# NinerPaint User Guide

for NinerPaint v1.1.3, Jul 10, 2005

## introduction

NinerPaint is a drawing and animation program designed to give you unprecedented control over the structure, order, and duration of your drawings, as far as Palm graphics applications go.

## key definitions

### clip

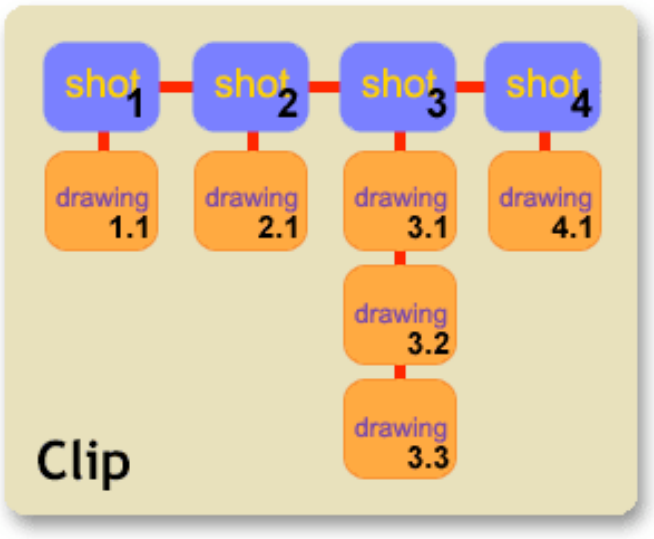
A clip is a sequence of one or more shots. Clips are created in the Clip Manager. Their contents are edited in the Clip Editor.

### shot

A shot is sequence of one or more drawings. Shots are created and edited in the Clip Editor.

### drawing

A drawing contains artwork drawn by you, the user.




## structure diagram

Do not confuse shots with drawings. Rather, shots contain drawings. By the same token, clips contain shots. In other words, **clips contain one or more shots, with each shot containing one or more drawings**.

Newly created clips always contain one shot, itself containing one drawing. When editing a clip for the first time, you are taken to its only shot, #1, and are in effect editing its only drawing using the pen, pencil, and other drawing tools.

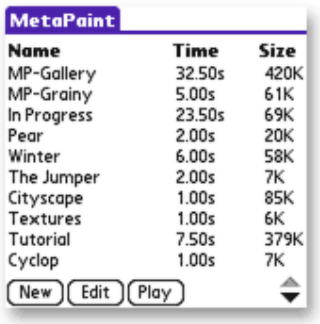
Now, let's say that you want to add a second shot to the clip. You tap the "+" button. A new shot (itself containing one drawing) is added after the current one, and you are taken to it. You can then edit its drawing using, once again, the various drawing tools.

You may at any point tap the "Play" button to see a playback of your clip. The drawings stored within will be displayed in sequence, each for a duration equal to that of their containing shots (by default, one second per shot). You can of course change the duration of any shot to change its display duration upon playback .

Finally, shots can be animated, i.e. composed of more than the default of one drawing per shot. To do this, go to the shot you want to animate and tap the "toggle scope" button. This brings you into "shot scope". There, you are effectively inside the shot and can add (or duplicate, move, delete) drawings to it. New drawings last 1/8 second by default. Upon playback, that shot will, for the remainder of its duration, loop through its constituent drawings in rapid sequence (1/8 second per, by default), hence "animating" the shot.

## the clip manager

The Clip Manager is the first thing you will see when you launch NinerPaint for the first time. It is there that you create, edit, play, rename, delete, beam, import, and export clips and bitmaps.




## controls

### new

Create a new clip by tapping on this control. A form will pop up, asking you to name the new clip.

### edit

Loads the selected clip into the Clip Editor.

### play

Plays the selected clip. You can also play a clip by double-tapping on its name. When the end of the clip has been reached, playback resumes at its beginning. Tapping the screen at any time will stop playback.

## menus

### clip > rename clip

Lets you specify a new name for the selected clip.

### clip > delete clip

Deletes the selected clip (confirmation requested).

### clip > beam clip

Looks for, and attempts to establish a connection with a nearby palm device. If one is found, tries and beam the selected clip to that handheld. The clip can subsequently be loaded into NinerPaint if it was installed at the receiving end.

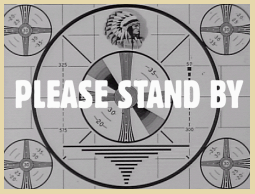
### clip > export clip

Exports a clip either as a portable palm database, which can subsequently be backed up, emailed, or published electronically, or as BMP format bitmaps for fast and easy integration with other applications and platforms (memory card required).

If you export to a memory card, NinerPaint will store all export files (the clip and corresponding bitmaps) under the /PALM/Programs/NinerPaint/Exports/ folder hierarchy.

### clip > import clip

Imports a clip previously exported with NinerPaint.



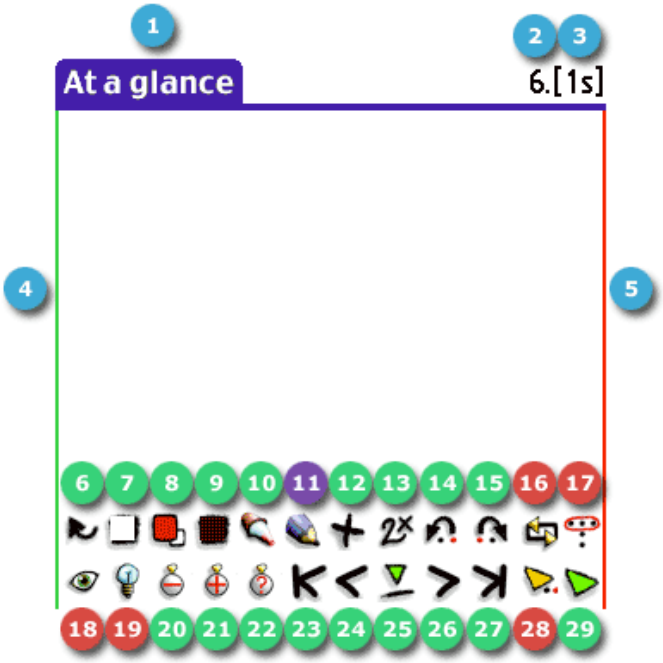

NinerPaint clips are compressed to save storage space.

Prior to playback, they are analyzed. After that, NinerPaint may opt decompress certain clip segments in advance, to ensure accurate frame rate.

Because of this, some clips, especially those with many complex drawings, may take a few seconds to be decompressed.

# the clip editor

Launched when you tap "edit" on a clip from within the Clip Manager. This is where you will spend most of your NinerPaint time. The remainder of this guide is dedicated to it.



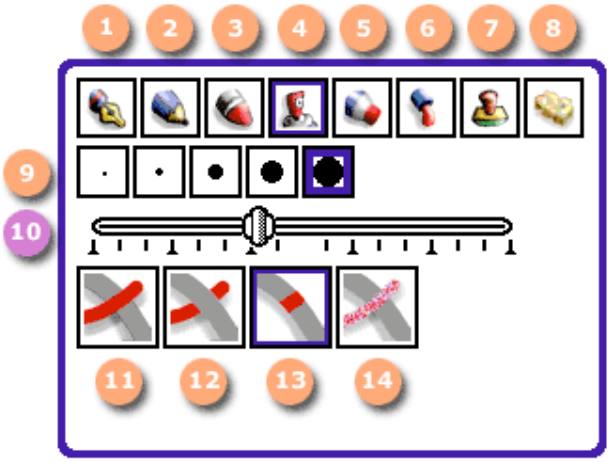

1. name of the current clip. Tap on it to access the menus.
2. shot number. A period after the number indicates that this shot contains more than 1 drawing
3. shot duration, in seconds
4. a green line indicates that 1 or more shots precede this one
5. a red line indicates what we are at the last shot
6. undo the most recent drawing, cutting, or pasting action
7. activate the color selector and set the secondary color
8. swap primary and secondary colors
9. activate the color selector and set the primary color
10. sample screen for primary color
11. open the toolbox to pick a new drawing tool or to adjust the settings of the current one
12. add a new, blank shot after this one
13. make a duplicate of this shot
14. move this shot before its predecessor
15. move this shot past its successor
16. toggle cycling for this shot
17. toggle shot scope
18. toggle user interface
19. toggle lighttable
20. reduce the duration of this shot
21. increase the duration of this shot
22. set the duration of this shot
23. go to the first shot
24. go to the previous shot
25. jog
26. go to the next shot
27. go to the last shot
28. toggle playback mode
29. play clip

Remember that you can return to the Clip Manager at any time by selecting the "**Clip > Manage Clips**" menu item.

## the toolbox

The toolbox contains your drawing tools.

To open it, tap on the 7th control from the right, on the top row. Its icon always matches that of the current drawing tool.




1. ink pen
2. pencil
3. pastel stick
4. spray gun
5. marker
6. filler
7. mixer
8. smoother
9. tip selector
10. flow control
11. over mode
12. under mode
13. into mode
14. mixed pigment mode

## the tools

### the ink pen

This most basic of tools is first from the left in the toolbox. Draws non-antialiased strokes using the current pattern, tip shape and size, and drawing mode. Supports **over**, **under**, and **into** drawing modes.

Also you now have the option of drawing with strokes that vary in width, per the following rules:

1. the faster the gesture, the thinner the stroke.
2. conversely, the slower the gesture, the thicker the stroke.

This option comes along with 2 tip sizes and 1 checkbox that will let you tweek certain aspects of this behaviour:

- **SB checkbox**: Stroke Blanking - No ink (virtual, of course) is released above a certain stylus velocity, the threshold of which is affected by the sensitivity slider.

### the pencil

The 2nd tool from the left. Draws antialiased strokes using the tip size and drawing mode. Supports **over** and **into** drawing modes. Nice for sketching.

### the pastel stick

The 3rd tool from the left. Imitates real life pastels by blending colors and applying grain. Comes in 8 shapes and tip sizes, has a flow control slider, and **supports all drawing modes**, including the wondrous mixed pigment mode. Our favorite tool.

### the spray can

The 4th tool from the left. Splatters paint. Comes in 5 nozzle sizes, has a control slider to control flow, and supports **all drawing modes**, including the mixed pigment mode.

### the marker

Fifth from the left. Imitates markers by blending between your foreground color and the color of those pixels lying under the stylus, and by limiting the blending to one step per stroke. The best way to understand this tool is to try it. It is especially useful for applying tones and highlights to your drawings without "spilling over" into the background. Comes in 8 tip shapes and sizes and supports **over**, **under**, and **into** drawing modes.

### the filler

The 6th tool from the left. A filling tool at its most mundane. Comes with 8 fill patterns.

### the mixer

The 7th tool from the left. We use it a lot. It scatters half of the pixels that fall within the radius of your current tip selection and sends them flying in all directions, at a maximum distance proportional to the value of the distance control slider. Comes in 8 tip shapes and sizes and supports over, under, into, and mixed drawing modes.. Hard to explain. Once again, experimenting is best. We use it quite a bit, to shake up those tones and highlights, and add a hint of imperfection, hence life, to otherwise dull drawings.

### the smoother

The farthest tool to the right. As its name implies, it smoothes. Comes in 8 tip shapes and sizes.

## the modes

### over

The easiest mode to understand. Applies the primary color over anything the stylus touches, tampered of course by pattern, tip shape and size, and nature of the tool (the mixer and the smoother don't care much for primary and secondary colors; for now...) .

### under

**Applies** the primary color to any pixel with the same value as that of the secondary color. We say "Applies" as opposed to "Copies" because the end result, that is, the color of the destination pixel, also depends on the type of tool that you are using. For example, while the ink pen and the sprayer copy the primary color to suitable destination pixels, the pencil, pastel, and marker will instead set those pixels to those colors that lie between the primary color and their respective colors

### under

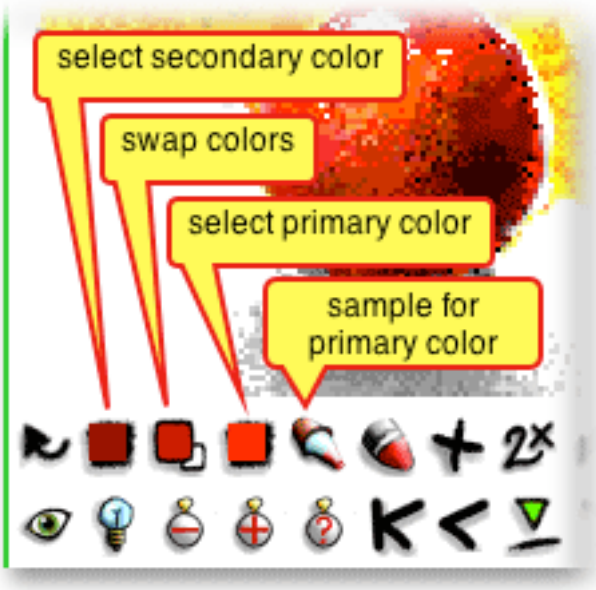
**Applies** the primary color to any pixel with a value different than that of the secondary color.

### mixed pigment

**Applies** the primary and secondary colors, in random proportions, to destination pixels. This may not say much, but it does pack quite the punch, especially if you like drawing with pastels. We

do suggest that you experiment with it. For example, pick a couple of closely related colors (say of the same hue but of different values - one darker or lighter than the other, that is) as primary and secondary colors, select either the pastel or spray tools, and select mixed pigment mode. Now, draw, and see how the mix of these 2 colors adds depth and texture to your drawing.

## color controls




### select secondary color

Tricky... Invokes a color selector. The selected color is used for the **under**, **into**, and **mixed pigment** modes as well as by the **paste special** menu command. Its use will be fully explained in the section on drawing modes.

### swap colors

Swaps the primary and secondary colors.

### select primary color

Lets you select the primary drawing color.

### sample for primary color

Tap this control and drag your stylus over the drawing area. As you drag, its icon mirrors the color of the pixel directly under the tip of your stylus. Sets the primary color as soon as you lift the stylus off the screen.

## the spare page OS5

The spare page is a **full screen, customizable popup palette**. You can access it at any time by tapping period ("**.**") in the Graffiti area.

When accessed for the first time, the spare page is blank, thus useless as a palette. However, once you have added content to it, it can become your best friend... if given the chance. Indeed, use it for a few minutes and you will realize that fussing over the hitting of little controls has now been replaced by almost effortless (2 distracted taps and an optional drag) color picking, hence letting you spend more "quality time" with your drawing.

So, how do you add content to this illustrious spare page? Typically, you will draw patches, onto your main canvas, of those colors you are most likely to use over the next few drawings (your core palette if you will). Once you are satisfied that what you have will serve nicely as a palette, you will select the **Edit > Swap with Spare** menu, or tap "**z**" in the graffiti area. This will exchange what you just drew with the (currently blank) contents of the spare page. You will now once again be faced with a blank drawing canvas, secure in the knowledge that what you just drew now lies dormant on a spare page that awaits your next command.

You are now about to paint your main subject and it is time to choose a color... quickly. You tap once within the confines of the graffiti area (the period character). This brings the spare page to the front. You now tap anywhere on it and (unless you hit the wanted color right on the spot) drag your stylus towards that color you want to select. As you drag, you will notice a little color square at bottom left that reflects the color of the current pixel. Once you lift the stylus, your primary color will be set to the color of that pixel your stylus was last positioned over, and your drawing will then reappear. Repeat at will.

To edit the contents of the spare page, repeat the previous swap operation (**Edit > Swap with Spare** menu, or tap "**z**" in the graffiti area). You can once more edit your palette while your main drawing lies in the spare page, awaiting the next swap.

Now, what if you want to use an existing drawing as a palette (often referred to as a color model). Then, just go to that drawing (or, if it was stored inside another clip, bring it over by selecting the **Clip > Insert Clip...** menu) and select the **Edit > Copy to Spare** menu. Both your spare page and your current drawing will have the same contents. You can then create a new (blank) drawing and resume your painting activities, picking colors as you go from the color model now stored within the spare page.

The spare page is saved and re-loaded automatically between sessions of NinerPaint.

## undo / redo


Undoes the most recent undoable change, undos included.

The term "Undoable changes" includes all changes brought about by a drawing operation, a simple clipboard command (cut, paste), a clear, and an undo.

The term "Undoable changes" does not include structural changes, scope changes, complex clipboard operations (paste special), browsing operations (go to first, previous, next, last, or jog), and playback operations.

Undoing a change restores the drawing to the state it was in, prior to that change.

## the lighttable OS5

Displays a silhouette of the previous drawing (and/or of the next, depending on your Preferences settings).

## toggle ui

NinerPaint's control panel (the two rows of buttons at the bottom of your screen) packs a lot of functionality in a very small area, but it still takes too much space when you want to do more than just draw simple sketches.


The "toggle ui" control is located at lower screen left. When tapped, it will, **depending on your Preferences settings**, either hide all controls, or hide those that are not essential for drawing, hence maximizing screen real estate.

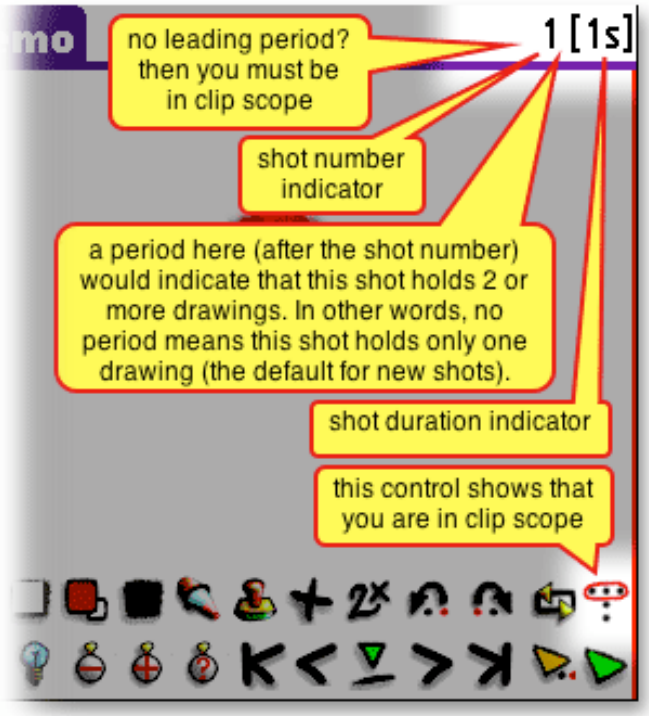
Invoke and revoke it by either tapping on the control or **tapping 'L' (upper or lower case) in the Graffiti area**.

## scope introduced

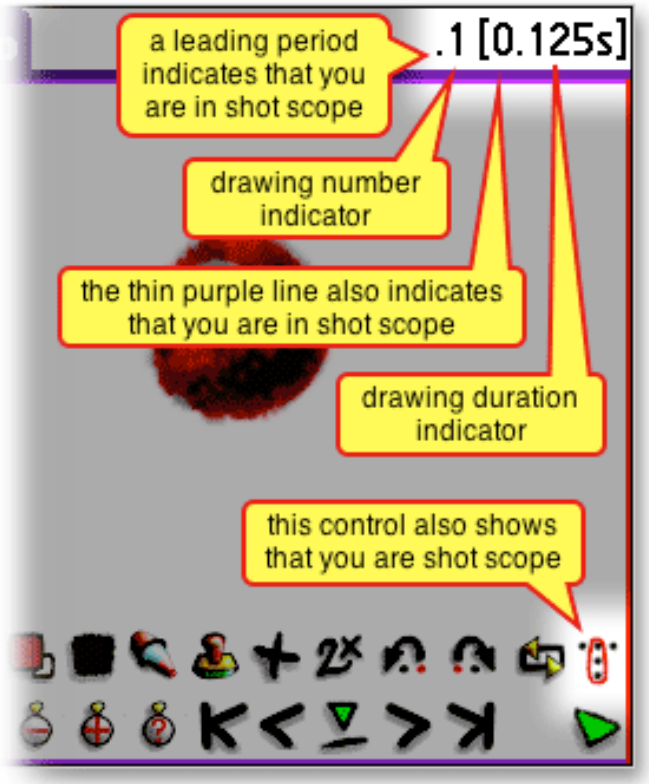

Any time you edit a clip in NinerPaint, you are working in one of 2 possible scopes: clip scope, or shot scope. Editing a clip for the first time will place you by default in clip scope. There, all operations such as "add", "duplicate", "play", etc, work at the clip level.

You toggle between clip and shot scope by tapping this control. It is important that you be able to determine your current scope (or context) at a glance. Carefully review the 2 panels that follow. Understanding the many ways to tell the scope you are in can save you tons of grief later on.

### Clip Scope

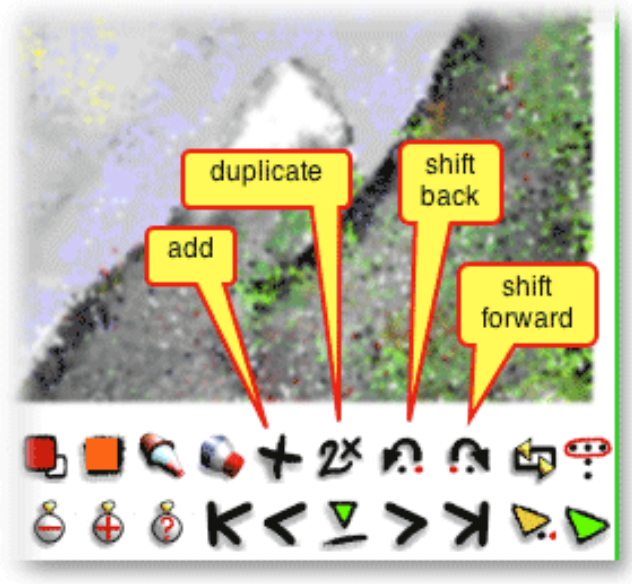



### Shot Scope




An in-depth explanation of scope (scope explained) comes later in this guide.

## changing structure




### add

If you are in clip scope, adds a new shot to the current clip. If you are in shot scope, adds a new drawing to the current shot.

### duplicate

If you are in clip scope, appends a duplicate of the current shot and goes to it. If you are in shot scope, appends a duplicate of the current drawing and goes to it.

### shift forward

If you are in clip scope, moves the current shot after its successor, if any. If you are in shot scope, moves the current drawing after its successor.

### shift back

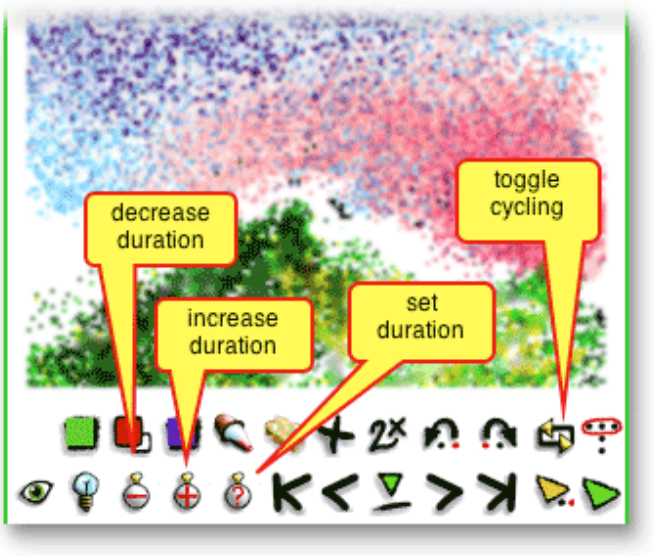
If you are in clip scope, moves the current shot before its predecessor, if any. If you are in shot

scope, moves the current drawing before its predecessor.

### delete

If you are in clip scope, deletes the current shot. If you are in shot scope, deletes the current drawing.

## timing




### increase duration

If you are in clip scope, increases the duration of the current shot. If you are in shot scope, increases the duration of the current drawing.

### decrease duration

If you are in clip scope, decreases the duration of the current shot. If you are in shot scope, decreases the duration of the current drawing.

### set duration

If you are in clip scope, opens a form allowing you to specify the duration of the current shot. If you are in shot scope, opens a form allowing you to specify the duration of the current drawing.

### toggle cycling

Toggles the current shot between cycled and held. When playing a cycled shot, all drawings in the shot are played in sequence. If the shot duration period for that shot has not yet expired by the time the last drawing has been played, playback resumes at the first drawing in the shot. When playing a held shot, all drawings in the shot are played in sequence, and the last drawing is held until the duration period for that shot has expired.

## scope explored

When editing a clip for the first time, you are placed by default in clip scope. This is the scope in which all structural and timing operators operate on shots. Invoking the add operator adds a new shot, after the current one, tapping increase duration steps up the duration for the current shot one notch, etc. As long as you stay in that scope, the distinction between a shot and a drawing is fuzzy at best.

If you are however interested in animating with Niner Paint, the distinction between clip and shot scopes becomes an essential one, for **it is only in shot scope that you can add extra drawings to a shot**.

An example might help.

Say you want to create a rough board for a story you are fleshing out. This epic tale will consist of a 3-2-1 countdown (3 shots of 1 second each), followed by a one-second shot of an **animated** happy face.

### The setup

1. Create a new clip in the Clip Manager
2. Tap **Edit**. This takes you to the Clip Editor. Because this is a new clip, you are placed by default in Clip Scope.
3. Draw a "3"
4. Add a new shot (tap **add**)
5. Draw a "2"

6. Add a new shot (tap **add**)

7. Draw a "1"

8. Add a new shot (tap **add**)

9. Draw a happy face

10. Ensure that playback mode is set to **play from first**. Otherwise, playback will begin from the previous shot (where you drew a "1").

11. Play the clip (tap **play**) and observe how each shot is played in sequence and lasts exactly one second (no surprises there).

12. Tap **toggle scope**. You should now be in shot scope.

13. Tap **add**. This will add a drawing to the current shot.

14. On OS5, you can turn on the lighttable. This will turn enable you to see the first drawing in this shot.

15. Draw a happy face again, using the lighttable silhouette as a reference.

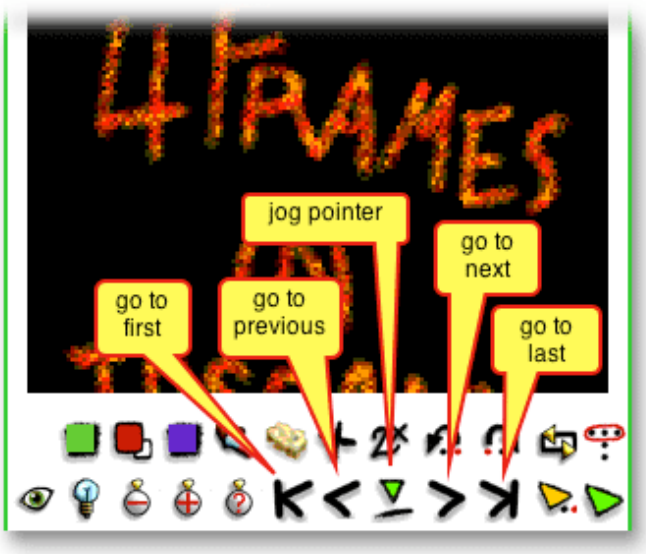
16. Tap **play** and observe how the happy face is animated. Also observe that, because you are in shot scope, tapping **play** triggered the playback of this shot only.

17. Tap toggle scope. You should now be back in clip scope.

18. Tap **play** again, and observe how each shot is static, **except for the shot of the happy face**. Note also that all shots still last exactly one second each.

You have also seen that adding a drawing to a shot does not necessarily make that shot longer. The default duration for a shot is set to one second. The default duration for a drawing is set to 1/8 of a second. Hence, you can add up to 8 extra drawings to a one-second shot before its duration is forced to increase by 1/8th of a second (the default duration of the 9th drawing) (until you change that shot's duration, that is).

## b r o w s i n g




### go to first

Depending on scope, goes to the first shot or to the first drawing of that shot.

### go to previous

Depending on scope, goes to the previous shot or to the previous drawing of the current shot.

### jog pointer

Tap and hold over this control to activate the jog pointer. Now, while keeping the stylus in contact with the screen, slide to the right to move ahead in the timeline, or to the left to move back.

Also, the speed at which you move along the timeline is proportional to the distance between the stylus and the control. In other words, slide the stylus farther away from the control to speed things up, and slide it back closer to slow them down.

Last point: as expected, crossing over and sliding in the opposite direction will inverse the direction of the movement.

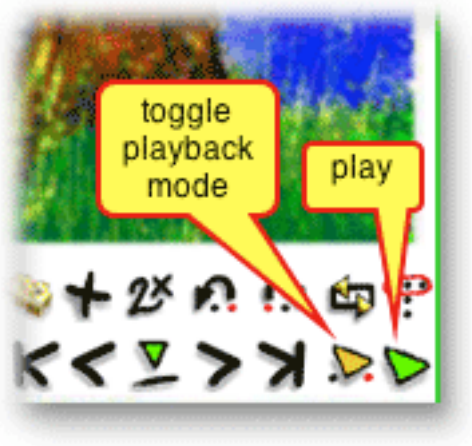
### go to next

Depending on scope, goes to the next shot or to the next drawing of the current shot.

### go to last

Depending on scope, goes to the last shot or to the last drawing of the current shot.

## playback




### toggle playback mode

Toggles between full and partial playback of your clip.

Timing your shots can be a lot of work. Tweaking a shot here, another one there, and playing back again and again until things start to gel. What a frustrating experience it would be if you were working on a long clip and had to watch it from the beginning every time you wanted to test a change of timing.

Therein lies the reason for this toggle. When in "**play all**" mode, playback always starts at the first shot. Toggle this to "**play from previous**" mode and playback will now begin from the previous shot, hence saving you (precious) time.

This option is only available in clip scope.

### play

If you are in clip scope, plays shots in sequence, starting at either the first shot, or the previous one, depending on playback mode, and until there are no more shots to play.

If you are in shot scope, plays all drawings in the current shot in sequence, loops back if the shot is cycled, otherwise holds the last drawing, until the duration period for this shot has expired.

You can abort playback at any time by tapping in the display area.

## conclusion

This concludes this version of our user guide. Don't hesitate to send us your comments, questions, and suggestions. Any feedback is highly appreciated and we will respond to most inquiries promptly (contact us by sending an email to info@ninermedia.com) .

### Still to come

- The stroke recorder
- Clipboard operations, including the powerful **Paste Special** operator
- Clip insertion
- Ranges (for structural changes and sub-clip extraction)
- Menu reference
- QuickKeys (shortcuts) reference
- Preferences