

ToyBox Futuristi Instruction Manual

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Welcome to ToyBox Futuristi

Hello!

If you are reading this then chances are you have just installed a copy of our software, ToyBox Futuristi, on your computer, or you are very close to doing so.

First of all we would like to thank you for using our software. In this document you will find all you need to know in order to get started with the ToyBox, to begin playing with the digital puppets, and to begin creating scenes to share with your friends and family.

We hope you enjoy our software and please, remember: you can always reach us at deperofuturisti@gmail.com and visit us at <http://www.etc.cmu.edu/projects/balli-plastici>. If you have a question or comment, don't hesitate to contact us about it. We take your feedback and thoughts very seriously.

Thanks,

The Depero Futuristi Team

What can you do with this software?

You can use ToyBox Futuristi to puppeteer the marionettes, originally created by Italian Futurist Fortunato Depero, in digital space. Depero wanted to tell stories with his marionettes, and he did so through his puppet ballet which he named *Balli Plastici*. Now, ninety years later, we have built this ToyBox so that you can create your own version of the ballet and tell your own stories.

There is a reason why our software is called ToyBox: we want you to use it as a toy and have fun with it. We have put the marionettes that Depero designed at your disposal to do with as you please. Play with them, make them interact and use them to tell your own stories; but, above all, have fun.

The Instructional Video

Included in the package with this document and the ToyBox is an instructional video called ToyBoxDemo. If you have already installed the ToyBox and are looking to get started, we strongly suggest that you head straight to that video and take a look at it. It will take you less time to watch the video than it will to read this document, and you will learn essentially the same information. However, if you want more detailed instructions about the ToyBox and you have already watched the video, then this document is definitely the place to be.

Installing the software

Windows

In order to install the software, insert the ToyBox Futuristi DVD in your computer – it should run by itself, showing a dialog box containing an install button. If the auto-run fails or if the DVD is already inserted in your computer, open “My Computer,” right click on the DVD/CD drive, and click on “Open.” Click on the Toybox Futuristi Setup.exe file to start the install process. At the end of the installation you will see a shortcut in your Start Menu labeled ToyBox Futuristi.

Mac

In order for ToyBox Futuristi to run, you must first install the Panda3D Engine on your computer. In order to do so, follow these steps:

1. Open Finder and click on the CD drive.
2. Open the “Mac” folder.
3. Open the “Panda3D” folder.
4. Double click on the “Panda3D-1.6.2.dmg” file.
5. The Panda3D installer will run. Follow the three step process to install Panda3D.

After the Panda3D installation process is complete, follow these steps to run the ToyBox Futuristi software:

1. Open Finder and click on the CD drive.
2. Open the “Mac” folder.
3. Copy the “Toybox” folder to your desktop
4. Click on the Spotlight icon on the top-right corner of screen. It’s the little magnifying glass icon.
5. A text field will appear, type “Terminal” on it.
6. Click on the Terminal icon that appears on the list, it’s labeled under Applications. The Terminal window will open.
7. On the Terminal, write “cd desktop” (without the quotes) then press the Return key.
8. On the Terminal, write “cd Toybox” (without the quotes) then press the Return key.
9. Still on the Terminal, write “python main.py” (without the quotes) and press the Return key.
Your ToyBox should run now!

The hint bar

After opening ToyBox Futuristi, you will find a big section at the bottom of the screen that contains the controls. At the top of this section there is a blue bar called the *hint bar*. Whenever you are confused as to how to proceed next, we strongly suggest that you look at what the hint bar has to say, since it offers advice on what you should do next in order to create a scene. Remember that you can always click on the arrow at the far right of the hint bar if you wish to hide it or reveal it.

The tabs

In the bottom section of the screen, you will find a series of icons that depict a toybox, a set of curtains, two crossing light beams, a marionette cross and a director clacker. By clicking on these icons you will be able to access the different tabs through which you can interact with the software. These tabs are, from left to right, the **Session Tab**, the **Scenes Tab**, the **Lights Tab**, the **Puppets Tab** and the **Director Tab**.

Opening a session

The type of file created by ToyBox Futuristi is called a *session*, so every time the software is opened you will be working in a session, whether it's a new blank session or an existing session that you are editing. All sessions are automatically saved, so you do not need to worry about saving your session at any point.

Creating a new session

In order to create a fresh, empty scene, click on the button labeled *NEW* in the Session Tab. The program will ask you to write a name for the session, which you will need to remember in order to load the session if you want to edit it later.

Opening and closing an existing session

To open an existing scene in order to edit it or play it back, click on the *OPEN* button in the Session Tab. You will be presented with a list of all the existing sessions. You can select the session you wish to load. Select the session you want to load and click OK.

In order to close a currently open session, you can always click on the *CLOSE* button in the Session Tab.

Importing a session

In order to view a scene file that a friend shared with you - or that you exported previously - you must first place the exported file in the C:\Toybox Futuristi\game\import directory of the ToyBox folder. When you click on the *IMPORT* button, the program will present you with a list of all the sessions located in the Import directory so that you may choose which one to load. Select the session you wish to load and press the OK button to load that session.

Exporting a session

You may export a session in order to share it with other ToyBox Futuristi users. To do so, just click on the *EXPORT* button on the Session Tab, write a name for your session, and click on the OK button. You will then find your exported session file in the C:\Toybox Futuristi\game\export directory of the ToyBox folder. In order for another user to access the session, they must copy the session file to the C:\Toybox Futuristi\game\import directory of their ToyBox folder.

Selecting a scene to record

After you create a new session or open an existing one you may select a scene to record to your session. Each session can contain up to 10 different scenes, each with a different music. In order to select the

scene you want to record, open the Scenes Tab and click on the desired scene. The stage will load on-screen so you can preview the set, and you will also be able to preview the sound for the scene by clicking on the *Preview* button, labeled with a musical note. It is important to note that each scene comes with a predetermined musical score which cannot be changed.

You may load multiple scenes to your session. You may always come back to the Scenes Tab and choose which scene to edit by clicking on the thumbnail of the desired scene at the bottom of the screen. Here you may also remove a scene from the session and review your light setting for the scene, as well as see how many puppets you currently have saved in the scene.

Selecting a light setting

After selecting a scene to record, you must select a light setting for your scene. To do so, click on the Lights Tab and choose a light setting from the list. You may preview the light setting by clicking on it. When you have found the light setting you want for the scene you must click on the button labeled *Save Light* in order to save that setting for your scene. You may change your light setting for the scene any time by choosing a new setting and clicking *Save Light* again.

Selecting a puppet

Now that you have selected a scene to record and an appropriate light setting, it's time to choose a puppet to place in the scene. After clicking on the Puppets Tab you will be presented with a list of 20 puppets. You can choose any one to place in the scene. You may see a preview image of the puppet by placing your mouse cursor on top of the puppet's thumbnail image. In order to place a puppet on the stage, you must click on it.

How to puppeteer

After clicking on the puppet, it will appear on the stage and the Puppets Tab changes to represent the puppet's animation controls.

Animating the puppet

After the puppet is on the stage, a circle divided into quadrants appears at the bottom right portion of the screen. You can control the puppet's animation by using the mouse to drag and drop the small, green circular marker located at the center of the circle. To do so, click on the marker and, without releasing the mouse button, move the pointer anywhere in the circle area. You may release the mouse button when the marker is in the desired position.

Each of the four straight lines that divide the circle into quadrants is labeled with an animation name. The puppet will perform that animation when you drag the marker along the straight line, and the speed of the animation will change depending on how far away the marker is from the center of the circle. Additionally, by placing the marker in between two of the straight lines, the puppet will perform a blending animation which is dependent on the two animations which are closer to the marker.

Each puppet can perform four animations plus four animation blends and the nature of each animation is dependent on the puppet's anatomy; therefore, animations vary among puppets.

By using the mouse to drag and drop the circular marker around the area of the action circle, you can control both the animation type and the animation speed of the puppet. Go ahead and try it now!

Moving the puppet in space

The arrow keys in your keyboard can be used to move the puppet around in 3D space. Pressing the left and right arrow keys causes the puppet rotate to its left and right, while pressing the up arrow key makes the puppet move forward and pressing the down arrow key makes the puppet move backwards.

In order to get familiarized with the puppets' movement, it's important to remember that pressing the up arrow key makes the puppet advance in the direction it is facing rather than move towards the back of the stage.

The puppet's special animations

Each puppet has a set of two or three special animations that can be activated at any time by pressing the *A*, *S*, and *D* keys on the keyboard. Some of these special animations vary from puppet to puppet and are dependent on each puppet's features.

It is recommended you get acquainted with a puppet's special animations so as to try and create a seamless integration between the puppet's regular animation and the activation of the special animation.

Recording a puppet

When you have become familiar with a puppet's movements, it is time to record a scene featuring the puppet. In order to do so, place the puppet where you wish it to begin the scene and press the *Record* button in the bottom left section of the screen. This will activate recording mode, which means that the software is recording every movement you make with the puppet.

It is recommended to place the puppet behind the curtains or outside the stage before starting the recording, so that the puppet doesn't just pop on stage when playing back the scene.

When you are satisfied with the recording, you can press the *Stop* button to stop the recording. It is also recommended to move the puppet out of the stage before ending the recording.

Recording additional puppets

It is possible, and highly recommended, to add more than one puppet to any scene. In order to do so, just select a new puppet from the puppet tab and press the *Record* button to record the puppet. After pressing the *Record* button, ghost versions of the previously recorded puppets will appear on scene so that you may use them as a reference for your new puppet's recording. This will help you make sure

that your puppets do not crash into each other and that the interactions between the puppets are consistent.

Using the director tools

The Director Tab enables you to see your progress so far and to slightly edit and modify your recordings to make them more exciting.

The Play button

The *Play* button located in the bottom left section of the Director Tab enables you to play back the scene that you have recorded so far. This is the button you need to press if you want to show your progress to your friends.

Selecting a puppet from the puppet list

You will notice that there is a puppet list in the Director Tab. This list contains every puppet that you have added to the scene, arranged by the order in which they were added, and named according to their type. By clicking on a puppet's name on the list you can bring up four different director tools that allow you to edit and modify the puppet.

Playing a puppet by itself

The first of the director tools allows you to play a puppet by itself, removing the other puppets in the scene from playback. This does not destroy the other puppets in the scene. You can use this tool to review a puppet's movement without the distraction of other puppets on the stage.

Removing a puppet

By clicking on the *Remove Puppet* button, you may completely remove a particular puppet from the scene. There is no way to undo this action after you confirm the deletion.

Duplicating a puppet

By clicking on the *Copy in time* button or the *Copy in space* button, you can create a copy of the puppet that is slightly offset either in time or in space. This is a very easy and effective way of adding new puppets to a scene.

In time

The *Copy in time* function allows you to create an exact copy of a puppet that performs all of its actions later or earlier in time. For example, if you wanted two puppets to follow each other you could copy the original puppet in time with a 1 second delay, which would create the effect of the two puppets following each other. To do this, click on the *Copy in time* button and type the time difference in seconds that you want between the two puppets.

In space

The *Copy in space* function allows you to create a clone of a puppet that is located in a different position in space. The new puppet will perform the exact same actions at the exact same time, but its starting position will be changed according to your input. To copy a puppet in space click on the *Copy in space* button and type in the boxes the distance that you wish to create between the two puppets, both in the X and Y axis. Use the information graph as an aid.