Basic Cutout Animation Tutorial

The Cutout Animation – Basic project contains the scenes illustrating how to create a cutout animation using one scene for each character, that later on are composed together.

Each scene represents one step in the scene construction.

Load the scenes, analyze them and try to redo them using the tutorial material or your own drawings. Refer to the Toonz Harlequin User Guide or Toonz Bravo! User Guide for more details about the used features.

To make the tutorial material available in the Projects folder of the Toonz browser:
1. Unzip the file you downloaded.
2. Put the Cut Out Animation - Basic folder in the project folder you defined during the Toonz Harlequin or Toonz Bravo! installation.

Creating the Background
This section refers to the creation of the elements that will be used as background in the final animation. The result is available in the project folder as scene 01BG.tnz, whose drawings can be retrieved in the draw\01BG folder.

To create the background:
1. Draw the background elements on different levels.
2. Save the scene.

Creating the Girl Character
This section shows how to create a puppet character for the cutout animation. The result is available in the project folder as scene 02Girl.tnz, whose drawings can be retrieved in the draw\02Girl folder.

To create the girl character:
1. Draw the character's elements on different levels to be able to create the hierarchy. For mirrored elements (e.g. right arm and left arm) you can copy the level cells to a different column, use Cells → Clone Level command to create a new level, and flip them by selecting the vectors...
2. Create the hierarchy in the Stage Schematic using the body as father and creating different branches for the head, the legs and the arms.
3. Move the center of each level to adjust the rotation center. To do that select the Edit tool and move the handle clicking on its center.

4. Create the animation of the character by defining key positions for each character’s element by doing the following:
   - Select the frame for the starting position.
   - Select the element you want to animate.
   - Select the Edit tool.
   - Set a starting position for the element.
   - Select another frame and set an ending position for this element.
This scene will be used as a sub-xsheet scene in the final animation where the final timing will be done. In the scene the girl moves first the eyes and then changes the legs and arms position.

Creating the Boy Character
This section shows how to create a puppet character moving with a walking cycle. The result is available in the project folder as scene 03Boy.tnz, whose drawings can be retrieved in the draw\03Boy folder.

To create the boy character:
Follows the same steps as for the 02Girl.tnz scene. In this case animate the boy character to create a walking cycle that will be used in the final scene.
Composing the Final Animation
This section shows how to load the previously created scenes as sub-xsheets, and to time up the whole animation by editing the sub-xsheet columns. The result is available in the project folder as scene 04Final.tnz, whose drawings can be retrieved in the draw\04Final folder.
To compose the final animation:
1. Load the 3 scenes already prepared into a new scene as sub-xsheet dragging them in the Scene Cast pane.

2. Choose Xsheet → Scene Settings and set the background color for the scene.
3. In the Stage Schematic right-click each node and select Rename from the menu that opens to assign a proper name to each column.
4. Repeat the sub-xsheet cell containing the background up to frame 259.
5. Define the animation for the girl character by timing up its sub-xsheet column in the following way:

- Repeat the cell 1 of the girl sub-xsheet up to frame 138. This operation creates a fix at the beginning of the animation.
- Repeat the cell 13 up to frame 166. This operation creates another fix with the girl looking rightward.
- Select the cells from 14 to 17 and choose Cells → Reverse to reverse them. This operation defines a blinking of the eyes.
- Repeat the cell 14 up to frame 180. This operation creates another fix with the girl looking rightward.
- Select the cells from 2 to 13, copy and paste them on frame 180 and reverse them. This operation makes the girl's eyes look leftward.
- Repeat the cell 2 from frame 192 to 228. This operation creates a fix with the girl looking leftward.
- From frame 229 to 240 the animation goes on with cells from 18 to 29, with the girl being astonished.
- Repeat the cell 29 from frame 240 to 259. This operation creates the final fix.
6. Move the boy column, clicking and dragging on the dark strip on the left of the column, so that it starts from frame 31. In this way in the first 31 frames the boy is out of the frame.

7. Define the animation for the boy character by timing up its sub-xsheet column in the following way:
   • Select the cells from 1 to 23 and copy and paste them at frame 54. This operation repeats the walking cycle.
   • Copy the cells from 1 to 11 and paste them at frame 77. This operation repeats half of the walking cycle.
   • Repeat the cell 32 to frame 221. This operation creates a fix with the boy standing still.
   • From frame 222 to 227 the animation goes on with cells from 33 to 38, with the boy kissing the girl.
   • Repeat the cell 38 to frame 259. This operation creates the final fix.

8. Select the boy sub-xsheet column and the Edit tool and define key positions for the boy to make him entering from the right and moving toward the girl in the following way:
   • Select frame 31 and type 8.5 in the E/W field of the Edit tool option bar. The first key will be created.
   • At frame 39 set E/W to 7.5. The second key will be created.
   • Copy the key at frame 39 at frame 41. In these frames the boy doesn’t move.
   • At frame 50 set E/W to 5.5, and copy this key at frame 53.
   • At frame 63 set E/W to 4, and copy this key at frame 64.
• At frame 64 set E/W to 2.25 and copy this key at frame 76.
• At frame 85 set E/W to 1.25.

To create the keyframes it is also possible to open the Function Editor in the Numerical Columns mode, select the E/W channel of the Boy column in the object tree on the left, and type the values at the related frames by double clicking the column cells.

9. Check the animation by pressing the Play button.

10. Choose File → Output Settings to choose your output format, and then choose File → Render to render out the animation.