted on the end frame.



Select the item (in the figure) on the start frame and then press the 'Key' button on the 'Item Options' popover:



**Please note:** You may have to tap twice on bendable items to make the 'Options' popover appear.

Animation Pro will display the 'Key Figure/Clone Item' popover:

The image shows a screenshot of the 'Key Figure/Clone Item' popover in Animation Pro. The popover is titled 'Key Figure/Clone Item - Select Key Frame' and features a central 'Frames' timeline with a blue line indicating a transition. The timeline is flanked by 'Start Key Frame' and 'End Key Frame' preview windows, each showing a cartoon character. Below the timeline are various property controls, including 'Key Movement\*', 'Key Opacity', 'Key Colour', 'Key Tint', 'Key Line Width', 'Key Image X\*', 'Key Image Y\*', 'Key Image Angle\*', 'Key Image Scale X\*', 'Key Image Scale Y\*', 'Key Bend\*', 'Key Stretch\*', 'Key Item Substitutes', and 'Key Figure Subs. (\* excluded)'. At the bottom, there are 'Key User Tweens' and 'Frames Selected: 6' indicators, along with 'Select All' and 'Deselect All' buttons. A green checkmark button is located at the bottom right.

Press to close the 'Key Figure/Clone' popover (or abort a 'key' operation that is in progress).

Control the transition (see next page).

Use these controls to select the end frame. The end frame must be separated from the start frame by at least one frame.

Select which of the item's properties are to be 'keyed'.

Specify whether the item should be 'keyed' in 'user tweens'.

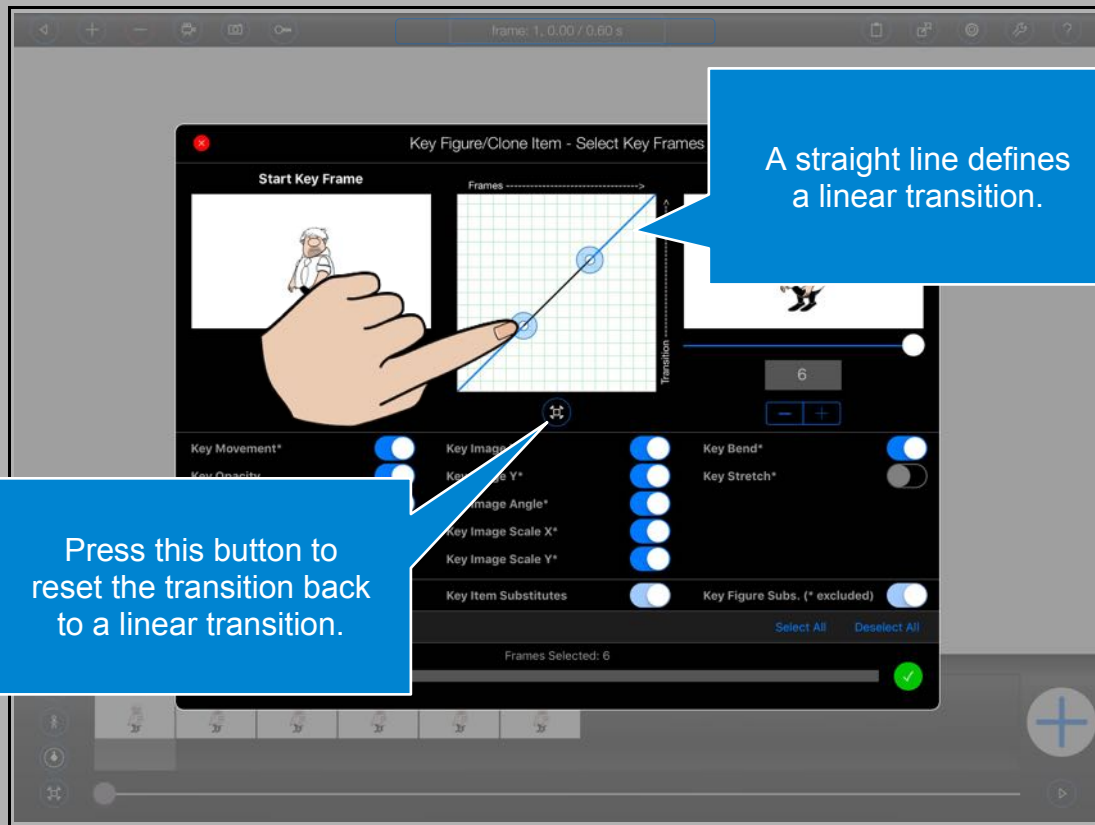
Specify whether item substitutes should have the selected item properties 'keyed'.


Specify whether figure substitutes should have the selected item properties 'keyed'.

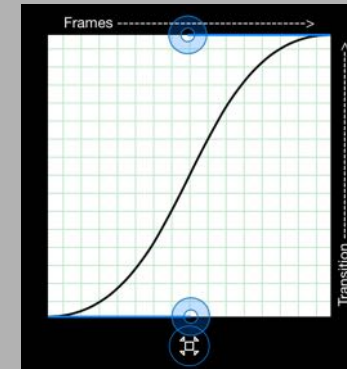
Press this button to 'key' the selected item properties across the range of frames specified.

## Controlling the Transition

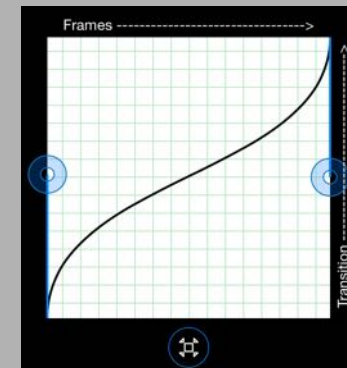
By default, Animation Pro will create a smooth linear transition, between the start frame and the end frame, of the selected item properties. This linear transition is represented by the straight line in the 'transition graph', as shown below:



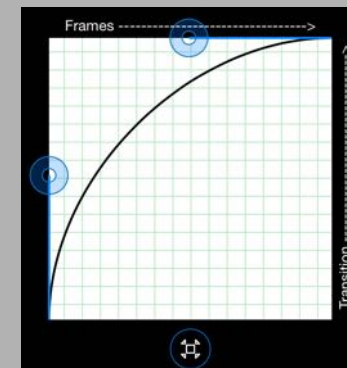
You can drag the  handles to create other transitions, see right:



This transition will ease in and ease out slowly




This transition will ease in and ease out fast

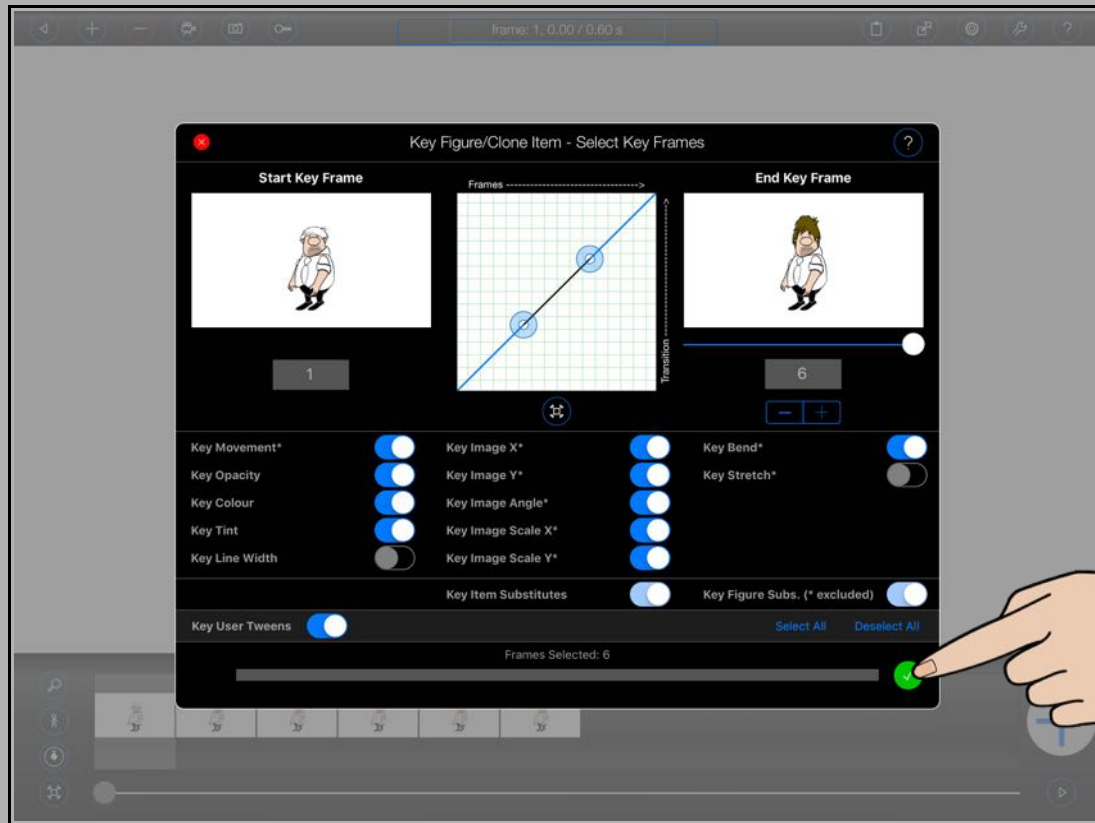


This transition will ease in very fast and ease out slowly

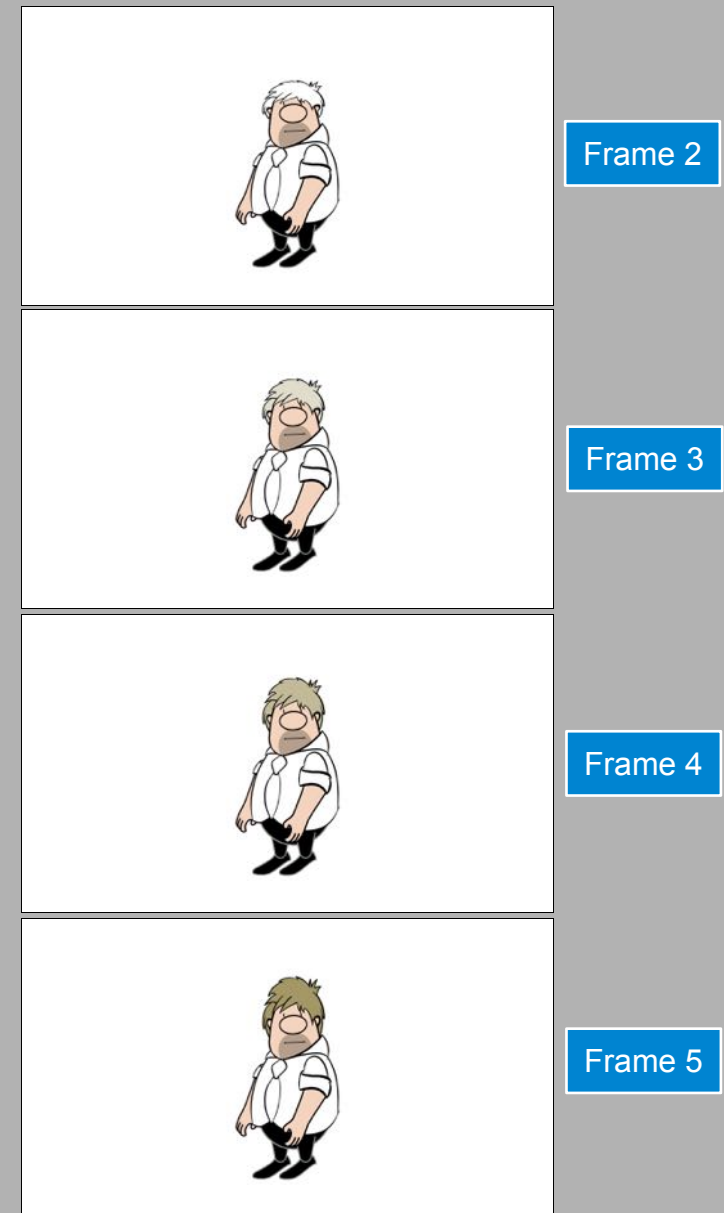


## Starting the 'Key Figure/Clone Item' Operation

Once you've set up the parameters on the 'Key Figure/Clone Item' popover, press the  button to process the frames:



Animation Pro will 'key' the selected item's properties between the start frame and the end frame to produce a smooth transition:



## Important 'Key Figure/Clone Item' Considerations

1. Properties that affect the position or geometry of the selected item may not be 'keyed' across figure substitutes. This would most likely destroy the geometry of the substituted item, so it is not permitted.
2. Where 'Item Tints' are to be 'keyed', please ensure that the blend modes applied to the item are the same on the start frame and the end frame.
3. Where the 'keyed' figure has clones, those clones will be updated according to their 'Clone' settings in the 'Figure Inspector'.
4. You may get unexpected results when an item in a clone (or a shadow) is 'keyed'. Clones generally copy one or more of the settings of their parent figure (as controlled by the 'Clone' settings in the 'Figure Inspector'). 'Keying' will thus have no effect on the properties, of an item in a clone, that are copied (cloned) from a parent figure.