STORY PLANNER:
The Storyboard CURRICULUM

CURRICULUM GUIDE OVERVIEW

MODULES PLAN

Module 1
INTRODUCTION TO STORYBOARD

Module 2
UNDERSTANDING CAMERA SHOTS (Cinematography -part 1)
explains the types of camera shots and the way to use it according to different situations, actions, characters. Activities are based on the use of camera tool in Story Planner.

Activity: Use sample 2*a* and try to choose the right camera size and position in order to re-create shots.

Module 3
EDITING SCENES (Cinematography -part 2)
explains the method used for getting from one scene to another. Activities are based on using editing timeline in Story Planner.

Activity: Use sample 3a to edit and to add transition to the scenes as shown into the animatic.

Module 4
DIALOGUE AND ADDITIONAL NOTES
explain how to select and insert dialogue, descriptions and notes from the script. Activities are based on the use of captions and interactive symbols in Story Planner.

Activity: Use sample 4a to create a sequence using additional notes.

Module 5
START SKETCHING
Explains how to create drawings starting from a blank frame. Activities are based on using drawing tools in Story Planner.

Activity: Use sample 5a to train yourself using drawing tools.

Module 6
SCENE PLANNING AND ANIMATION
explain how to set the layout of elements of the scene in order to focus the attention of the audience in what important is about the shot . Activities are based in managing and animating layers and camera in Story Planner.

Activity: Use sample 6a, 6b and 6c to train yourself on layer animation.

Module 7
RE-USE TECHNIQUES
explains how to re-use a single scene or a single drawing got from a storyboard, in order to create a new sequence. Activities are based on using selection in Story Planner.

Activity: Use sample 7a and train yourself in re-using drawings.

Module 8

TIMING STORYBOARDS AND ADD SOUND

explain how to get the right timing for a scene using some tips or adding a sound guide.
Activities are based in setting timecode and using timeline in Story Planner.

Activity: Use sample 8a to create a short animatic using audio clips.

Module 9

explains different ways for numbering storyboard pages. Activities are based in settings types of numeration, inserting new panels and changing the sequence in Story Planner.

Module 10

FINAL WORK: EXPORTING STORYBOARDS AND ANIMATIC

explain how to select the right format to produce Storyboards and Animatic.
Activities are based in organized layout pages and exported features in Story Planner.

-About Story Planner

**Digital Video S.p.a.** is a company leader in cartoon animation applications.

Based in Rome, Italy, Digital Video has made the development of the *Toonz* software package, a tool dedicated to the broadcast quality animation.

Many years of experience developing tools for animators were completed by release a brand new desktop tool that storyboard artist can learn and use to produce high-quality storyboards.

The new application, **Story Planner and Story Planner PRO**, is a tool for creating storyboards with graphical and textual information, and generating animatics with soundtrack and animations.

Students of animation and storyboarding, trained on Story Planner, will find out an easy way to start a transition from traditional to digital studio environment using a powerful tool.

Image note: Story Planner interface
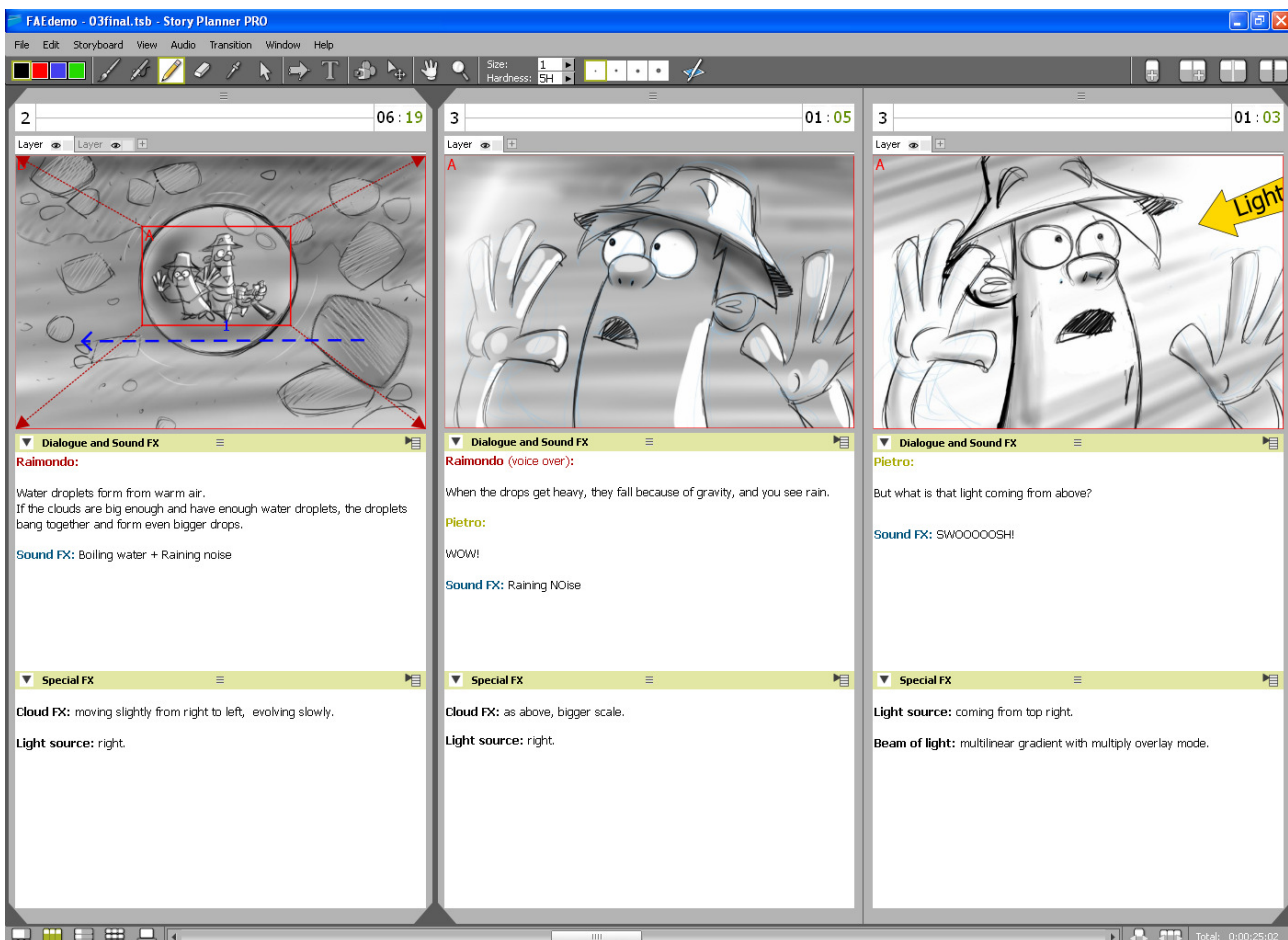
-Curriculum Contents and Aims

The Story Planner Curriculum is a basic course of storyboard for teachers and students.
It is organized in ten modules blending storyboard and cinematography knowledges with practical activities using Story Planner.

The Story Planner Curriculum is not meant to teach you how to use Story Planner; it is meant to guide you through the process of production of storyboards with the help of a dedicated tool which speeds up this process making it really accessible.

To help you understand the modules and have a deeper approach to the activities with Story Planner, we suggest to consult often the Story Planner User-guide (Adobe Acrobat Reader required) that you can find browsing the CD-ROM into User Guide folder.

Clearly, after this training, you or your students will not be professional storyboard artists.
However, you will know more about storyboarding and pre-production process with the possibility to put down projects and ideas and share it with production companies.

Modules Structure

Each module in this curriculum follows the previous one in order to provide a way to get insight the argument acquiring instructions step by step.

Instructions should be employed in activities based on material created with and for Story Planner.

The difficulty of the exercise is gradual, as well, and we suggest to consult the Story Planner User Guide during the activities, to better utilize the software features.

Each Module contains:

- Theory lecture
- Images and TIPS
- Activities with training materials

The **Story Planner Curriculum** is based on the following modules:

Module **1**. "Introduction to Storyboard"

Module **2** "Understanding Camera Shots" (Cinematography -part 1)

Module **3** "Editing Scenes" (Cinematography -part 2)

Module **4** "Dialogue and Additional Notes"

Module **5** "Start Sketching"

Module **6** "Scene Planning and Animation"

Module **7** "Re-use Techniques "

Module **8** "Timing Storyboard and Add Sound"

Module **9** "Organize Panels"

Module **10** "Final Work: Exporting Storyboard and Animatic"

Module 1
INTRODUCTION TO STORYBOARD

1.1 What Is a Storyboard?
A storyboard is usually a sequence of paper pages representing the first visual version of a project.
The storyboard tells the story using series of still pictures, usually key drawings. It is made directly from the script but not all the projects are made from the beginning of the script: indeed, it's quite common to select a good action scene or one with special effects with the aim to use it as trailer to promote the project.

The storyboard panels graphically plan each shot, each scene of each sequence, indicating timing, dialogue, camera movements, sound and it is particularly helpful when you have to describe special effects, which might be more complex in each and every project.

Storyboard also allows to take experimentation and to realize mistakes before it's too late, otherwise quite often when producing storyboards, discrepancies are detected from the script and correction can be made. A line in a script cannot express mood or emotion in the same way as a storyboard can.

Although the characters of the storyboard should be easily recognizable, it's not often necessary to realize the final model drawings.

A good storyboard is characterized by a good use of scene transitions (e.g. fades, dissolutions, etc..) and a good positioning of background and props as well (staging).

1.2 How Are Storyboards Used?

Live action and feature length animation films, TV series, advertisements and computer games are the main fields where you get a storyboard to start the production and these are the applications that we want to analyze deeply in this curriculum.

There are also other activities in which storyboards are a very powerful planning tool: let's take a closer look at this:

- A guide for media producers where storyboards help to produce the media you want to or envision;

- A lesson planning tool in which storyboards should be constructed to include every aspect and element of your training program like words to be spoken, pictures or graphs to be shown, videos to be played, questions to be asked; you can also break the program into "natural" sections such introduction, overview, topics;

- As the basis for preparing Internal Proposals, where storyboards allow you to develop detailed training plans and project costs. Costs must be approved by upper management.

1.3 Storyboarding and Pre-Production

There are different ways to produce a storyboard. Now we'll show you some of the stages using a very proper formula for the beginners.

The whole project starts with an idea. The idea is referred to as the premise. A premise is the theme of the story and you need to employ the services of a professional scriptwriter to let the premise become something tangible to start a production workflow.

Once the script is ready, the storyboard artist "depends on" the script and has to turn the words into pictures and has to read the script over and over to get an overall idea of the project.

The storyboards themselves are generally drawn on individual panels: the reason is that single images may be taken out and deleted or altered.

Paper formats A4 or A3 are used because they are well known around the world and easy to share.

Usually is convenient to draw the first sketch in tiny thumbnails on a few sheets of paper. The sound guide with the character actors' voices is also useful in order to get the emotions of the character, as written on the script.

EXT. CITY STREET

These details always indicate that a new scene starts

Evey looks up and sees a man standing mostly in shadow.

Cut To: *medium shot with people moving in the background*

Camera instructions are often included

                    EVEY
        Excuse me? Uh... excuse me,
        Mister?

Cut To: *close up and truck in*

The man turns around. It is not V.

                    EVEY

Dialogue is always centered

        Would you like... uh, would you
        like to sleep with me?

Cut To: *extreme close up and truck in*

He smiles.

                    EVEY
        I mean, for money.

Cut To: *close-up of the man*
                    MAN

The character name must accompany the dialogue

        That is the clumsiest bit of
        propositioning I've ever heard.

Cut To: *close up Evey*
                    EVEY
        Oh god, I'm sorry.

Cut To: *over the shoulder including some hair detail of Evey*
                    MAN
        Is this your first time, darling?

Cut To: *close up*
                    EVEY
        Yes, no, I mean for money. But I
        know what you want and I'll do it.

These details describe both actions and feelings

She presses her body to his, using her little girl eyes and her woman's mouth.

1.4 Styles of Storyboard
The storyboard for feature animation is often made with a high level of backgrounds.
In TV series, backgrounds play a second fiddle to the animation and in plenty of cases are very simple.

Storyboard panel design will vary from studio to studio because storyboard artists differ in their preferences.

Image note: Here it is a sample of one way to set the layout panels into a page.

PRODUCTION			TITLE			EPISODE			SEQ.		PAGE	
SCENE N°	TIMING	BKG	SCENE N°	TIMING	BKG	SCENE N°	TIMING	BKG	SCENE N°	TIMING	BKG	

16:9

DIALOGUE

ACTION

SFX NOTES :

The board itself is read from left to right and from the top to the bottom, like a comic.

The cut offs vary between TV and Cinema. They are 1:1.33 for TV, 16:9 for Wide screen and 1:1.85 for cinema.

1.5 Animatics

Mostly in animation and special effects, working storyboards may be used in a following step.
This step is called Animatic and it is a powerful tool to get how the scene will appear with motions, timing and sound tracks.

The animatic is a sequence of still images taken from the storyboard and edited together. Commonly a rough sound guide with dialogue and even some music parts are added to test how pictures and sounds are working effectively together.

Creating animatics means to save time: that's because, at this stage, the animators will avoid to work on scenes which could be edited out of the film. The director also can better preview the elements of every scene like camera positioning and movement, as well, and a new animatic may be created to review it with directors until the sequence will be satisfactory.

In this curriculum you will experiment all these inputs with the help of the software.
Getting the animatic would be really easy and, above all, the result is very powerful respect animatics created with not-dedicated tools.

An animatic, produced with Story Planner, contains all the additional notes that you want to visualize and the camera movements are created and shown automatically by the software, so that the sequence preview will be really fine.

Module 2
UNDERSTANDING CAMERA SHOTS (Cinematography -part 1)

2.1 The Long Shot
It is so called because the camera is far away from the object of interest (characters or props).

This type of shot is the most common one, used when opening a sequence.

Its purpose is to introduce the audience into the geography of the location where the action is happening (for instance inside a room or an entire countryside).

The characters are often unnecessary in these scenes, although you could show a character traveling to a particular location and then cut to a scene when he arrives.

The long shot can be whether still, when the camera is fixed, or pan, when the camera moves; e.g: from left to right.

2.2 The Full Shot

In the Full-shot we see the characters in full figure. In this case you can use this shot for looking at any important action between the characters and show their positions in relation to each other.

TIPS!

When you're drawing your storyboard, don't overuse any shot or scene type. Having all full shots or all medium shots ought to be avoided.

2.3 The Medium Shot

This shot is very common and is taken just a bit higher than the waist. It's overused when characters are in conversation.

TIPS!

Try to vary medium shot of a character to a close-up using the track, to gain the interest of the audience in what characters are talking about.

2.4 The Close up
In the Close-up shot the head of the character, usually the head, has to stay into the shot, leaving just a little space around it in order to watch well the shape of the head itself.

It is used to capture expressions of a character.

It is also used for dialogues and for centralizing the audience's attention on what is affecting the character.

TIPS!
The close-up would usually have a soft-focus background behind it.

2.5 The Extreme Close up
The Extreme close-up is generally applied to characters; usually the shot slightly cuts the chin at the bottom and the forehead to the top.

The shot is used to emphasize the eyes and facial expressions. It is a good choose to show relevant feelings, such as anger, evil, sadness, joy, etc…

The subject of the shot doesn't always have to be a face, of course: extreme shot can be used for a close-up of something held by a hand, for instance.

TIPS!
The Extreme close-up would usually have a color card behind it; the suggestion is to use a single color, matching the background of the scene behind to hook-up the cut.

2.6 Upshot and Downshot

The Downshot is generally used to indicate that the character is weak and powerless

The Upshot is the opposite: with this shot the character appears strong and powerful.

Directors could use this shot to strengthen the characteristics of the character in that particular moment; Upshot usually introduces evil characters to increase the sense of fear in the audience.

TIPS!
Try to combine Downshot with other shots, for instance with a long-shot in a situation in which you need to get a sense of isolation.
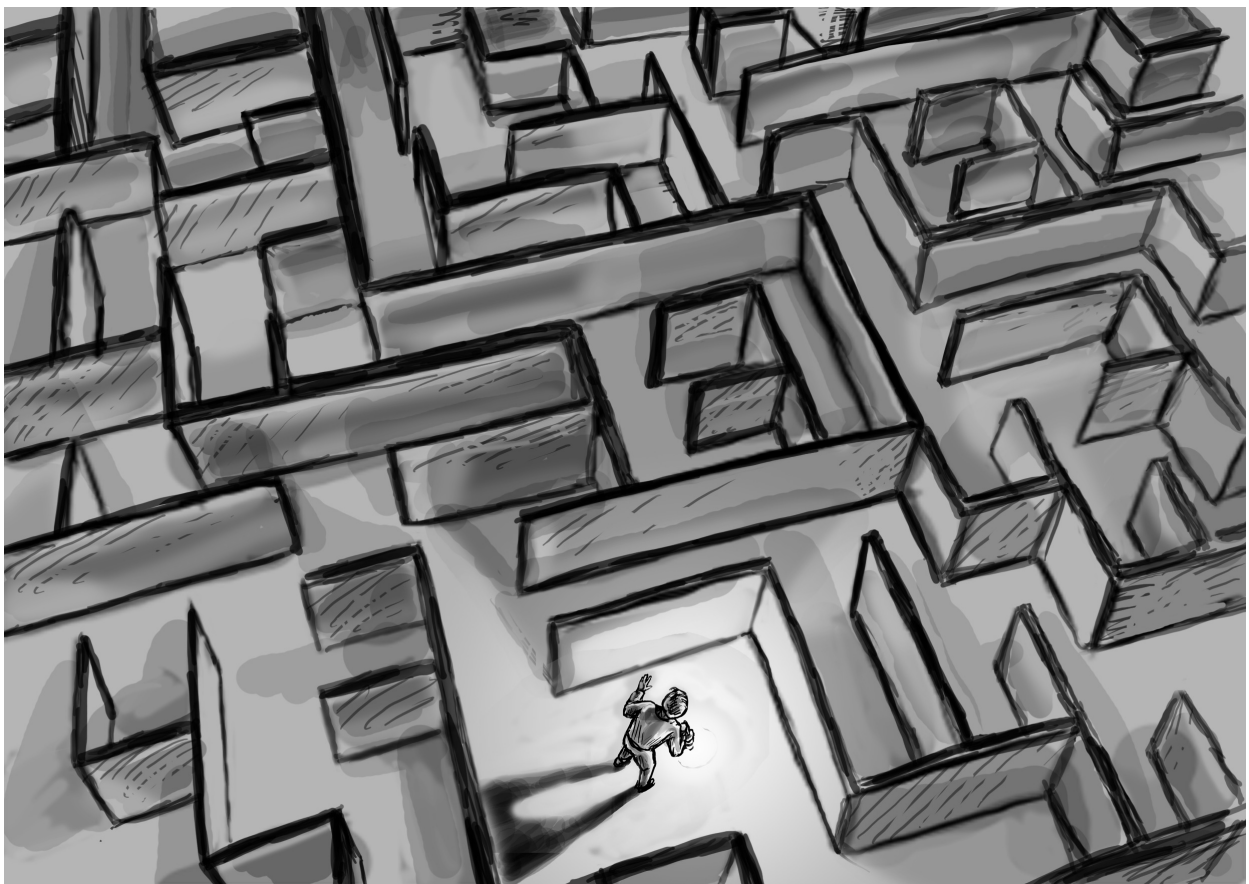
Module 3
EDITING SCENES (Cinematography -part 2)

3.1 Cut to
Here the scenes, quite simply, jump from one image to another.

This is the most common way of getting from one scene to another, and it can be apply to simply change and angle or to change location with different characters.
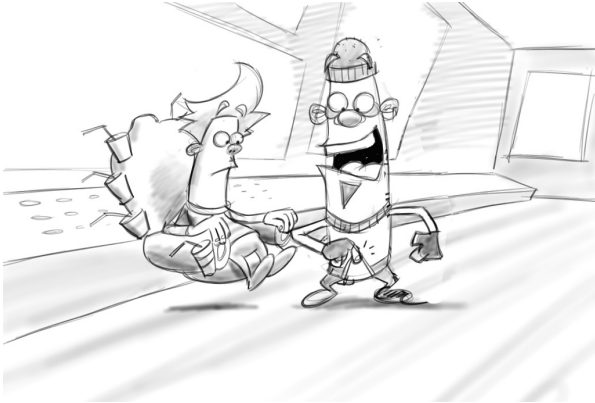
seq 1a

seq 1b

Cut to seq 2

3.2 Fade from / Fade to

This transition is often used at the start or at the end of a sequence. Generally it's done "to black" or "from black". The length of the fade can last as long as you want, basically a 2'00 is reasonably proper.
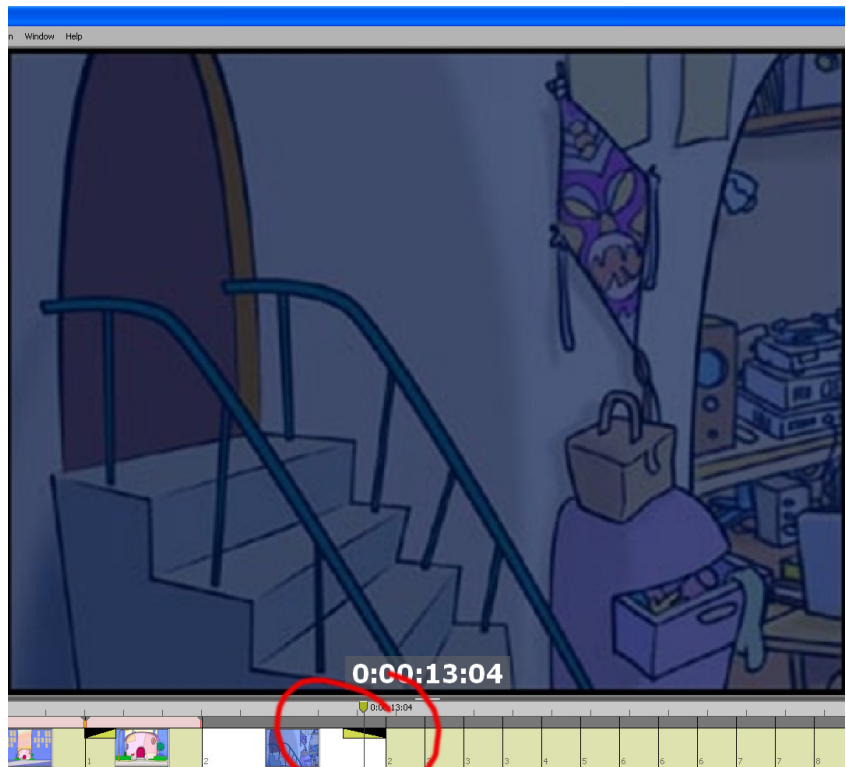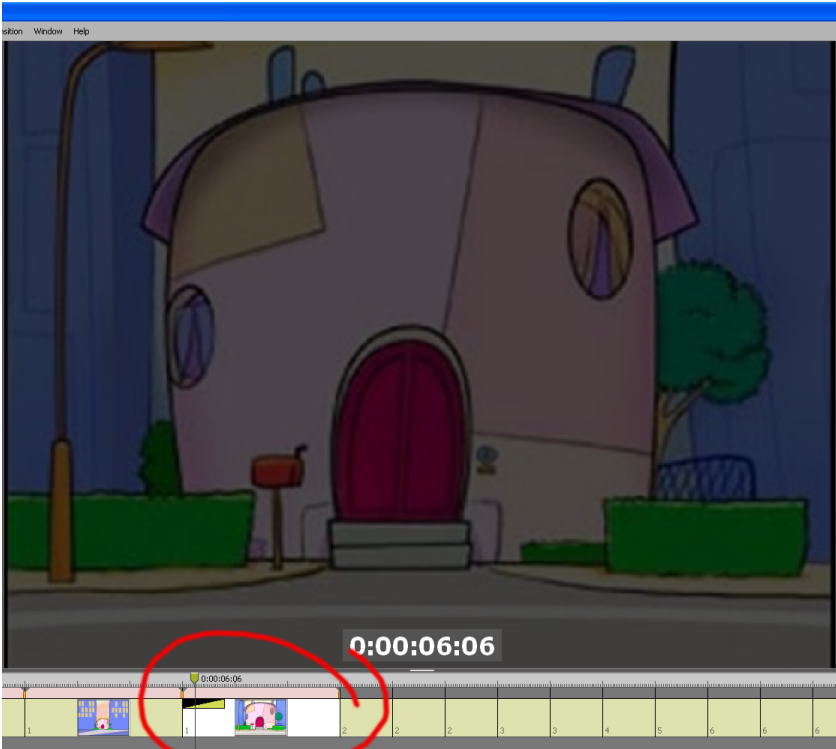
3.3 Cross -Dissolve

Cross-Dissolve are very similar to a fade in because the image gradually disappears; however, as the image of one scene is fading away, the following image is beginning to appear, blending the previous one, as long as you decide.

This transition is commonly used to show the passage of time: e.g., from morning to evening or to introduce a flashback. It can be used also for a day-dream: e.g., a character looks at his toys and visualizes them as living creatures.
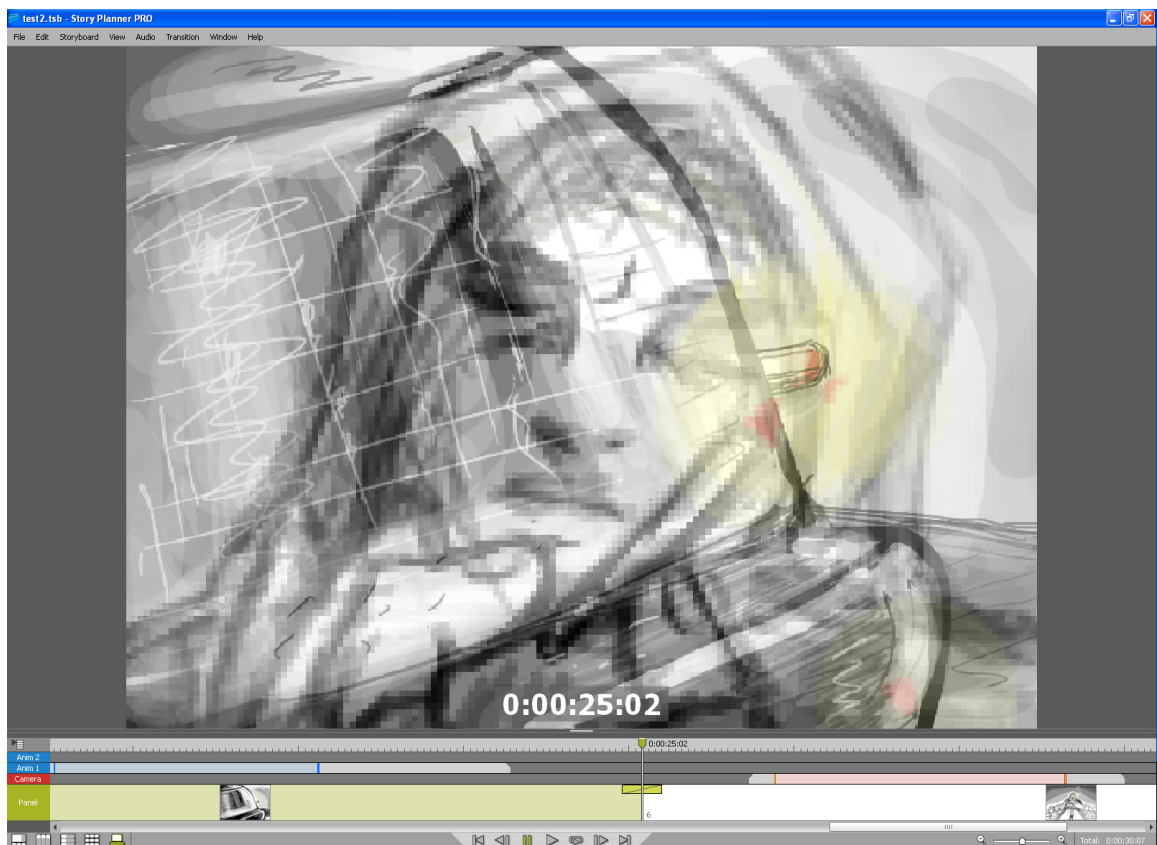
3.4 Match Cut

This word is generally written between two storyboard panels: the reason is that a match cut is where the image or part of the image at the end of one scene is linked at the start of the next one.

A match cut is used, for instance, where we have a long shot and we then cut to a medium shot.
It's really important that all aspects of the scene hook up properly.

If, for example, a character is running in the first scene, you mustn't cut to a scene where the same character is still.
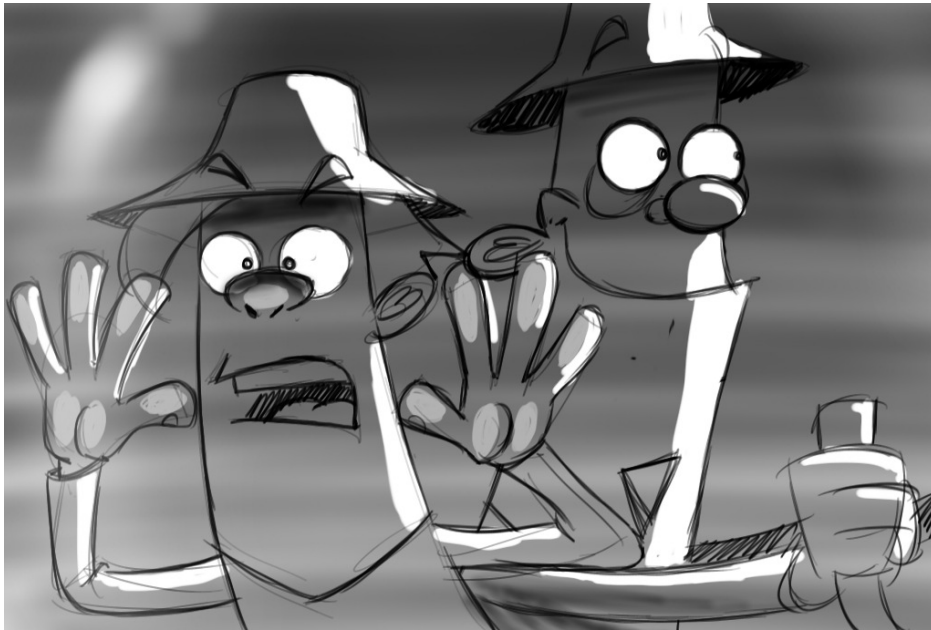
Match cut
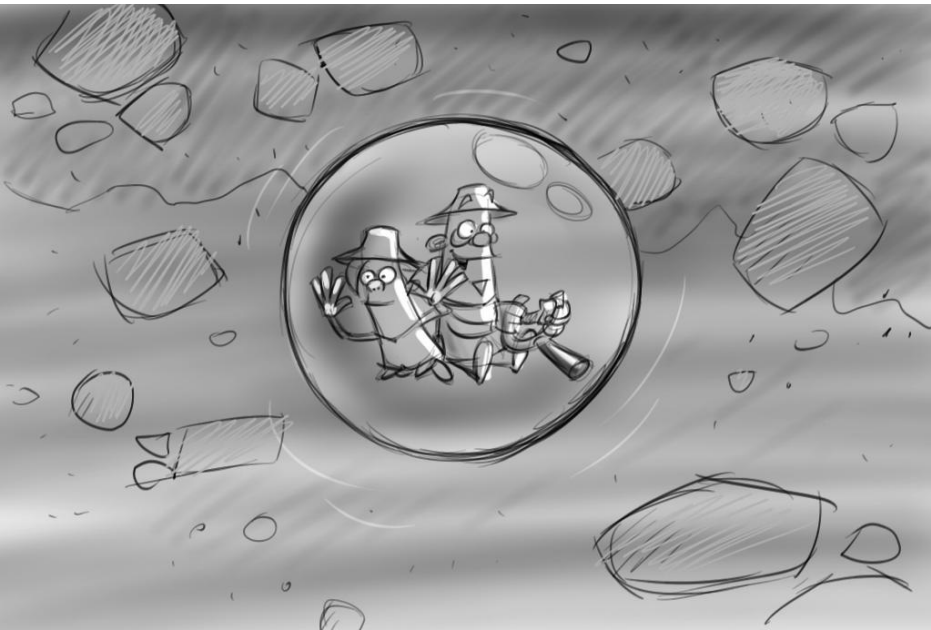
Module 4
DIALOGUE AND ADDITIONAL NOTES

The storyboard should be unambiguous: this is the reason why additional notes are frequently added to ensure clarity for all the other artists who will use them during production. Quite often storyboards are made in one country and animated in another: for this reason communication might not be easy for huge time differences, if you need to contact a studio set in the other part of the world.
Now we'll take a look at some notes that will help you to produce a "universal" storyboard.

4.1 Dialogue
It is a part of the overall storyboard panel; using this term, "dialogue," we cover also monologues or a narration like a voice-over or a character talking off the screen. If a character is speaking, but not seen on screen, then the initials O.S. (off screen) are written after his name. If the scene is being narrated, the initial V.O. (voice over) is typed after the name.
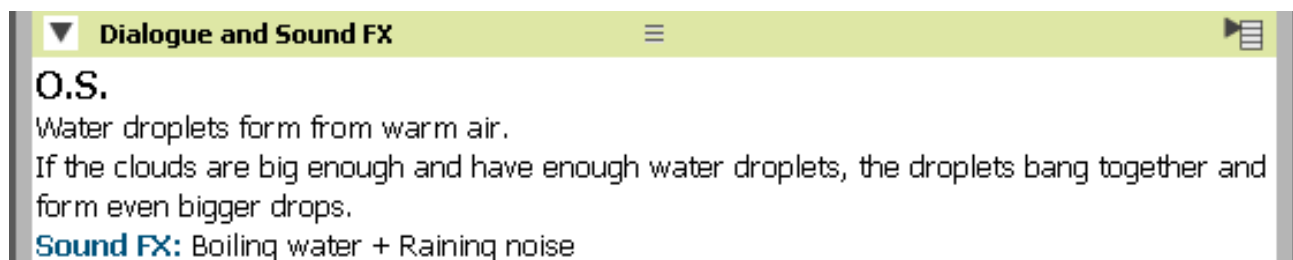
Also the name of the character who is speaking must be indicated. In this case the line of dialogue should be appear like this:
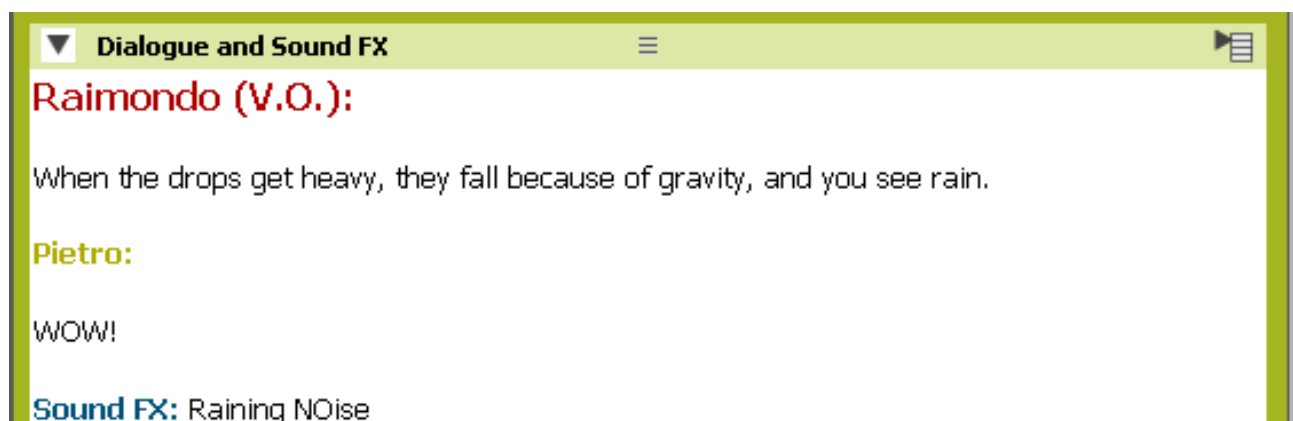
4.2 Camera Indications

If you have some scenes with camera movements, you have probably drawn the camera shape into the panels as in the image below:
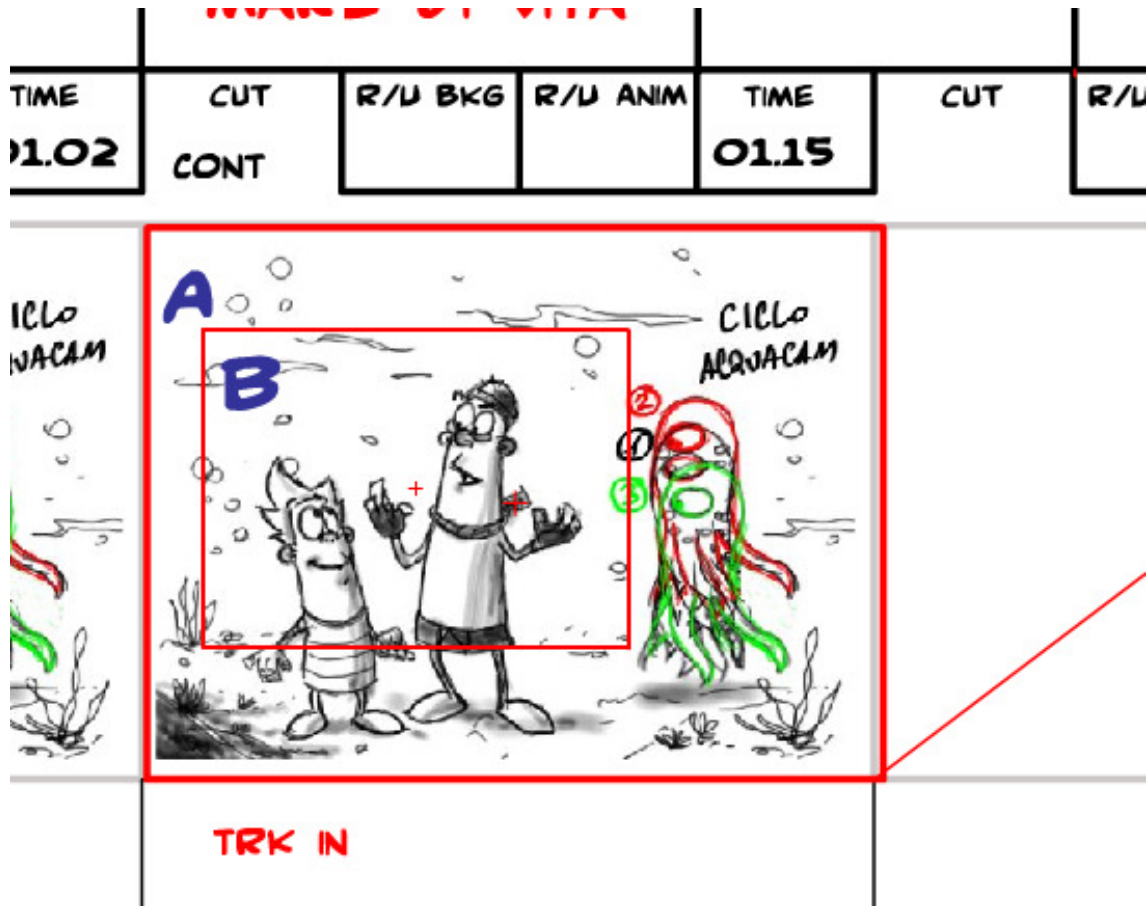
But you also have to type some notes which help to avoid some misunderstanding about the kind of movement to be done.

To visualize a movement, you need to draw two cameras, representing the start point and the end point of transition.

To better do this, it's good to put a letter to name the cameras: the starting position will be marked as "A" and the end position with "B". You can go on if you have more cameras...

PAN indicates that the camera moves across the picture plane: pans are vertical, horizontal and also diagonal.

Also some arrows should be added to be certain that the direction is well shown.
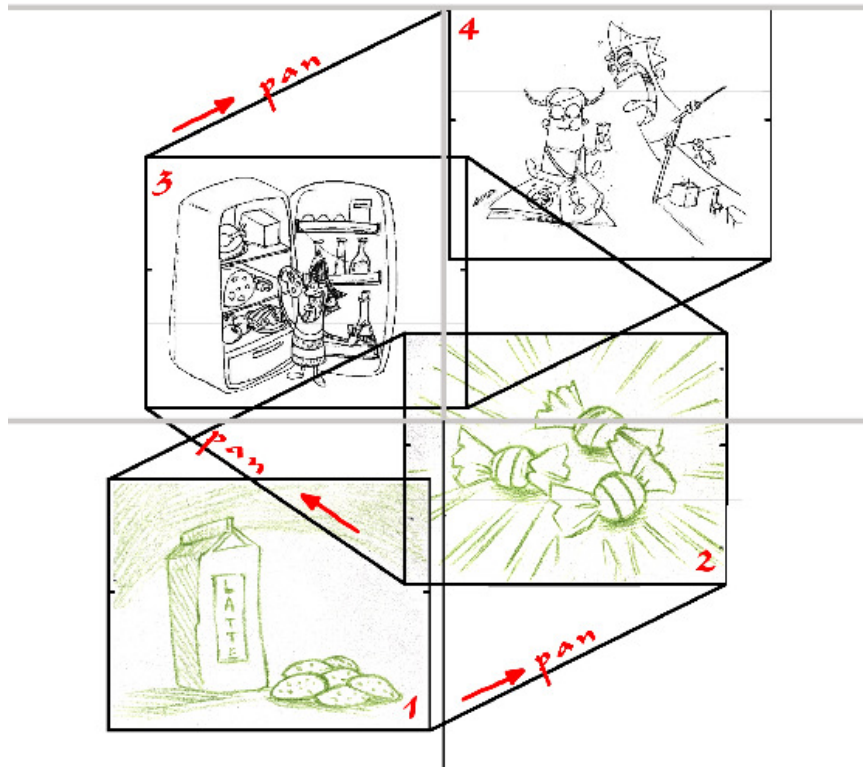
The additional note in the panel will appear as this formula: PAN from A to B.

This formula is applied to other camera movements very common when storyboarding a feature film or TV series.

A TRUCK IN indicates when you want to move the camera in order to focus well something on the scene. In this case the note into the panel will be: TRUCK IN from A to B.
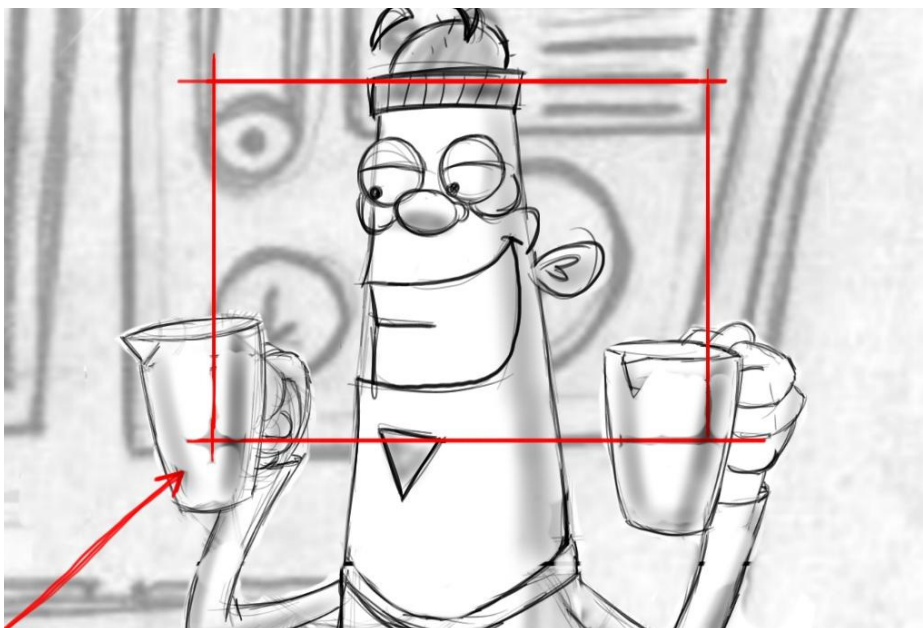
TIPS!
This movement gradually includes the audience into the scene without any feelings of intrusion if you use it slowly. A fast TRUCK IN will increase excitement, particularly when there's danger involved.

The inverse, TRUCK OUT, indicates when you start the shot from a detail and then go to a medium shot to find out the overall scene.
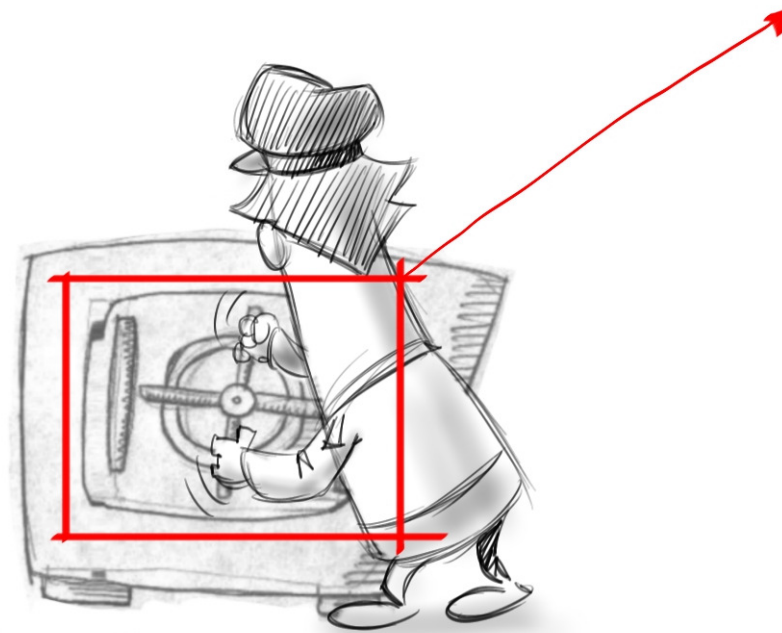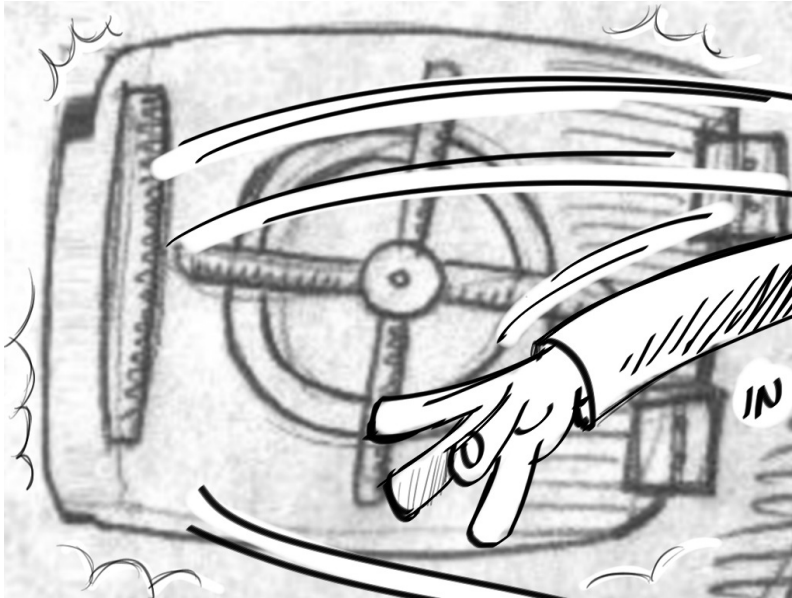
4.3 In and out

Storyboard panels should indicate key positions, the first, last and possibly also a key pose in-between.

The reason is that, without this accompanying notes, the animator will animate the character from the position shown on panels assuming that, when we cut to the next scene, the character is already on-screen in that position.

The storyboard artist should accompany key positions by notes and an arrow labelled "IN" if the character walks on in the first panel, or "OUT" if the character walks off the screen.
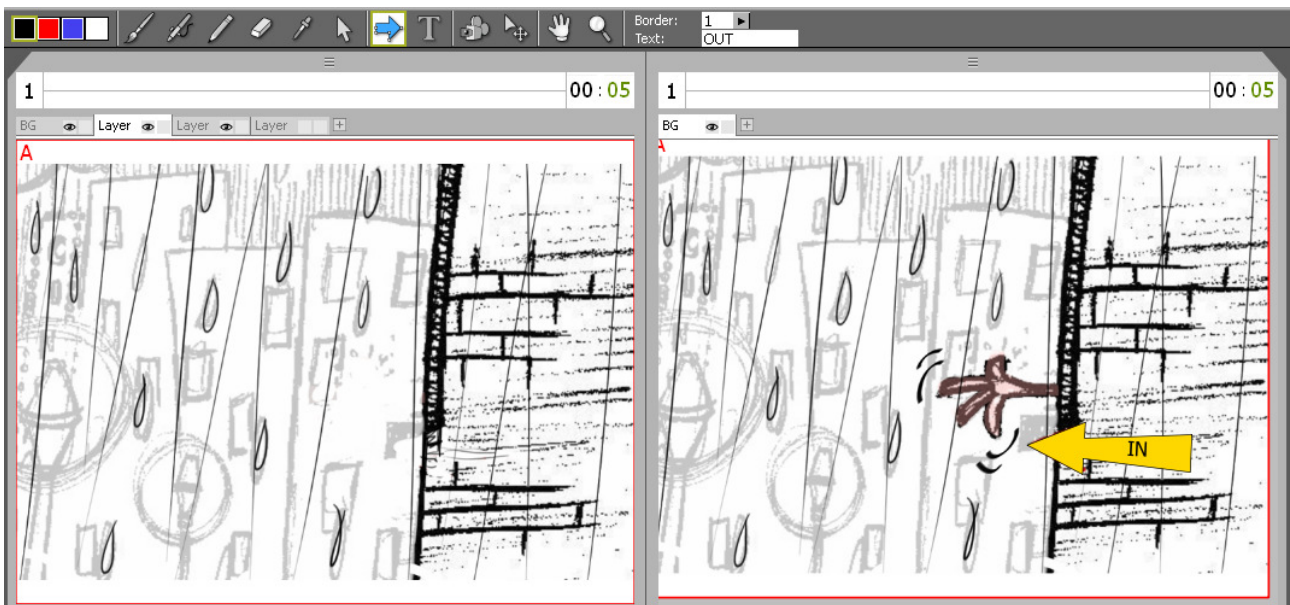
These notes can be used also for props and overlay, as well.
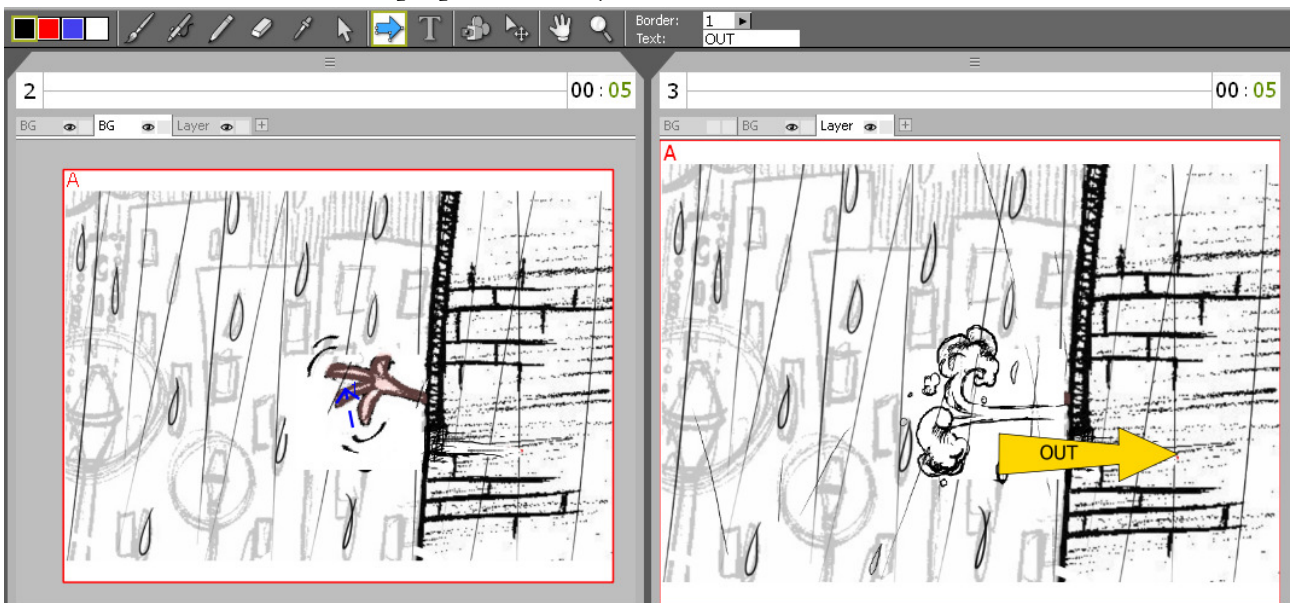
Module 5
START SKETCHING

5.1 Drawing Tools
Until dedicated softwares, the storyboard artist used to have simple tools inside his pocket:
a two color pencil, a rubber, a stencil.

Story Planner allows storyboard artist to choose different types of drawing tools.

These tools are pencil, which can be defined by setting size and hardness, brush, airbrush and eraser that can be defined by setting size and opacity.
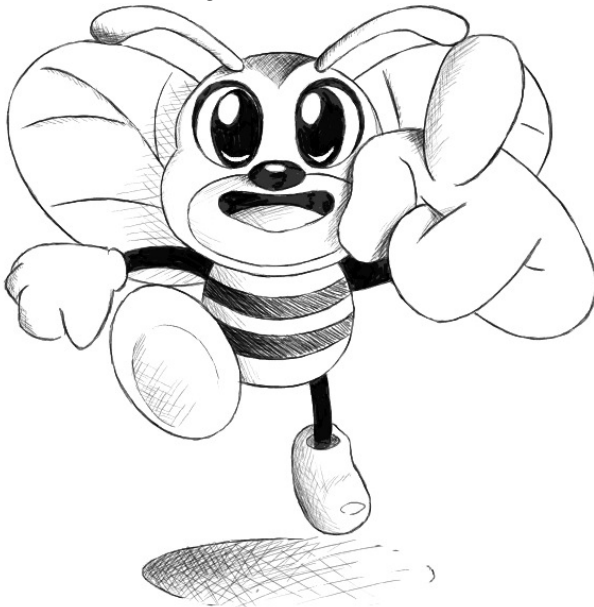
With the help of a graphic tablet, the tool size will be affected by pressure sensitivity, so that the line appears more familiar at the designer.
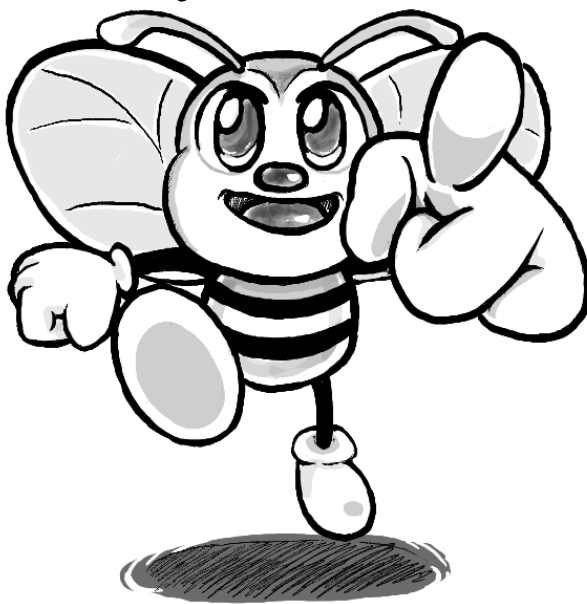
Pressure sensitivity can be switched on or off when drawing with a tablet.

5.2 From Rough to Final Sketch

Now it's time to start using drawing tools and draw something...
Starting with pencil could be a good way to begin a rough drawing.
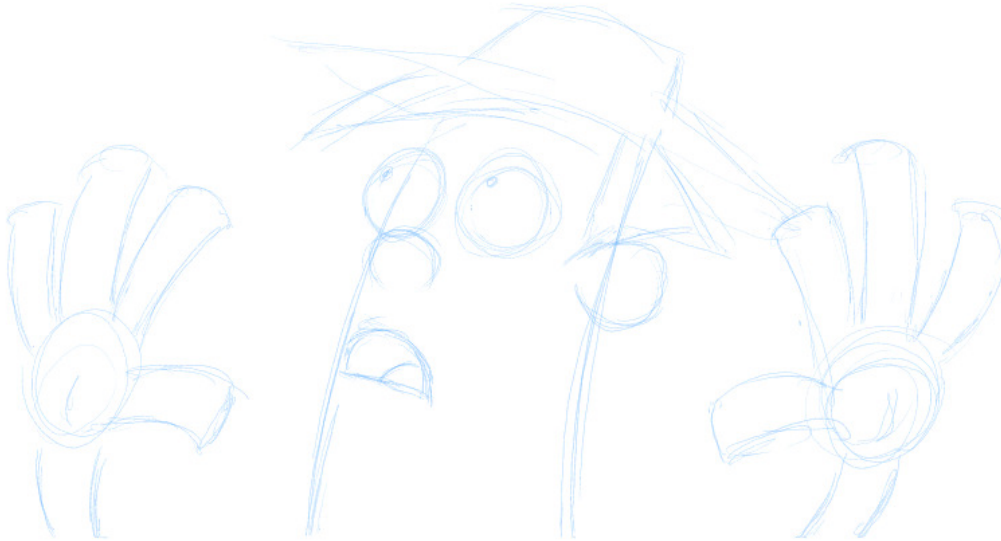
After the rough version is completed, Story Planner allows you to retrace shapes into a different layer; in this case, using a brush, the line will be thicker and the drawing will appear clearer.

5.3 Create Shades

Shades indicate how light "dresses" the scene.

The storyboard artist should draw shades in order to give information to ink-and-paint artists and animators, as well. Also the director needs a shades preview.

Shades are really important to avoid remaking.

With the help of a layer and the airbrush tool, it is possible to add shades and perspective indications to the scene using Story Planner.

TIPS!
Change the opacity value of airbrush in Story Planner to better represent the kind of light in the current scene.
Use one or more layers to draw shades in different styles and colors.

Module 6
SCENE PLANNING AND ANIMATION

6.1 Staging
Staging is pretty much about the composition of the scene. It is the area in animation where we take particular attention to the placement of the characters who are immersed in the environment.

The storyboard artist will have greatly considered the staging elements of the scene. The whole point of staging is that the characters have somewhere to perform.

Also the camera angle that you choose will add to the drama and mood of the scene.
Part of success in staging depends on how quickly the audience sees what is being portrayed.

Images note: Here an example of bad staging. As you can see, the three characters are too close to each other and the trunk of the tree covers them up; besides, the left part of the shot is almost empty.
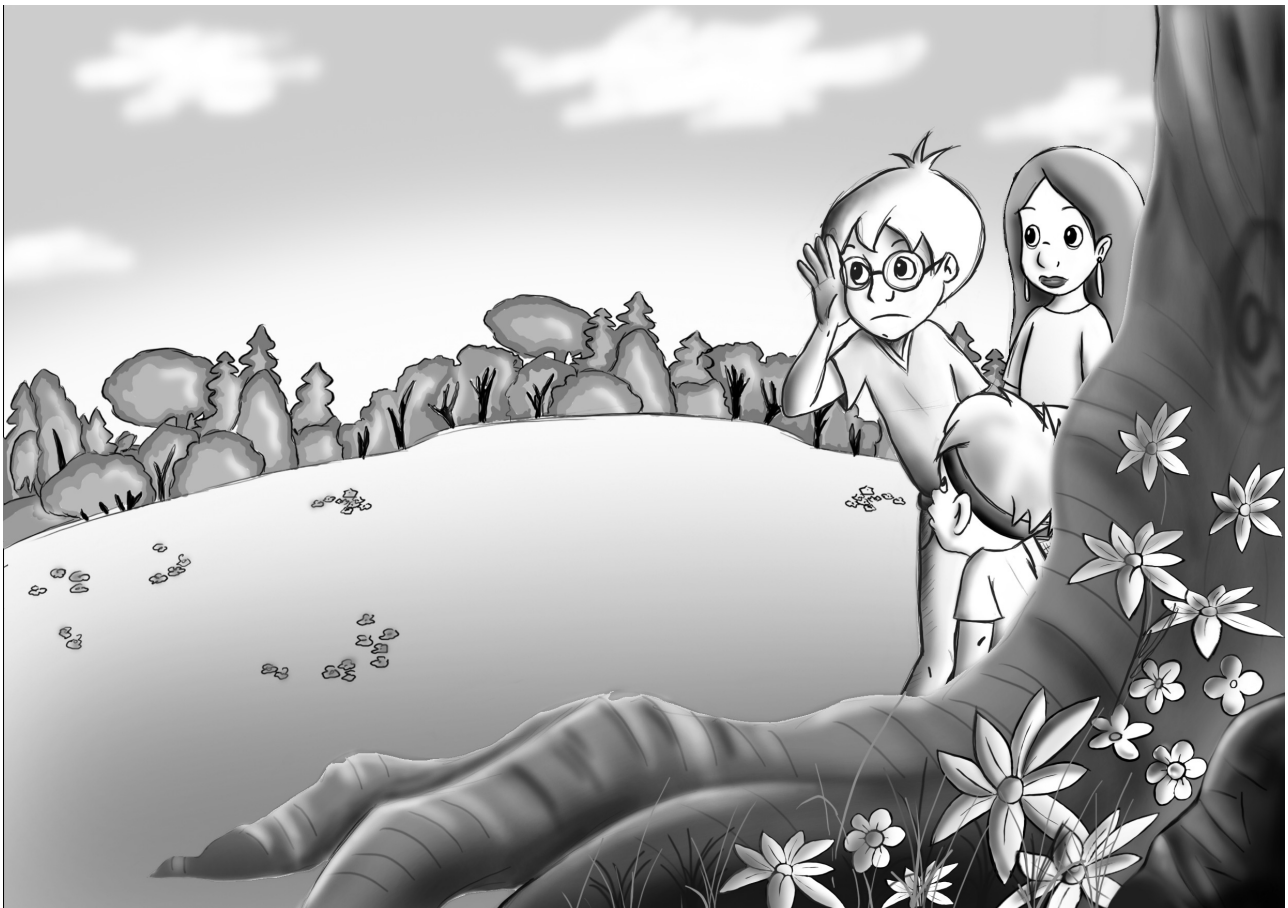
Images note: The image below shows us how the scene elements can be positioned following a good staging: indeed, the center of the shot is now well focused and the trunk of the tree helps to attract the attention to the action…
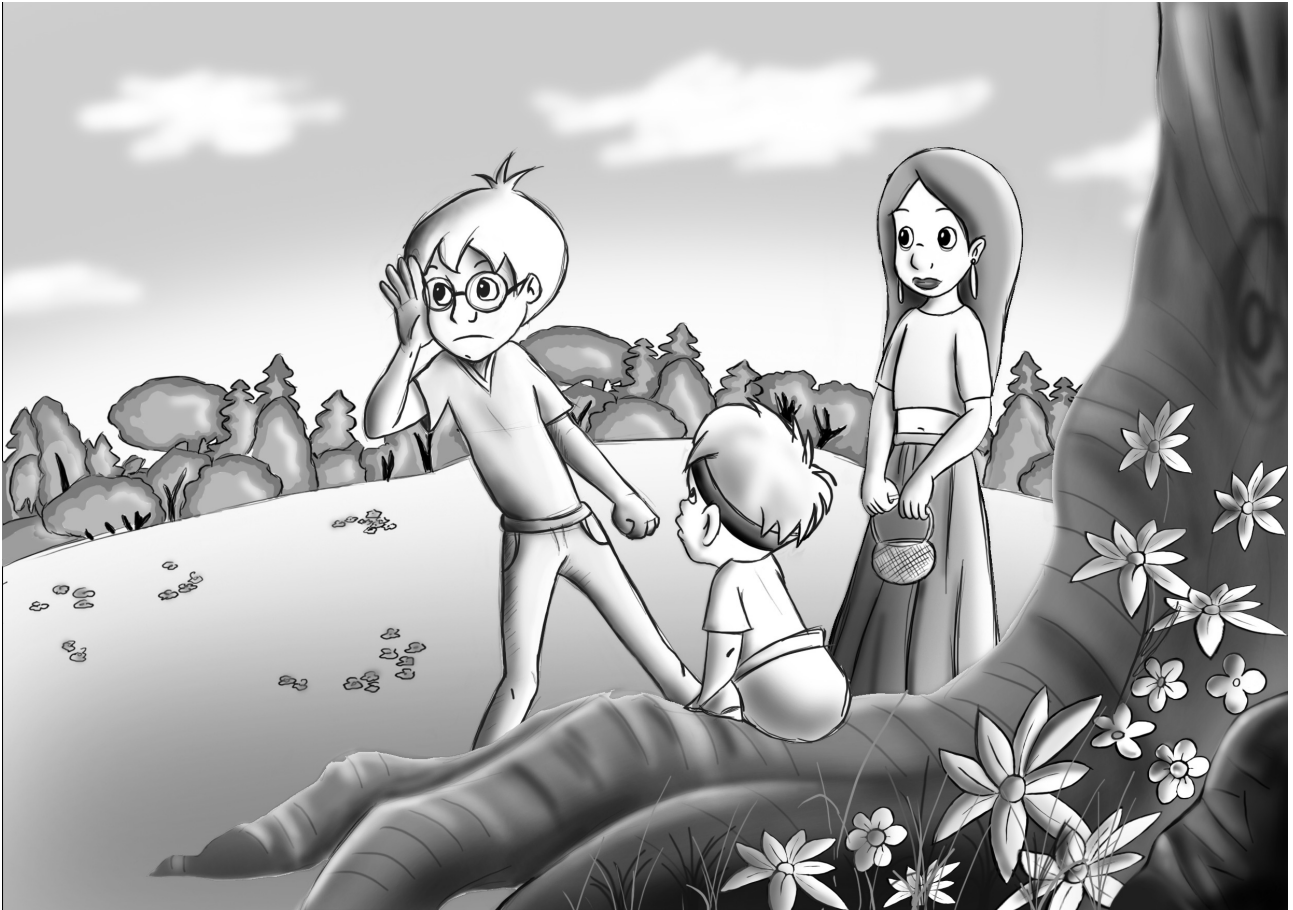
6.2 Overlay and Multiplane

Layers are powerful drawing features which help the storyboard artist to create detailed scenes.
With layers you can add depth to the backgrounds using Overlay.

Overlay is frequently part of the background that is set overall the scene's elements; this helps to focus well the attention of the audience to the action point.

Adding a movement to overlay is a good way to emphasize the action and let the audience go inside the scene.
You can create movement in Story Planner using the edit tool after you have drawn the overlay.

Here you can see a background without overlay:

Now we add some overlay elements to the scene:

6.3 Camera Movements

Working with dedicated software allows to get camera indications and movements as well.

With Story Planner you can set Camera dimension, resolution and aspect ratio; these pieces of information are set in order to generate animatic.
To indicate movements, you have only to retrace a second camera box using the camera tool.
The camera box will be automatically named with label "B" (by default every panels have one camera box named "A") furthermore arrows, connecting the camera boxes corners, tell the direction of the movement.

When generating an animatic, the defined camera shot will be used to expose the sketch; if a camera movement is defined, the camera will be automatically animated between the starting position, that will be used at the beginning of the panel exposure, and the ending position, visible at the end.
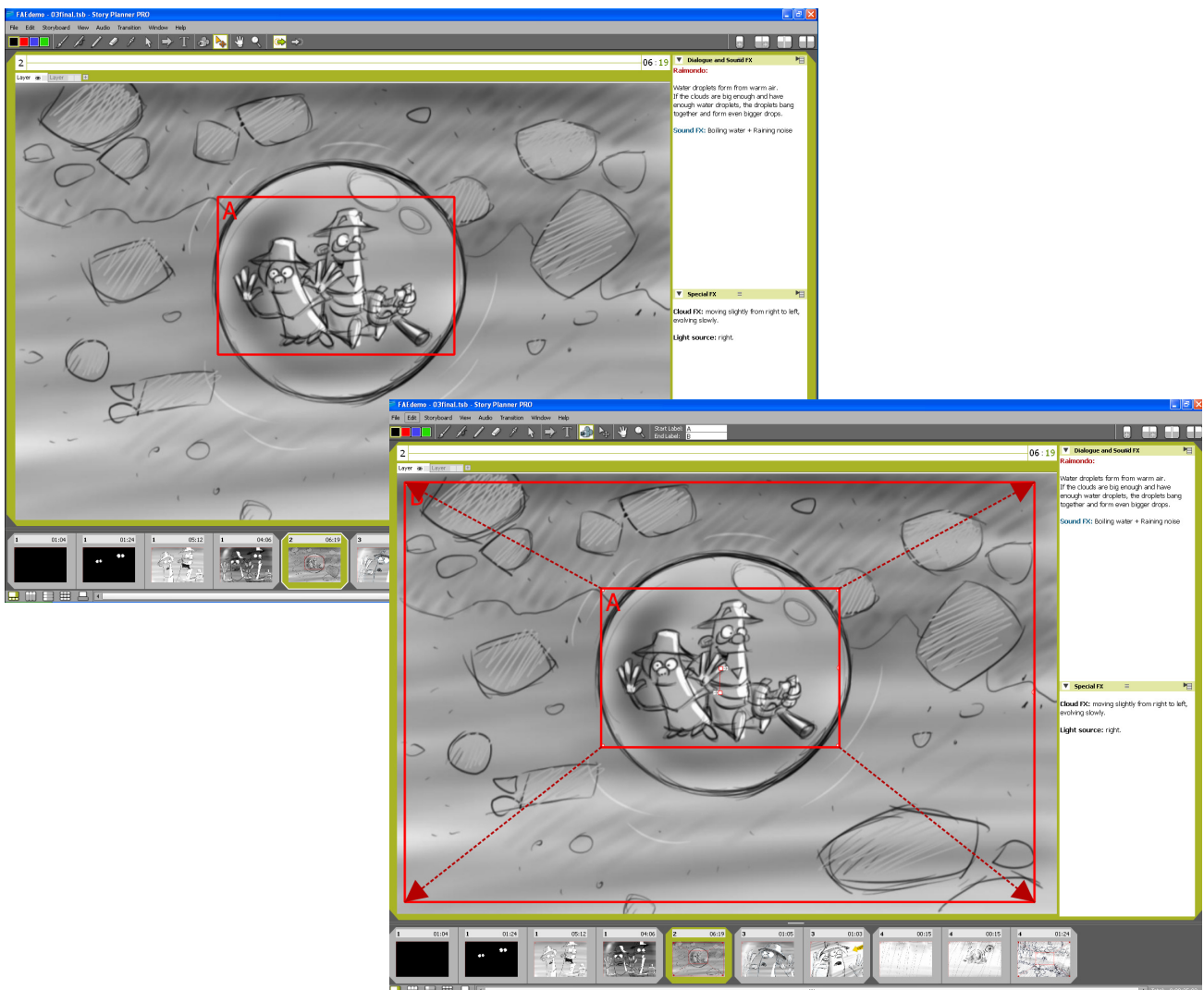
TIPS!
To see the camera movement you don't have to generate the animatic: just use the preview of single panel to check it.

6.4 Animate Elements

Story Planner allows the storyboard artist to create movements, animating the layers. The animation will be exported and shown into animatic.

Characters and props, drawn in separated layers, can be animated by setting different starting and ending points, using the edit tool.

Let's have a look at some of the cases in which this could be very helpful:
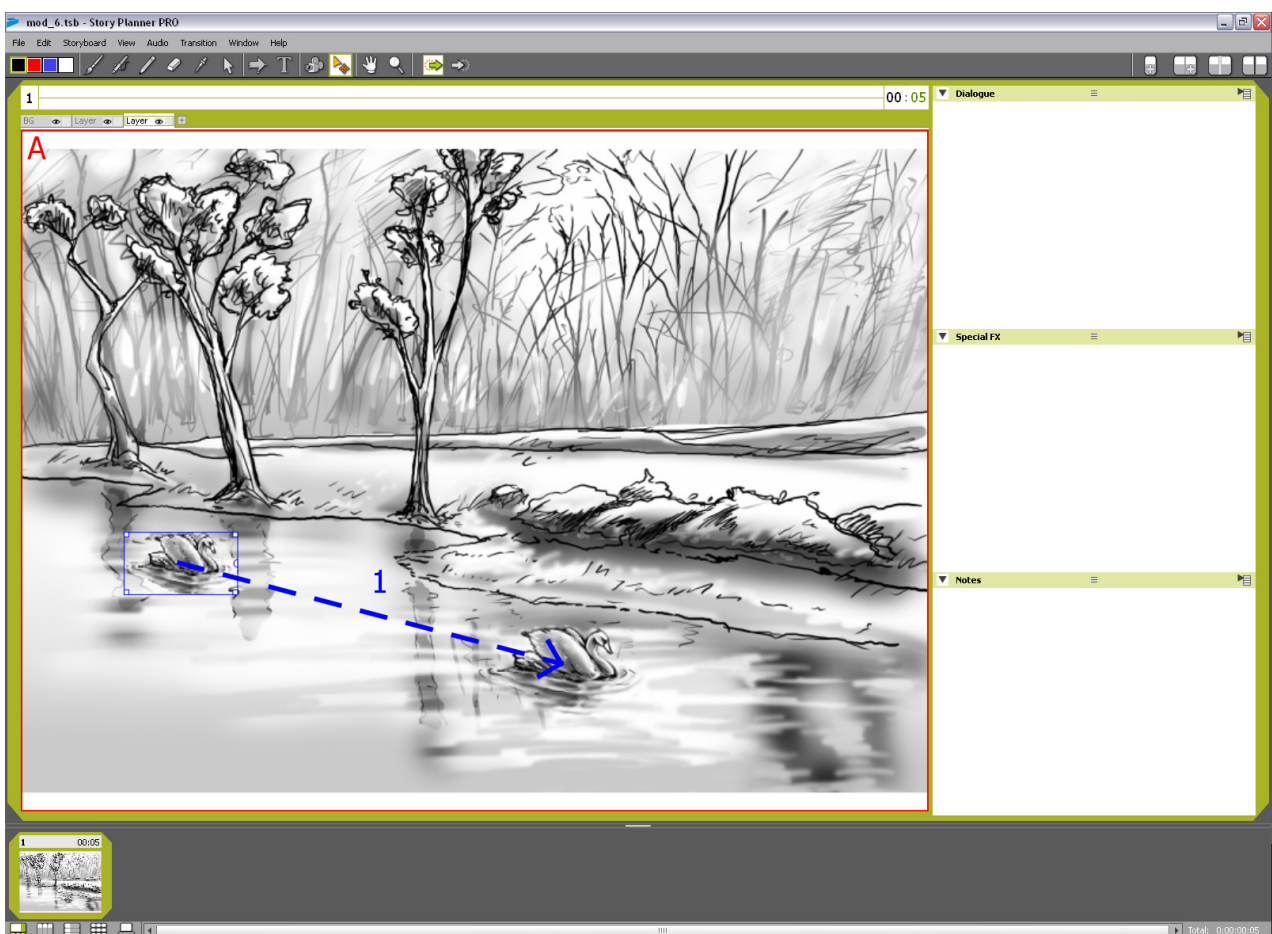
Module 7
RE-USE TECHNIQUES

7.1 Selection Tips

It is very common in every fields of animation to re-use artwork.

The most common re-use in animation is the running and walking cycle. Storyboard artist very often re-uses backgrounds but Story Planner gives several other possibilities of re-using drawings.

With the selection tool you can transform, move, rotate and scale a selected drawing. It is possible to select an area by defining a rectangular, freehand or polyline selection.

The selection is displayed with a bounding box with handles which allow you to perform some transformations;

7.2 Re-use Characters

It is common for a storyboard artist to draw the main character several times in different positions (from the back, over the shoulders, profile, etc…) and situations (seated, lain down, etc...).

In this case Story Planner helps you to re-use the same drawing in the current storyboard or for the next one.

Let's see an example:

Module 8
TIMING STORYBOARDS AND ADD SOUND

8.1 Timing for TV Series, Movies, Computer Games, Commercial Breaks
The average feature length animated movies last between one hour and ten minutes and one hour and twenty minutes.
Computer games last as long as the player wants to. An episode from a TV series lasts anything from 5 to 26 minutes; commercial breaks bring this up to half an hour.

The storyboard artist must take care when inserting commercial breaks; the last action before break has to leave the audience wanting more.

Timing storyboard in Story Planner is very easy. Once you have created panels, just insert a time value at the right corner of the panel box. The time value will be shown in the printable version (see module 10) and will played in animatic.
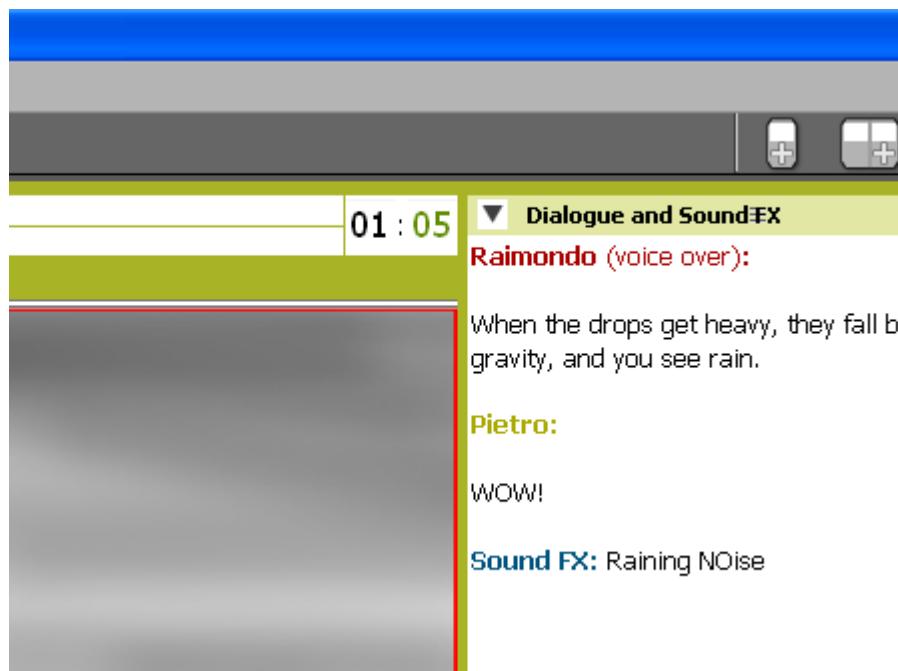
Very often, there will be scenes without dialogue; in this case, using Story Planner, you can playback the entire sequence or a single scene by going in the timeline and check the timing of your scenes.

Just click the ending of the panel in the panel track and drag to set a new duration.
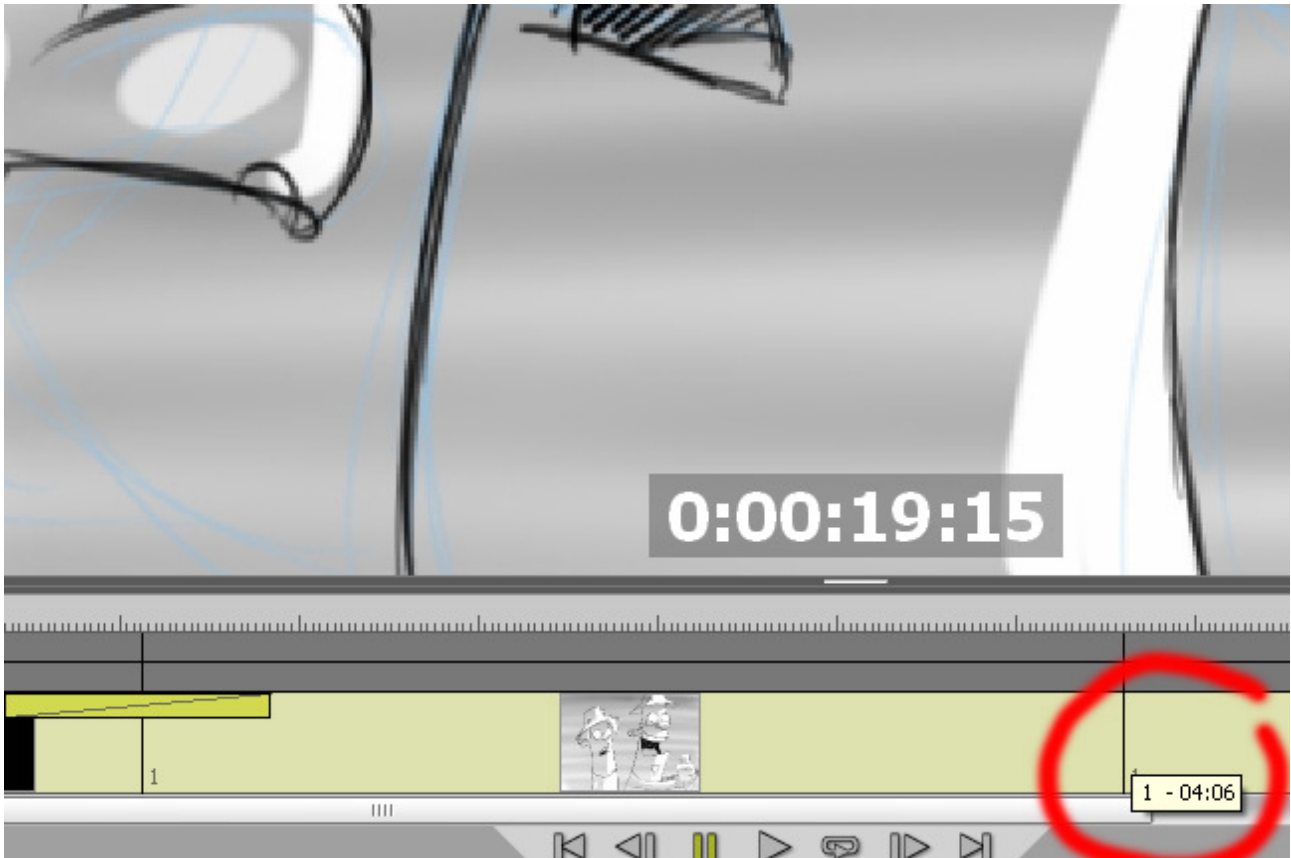
8.2 Editing Sound

If the character voice has been recorded and split in sequences, this would give the storyboard artist the timing for the length of those particular scenes.

Using Story Planner you can add the audio clips and the sound-track into the time-line, and playback the scenes with the sound to check the synchronization, so that it'll be easier to follow the duration.

Once loaded, the clips are displayed with a series of visible sound waves to make the editing job easier.
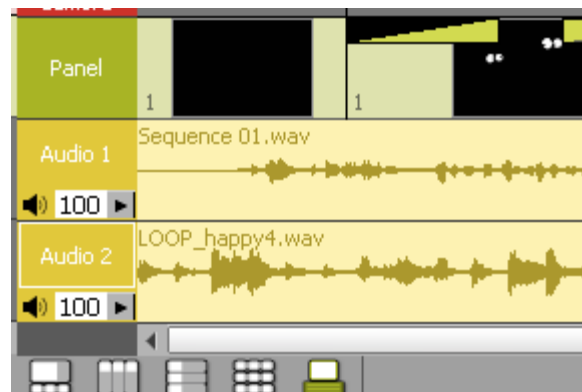
Clips can be moved into the track or to a different one and can be trimmed, selecting a part of the whole clip. They can also be edited or duplicated by using the standard Edit menu command, or split into more clips.

Module 9
ORGANIZE PANELS

Each page of the storyboard should be numbered in numerical order and additional pages (that are added often during production to solve errors) can have letters added if necessary.

Some scenes can have one or more panels to expose the action.
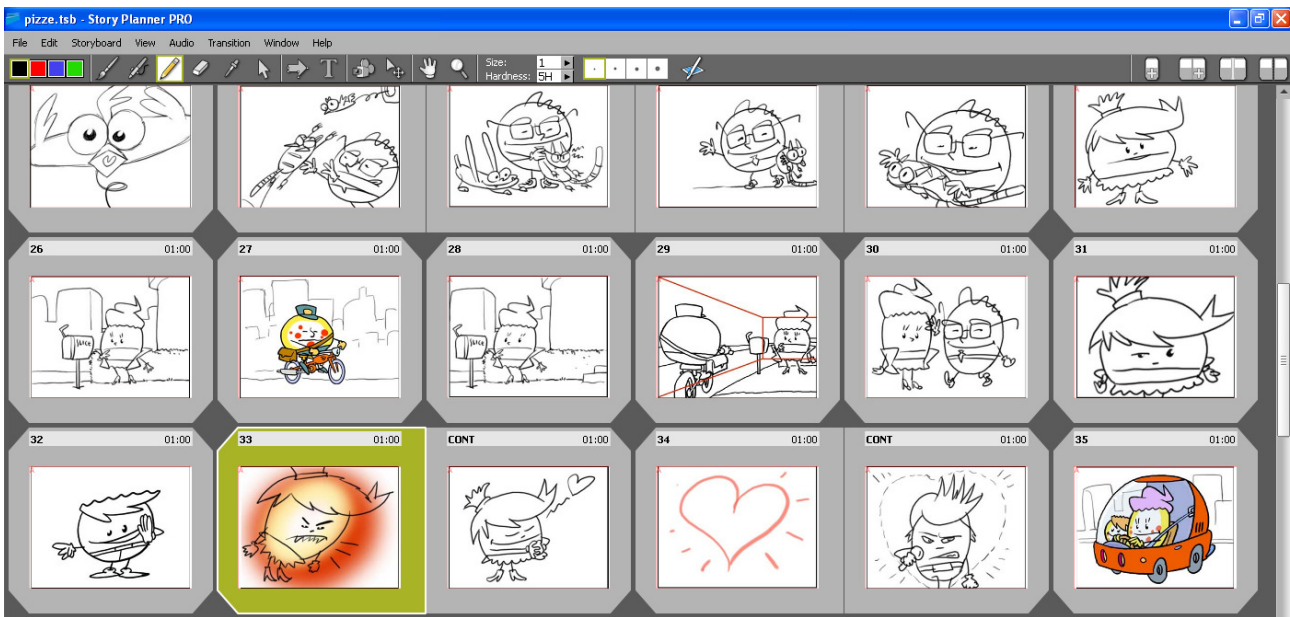In this case, a common way for numbering the panels, is using the notes "cont."
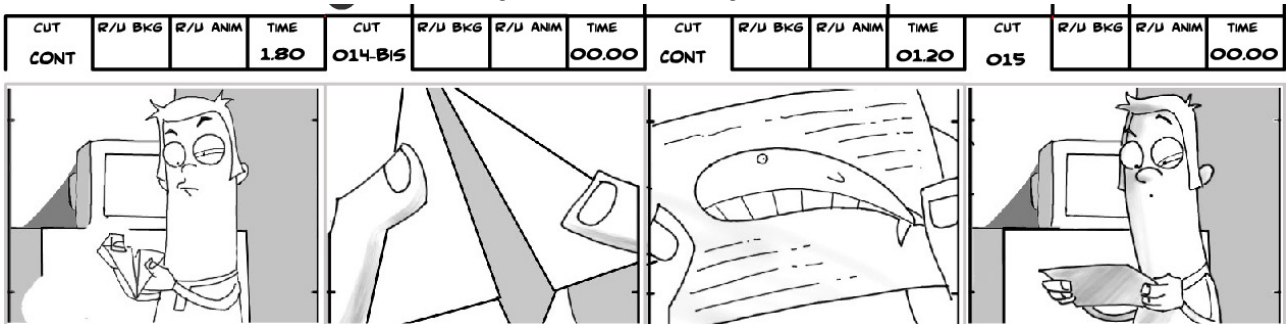
This happens when storyboard artists use sheets of paper (above); Story Planner numbering is automatically generated when you draw in a new panel (below):
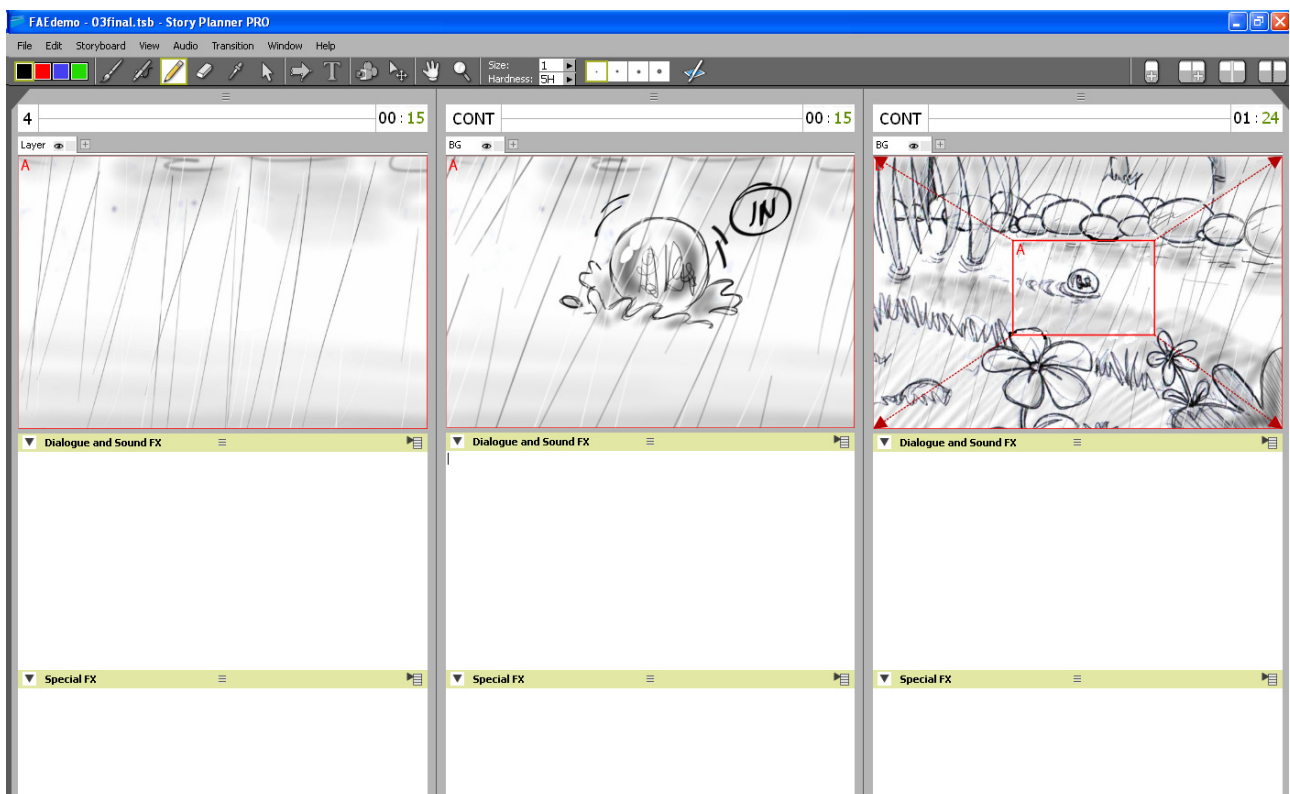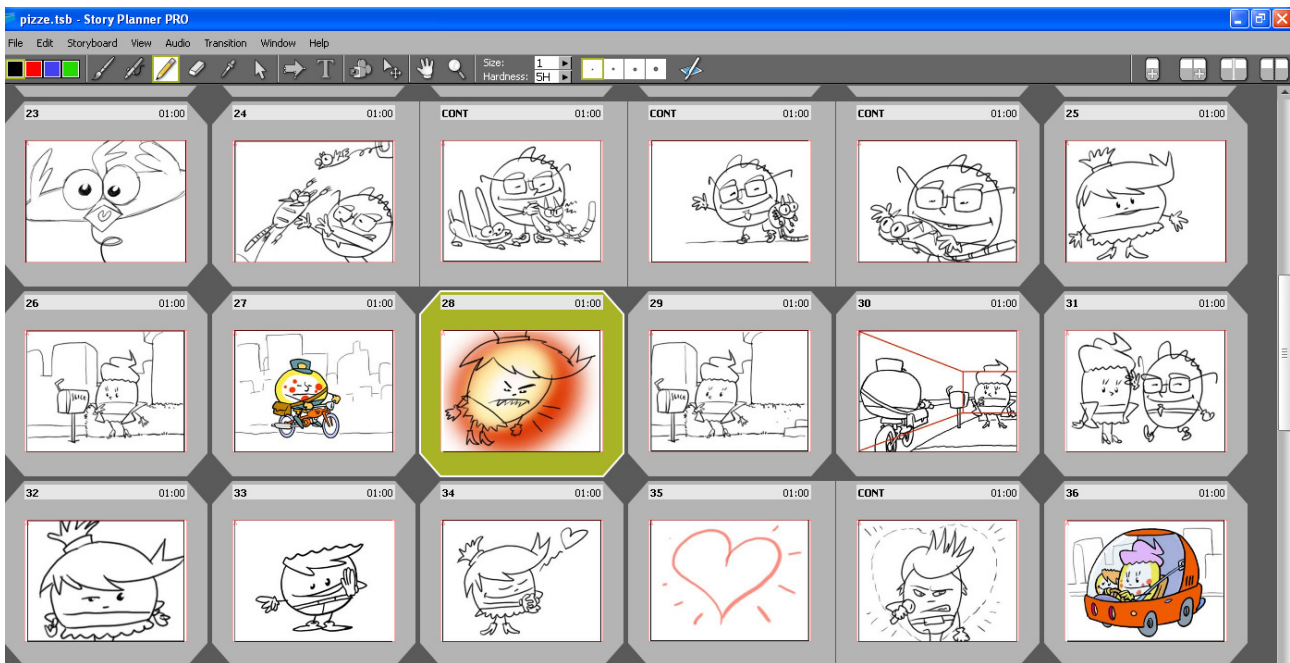
The storyboard artist can choose some different ways for numbering the panels, according to the animation studio and other production partners.
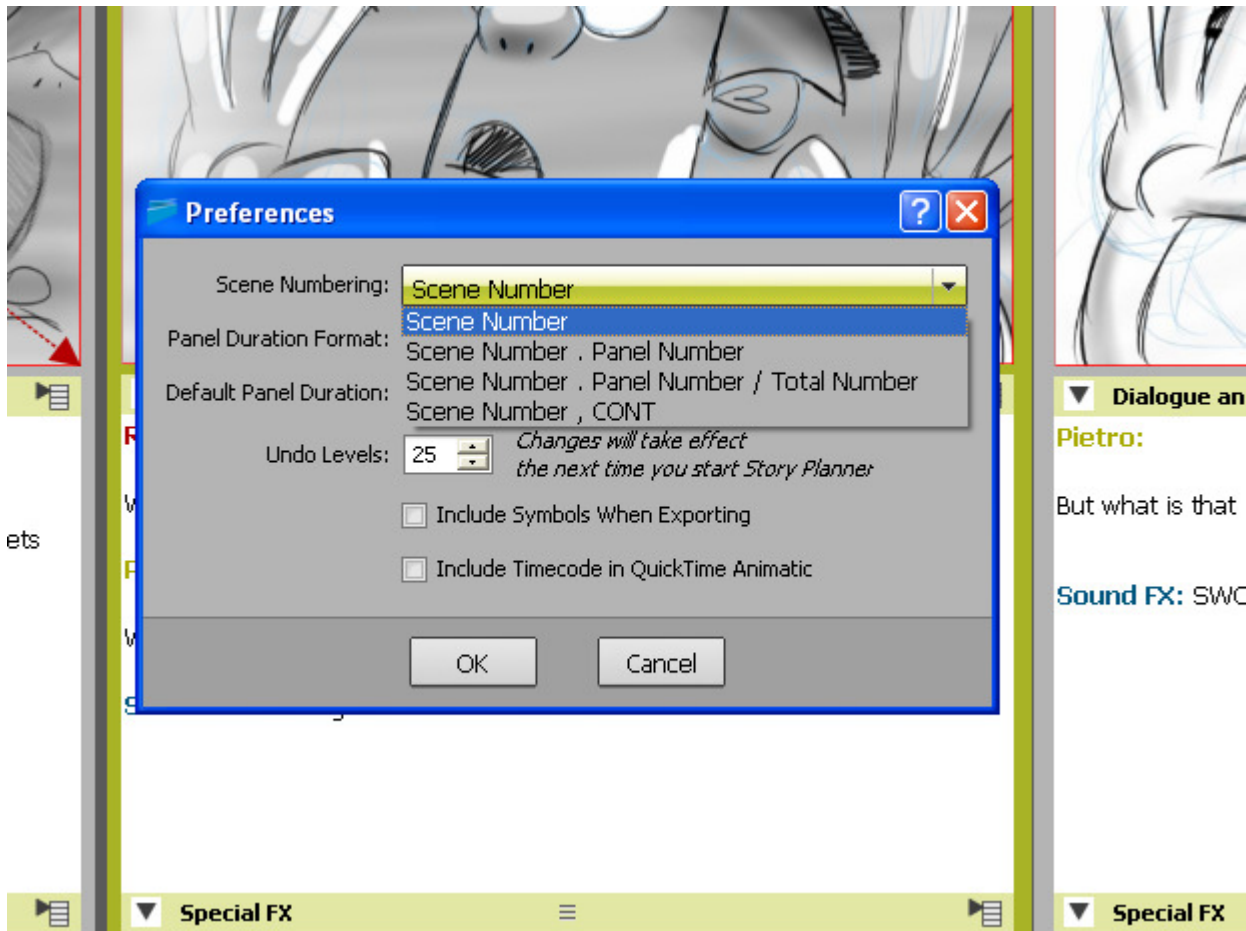
Using the thumbnail view lets you organize the sequence of the storyboard by dragging a panel to a new position:


Story Planner re-numbers automatically the panels according to the new position:

Module 10
FINAL WORK: EXPORTING STORYBOARD AND ANIMATIC

10.1 Storyboard

In the module 1.4 we saw a common storyboard page layout.

With Story Planner you can decide the way to set layout pages once you have drawn all the scenes of you storyboard.

Also you can customize the layout composing the template, you can choose the page format, and define the size and the position of all the storyboard elements.

After the layout template is done, it is possible to create a PDF file to get a printable version of the storyboard.

10.2 Export Animatic

Another feature of Story Planner is the possibility to export animatic (see module 1.5), in order to create a video sequence of the storyboard scenes.

Animatic can be generated with or without audio track in Quicktime (.mov) or Flash (.swf) formats.
Also sketches can be exported as image files.
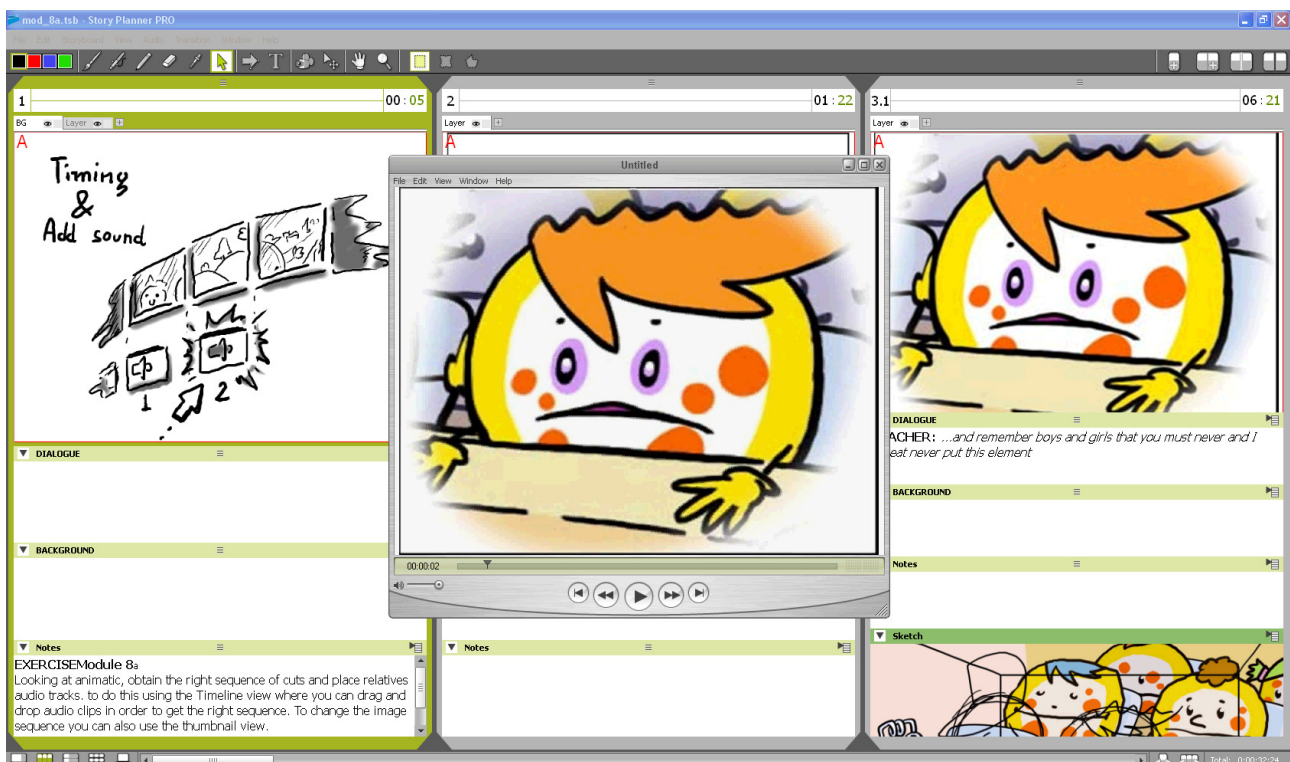
When realizing an animatic, a clip is generated where each sketch is exposed according to the camera shot and the timing specified in each panel.

All the camera and layer animations, and set transitions will be included.

Audio tracks will be merged, each one with its set volume, and included to form the animatic sound track.