Clones

Animation Pro allows figures to be cloned. Clones can automatically copy one or more properties of the original, or parent, figure. Using clones it thus possible to create everything from shadows, reflections or an entire army that change automatically as the parent figure is changed.

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Add

Background Image or Video

Figure

Image as a Figure

Mouth as a Figure

Text as a Figure

Figure Substitute

Clone of the Selected Figure

Shadow to the Selected Figure

Audio to the Frame

Audio to the Selected Figure

Figure Sequence

Project

User Tweens
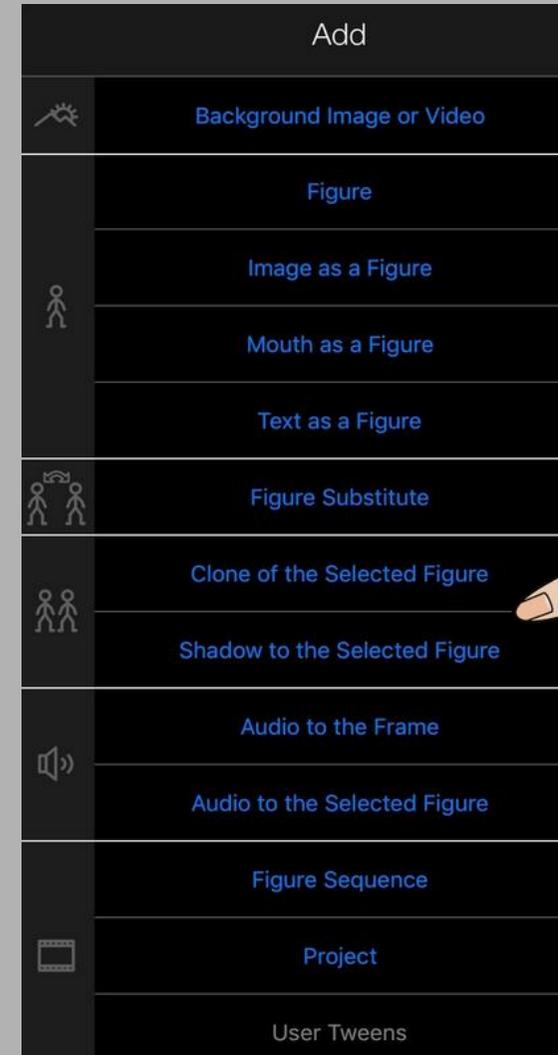
Adding a Clone

1. **Select a figure on the Animation Screen by tapping its anchor point**

2. **Press the ⊕ button at the top of the screen to open the 'Add' menu**

3. **Select 'Clone of the Selected Figure'**

5 fps, frame: 1

Press this button
to open the 'Add' menu

Add

Background Image or Video

Figure

Image as a Figure

Mouth as a Figure

Text as a Figure

Figure Substitute

Clone of the Selected Figure

Shadow to the Selected Figure

Audio to the Frame

Audio to the Selected Figure

Figure Sequence

Project

User Tweens

Tap on a figure's anchor
point to select it
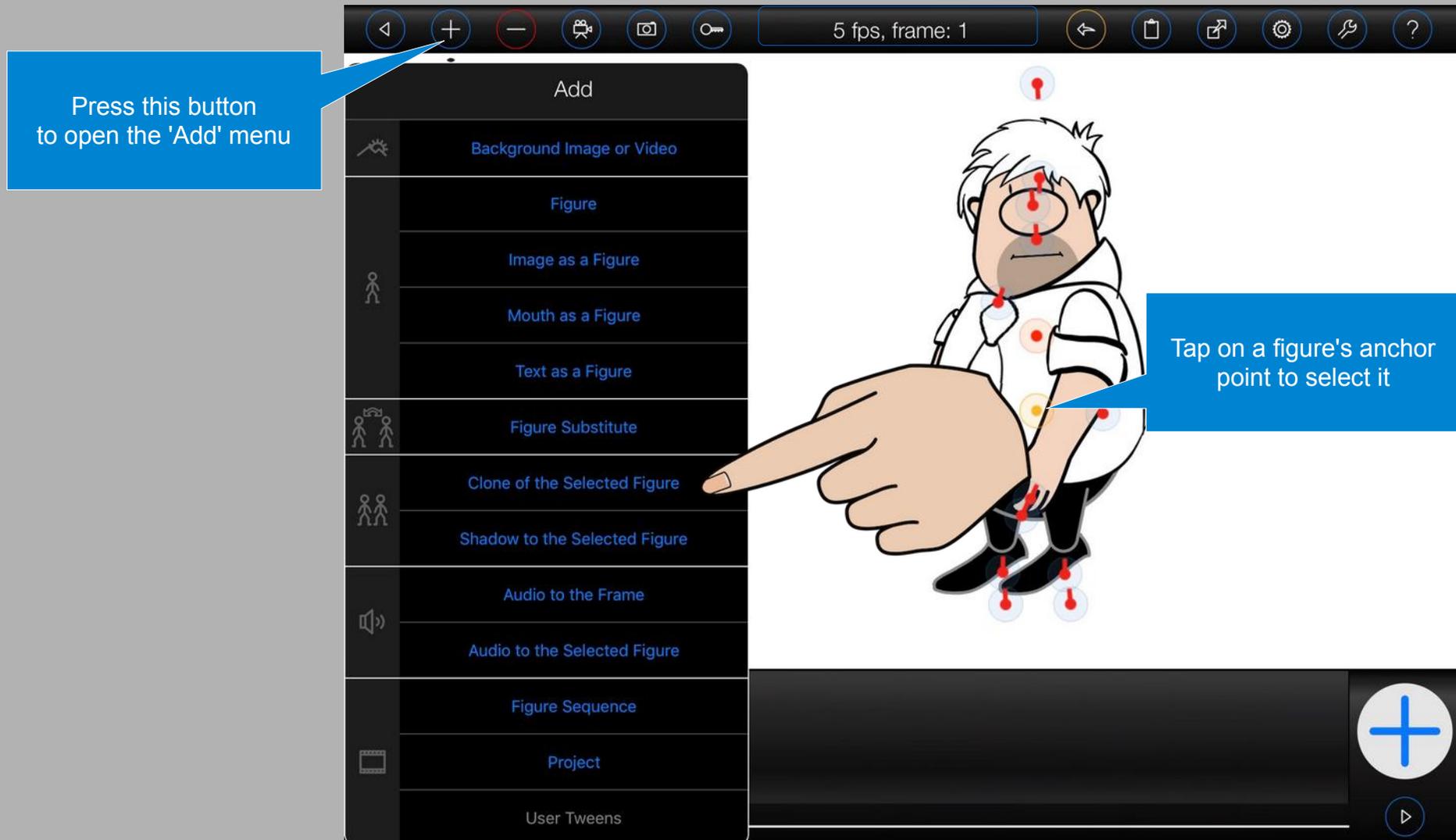
Animation Pro will create a new clone of the selected figure. New clones will be an exact copy of the selected figure and will clone all of their properties. You can distinguish a clone from a normal figure by its anchor point. Clones will have a blue anchor point as shown below:
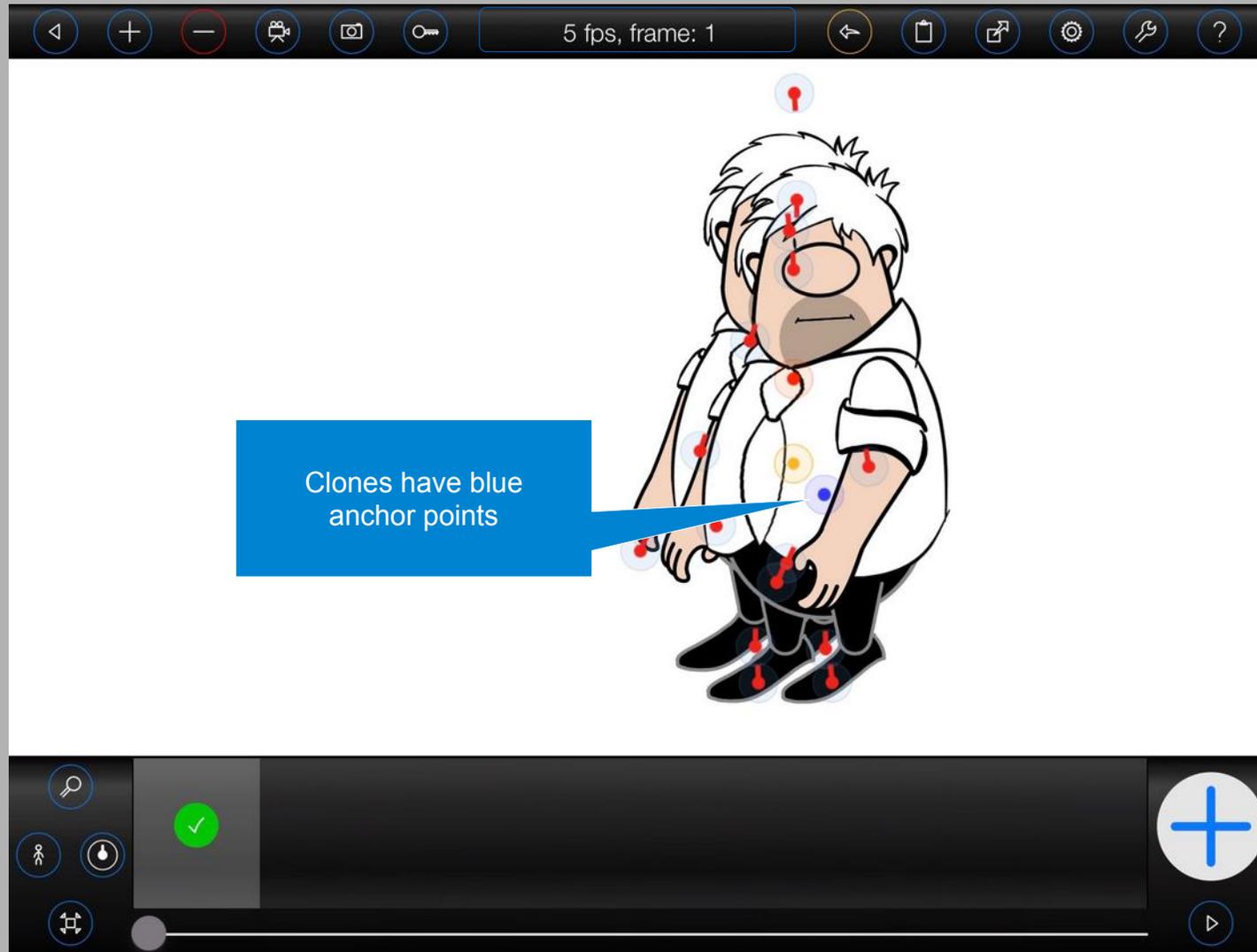
Removing a Clone

1. **Select a clone on the Animation Screen by tapping its anchor point**

2. **Press the ⊖ button at the top of the screen to open the 'Remove' menu**

3. **Select 'Figure/Clone'**

Press this button to open the 'Remove' menu

Remove

Background

Background from Multiple Frames

Figure/Clone

All Figures/Clones

Figure/Clone from Multiple Frames

Audio from Frame

Audio from Figure/Clone

All Content from Frame

Current Frame

Multiple Frames

User Tweens

frame: 1, 0.00 / 0.10 s

Tap on a clone's anchor point to select it

Changing the Behaviour of a Clone

When a new clone is added it will be an exact representation of the figure it's cloning. In other words, it will clone (replicate) all of the properties of its parent figure. So if you move the parent figure, the clone will move too. If you change the colour of the parent figure, the clone will also change colour.

In reality, however, you probably won't want that to occur unless, of course, you are using clones to create a whole army of figures that all look the same and move in time with the parent. So Animation Pro allows you to specify exactly which properties, of the parent figure, that a clone will replicate. Furthermore, these 'Clone' settings may be turned on and off from frame to frame. So its completely possible to have a clone move with a parent figure but then go on to do its own thing later on.

The 'Clone' settings may be found in the 'Figure Inspector' under the 'Clone' category:

1.   Select a clone on the Animation Screen by tapping its anchor point

2.   Press the 🔍 **button at the bottom-left of the screen to open the 'Figure Inspector'**

3.   Scroll the category buttons (located immediately below the 'Figure Inspector' title) to the left to find the 'Clone' button and tap on it to see the settings in the 'Clone' category.

Tap on a clone's anchor point to select it

Press this button to open the 'Figure Inspector'

The settings found under the 'Clone' category of the 'Figure Inspector' dictate which properties, of the parent figure, the clone will replicate on the current frame.

Please note:

• Cloning occurs as you animate, not as your animation is exported.

• The clone properties may be changed from frame to frame. So it's possible to have a clone copy a parent figure's movements but then go on to move by itself.

• The clone properties will be automatically copied across to new frames.

• Some clone properties are designated as 'relative'. This means that the clone will not copy the value of the parent figure's property. Instead, it will copy the degree of change made to the parent figure's property. Movement, for example, is relative. That allows a figure and its clones to be positioned at different locations but all move together whenever the parent figure is moved.

• Whenever a clone property is turned on, other than those designated as 'relative', it will not be possible to manually adjust the corresponding setting of the clone. For example, where 'Scale' is turned on, the 'Scale' options under the 'Transform' category will be unavailable when adjusting the clone.

• Some clone properties have 'reverse' options. This allows a clone to, say, automatically move down whenever the parent figure moves up (which could be very useful for creating reflections).

• A shadow is simply a clone with the right properties set up. Animation Pro includes a 'Shadow Wizard' to make the creation of shadows easier.

Press this button
to open the 'Clone Options'
Menu (see next page)

Turn these settings on
or off to specify which
properties of the parent
figure the clone should
copy.

Please note that the
list may be scrolled up
to reveal more settings.

Select Figure

Shear/Scale   Highlight   Clone

Clone

Figure

Movement (Relative)

- Reverse X

- Reverse Y

Rotation (Relative)

- Reverse

Flips (Relative)

Scale

Opacity

Tween Settings

Substitutions

Scroll up to see more

'Clone Options' Menu

Press the ⚙ button to the right of the 'Clone' heading (see last page) to open the 'Clone Options' menu:

### Clone Options

Select All

Select None

Convert Clone to Figure

Open Shadow Wizard

Press this button to turn all of the Clone options on – the clone will then copy all of the properties of the parent figure.

Press this button to turn all of the Clone options off – the clone will no longer copy any of the properties of the parent figure.

Press this button to convert the selected clone into a regular figure across 1 or more frames

Open the 'Shadow Wizard' to create a shadow (of the parent figure) from the currently selected clone.

Clone Properties

The following pages describe the effects of turning each of the 'Clone' properties on:
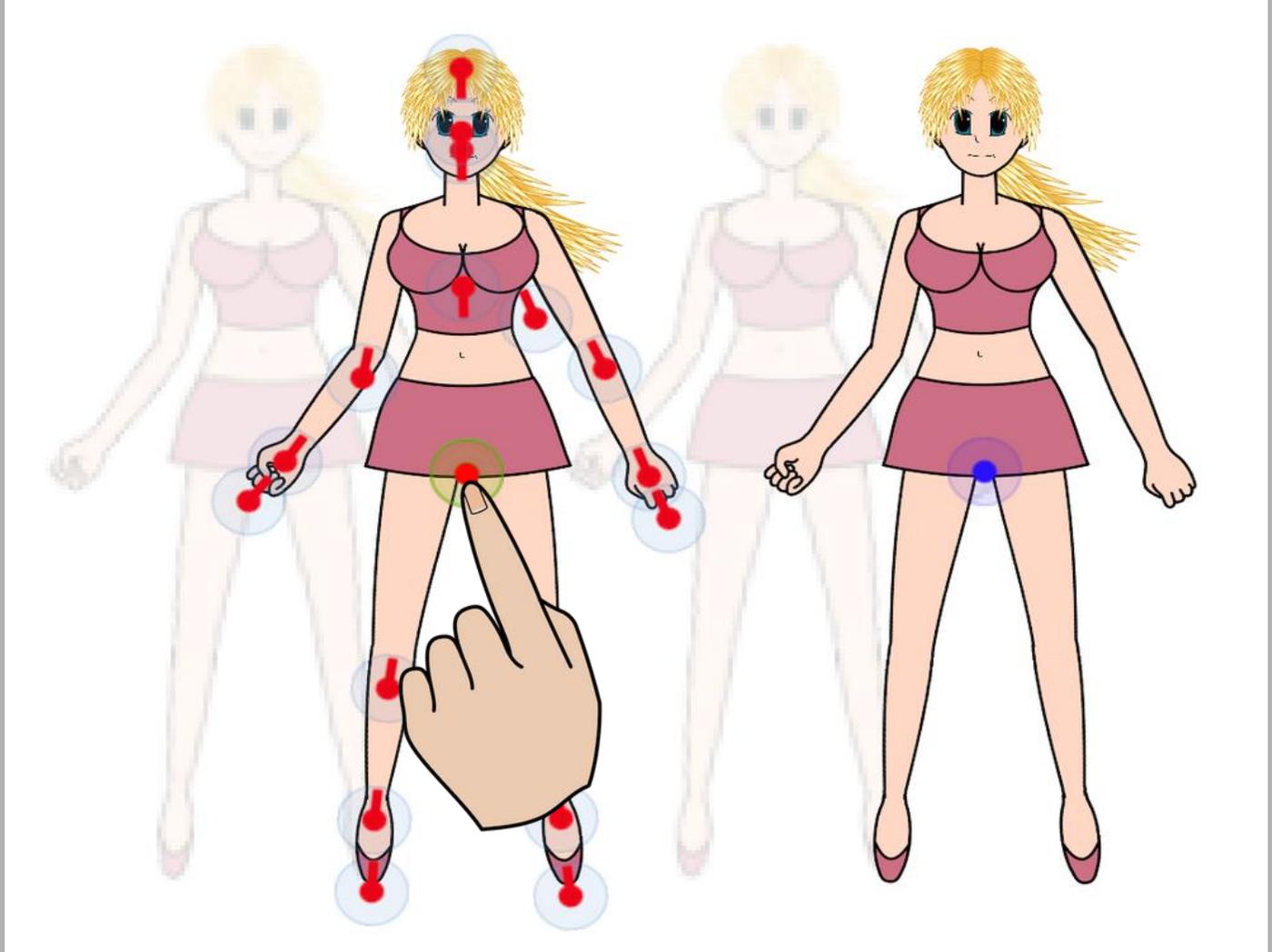
	FIGURE
Movement (Relative)	

The clone will move in accordance with the parent figure's movement, relative to the clone's starting point. Clone X & Y movements may also be reversed (please see below).

- Reverse X	The clone will move right whenever the parent figure moves left and vice-versa.
- Reverse Y	The clone will move up whenever the parent figure moves down and vice-versa.
Rotation (Relative)	The clone will be rotated in accordance with the parent figure's rotation, relative to the clone's current angle. Clone rotations may also be reversed (please see below).
- Reverse	The clone will rotate anti-clockwise whenever the parent figure is rotated clockwise and vice-versa.
Flips (Relative)	The clone will flip whenever the parent figure is flipped, relative to its current orientation (flip state).
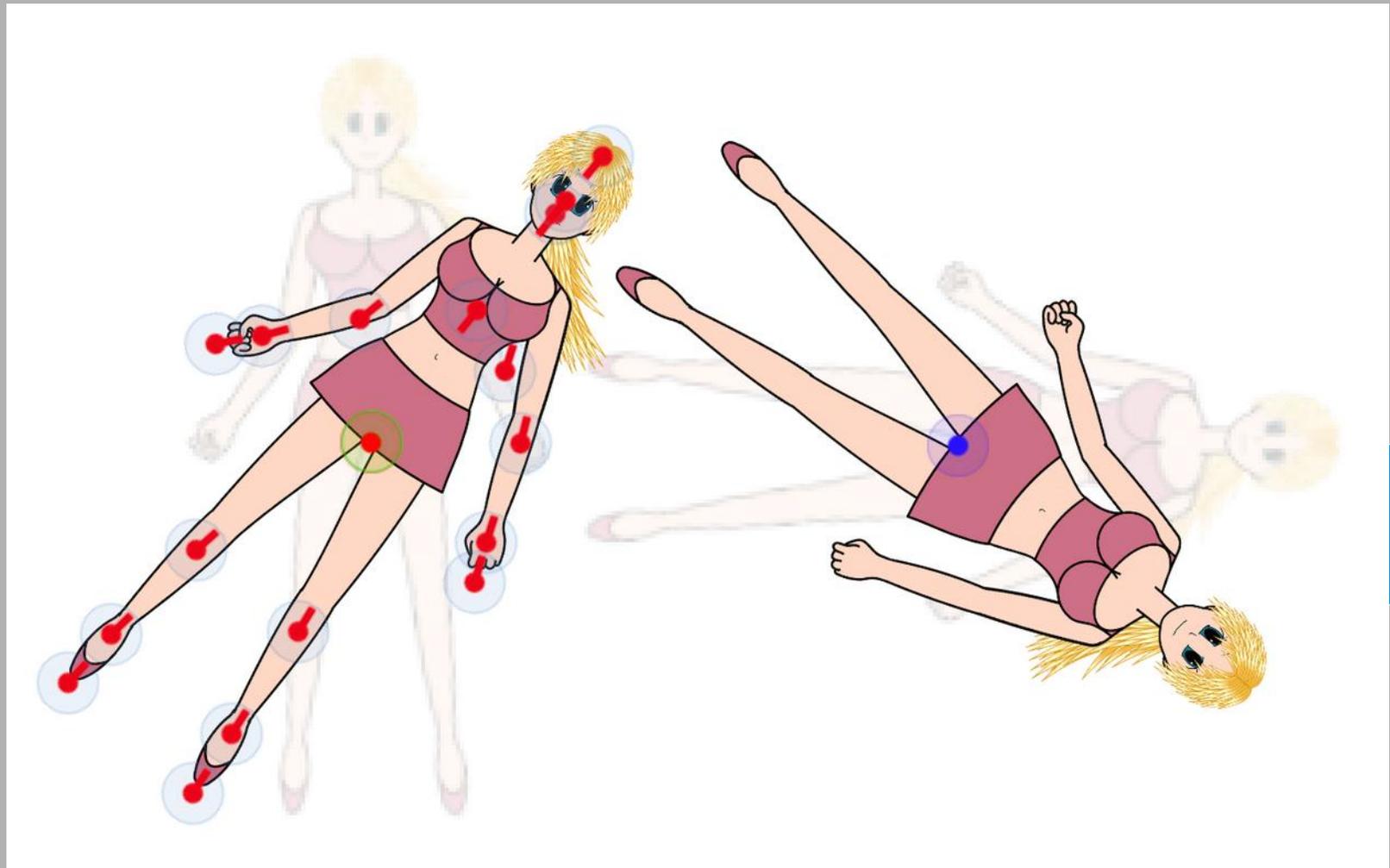
Scale	The clone's scale will reflect that of the parent figure.
Opacity	The clone's opacity will reflect that of the parent figure.
Tween Settings	The clone will copy the parent figure's tween settings.
Substitutions	When the parent figure is substituted, so will the clone.
Audio/Lip-Synching	The clone will copy the parent figure's audio and lip-synching settings.
ITEM	
Movement	The position of the items within the clone will be set to those of the parent figure.
Bending	The items within the clone will bend as per the corresponding parent figure's items.
Colour	The colour of the items within the clone will be set to that of the corresponding parent figure's items.
Tint	The tint of the items within the clone will be set to that of the corresponding parent figure's items.
Opacity	The opacity of the items within the clone will be set to that of the corresponding parent figure's items.
Line Width	The width of the lines within the clone will be set to that of the corresponding parent figure's items.
Image Position	The position of the images within the clone will be set to that of the corresponding parent figure's items.
Image Rotation	The angle of the images within the clone will be set to that of the corresponding parent figure's items.
Image Flips	The items within the clone will flip when the corresponding parent figure's items are flipped.
Image Scale-X	The X-Axis scaling of the items within the clone will reflect that of the corresponding parent figure's items.
Image Scale-Y	The Y-Axis scaling of the items within the clone will reflect that of the corresponding parent figure's items.
Image Substitutions	Any substitutions made to the items within the parent figure will also be made to the items in the clone.
Tween Settings	Any changes made to the tween settings of the parent figure will also be made to the tween settings of the clone.

| EFFECTS	
Blur	The clone's blur will reflect that of the parent figure.
Distortion	The clone's distortion will reflect that of the parent figure.
- Reverse X	The clone's X-Axis distortion will be the opposite of that applied to the parent figure.
- Reverse Y	The clone's Y-Axis distortion will be the opposite of that applied to the parent figure.
Scale-X	The clone's X-Axis scaling will reflect that of the parent figure.
Scale-Y	The clone's Y-Axis scaling will reflect that of the parent figure.
Shear-X	The clone's X-Axis shearing will reflect that of the parent figure.
- Reverse	The clone's X-Axis shearing will be the opposite of that applied to the parent figure.
Shear-Y	The clone's Y-Axis shearing will reflect that of the parent figure.
- Reverse	The clone's Y-Axis shearing will be the opposite of that applied to the parent figure.
Highlight	The clone's highlighting will reflect that of the parent figure.
Accent	The clone's accent will reflect that of the parent figure.
Outline/Glow	The clone's outline (or glow effect) will reflect that of the parent figure.
Motion Blur	The clone's motion blur will reflect that of the parent figure.
Stylisation	The clone's stylisation will reflect that of the parent figure.
Effect Order	The clone's 'effect order' will be the same as the parent figure.

Shadows

Creating a realistic shadow involves setting up a clone with the correct tinting, blur, opacity, Y-Axis shearing and scaling properties. As shadows are used quite frequently in animations, Animation Pro includes a 'Shadow Wizard' to make the process easier.

Creating a Shadow

1. **Select a figure on the Animation Screen by tapping its anchor point**

2. **Press the** ⊕ **button at the top of the screen to open the 'Add' menu**

3. **Select 'Shadow to the Selected Figure'**

Press this button to open the 'Add' menu

Tap on a figure's anchor point to select it

Add

- Background Image or Video
- Figure
- Image as a Figure
- Mouth as a Figure
- Text as a Figure
- Figure Substitute
- Clone of the Selected Figure
- Shadow to the Selected Figure
- Audio to the Frame
- Audio to the Selected Figure
- Figure Sequence
- Project
- User Tweens
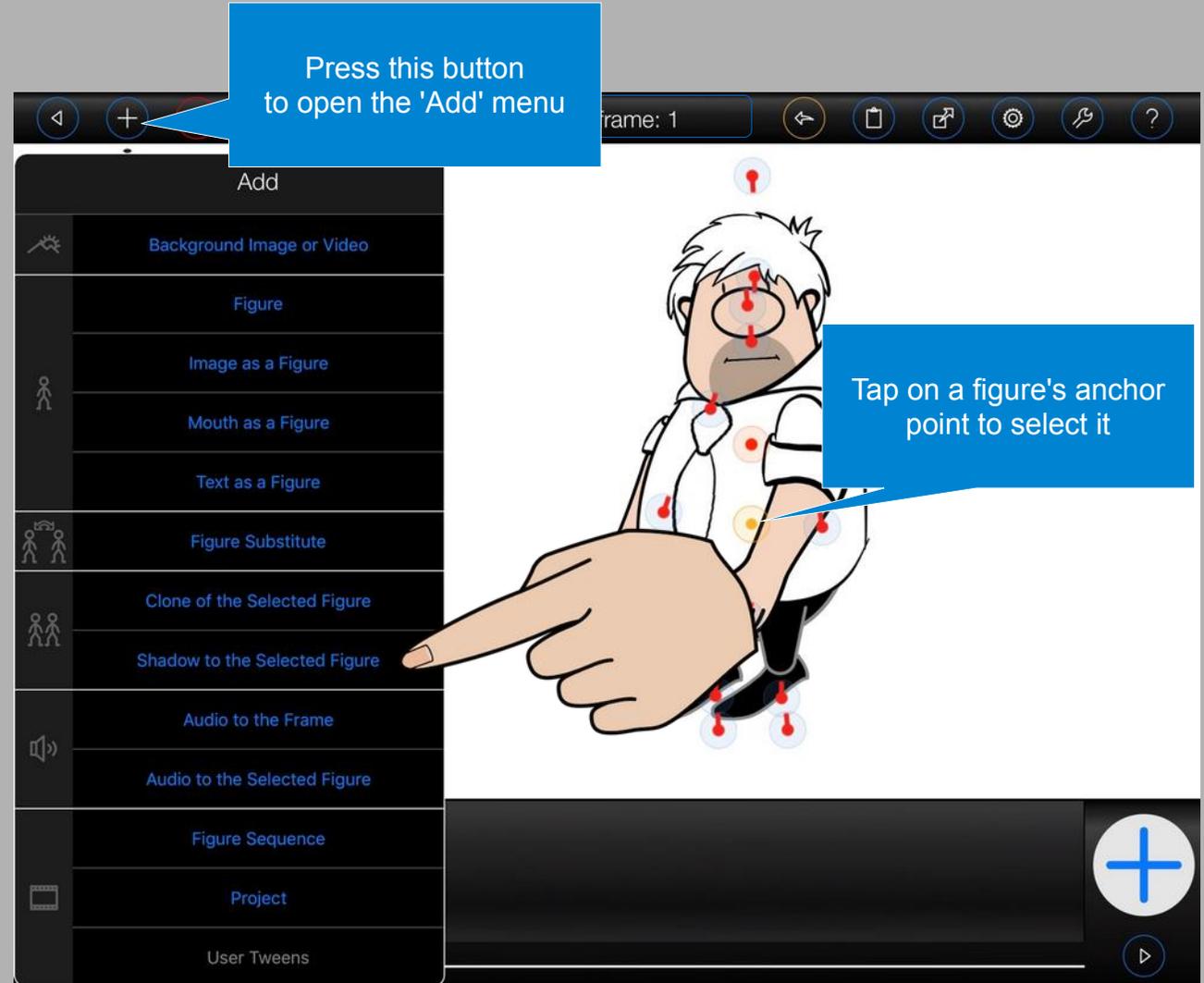
Animation Pro will open the 'Shadow Wizard':
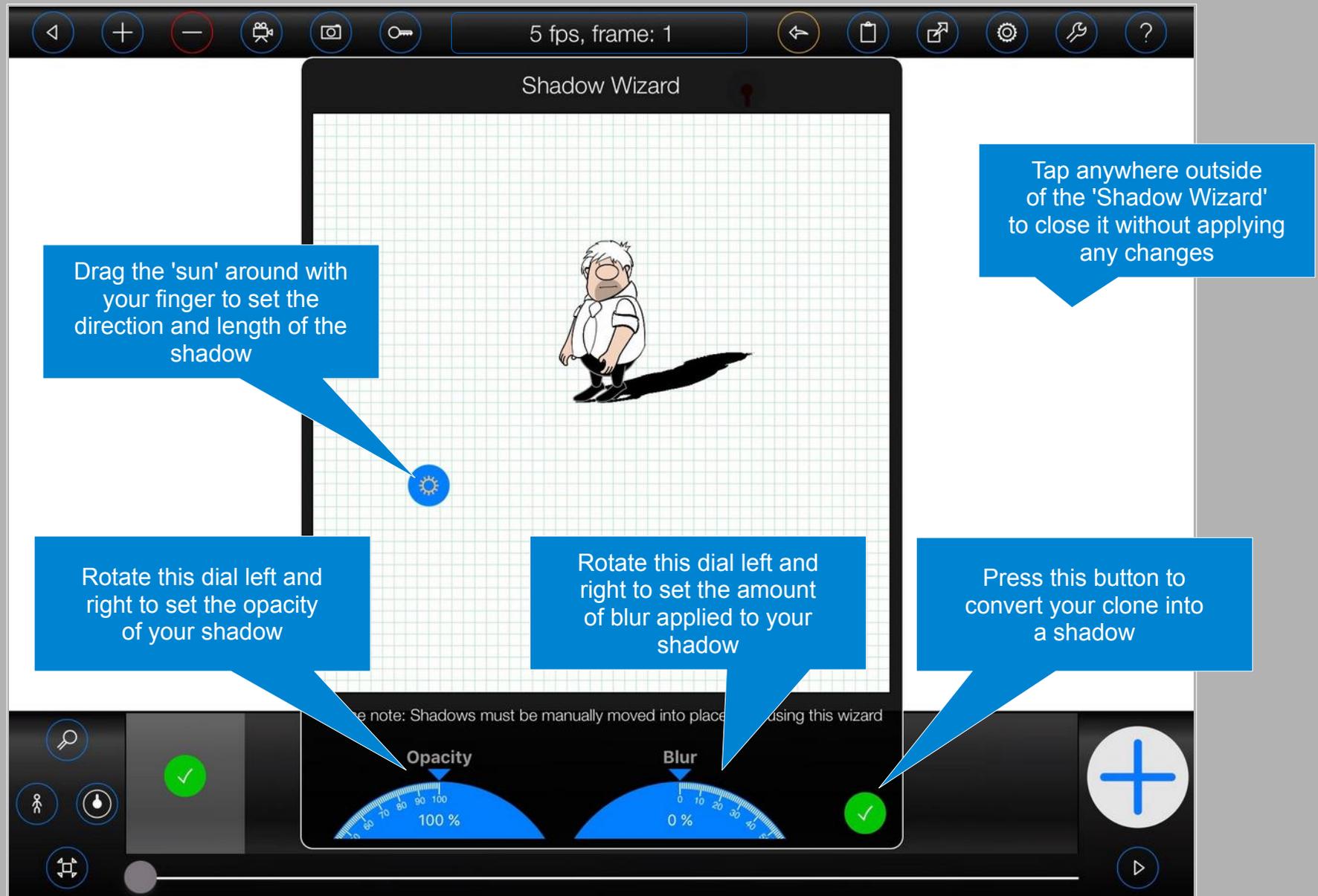
You can modify a shadow, or change an existing clone into a shadow by selecting 'Open Shadow Wizard' from the 'Clone Options' menu.

Aligning Clones

If you've been playing with shadows then you'll know that its possible to get into situations where the shadows are no longer aligned with their parent figure, particularly if you've used 'keyframing' to modify the parent figure's size across a number of frames (or added the shadow to multiple frames using Animation Pro's 'keyframing' capabilities).

The shadow is not aligned with the figure in any of the frames
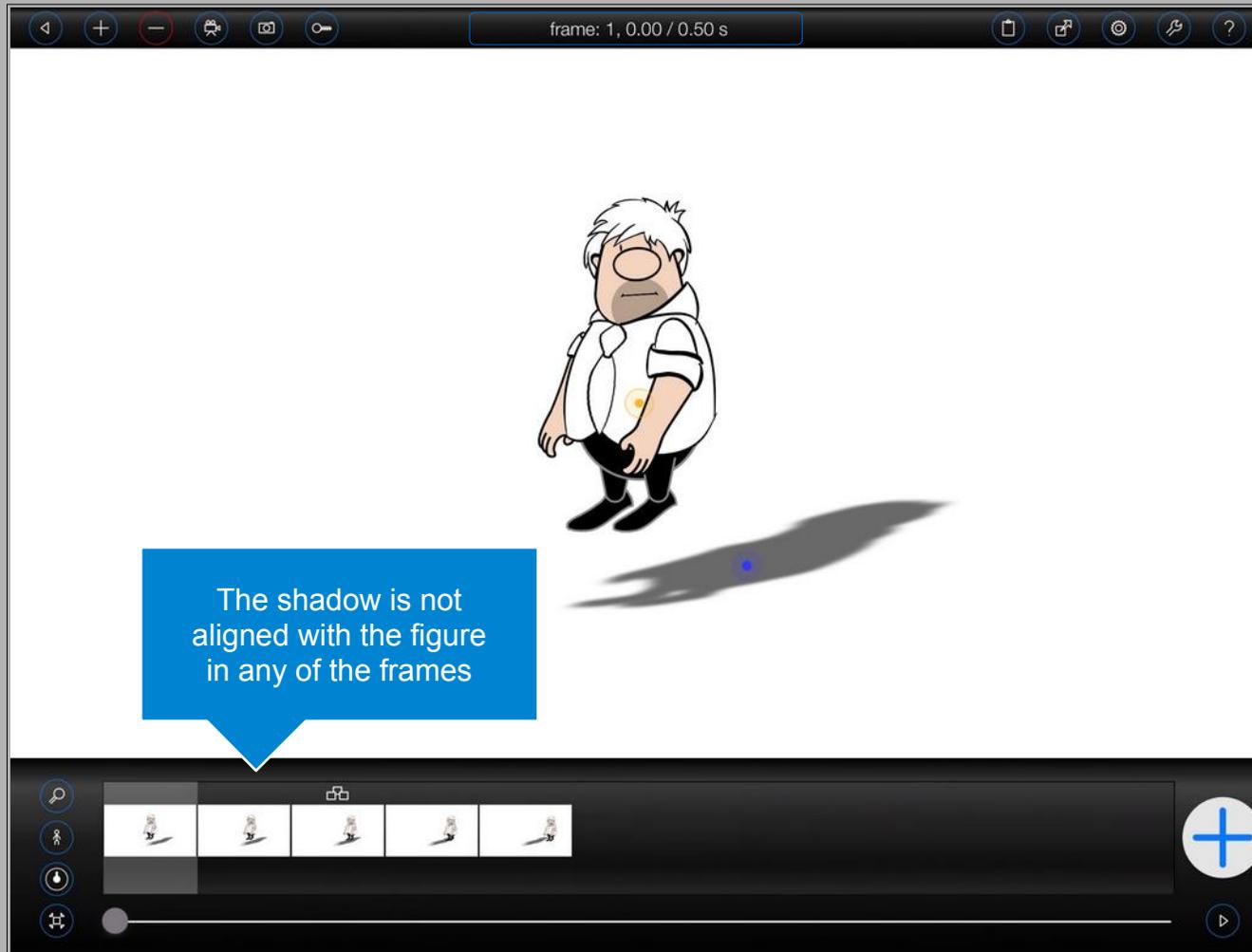
Now, if you know that **the shadow should always maintain the same X and Y offset from the parent figure**, then the problem can be easily addressed. Please also note that this solution can be applied to any clone – I'm just using shadows as a convenient example.

Step 1

Move the shadow/clone into the correct position in one of the frames:
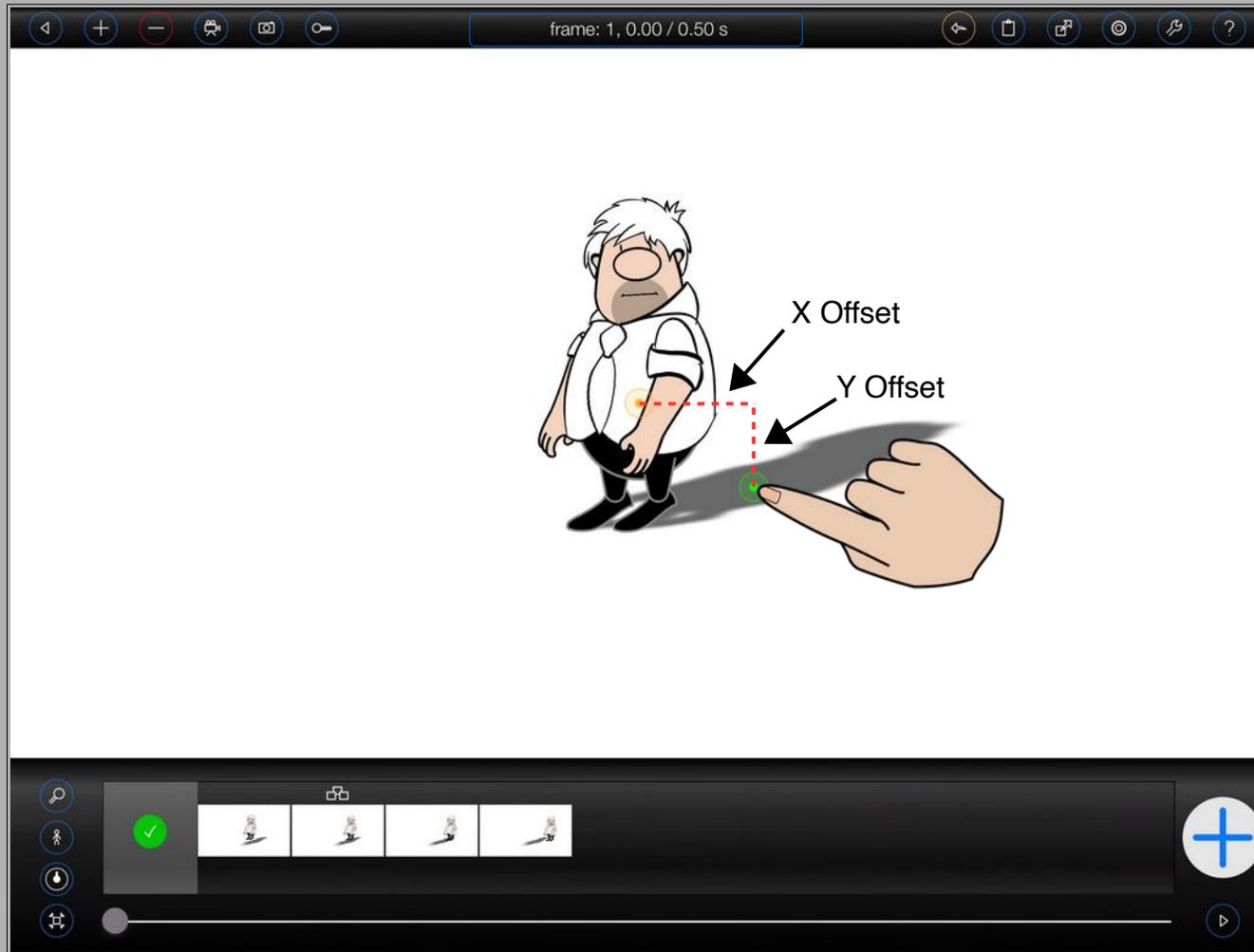
Step 2

Select the 'Align Clone' option from the 🔑 'Key' menu:
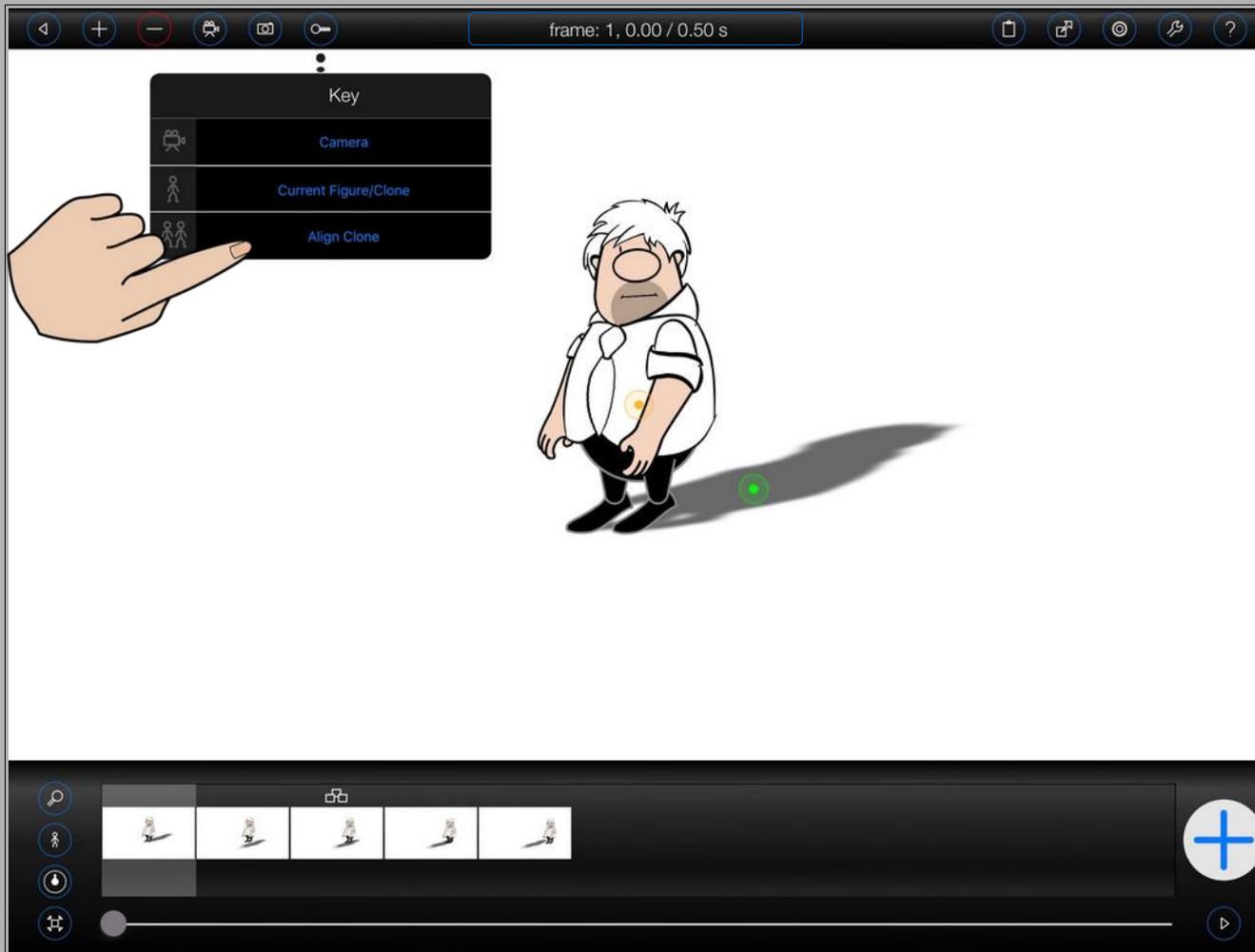
Step 3

Select the range of frames that you'd like to adjust and press the green tick button:

frame: 1, 0.00 / 0.50 s

Press this button to cancel

Select the range of frames to align the clone across

Start Frame

End Frame

Select the start frame

1

5

Select the end frame

Frames Selected: 5

Press this button to align the clones
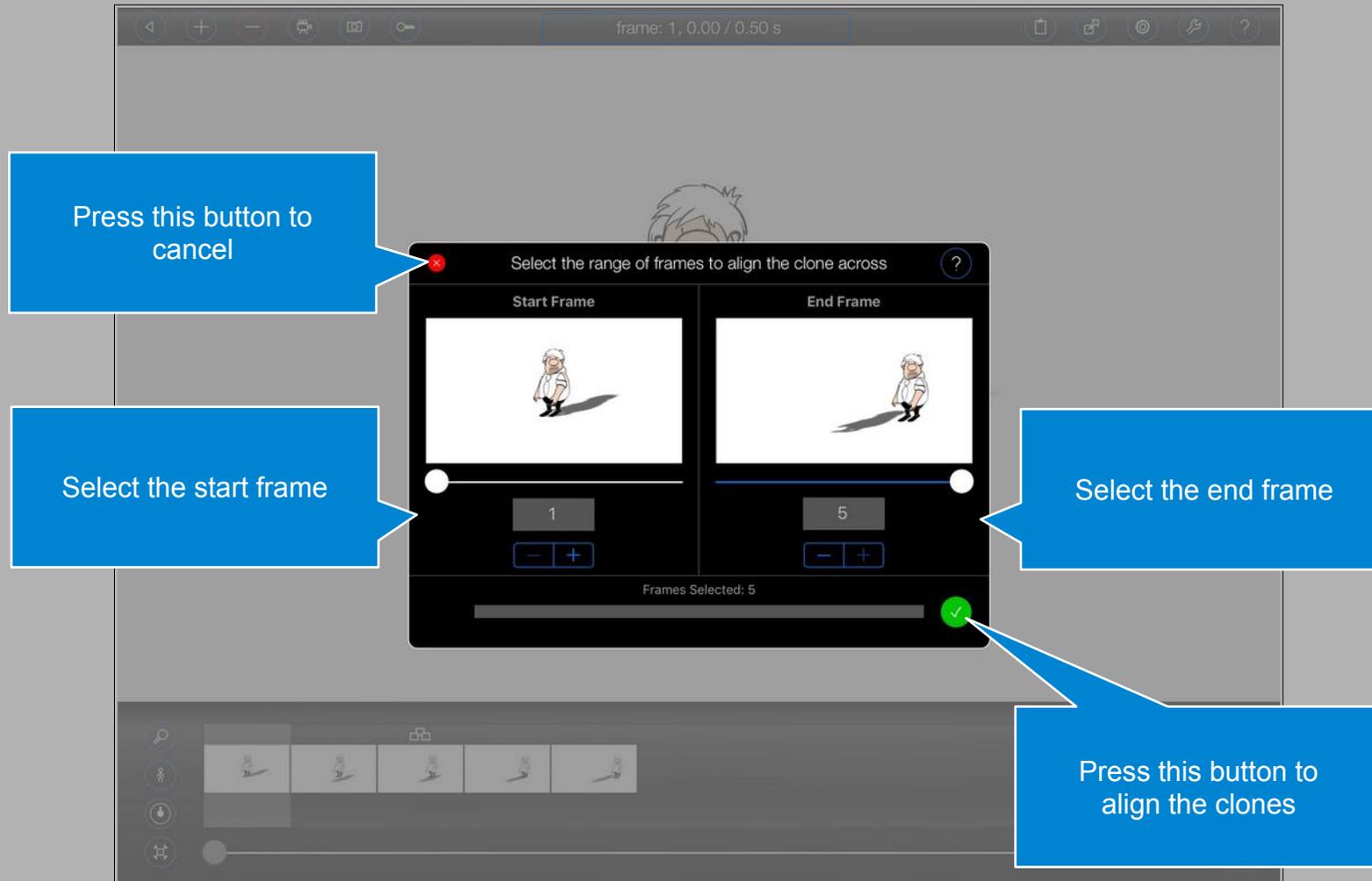
Animation Pro will adjust the clone in each of the selected frames (including any user tweens) such that the clone maintains the same X and Y offset from its parent figure:
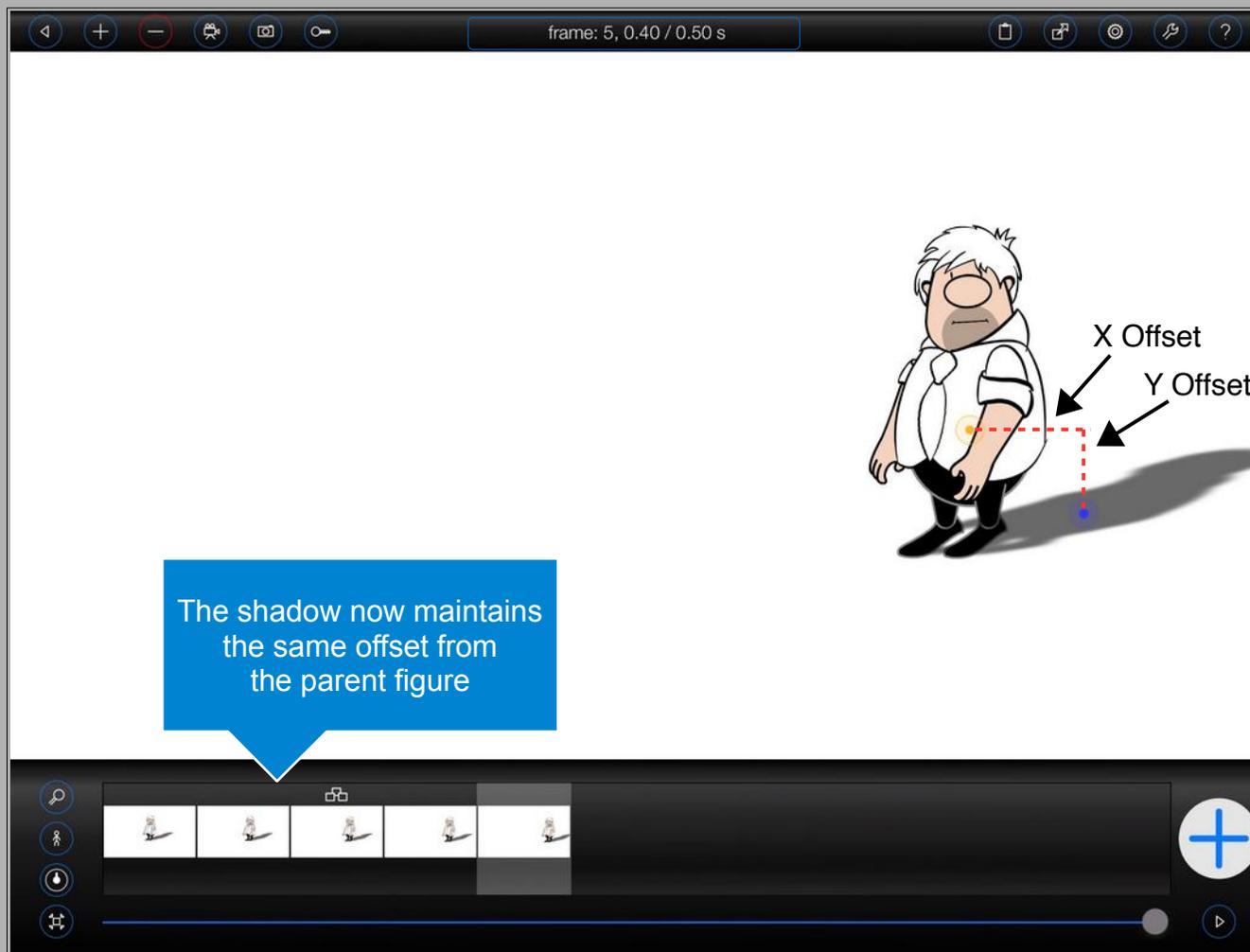
Please note:

This feature should only be used in situations where the shadow/clone is supposed to maintain the same X and Y offset from its parent figure.