



# Figure Sequences

It can be pretty tedious making a figure perform the same sequence of movements over and over and over again. Well, Animation Pro understands your torment and thus allows you to copy figure sequences from one project into another.

## TOPICS

### IMPORTANT NOTE

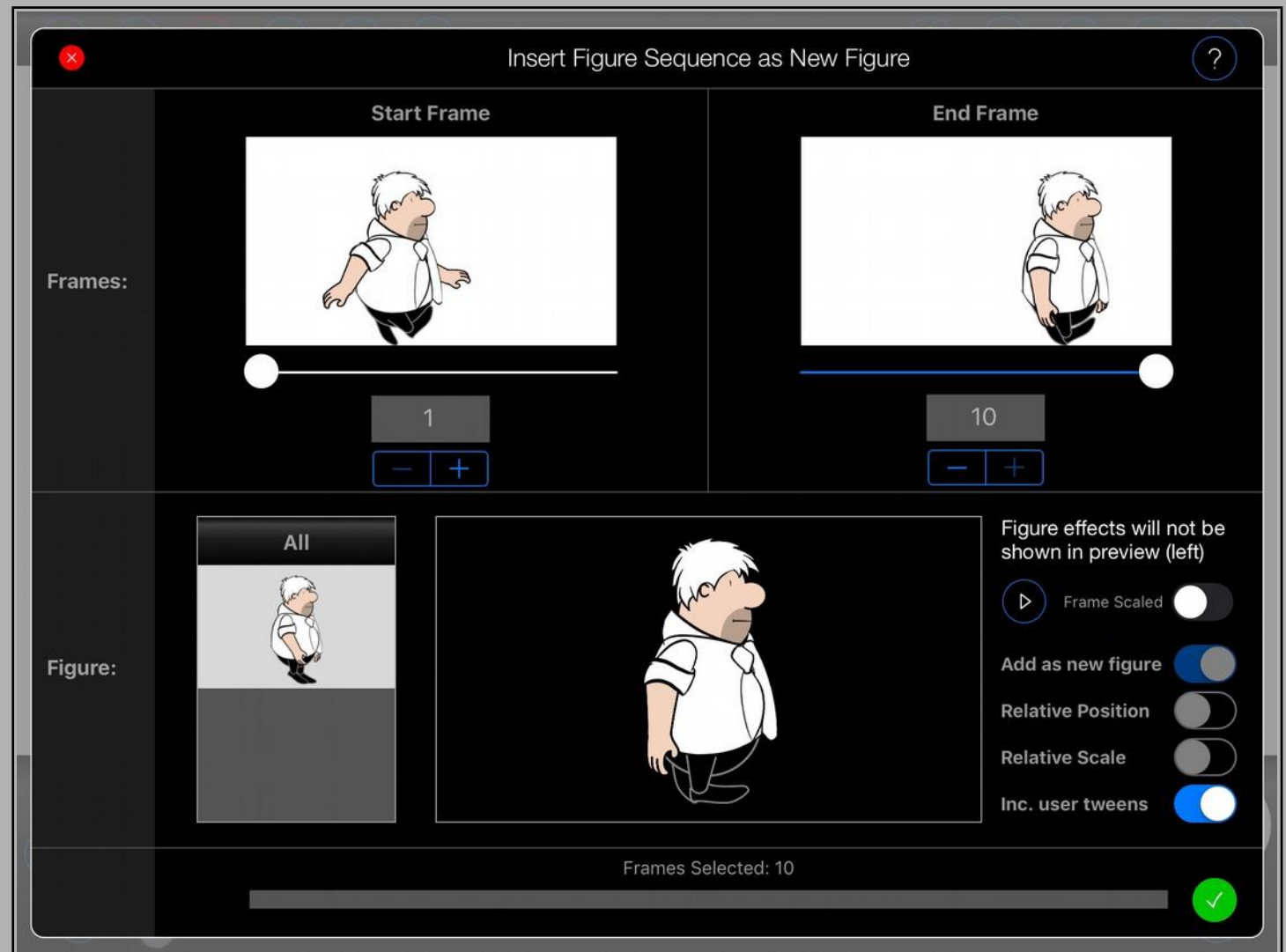
#### Adding a New Figure

#### Updating an Existing Figure

#### Clones

#### Frame Scaled

#### Recommended Best Practises



A figure sequence may be defined as any given figure, animated over a series of frames. A figure sequence may thus:

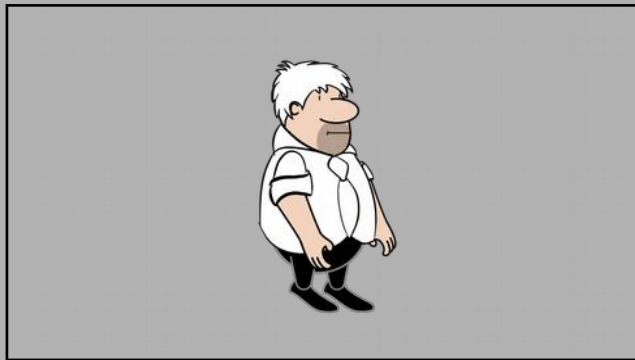
- a. Be inserted into your project as a new figure, or
- b. Update an existing figure in your current project, thus preserving its 'tweening' (please see the 'Tweening' topic, left).

### IMPORTANT NOTE:

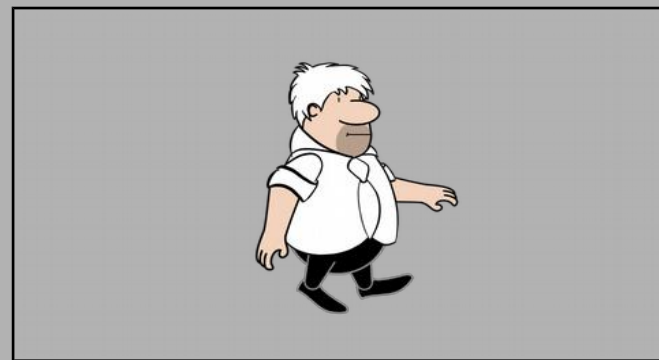
If you add a figure sequence into your animation as a **new** figure, Animation Pro will **not** be able to tween to it from an existing figure already in your animation. Please consider the following situation:

An existing figure (man) is on frame 1. A figure sequence of the man is then added, as a new figure, to frame 2:

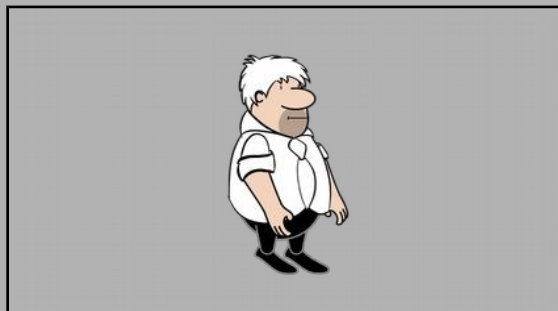
Frame 1



Frame 2



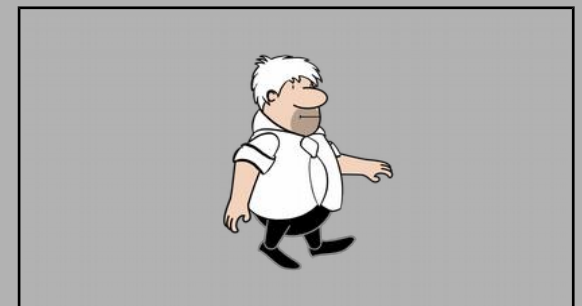
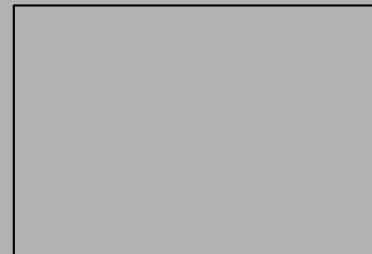
Even though the two figures look identical, Animation Pro will treat them as **different** figures. Thus, the figure on frame 1 only exists until the end of frame 1 and the figure on frame 2 will only exist from the start of frame 2. In other words, no figures will actually exist on any tweens between the two frames:



Tween



Tween



So please read this help document carefully - it will explain how to avoid such issues!

Let's get started...

## Adding a New Figure (this will NOT preserve tweens)

### 1. Select a start frame in your animation

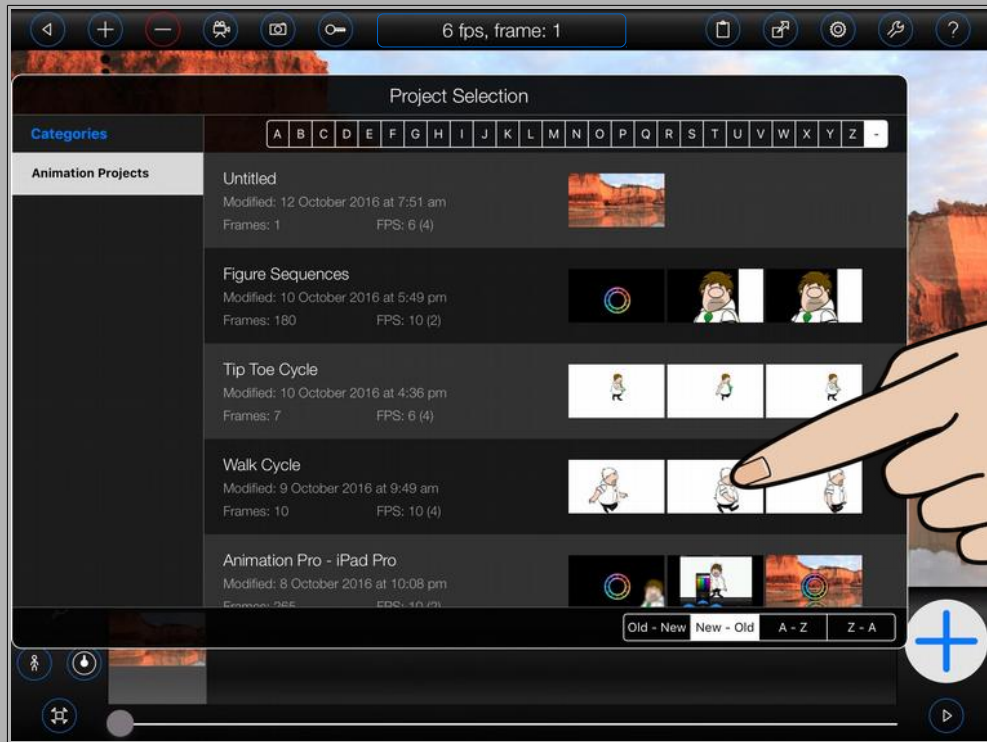


### 2. Select 'Figure Sequence' from the 'Add' menu



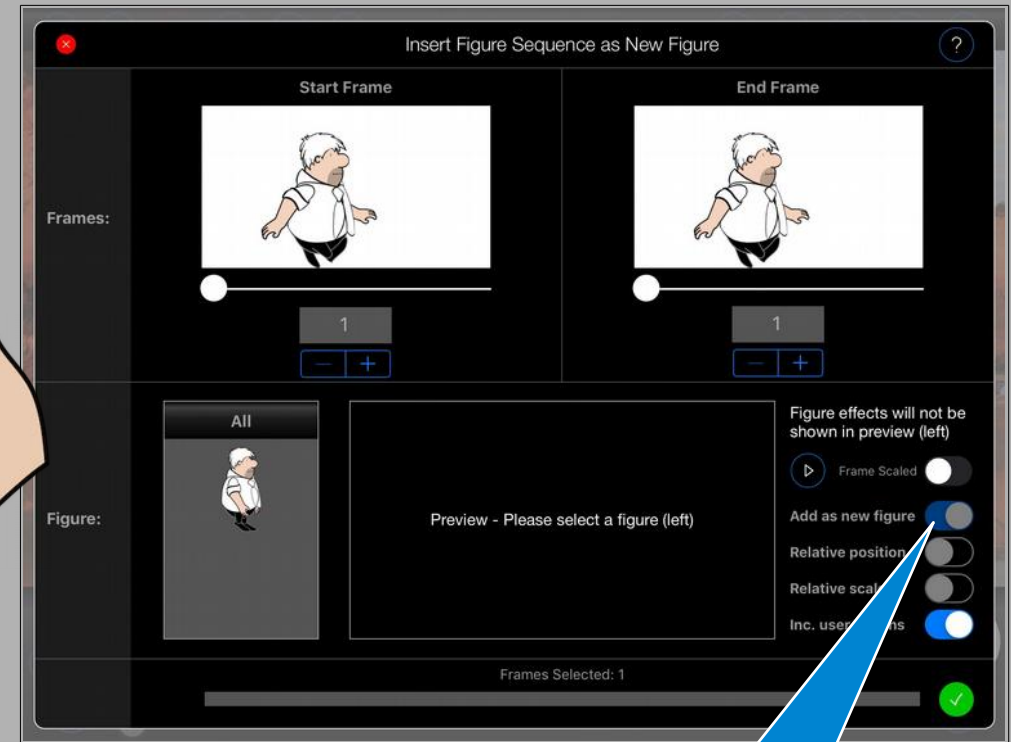
The figure sequence will be inserted, starting at this frame. Please note that if your animation is not long enough to accommodate the number of frames in the figure sequence, additional frames will be generated automatically.

### 3. Select a project



This is the project that contains the figure sequence that you wish to insert. Please note that it cannot be the project that you are currently working on. If you need to insert a sequence from the current project, please duplicate the project from the main 'Projects' screen first (see the 'Projects' topic, left).

### 4. Select the desired sequence (see next page):



Ensure this switch is turned ON to add a new figure

## 4. Select the desired sequence

To define a figure sequence, you will need to select a 'start frame', an 'end frame' and the figure that you actually want (as a project may contain more than one figure).

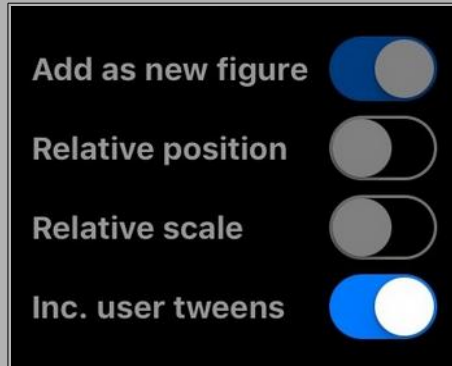
The screenshot shows a software interface titled "Insert Figure Sequence as New Figure". The interface is divided into several sections:

- Frames:** This section contains two panels, "Start Frame" and "End Frame", each displaying a cartoon character. Below each panel is a slider and a numeric input field set to "1", with minus and plus buttons for adjustment.
- Figure:** This section shows a list of available figures. The first figure, labeled "All", is selected and shown in a preview window.
- Preview:** A large central area labeled "Preview - Please select a figure (left)".
- Options:** A sidebar on the right contains several settings:
  - A play button icon with the text "Figure effects will not be shown in preview (left)".
  - A toggle switch for "Frame Scaled" (currently off).
  - A toggle switch for "Add as new figure" (currently on).
  - A toggle switch for "Relative position" (currently off).
  - A toggle switch for "Relative scale" (currently off).
  - A toggle switch for "Inc. user tweens" (currently on).
- Footer:** At the bottom, it says "Frames Selected: 1" and features a green checkmark button.

Callouts provide the following instructions:

- Press to exit or stop the insertion of a figure sequence:** Points to the red 'X' button in the top-left corner.
- Help – this document:** Points to the question mark icon in the top-right corner.
- Select the 'start' frame:** Points to the "Start Frame" panel.
- Select the 'end' frame:** Points to the "End Frame" panel.
- Select the figure that you'd like to insert. All figures, excluding clones, present in the start frame will be displayed here.** Points to the "Figure:" section.
- Press to see an animated preview of the selected sequence:** Points to the play button icon.
- Ensure this switch is ON to add a new figure.** Points to the "Add as new figure" toggle switch.
- Please see the next page for details about these options:** Points to the "Relative position" and "Relative scale" toggle switches.
- Press to insert the selected sequence:** Points to the green checkmark button in the bottom-right corner.

## Figure Sequence Options



### Add as new figure

To add a sequence as a new figure, please ensure that this switch is turned **ON**.

**Please note:** This option will be turned **OFF** where a figure has been selected in the active project (as Animation Pro will assume that you wish to update the existing figure). Where a figure has not been selected, the option will be **ON** but **disabled** (as shown, left).

### Relative position

This option will only be available when a figure (in the active project) is being **updated**. When turned on, the figure sequence will be inserted at the same initial (X/Y/Z) position as the figure being updated and any movements will be relative to that position.

### Relative scale

This option will only be available when a figure (in the active project) is being **updated**. When turned on, the figure in the sequence will take on the initial scale (size) of the figure being updated and any changes to the figure's scale will be relative to that scale. Movements will also be scaled accordingly.

### Inc. user tweens

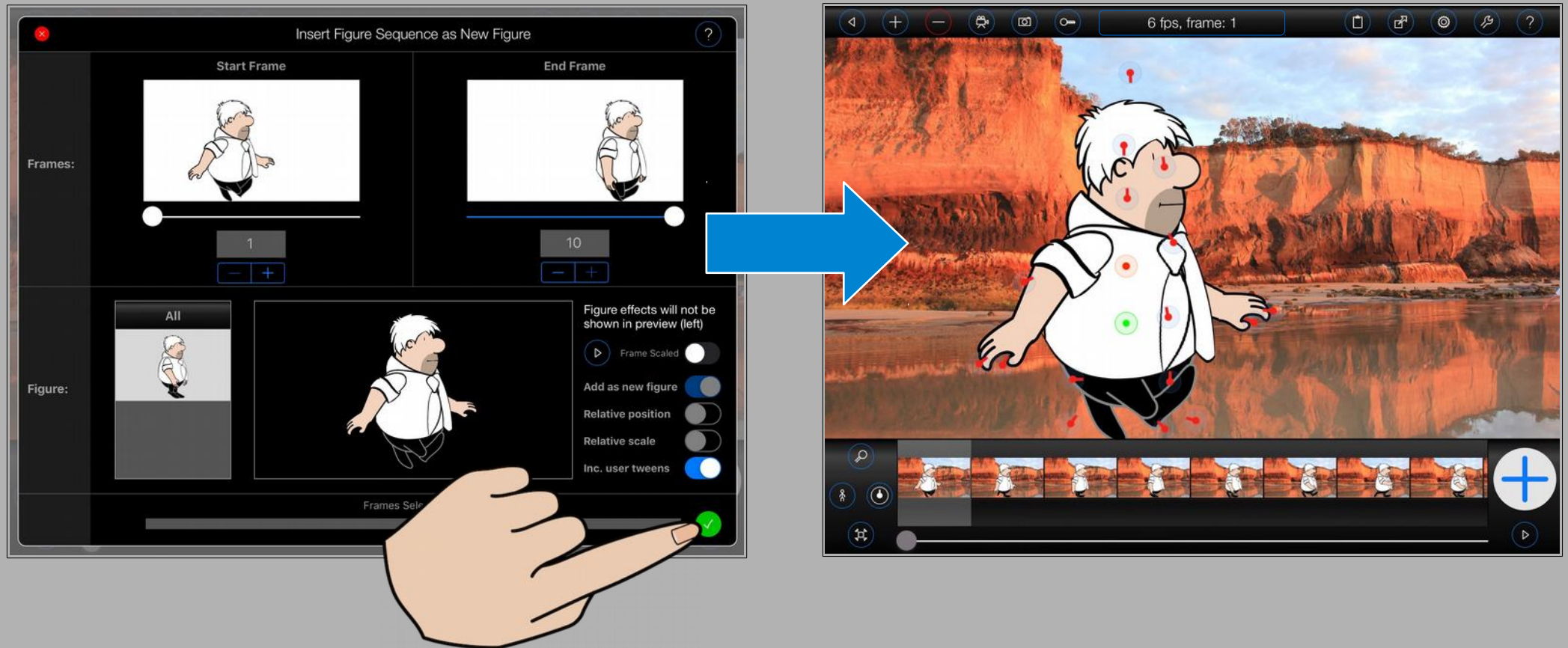
The range of frames, selected from another project to create your sequence, may include 'user tweens'. You may thus choose whether to insert these into your active project or not.

**Please note:** This option will be unavailable where your active project already contains 'user tweens' but the number of 'user tweens' does not match that of the project you are selecting the sequence from.




## 5. Press the button to insert the figure sequence

Animation Pro will go through a number of steps to copy the required assets into your active project, add additional frames and/or 'tweens' (where necessary) and insert the figure sequence:

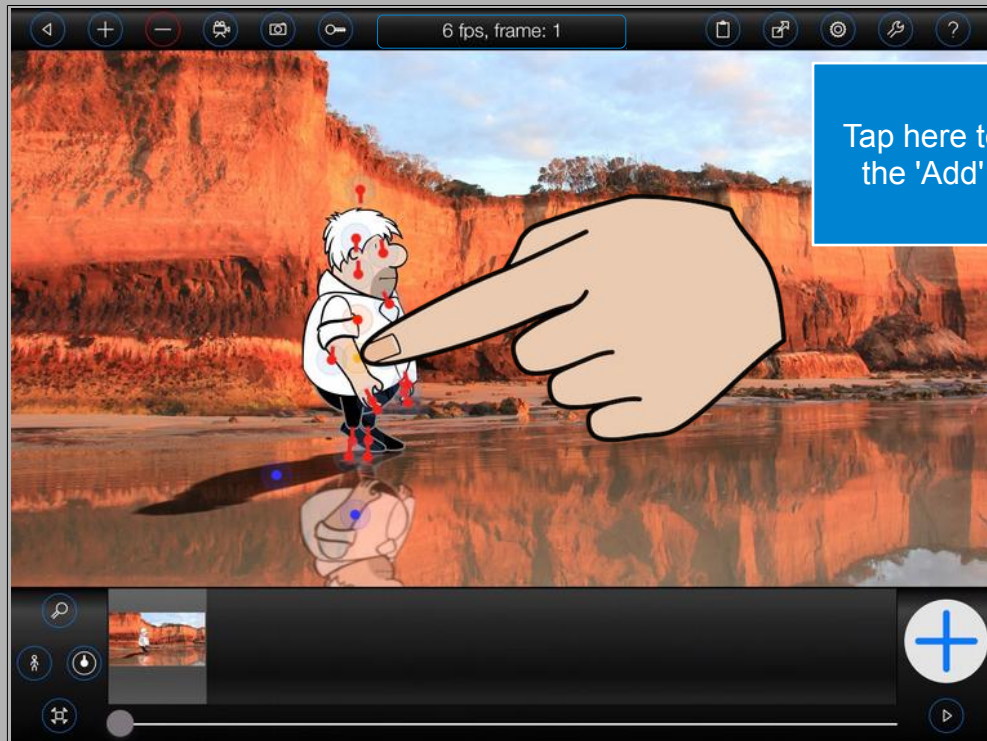


### Please note:

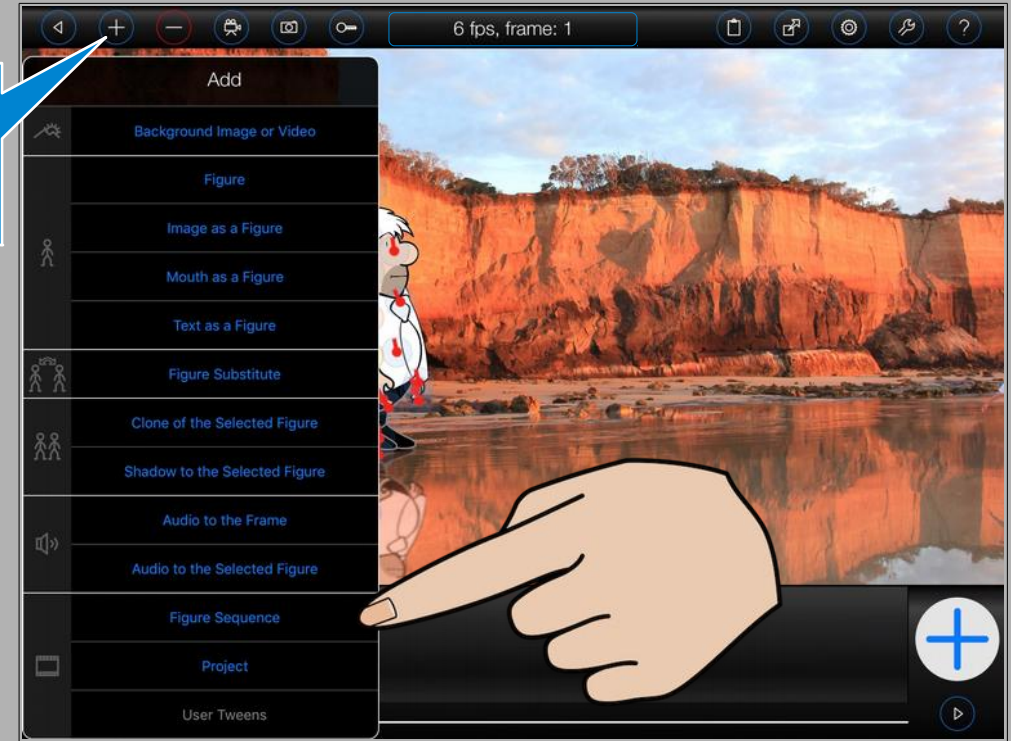
You may press the  button (at the top-left of the popover) to stop the insertion of a figure sequence. This, however, will not undo any changes made to the frames in your active project.

## Updating an Existing Figure (this WILL preserve tweens)

### 1. Select a start frame, and figure, in your animation



### 2. Select 'Figure Sequence' from the 'Add' menu



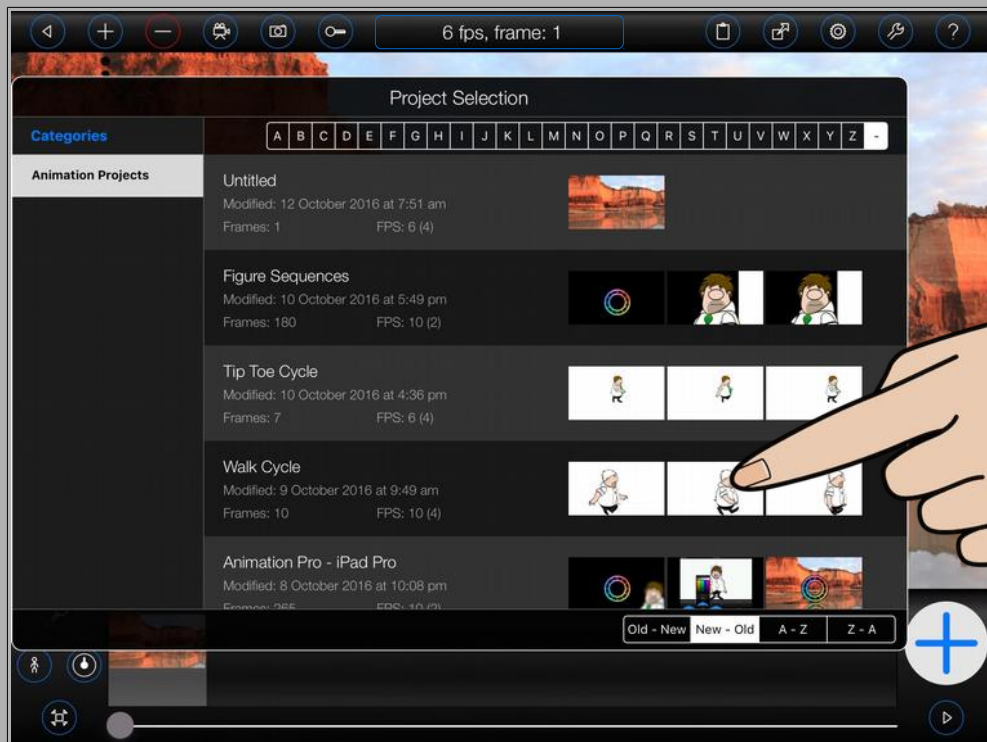
The figure sequence will be inserted, updating the selected figure, starting at this frame.

### Please note:

- If your animation is not long enough to accommodate the number of frames in the figure sequence, additional frames will be generated automatically.
- It is not possible to update clones.

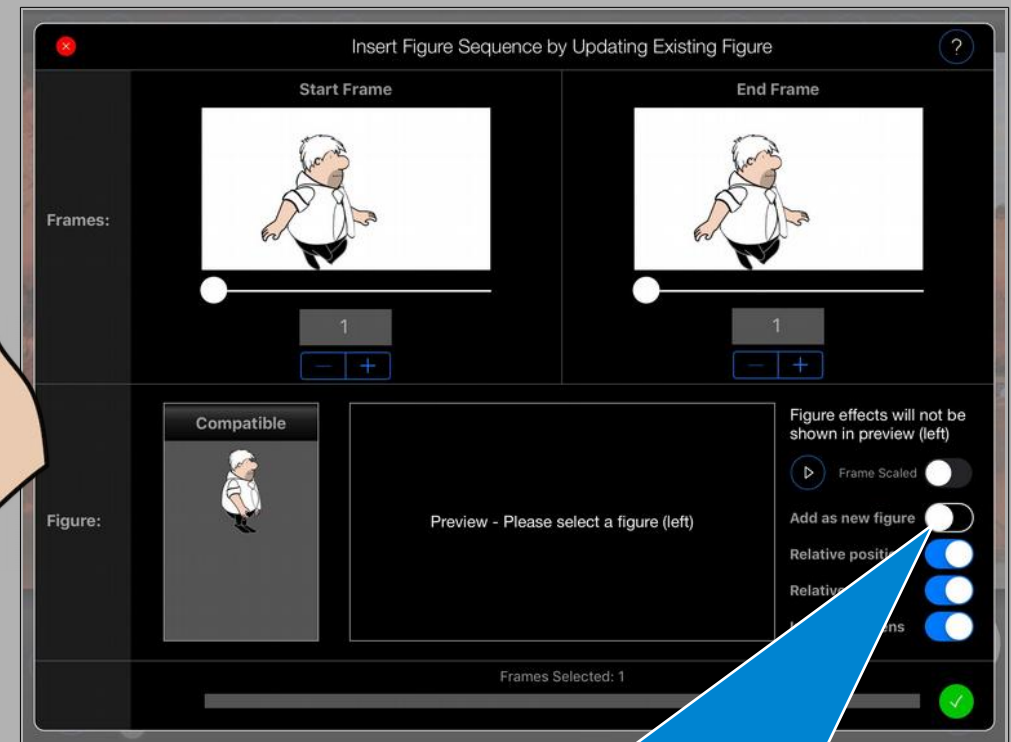


### 3. Select a project



This is the project that contains the figure sequence that you wish to insert. Please note that it cannot be the project that you are currently working on. If you need to insert a sequence from the current project, please duplicate the project on the main 'Projects' screen first (see the 'Projects' topic, left).

### 4. Select the desired sequence (see next page):



Ensure this switch is OFF when you wish to update an existing figure.

If the switch is disabled, please close the popover and ensure that a figure (and not a clone) has been selected.

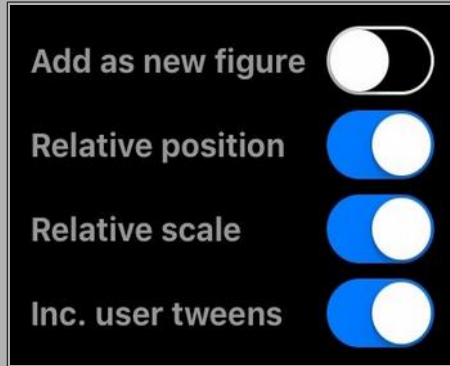
## 4. Select the desired sequence

To define a figure sequence, you will need to select a 'start frame', an 'end frame' and the figure that you actually want (as a project may contain more than one figure).

The dialog box is titled "Insert Figure Sequence by Updating Existing Figure". It contains the following elements and callouts:

- Exit Button:** A red 'X' icon in the top-left corner. Callout: "Press to exit or stop the insertion of a figure sequence".
- Help Button:** A question mark icon in the top-right corner. Callout: "Help – this document".
- Start Frame:** A panel on the left showing a cartoon character. Below it is a slider and a box containing the number "1". Callout: "Select the 'start' frame".
- End Frame:** A panel on the right showing the same cartoon character. Below it is a slider and a box containing the number "1". Callout: "Select the 'end' frame".
- Figure Selection:** A panel labeled "Figure:" showing a "Compatible" figure (a smaller version of the cartoon character). Callout: "Select the figure that you'd like to insert. All compatible figures, excluding clones, present in the start frame will be displayed here."
- Preview:** A large central area labeled "Preview - Please select a figure (left)".
- Figure Effects:** A section on the right with the text "Figure effects will not be shown in preview (left)". It includes:
  - A play button icon with callout: "Press to see an animated preview of the selected sequence".
  - A switch for "Frame Scaled" (currently off).
  - A switch for "Add as new figure" (currently off). Callout: "Ensure this switch is OFF to update an existing figure. Please see the next page for details about these options".
  - A switch for "Relative position" (currently on).
  - A switch for "Relative scale" (currently on).
  - A switch for "Inc. user tweens" (currently on).
- Frames Selected:** A status bar at the bottom showing "Frames Selected: 1".
- Insert Button:** A green checkmark icon in the bottom-right corner. Callout: "Press to insert the selected sequence".

## Figure Sequence Options



### Add as new figure

To update an existing figure, please ensure that this switch is turned **OFF**.

**Please note:** This option will be turned **OFF** where a figure has been selected in the active project (as Animation Pro will assume that you wish to update the existing figure). Where a figure has not been selected, the option will be **ON** but **disabled** (as shown, left).

### Relative position

This option will only be available when a figure (in the active project) is being **updated**. When turned on, the figure sequence will be inserted at the same initial (X/Y/Z) position as the figure being updated and any movements will be relative to that position.

### Relative scale

This option will only be available when a figure (in the active project) is being **updated**. When turned on, the figure in the sequence will take on the initial scale (size) of the figure being updated and any changes to the figure's scale will be relative to that scale. Movements will also be scaled accordingly.

### Inc. user tweens

The range of frames, selected from another project to create your sequence, may include 'user tweens'. You may thus choose whether to insert these into your active project or not.


**Please note:** This option will be unavailable where your active project already contains 'user tweens' but the number of 'user tweens' does not match that of the project you are selecting the sequence from.

## 5. Press the button to insert the figure sequence

Animation Pro will go through a number of steps to copy the required assets into your active project, add additional frames and/or 'tweens' (where necessary) and update your figure with the given figure sequence:



### Please note:

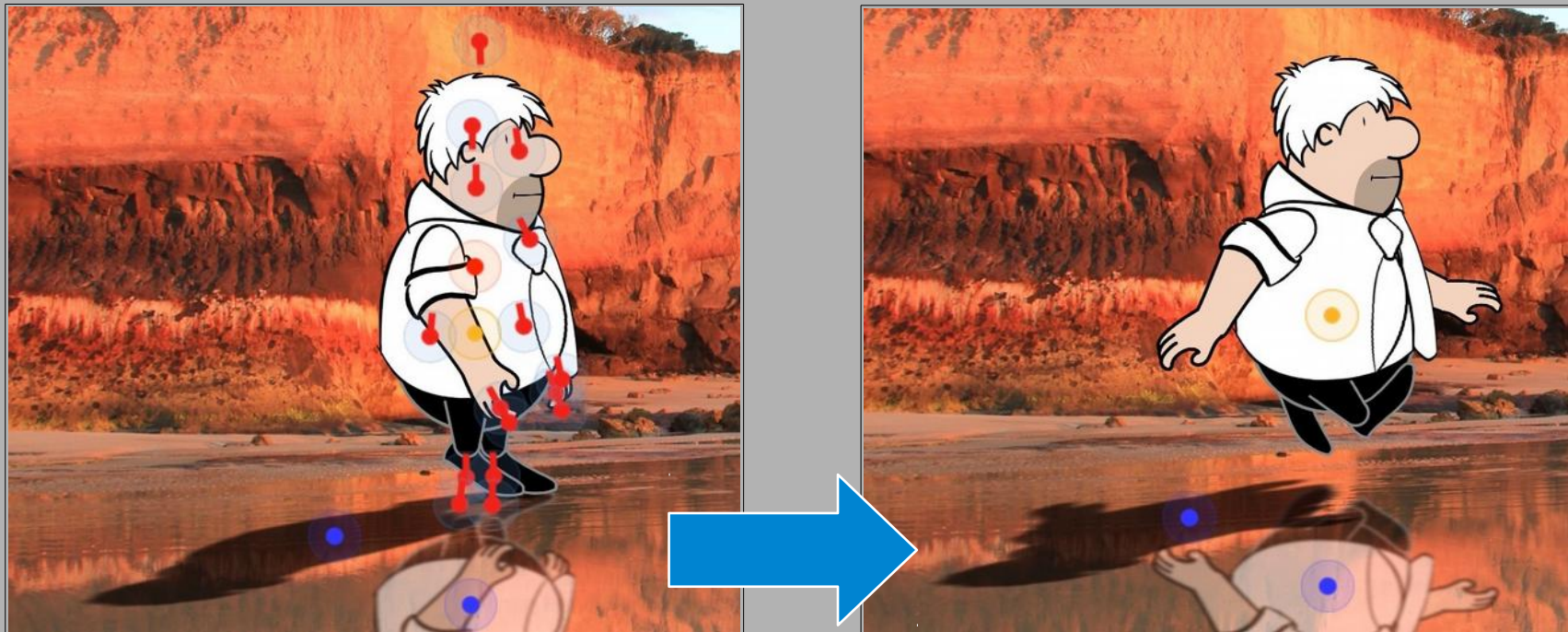
You may press the  button (at the top-left of the popover) to stop the insertion of a figure sequence. This, however, will not undo any changes made to the frames in your active project.



## Clones

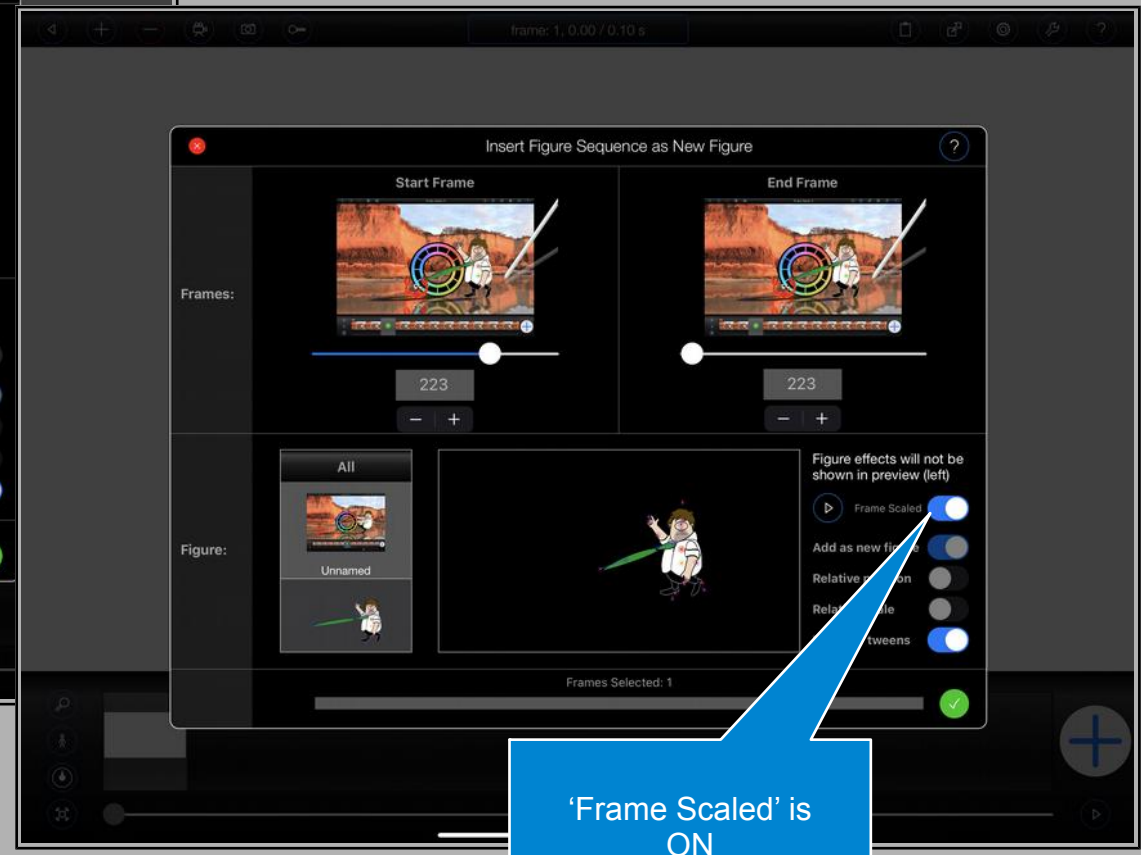
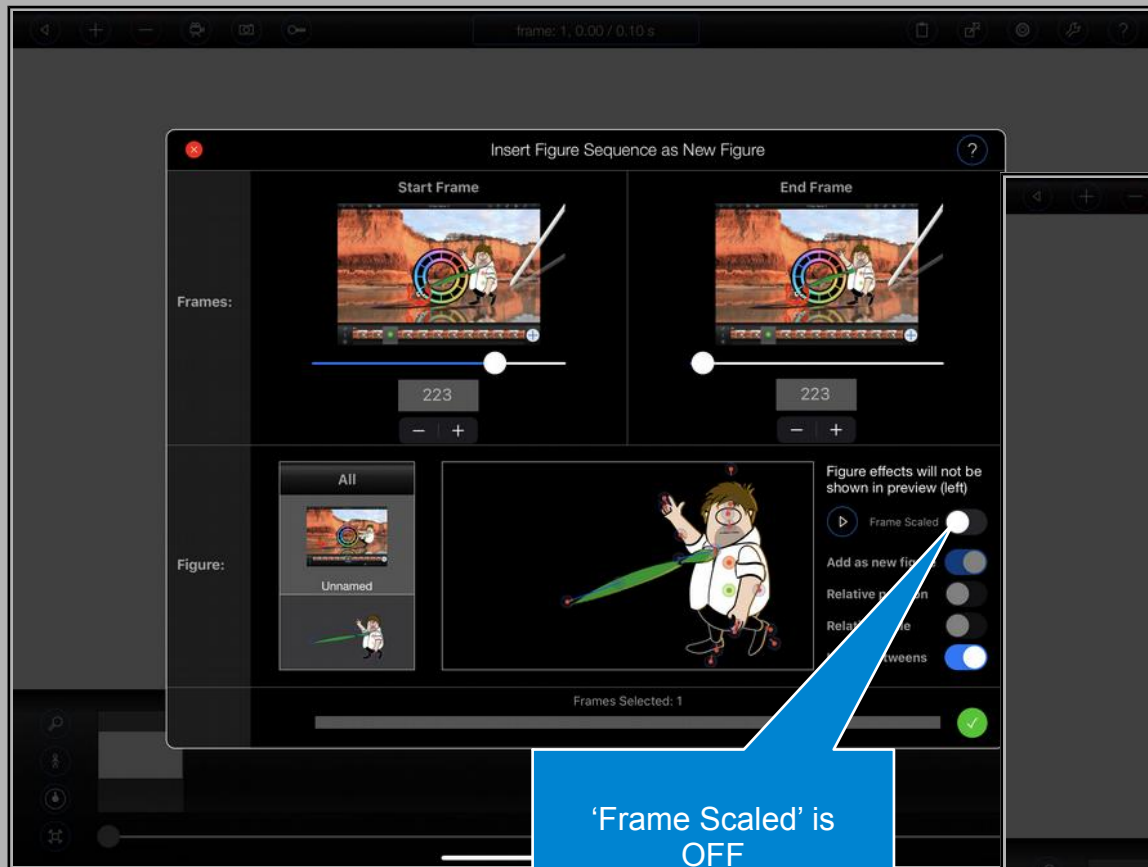
This is where things get a little tricky. If you are updating an existing figure with a figure sequence, and the existing figure has one or more clones (e.g. a shadow), then:

1. The clones will be automatically updated as well. Just how they are updated, however, will be governed by their clone settings (as set up in the 'Figure Inspector'). So if, for example, you have turned **off** the 'Movement (Relative)' switch in the 'Clone' settings for a given clone then the clone won't be moved automatically.
2. Where the 'Movement (Relative)' switch is turned on (in the 'Figure Inspector') for a given clone, the clone will be automatically moved the same distance as the figure in the sequence. The movement, however, will be relative to the clone's **current** position on each frame.
3. Any changes to a figure's scale (size) may cause the misalignment of clones (particularly shadows). You will need to manually adjust the clones should this occur.



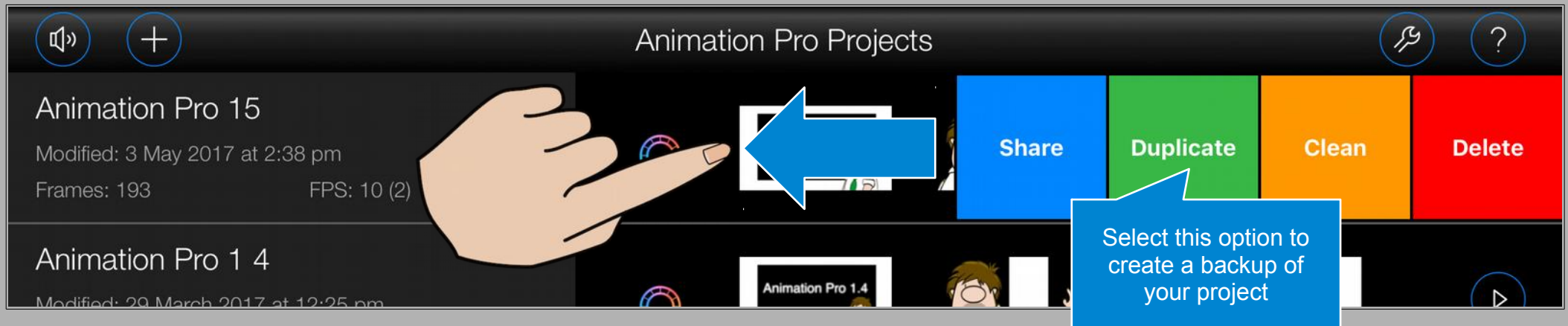
## Frame Scaled


By default, Animation Pro will display a preview of the selected figure sequence such that it fills the preview area. In some cases, however, it may be preferable to view the figure sequence scaled down i.e. as if the preview area represents the full animation frame. This is what we call 'Frame Scaled'. When shown in this manner, the figure sequence will also display the figure's movements.



## Recommended Best Practises

1. This is one Animation Pro feature that has the potential to really mess up an animation if used incorrectly. So if you are even a little unsure about what you are doing, please **duplicate** your project before you start:



2. If you add a sequence as a new figure by mistake, Animation Pro will allow that figure to be easily removed across multiple frames. Simply select the figure that you want to remove, press the  button to open the 'Remove' menu and choose 'Figure/Clone from Multiple Frames':



- 3.** If you'd like to avoid adding clones/shadows to each individual frame upon inserting a figure sequence as a **new** figure:
- a) Insert the first frame of the figure sequence only (ensure that the 'Add as new figure' switch is **ON**)
  - b) Manually add clones/shadows to the newly inserted figure as required
  - c) Select the inserted figure
  - d) Now insert the entire figure sequence, ensuring that the 'Add as new figure' switch is **OFF**.
- 4.** If you'd like to try and avoid manual alterations to clones in each individual frame upon **updating** a figure with a figure sequence:
- a) Select the figure that you'd like to update
  - b) Insert the first frame of the figure sequence only (ensure that the 'Add as new figure' switch is **OFF**)
  - c) Manually update the figure's clones/shadows as required
  - d) Remove the figure (and it's clones) from enough **subsequent** frames to accommodate the number of frames in the sequence that you intend to insert (the 'Figure/Clone from Multiple Frames' option in the 'Remove' menu may be used for this purpose)
  - e) Select the figure on the initial frame again
  - f) Now insert the entire figure sequence, ensuring that the 'Add as new figure' switch is **OFF**.