Plastic Animation Paper

Copenhagen, July 23, 2010

PAP:Pro 4.0 is released for free

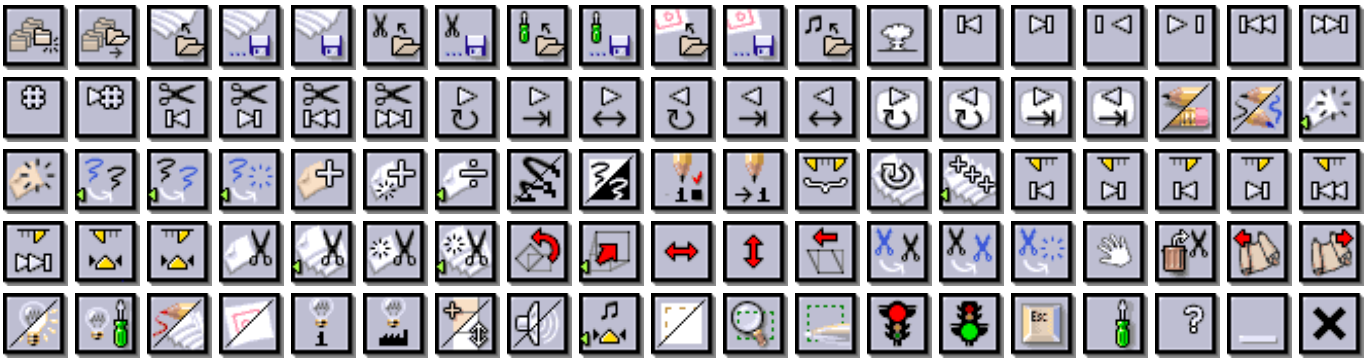
We, the PAP developers feel it is time for us to look ahead, and explore what the next generation of PAP should look like, and how it should work. We currently have no time frames for the development work, and we're looking for partners to help us develop it. Please email us with any input you have at ideas(at)plasticanimationpaper(dot)dk.

In the meantime, we want to thank our loyal supporters and the animation community. We are therefore from today releasing our latest and greatest edition (PAP:Pro 4.0) for free. This version is for Windows only, and will not require any registration or purchase. You are free to use it on as many PCs as you want, for anything you want (home, school, professional). We offer this release with no support except for what you can find in the old website. New users make sure to check out our tutorials.

Happy animating! Enjoy

Our sincerest thanks,
Jakob and Niels, the PAP developers

Function List



1) Load and Save

New Project

Make new project directory

To keep everything organized we recommend creating a new project folder before you begin any new work. When clicking New Project you will go the file requester screen. Make sure you're in the desired projectspath (usually c:/PAP_Projects or somewhere on your network). Now type in a name for your project, such as 'Scene01', and click create. PAP will remember this folder as the home of this project, as long as PAP is running or until you use the Set Project function or create another project directory. By making a new project folder for each scene you are about to animate, you can easily work with multiple versions of your animation as it progresses from a few rough extremes to final cleaned up animation. The project folder can also hold different characters and props as separate files for later layering - as well as backgrounds, sound and a lot of other files associated with the particular scene (or project). When the new project folder is created PAP will create 5 other directories called anims, cutouts, frames, layouts and misc inside the project folder. Every time you save a PAP animation it will by default go into the anims directory of your current project. The cutouts directory can be used for saving smaller parts or cycles of your animation as cutouts building a small library for your project. If you want to save your animation as a sequence of single frames, for later colouring, they will go into the frames directory. The frames directory can also be used for keeping frames to be loaded into PAP for reference such as video sequences or rendered 3D animation. In the layout directory you can keep your layout drawings and backgrounds. The misc directory is for sound files or various other files. It is not required that you use these directories, but often you will find that it's a good idea and that it helps you and your colleagues to keep your scenes in good order.

Note: The default projects path is the one you chose when you installed PAP (usually c:/PAP_Projects). When you go to the file screen, PAP will start in this default folder. It is possible to change the path by editing the file 'projects_path.cfg' with a text editor such as Notepad. You will find the file in the PAP program folder.

Set Project

Select existing project directory, for easy loading and saving of work

If you just started PAP and want to continue working on an old project, use Set Project. This will point PAP to the correct directory and make it open the sub-directories, when you load or save files. Select existing project directory, for easy loading and saving of work. If you just started When loading animations, saving cutouts, exporting a sequence of single frames, layout drawings, etc., everything will be found in the corresponding directories: anims, cutouts, frames, layouts and misc. It is recommended, but not required, to set the project before you load your animation and continue animating. PAP will use the default project, called "scratch", if you don't specify the project with Set Project.

Load [Ctrl O]
Load an animation or a string of single frames

Load an animation from disk. All animation data in PAP will be lost when loading a new animation.

Save As [Alt S]
Save my animation as a PAP-file or export it as single frames

Save the current animation, either in PAP format or as single frames.

Save [Ctrl S]
Save quickly, overwriting the last version

The Quick-save function saves the current animation in PAP format quickly. The first time it is used, it will function like Save As, asking you for a file name. After that it will save and overwrite the old PAP file. A progress indicator is shown in the top bar.

Load Cutout
Load a previously stored Cutout

Save Cutout
Save my Cutout

If you are holding a cutout, this function saves it to disk.

Load Config
Load a previously saved config-file, changing the interface, pen presets, etc.

The configuration includes all settings: pen presets, light table settings and presets, menus, marking menus, etc. This function loads a configuration from disk.

Save Config
Save my settings (interface, pen presets, etc.)

The configuration includes all settings: pen presets, light table settings and presets, menus, marking menus, etc. If you like certain settings for certain projects, you can save the configuration and use it later. Also, if many animators are using the same PAP installation, they might save a configuration file each and load the appropriate file when resuming work.

Load Layout

Load Layout drawing or background

This function loads a single image file and uses it as the layout drawing.

Save Layout

Save the Layout drawing

This function saves the layout drawing as an image file.

Load Sound

Import a sound file in order to sync my animation to music or dialog

Load (or Import) a piece of music, speak etc. - in order to sync your animation with a pre-recorded sound track. The sample is played from frame 1 (of the total number of frames in memory) by using PlayLoop [4] or PlayOnce [5]. After the sample is loaded you can turn it off, by using Toggle Sound On/Off [F8]. It is not possible to have more than one soundtrack loaded at a time.

New

Start over, with one blank frame

Start a new animation. This function will delete all animation data in PAP. It will not touch any files on the disk. Use it to start all over.

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2) Flipping Control

Step Back [1]/[Left]/[Up]
Flip one frame back in my animation

Step one frame back in the animation. When you reach the Start Frame (of the Range) and proceed to step back, you will be taken to the End Frame (of the range).

Note: To step outside the Range, select a frame outside the range in the X-strip or in the FrameBar at the bottom of the screen.

Step Forward [2]/[Right]/[Down]
Flip one frame forward in my animation

Step one frame forward in the animation. When you reach the End Frame it and step forward, PAP will wrap back to the Start Frame.

Step Back Skipping Clones [Shift Left]/[Shift Up]
Flip back to the previous original frame

Step back to the previous 'original' frame in the animation, skipping clone-frames. When you reach the Start Frame it will wrap to the End Frame. (Or more precisely, wrap to the last 'original' in the Range).

Note: A Clone is a copy of the previous frame. Its purpose is to hold the frame longer, when the animation is played.

Step Forward Skipping Clones [Shift Right]/[Shift Down]
Flip forward to the next original frame

Step forward to the next 'original' frame in the animation, skipping clone-frames. When you reach the End Frame it will wrap to the Start Frame. (Or more precisely, wrap to the first 'original' in the Range).

Goto Start [Shift 1]/[Home]
Jump to first frame of the range

Jump directly to the Start Frame of the animation-range.

Goto End [Shift 2]/[End]
Jump to last frame of the range

Jump directly to the End Frame of the animation-range.

Goto Input Number [3]

Input a frame number to jump to

When activated, the prompt 'Goto frame number:' will show in the message line. Type in a frame number and press [Enter]. The program will immediately jump to the requested frame and store the number for later use - see Goto Last Input [Shift 3].

Goto Last Input [Shift 3]

Jump to the frame number input earlier

Jump directly to the frame indicated using the GotoNumber [3] function. If you just started the program and no frame number is in memory, you will be prompted for it (as in GotoNumber).

Step Cutout Back [7]

Flip one frame back in my Cutout

Step one frame back in the Cutout. When you reach the first frame it will wrap to the last.

Note: This function only has effect if you are holding an AnimCutout (a cutout with more than one frame).

Step Cutout Forward [8]

Flip one frame forward in my Cutout

Step one frame forward in the Cutout. When you reach the last frame it will wrap to the first.

Goto Cutout Start [Shift 7]

Jump to first frame in my Cutout

Jump directly to the first frame of the Cutout

Goto Cutout End [Shift 8]

Jump to last frame in my Cutout

Jump directly to the last frame of the Cutout.

Play Loop [4]

Play my animation range again and again

Play the animation at the rate figured in FPS (frames per second) - starting from the Current Frame. When the End Frame is reached the playback will start again from the Start Frame and continue looping. If sound has been loaded, and toggled on, it will be played. To stop the playback press [Esc] or tap down on the Digitizer board with the pen.

Play Once [5]

Play my animation once, starting at current frame

Play the animation at the rate figured in FPS (frames per second) - starting from the Current Frame. When the End Frame is reached the playback will start again from the Start Frame. The playback stops when the Current Frame is reached again. If you want to watch the animation from the beginning, first press [Shift 1] (GotoStart) then [5] (PlayOnce). If sound has been loaded, and toggled on, it will be played.

Play Oscillate [6]

Play my animation range forwards, then backwards, then forwards again..

Sometimes called "Ping-Pong". It will play the animation at the rate figured in FPS (frames per second) - starting from the Current Frame. When the End Frame is reached the playback will reverse by playing backwards to the Start Frame and continue forward again. To stop the playback press [Esc] or tap down on the Digitizer board with the pen.

Play Loop Reverse [Shift 4]

Play my animation range again and again, backwards

Like PlayLoop, but playing backwards.

Play Once Reverse [Shift 5]

Play my animation backwards once, starting at current frame

Like PlayOnce, but playing backwards.

Play Oscillate Reverse [Shift 6]

Play my range backwards, then forwards, then backwards again..

Like PlayOscilate, but starting backwards.

PresentationPlay Loop [9]

Play my animation again and again, without the GUI

Same as PlayLoop [4] but with all user interface off, and always playing the complete animation, disregarding the Range.

PresentationPlay Loop Reverse [Shift 9]

Play my animation backwards, again and again, no GUI

Same as PresentationPlayLoop [9] but playing backwards.

PresentationPlay Once [0]

Play my animation once, without the GUI

Same as PlayOnce [5] but with all user interface off, and always playing the complete animation, disregarding the Range.

PresentationPlay Once Reverse [Shift 0]

Play my animation once backwards, without the GUI

Same as PresentationPlayOnce [0] but playing backwards.

3) Drawing

Toggle Draw/Erase [F5]

Switch pen to eraser (or back again to drawing)

Toggle between draw- and erase-mode. To erase lines from the paper you can turn your Digitizer-pen around and use the built in eraser if your pen has one. Sometimes it is faster to change to erase mode and back to draw again, simply by choosing this function in the marking menu or by hitting F5.

Note: You can restrict the eraser to only erase blue lines by holding down [Shift] while erasing. Tip: If you need to erase a rather large area on the frame (but not the whole frame), you can cut that area out and throw it away: Press [X] and mark the area. Then press [Esc] to get rid of the cutout.

Toggle Black/Blue [F6]

Switch pen color to blue (or back again to black)

Toggle between drawing with the black or blue pencil. Use the blue pencil to make the rough sketching, and then switch to black for touching up.

Note: The black pencil will always be on top of the blue pencil. Tip: When drawing black, hold down [Shift] to 'paint' on the blue lines only. Or do the same when drawing blue - on black lines.

Clear, making Blank [Shift Backspace]

Clear all lines on Current frame, Range or all frames

Clear the Frame, Range or All completely (by using the option menu). This will erase all lines from the selected frames. The shortcut [Shift Backspace] activates the default option - clearing the current frame.

Note: Functions with a little green triangle in their corner (like Clear) have options. Press the pen down on the icon and hold it until the option menu appears. Then drag the pointer out to select an option by finally releasing the pen.

Clear, making Clone [Ctrl Backspace]

Remove this original frame, making it a clone instead

Blue to Black

Make all blue lines black. Options: In current frame, Range or all frames

Convert the blue lines to black. Options are: Frame, Range or All. The default is Frame.

Black to Blue

Make all black lines blue. Options: In current frame, Range or all frames

If you need another pass of refining your black-pencil drawings, do a BlackToBlue and draw the final black line over the old ones now shown in blue. Options are: Frame, Range or All. The default is Frame.

Clear Blue

Erase all blue lines. Options: In current frame, Range or all frames

Clear the blue lines. Options are: Frame, Range or All. The default is Frame. Use the blue pencil for rough drawing, refine the animation using the black pencil and finally erase the blue lines with BlueClear.

Add Clone Frame [Numeric +]

Extend the duration of the current frame by one

Add a frame to the animation. A clone of the Current Frame will be inserted right after Current Frame - making the new frame the current one. The total Number of Frames and the End Frame will be increased by 1. To insert a pause in the animation press [+] (CloneFrame) a number of times, while watching the frame count.

Note: Cloning frames can also be done by dragging down on a frame in the X-Strip.

Add Blank Frame [Insert]

Add a new blank frame after the current frame

Like CloneFrame, - but this will insert a blank frame instead of a copy.

Delete Frame [Shift Delete]

Remove this frame from my animation

Delete a frame from the animation. The drawing you see (the Current Frame) will be deleted, decreasing the Number of Frames by 1. This is the default behaviour. Options are: Frame, Range or All. If you choose the All option, all frames will be deleted from your animation - leaving only a one frame 'animation' as the result. Be careful: this cannot be undone.

Toggle AntiAlias [A]

Switch off (or on) the smoothing of the lines and Cutout transformations

Toggle the automatic smoothing of the line on or off. AntiAlias removes the hard pixel-look and makes the line look smooth and ready for television. The reason why some people would turn AntiAlias off, is to gain an easier control over later manipulation and coloring in some paint applications.

Toggle Inverse

Special feature to inverse the display, making a negative effect

Mainly for artistic reasons it is possible to inverse the shades of the drawing area. Making the 'paper' black.

Use PenPreset (1-5 available) [Ctrl 1-5]

Use previously stored settings for the pen size, shade and pressure

Note: When PAP is installed, default values are put into these five registers.

Set PenPreset 1-5

Store my settings for the pen size, shade and pressure in slot 1 - 5

Using the current values set by the two sliders and the two buttons in the top right corner, store the pen settings in a numbered register.

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4) Range Manipulation

Copy Range to Current

Copy my Range and insert it right after the current frame

When you wish to copy a section of your animation, use InsertRange. Before you click on InsertRange you must set the Range markers to surround the frames you want to copy. Do this by dragging the markers or simply mark the Range (as when marking a 'block' in a wordprocessor) with the eraser end of your pen. The next step is to go to the frame in your animation, where you want the Range to be inserted. Use the Timeslider or X-Strip to go there. Now click InsertRange and your selected Range will be copied just before the current frame. You may copy the Range to somewhere within the current Range if that is what you need.

Cycle Range

Take my animation range and repeat it once, making the new range double length

By clicking this function a number of times, the current Range will cycle that particular number of times. This means that the current range will be copied and inserted right after RangeEnd. The Range will stay unchanged.

Stretch Range

Clone every frame in my range. Options: One, Two, or Three times

Expand the current Range by interleaving a number of frame clones. Options are: On 2's, 3's or 4's. It repeats every frame in the Range the requested number of times (2, 3 or 4 times).

RangeStart Back [Shift F1]

Move the beginning of the Range one frame back

Step the RangeStart marker one frame back. Hold down [Shift F1] to quickly move it several frames back.

Note: The Range markers can also be moved simply by dragging them with the pen. The markers are shown both in the Timebar and at the X-Strip. Extra Tip: Using the eraser end of the pen, you can drag to mark several frames on the X-Strip. Both the RangeStart and the RangeEnd indicators will be set to enclose those marked frames.

RangeStart Forward [Shift F2]

Move the beginning of the Range one frame forward

Step the RangeStart marker one frame forward. Hold down [Shift F2] to quickly move it several frames forward.

Note: The Range markers can also be moved simply by dragging them with the pen. The markers are shown both in the Timebar and at the X-Strip. Extra Tip: Using the eraser end of the pen, you can drag to mark several frames on the X-Strip. Both the RangeStart and the RangeEnd indicators will be set to enclose those marked frames.

RangeEnd Back [Shift F3]

Move the end of the Range one frame back

Step the RangeEnd marker one frame back. Hold down [Shift F3] to quickly move it several frames back.

Note: The Range markers can also be moved simply by dragging them with the pen. The markers are shown both in the Timebar and at the X-Strip. Extra Tip: Using the eraser end of the pen, you can drag to mark several frames on the X-Strip. Both the RangeStart and the RangeEnd indicators will be set to enclose those marked frames.

RangeEnd Forward [Shift F4]

Move the end of the Range one frame forward

Step the RangeEnd marker one frame forward. Hold down [Shift F4] to quickly move it several frames forward.

Note: The Range markers can also be moved simply by dragging them with the pen. The markers are shown both in the Timebar and at the X-Strip. Extra Tip: Using the eraser end of the pen, you can drag to mark several frames on the X-Strip. Both the RangeStart and the RangeEnd indicators will be set to enclose those marked frames.

RangeStart to First [PageUp]

Move the RangeStart marker to first frame

Move RangeStart directly to the first frame of the animation.

RangeEnd to Last [PageDown]

Move the RangeEnd marker to last frame

Move RangeEnd directly to the last frame of the animation

RangeStart to Current [Shift PageUp]

Make the Range start at the current frame

Move RangeStart directly to the current frame

RangeEnd to Current [Shift PageDown]

Make the Range end at the current frame

Move RangeEnd directly to the current frame.

5) Cutouts

Copy StillCutout [C]

Mark and pick up an area of this frame as a Cutout

Copy a piece of your drawing (StillCutout) by expanding a box (using the tip of the pen) around the wanted area. Now "draw" with the Cutout to reposition the drawing. Nothing will be erased from the frame. Also use this function to make copies on the same frame or flip to another frame to "punch" it down there. Discard the Cutout by pressing [Esc].

Note: If you need to punch down a Cutout at a very precise point, it is possible to move it on a pixel by pixel basis. After you cut it out, place it roughly in the right area using the pen. Now take the pen away from the digitizer board. While holding down the [Ctrl] key, use the cursor (arrow) keys to position the Cutout. Then hit [Return] to paste the cutout.

Copy AnimCutout [Shift C]

Mark and pick up an area of my Range as a Cutout

Copy a piece of animation (AnimCutout) by expanding a box (using the tip of the pen) around the wanted area. It is possible to flip through the frames - using the keyboard - while "holding" the box to check if all drawings are inside the box. When the pen is released all frames within the current Range will be picked up, starting from the Current Frame. Nothing will be erased from the paper. Now use the Cutout for repositioning animation on the screen, or move it (time wise) to another frame or perhaps duplicate it several times. You can also Rotate [R] or Scale [S] the Cutout. Lots of effects can be achieved by using Cutouts creatively. Discard the Cutout by pressing [Esc]. When picking up AnimCutouts, you have the Forward, Backwards and Oscilate options from the option menu. Forward is the default. Picking up Backwards means the frames of the Cutout will come in reverse order when flipping through the drawings of the Cutout or when pasted down at the 'paper'.

Note:If you need to punch down a Cutout at a very precise point, it is possible to move it on a pixel by pixel basis. After you cut it out, place it roughly in the right area using the pen. Now take the pen away from the digitizer board. While holding down the [Ctrl] key, use the cursor (arrow) keys to position the Cutout. Then hit [Return] for every frame you want to paste it onto.

Cut StillCutout [X]

Mark and pick up an area of this frame as a Cutout, clearing the area

The same as Copy StillCutout, but the selected area is erased from the paper.

Note: Cut StillCutout can also be used to easily erase bigger parts of a drawing without using the small eraser: Press [X], drag the box over the unwanted area and press [Esc] to discard the Cutout.

Cut AnimCutout [Shift X]

Mark and pick up an area of my Range as a Cutout, clearing the area

The same as Copy AnimCutout, but the selected area is erased from the frames.

Rotate Cutout [R]

Rotate Cutout freely, any angle

Rotate a Cutout interactively to get a new angled Cutout.

Note: If the cutout is a rather large AnimCutout, this operation might take time. There is a progress indicator in the top left bar. Tip: If you for some reason don't want antialiasing when rotating, turn off antialiasing before you rotate the cutout.

Scale Cutout [S]

Scale Cutout. Options: Free, Proportional (Keep Aspect), Squash (Keep Volume)

Scale a Cutout interactively to get a new resized Cutout. Use the three different ways of scaling listed in the option-menu: Free, Proportional or Squash&Stretch. The default is Proportional.

Note: If the cutout is a rather large AnimCutout, this operation might take time. There is a progress indicator in the top left bar. Tip: While scaling (dragging the pen to decide the extent of the scaling), hold down Shift, Alt, or Ctrl to change between the ways of scaling.

Mirror Cutout Horizontally [H]

Mirror (or "Flip") the Cutout horizontally.

Mirror Cutout Vertically [V]

Mirror (or "Flip") the Cutout vertically.

Shear Cutout

Shear Cutout

Shear the Cutout interactively to get a new Cutout which has the top shifted or sheared to one side.

Blue to Black in CutOut

Make all blue lines in the Cutout black

Black to Blue in CutOut

Make all black lines in the Cutout blue

Blue Clear in CutOut

Erase all blue lines in the Cutout

Move GrabHandle [G]

Move the handle point (pivot) for this Cutout

Move the Grab-point of the Cutout in order to place it partially or completely off screen.

Get Cutout Back [B]

Get last picked up Cutout back

After you pressed [Esc] to get rid of a Cutout, it is possible to get it back using this function.

Transform-History Back [N]

Go back to the previous transformation of the Cutout

When doing more than one transformation, PAP remembers the different steps you took to get the current transformation of the original cutout. Step back through these with this function.

Transform-History Forward [M]

Go to the next Cutout transformation in the history-buffer

When doing more than one transformation, PAP remembers the different steps you took to get the current transformation of the original cutout. Assuming you stepped back in this history list with Transform-History Back, step forward through these again with this function.

6) Lighttable

Toggle Light [Space]
Switch on (or off) the backlighting, making neighbouring frames visible

Toggle backlighting on or off. This makes it possible to look at several frames at a time, - like a normal animationdesk with backlighting. The user is able to choose which frames behind - and/or in front of the Current Frame are to be shown (to a max. of 9 frames overlaid at the same time).

Light Setup [Shift Space]
Use the LightSetup Screen to tweak the light table settings

This function takes you to the setup screen for the Lighttable functions. The light table setup screen will be explained later.

Toggle Edit Layout [Shift L]
Goto the Layout sheet, drawing red

To go to the layout-sheet use this function. At the layout-sheet you draw red lines. Use this for guidelines before animating. Mark up props or floorlevel, or use it for planning keyframes. Get back to animation by selecting Toggle EditLayout [Shift L] once more.

Toggle Layout [L]
Switch on (or off) the red Layout layer

While working on your animation, toggle your layout on or off. The layout is displayed as the bottom layer (in red), behind your blue and black drawings as well as the backlit frames. The Layout will stay visible during PlayBack if it's toggled on.

Note: Lighttable functions (Toggle Light and Toggle Layout) can slow down the performance of the program on slow computers, so turn it off when you need the greater flipping speed.

Use LightPreset (1-5 available) [Alt 1-5]
Use previously stored settings for the light table

Light FactorySetting [Alt 6]
Use the default (factory) settings for the light table

7) Other Functions

Toggle X-Strip Mode

Switch between Slide-Mode and Add-Clones-Mode in the X-Strip

In Add-Clones-Mode (which is default), dragging a frame in the X-Strip up or down will add or delete clones from that frame. It's a quick way to insert "time" between original frames, or to extend the timing for a range of clones. In Slide-Mode, only originals may be dragged. Without adding nor removing frames, the original may be moved up or down, within ranges of surrounding clones. The best way to understand these principles is to try them out in PAP.

Note: In PAP:Shareware there is only one X-Strip Mode, which does not add clones but rather copies of originals.

Toggle Sound [F8]

Switch off (or on) loaded sound

When a soundtrack is loaded (with Load Sound) you can turn it off by clicking Toggle Sound On/Off [F8]. Click again to switch it back on.

Set Sound Start

Make current frame the starting point of the sound

Toggle FieldGuide (SafeArea) [F]

Display indicators for the television Safe Area

The FieldGuide shows the animator what is likely to be out of bounds on normal television sets. When animating for television, it is very important to use this guide, or at least be aware of the fact that a portion of the drawing area will be occluded. This means that you don't have to draw every line which is continuing 'off screen' to the very edge of the drawing area/userinterface

Tip: Use the border areas for small notes, numbers or charts as long as they are kept well outside the indicated FieldGuide area.

Zoom [Z]

Redefine the on-screen working area, making detailed drawing easier

Zoom will reconfigure your Board/Screen relationship in order to more precisely draw details. This is achieved by using the board area in a smaller part of the screen. Drag the dotted rectangle box over the wanted area. When the pen is released you will be restricted to the selected area, but the movement of the pointer will be more precise. Because this will disable you from reaching the toolbar, you must either work with hotkeys and marking menus only, when selecting new functions, or simply quit the zoomed mode. Exit Zoom by pressing [Esc] or selecting Zoom [Z] again.

BoardArea

Define the working area of the Wacom Board

BoardArea will reconfigure your Digitizer-Board drawing area. If you have a large board and get tired of the big armmovements required to go from one side of the screen to the other, you simply select this function and choose a smaller area. After activating BoardArea you are asked to point at the top/left corner of the new area. Look at the board and use the pen to press down at the wanted spot. Then you are asked to point at the bottom/right corner, which is done in the same way. immediately hereafter the new area is active. To go back to using the full board-area, just choose BoardArea once more and point out the complete board. Be sure to always select an area which will match the screen aspect ratio, otherwise a circle on the board will become an oval on the screen. Note: Some digitizer boards are not screen sized, like the square 12" model. This must be set up so you don't use a flat area in the top and bottom of the board, to better match the aspect ratio of the screen. While the reconfiguring is going on, press [Esc] to cancel.

Undo [U]/[Ctrl Z]

Undo strokes etc. Press again for multiple undos

Undo what you just did. With regards to drawing lines, there are multiple levels of undo, which means you can step back line after line in the creation of your drawing.

Note: The undo function is restricted to changes on the frames and does not cover cutout transformations, deletion or creation of frames, or the like.

Redo [Shift U]/[Shift Ctrl Z]

Redo, what was undone

Redo what you just undid. That is, get back what was undone by using Undo. By pressing [Shift U] several times you can step forward in the creation of your drawing after using the multiple Undo.

Escape [Esc]

Escape from, or cancel, a process

Hit [Esc] to break a process or function running. When holding a cutout, Escape will drop it again. Escape [Esc] is also used to cancel a function, which is waiting for an answer at the promptline.

Setup [F10]

Use the Setup Screen to customise the interface for your needs

To go to the Setup screen, use this function or it's equivalent in the top Messagebar (the screw driver image). The Setup screen is the place to go, when you want to reconfigure and customize the PAP user interface. Drag the functions you need to the Toolbar, the 4 User Windows, or the Marking Menu. The point is to leave out all functions you don't use and sit back with collections of your favourite functions, making the interface very simple and easy to use.

Note: When you have an icon picked up, you can get rid of it simply by tapping down at a blank area of the screen.

About [F11]
Display various info, including web-links and RAM usage

Brings up information about the software and hardware, RAM usage etc.

Minimize [Alt Tab]
Minimize PAP and return to Windows

Exit PAP [F12]/[Alt F4]
Leave Plastic Animation Paper, without saving

Leave Plastic Animation Paper (PAP). A requester pops up asking you to confirm leaving PAP. Click Yes or press [Y] to exit. Remember to save your work before exiting. In the pop-up box, you can also choose to not save the current configuration. By default, it is saved.