

SOUNDCOOL WORKSHOP:

“TINTÍN AND THE SECRET OF THE UNICORN”

1 Introduction

This workshop presents an adaptation of the Tintín comic *“The secret of the Unicorn”*.

This workshop was developed by the Soundcool team to illustrate our active and collaborative methodology based on STEAM education, combining competencies in Science, Technology, Engineering, Arts and Mathematics. We also explore various aspects of audiovisual communication. The different competencies are reflected in Soundcool as follows: [slide 2]

- **Science, Technology, Engineering and Mathematics** → Using the Soundcool system, connecting audio and video modules to perform audio and video processing, working with wifi and using mobile phones and tablets to control audio and video, and sound design for the story/play/film or novel.
- **Arts** → music, literature, drawing, set design, etc. are all involved in creating and telling a multimedia story.

[slide 3] The goal of this workshop is that, once completed, participants will be able to use Soundcool in many situations, because Soundcool encompasses an immense number of possibilities both for students and for professionals.

For this workshop, we have used the first scene of the comic "Tintin and the secret of the Unicorn", and from Soundcool we encourage you to build a multimedia production around this story, giving your imagination free reign. You can make the voices of the characters live or record them, you can add sound effects, you can draw or paint backgrounds as well as use photos from digital libraries, and you can add background music or ambient sounds.

[slide 4] Unless you have time to create everything, you will want to rely on free content. You can find materials at [pexels](#) (videos/images), [unsplash](#) (images), [freesound](#) (sounds), [YouTube](#) and [Vimeo](#) (videos), etc. Often, material on the web is restricted, so you should take care to respect any licenses. Even “free” material may require you credit the creator, refrain from altering the original content, or limit to non-commercial use.

2 Example Project

2.1 Finding a Story

[slide 5] We will use the comic "Tintin and the secret of the Unicorn" as the basis for a story. This comic is not in the public domain, but the example can help you to make your own story using images.

For this workshop, we will develop the first scene from the comic, including a script, music, and images. Let's look at the comic first. Rather than use every frame, we have selected just some essential frames:



2.2 Developing Resources

[slide 6] We want to tell a story with voice, image, music, sound effects, and more. This requires the development of all these elements.

2.2.1 Analyze Scenes

You can divide a story into scenes and ask students to divide into pairs or groups to summarize the scenes. Then, you can put it together to create a synopsis or summary.

1. Choose which actions need a sound or a sound effect.
2. Choose which ambient sound will go in the background, depending on the character, setting, etc.
3. Choose what music fits the scene.
4. Tip: try to take advantage of the same sound for different actions, so you don't have too many sound files to configure.

2.2.2 Search for Sounds

We suggest finding sounds with a free license. You can find many free sounds at <http://soundcool.org/es/downloads> , <https://freesound.org/> *The Creative Commons 0 license allows us to use the sounds without citing the author, other licenses require you to credit the author, and you will find details on the website itself.* Soundcool can be used to record the voices of the characters and narrator, and also to make sound effects, or you can record them at home, or download them from the free sound pages at <http://soundcool.org/en/downloads>, <https://freesound.org/>).

2.2.3 Create a Script

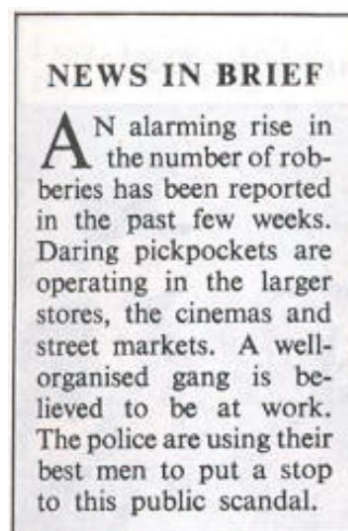
[slide 7] Based on materials, we can develop a script that includes a plan to combine music, images, and voice.

Script from the Soundcool team:

"TINTÍN AND THE SECRET OF THE UNICORN"

- NEWSLETTER MUSIC TOGETHER WITH NEWSPAPER IMAGE.

<https://freesound.org/people/ehohnke/sounds/376306/>



[slide 8]

-TINTÍN WALKING AROUND THE MARKET

happy background music:<https://freesound.org/people/pinkinblue/sounds/425971/>

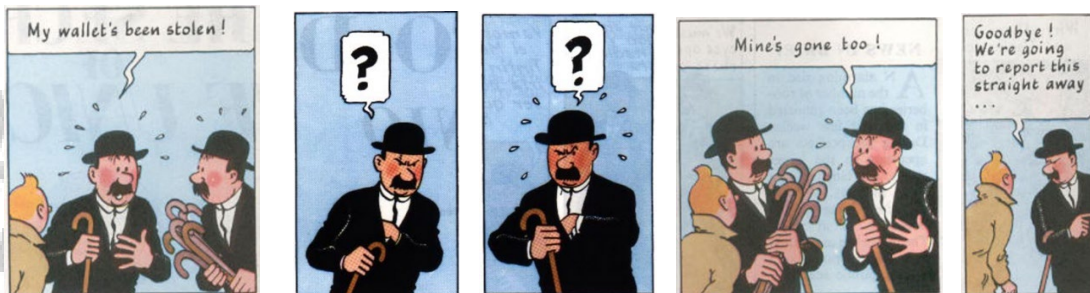
ambient sound of a market: <https://freesound.org/people/SevaRandeep/sounds/98478/>



- TINTÍN MEETS THE BROTHERS HERNÁNDEZ AND FERNÁNDEZ, who have had their wallets STOLEN.

Hernández:<https://freesound.org/people/Jagadamba/sounds/254384/>

Fernández: <https://freesound.org/people/onerasmpz/sounds/371807/>



TO BE CONTINUED!!!!!!!!!!!!!!

2.3 Implementation with Soundcool

[slide 9] For this workshop, we will use a very basic configuration of Soundcool to play sounds and display images. Soundcool is very flexible and has many other possibilities, but we will keep it simple for now.

[slide 10] **This Project uses both the visual and audio parts of Soundcool.** Participants can record appropriate sound effects, the narrator and characters' voices using the Record module. Alternatively,

sounds can be downloaded from sound-effect and music libraries. [slide 11] The audio tracks will then be loaded into Sampleplayers and sounds will be triggered by the participants with their tablets or mobile phones at the appropriate times.

[slide 12] Specifically, as an example, for each fragment of the piece there are 3 Sampleplayers: S1 where we have organized the dialogues of the characters (which could also be live), S2 with the effects and sounds, and S3 with the background music.

All of these players are connected to a Mixer to control their volume levels and the mixer output connects to the Speakers. In case you want to save the audio, you can add a Record module and connect to the Mixer output to it as well as the Speakers (see Figure 1).

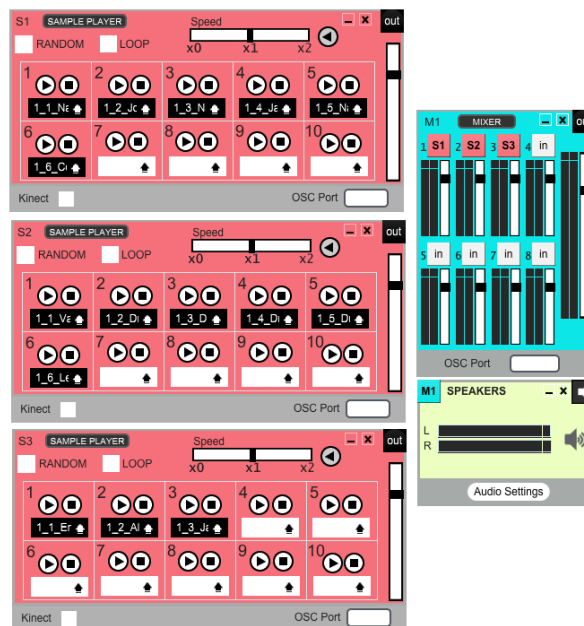


Figure 1. Example of the connection of the modules of the audio part.

You can also create melodies with the Keyboard module and add music synthesizers with the VST module.

You can also apply live effects, such as pan changes (move the sound left/right), delay (echo effects), change pitch, etc. using the Pan, Delay and Transposer modules respectively.

[slide 13] **We can also use Soundcool for visuals.** Computer output can be recorded to make a video or projected to use in an on-stage production. [slide 14] The Soundcool visual modules for this workshop consist of an Imagesampler that can select backgrounds connected to a ScreenV module to send the backgrounds to the computer display.

Images are associated with keys on the Imagesampler.

A student can select backgrounds by pressing keys on their mobile phone or tablet connected to the image sampler module.

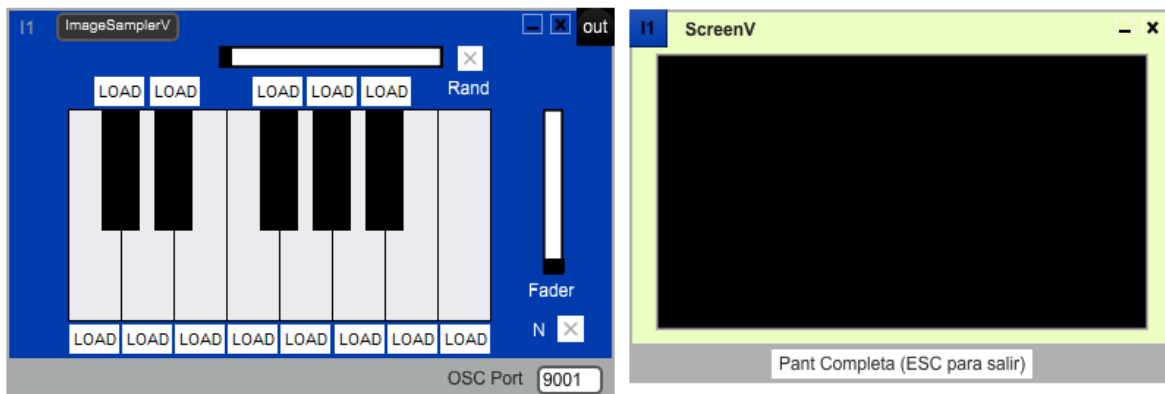


Figure 2. Example of the connection of the modules of the image part (only images of backgrounds on a projector or screen)



Figure 3. Example result of a background drawn and projected with Soundcool in the opera La Madre de los Peces performed by Dominicas, from Paterna <https://youtu.be/e8LHyoR2dYk>.

If students want to use puppets instead of acting, then we can use the BlendingV module to combine backgrounds with camera input (see Figures 4 and 5):

1. Draw background images and photograph them. View the photos with the ImagesamplerV module.
2. Make plasticine puppets (or cut drawings or other options) of the characters, animals, etc. With a webcam, take images of the puppets in front of a black panel with the DirectInputV module.
3. Mix the backgrounds (ImagesamplerV) with images of the puppets (DirectInputV) using the BlendingV module. Different BlendingV mixing options should be tried to find the most suitable one. The output of the BlendingV module will be connected to the ScreenV module to view everything in full screen with a projector or large screen.

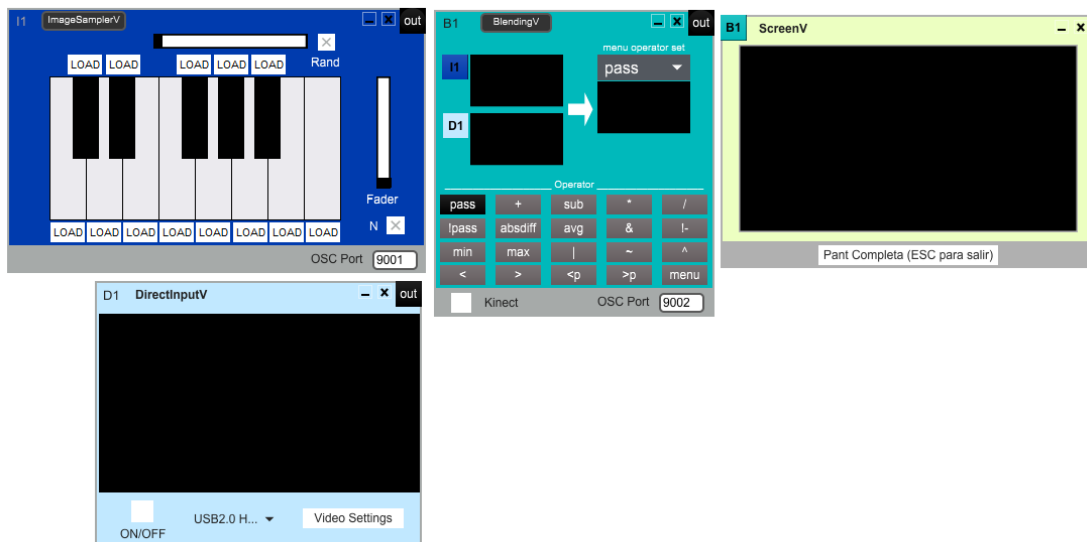


Figure 5. Example of a background with the plasticine figures from the story of La Madre de los Peces in english, see playlist <https://bit.ly/3at9Weo> of the “Proyecto ópera” in advanced projects in <https://soundcool.org/en/projects>

2.4 Make the sheet music/detailed script.

[slide 15] To perform the work, you will need a detailed script or time-line. You might want to draw and label a time-line which relates to the number line in math, to music notation, to plotting scientific data and (eventually) to calculus. The script must contain:

1. Minute and second of the scene of the action.
2. Buttons to be pressed by the students
3. Sound and image labels or descriptions

4. In case of music performance or improvisation, indicate the style, e.g. “Melody with the Phrygian scale from 1:23 to 3:05”.

2.5 Let's Rehearse! [slide 16]

1. [Configure](#) Soundcool and the Wireless network (For this see the frequently asked questions at <https://soundcool.org/en/faqs-doubts/>)
2. Indicate the IP address of your computer (available in the main menu of the Soundcool computer application) to your students so that they can enter it in the Soundcool OSC app on their mobile phone.
3. Assign each module a port: type a number from 8000 onwards in the OSC Port box. That port number is the one that must be entered by the student who must control that particular module. To properly distinguish video modules from audio modules, video modules can be numbered from 9000.

2.6 Review and Improvement of the Piece [slide 17]

We develop and refine the work us with the creative **SCAMPDR** technique: **S**ubstitute, **C**ombine, **A**dapt, **M**odify, **D**ele, **R**eform. What sounds do not match the image? Why doesn't the background music work? Where would this sound work better?

[slide 18] Thank you for joining us in this webinar, and we hope we have given you many creative ideas for using Soundcool and exploring arts and science education through collaborative projects such as this multimedia creation around the comic character Tintín.

3 Acknowledgment

We want to mention our thanks to teacher Pau Monfort, see his guide of the Project of Soundtracks on which this project has been based on: <https://soundcool.org/proyectos/>