

Toonz 3D Export

Reference Guide

for Windows NT/2000/XP

version 2.0

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Introduction

Toonz 3D Export plug-in for Softimage|XSI and Softimage|3D allows camera data to be exported directly from the 3D environment to a Toonz exposure sheet in order to match 2D animations with 3D objects and backgrounds.

The plug-in reads the movements of the camera, selected objects and changes of the camera “field of view” in the 3D environment; then it computes the projections in the 2D Toonz environment.

The output of this plug-in is a .xsh file for the Xsheet module of Toonz. The xsheet file will contain the selected 3D objects position as pegbar information concerning E/W, N/S and Field values, that will allow Toonz 2D levels to move on the 3D background as if they were attached to the selected 3D objects. The name of the selected 3D objects is assigned to the pegbars as reference for placing the 2D animated level.

This object position information is saved in different .dat files, as many as the selected objects. The .dat file contains, for each frame, the position and the scale factor of the 2D level related to the position of the 3D object.

The file name for the .dat file is

```
<xshfilename>_<model name>.dat;
```

where <xshfilename> is the name assigned to the xsheet to which it refers, and <model name> is the name of the object in Softimage|XSI or Softimage|3D.

Installation

Refer to the Setup Guide you can find in the Documentation folder in Toonz 3D Export CD-ROM.

Note

If the dialog doesn't open and an error message concerning license problem is displayed, please check that your license is properly installed.

Tip

*You can scale and place the toolbar according to your needs, and save the layout to retain the toolbar for the next session with the **Layout > Save Layouts** command.*

The Toonz 3D Export Dialog Box

The dialog box opens as soon as you select the relevant command.

In the dialog box you can set the following parameters to export the 3D scene to Toonz.

- **Xsh Filename:** lets you enter the name of the . xsh file with the full path or you can choose it, using the browser, among the existing files. If an existing file is chosen, the plug-in will overwrite it, adding only the last changes.
- **Start frame, End frame and Frame Increment:** set the length and step of the animation to be exported. By default Softimage|XSI or Softimage|3D animation settings will be shown in the related fields. By changing them, you will overwrite the corresponding values of the original scene in Softimage|XSI or Softimage|3D.
- **Camera Field Size:** sets the field size of the Xsheet camera.
- **Z-Reference:** sets the Z-depth at which levels are not scaled.

To open the Toonz 3D Export dialog box in Softimage | XSI:

1. Do one of the following:

- If you performed a plain installation, select the **File > Export > Export Toonz...** command.

For details about the installation, refer to the Setup Guide you can find in the Documentation folder in Toonz 3D Export CD-ROM.

- If you had to load the plug-in among the add-ons manually, select **View > Custom Toolbar > Toonz Export (add-on)**. The custom toolbar with the **Toonz Export** button opens. Click on the **Toonz Export** button.

For details about the installation, refer to the Setup Guide you can find in the Documentation folder in Toonz 3D Export CD-ROM.

To open the Toonz 3D Export dialog box in Softimage | 3D:

1. Click the **Tools** button in the menu bar.
2. Select **Export > Toonz Scene**.

How to Use the Plug-in

With the Toonz 3D Export plug-in you can generate a Toonz . xsh file where the 3D environment is projected in the 2D Toonz environment.

To export a scene to Toonz:

1. In Softimage|XSI or Softimage |3D animate your scene, your 3D objects and your 3D camera (the one that will be used as reference to project the 3D scene in Toonz 2D environment).
2. In the 3D scene, place any number of dummy objects, to which the 2D animated levels has to be registered.
3. Open the Toonz 3D Export dialog box and set the parameters for the scene (. xsh file) to be exported to Toonz. For details, see *The Toonz 3D Export Dialog Box* paragraph on page 2.
4. Click on the **Ok** button to generate the . xsh file. The dialog box closes.
5. In Softimage|XSI or Softimage|3D Render the 3D part separately.
6. Go in Toonz and load the exposure sheet exported by the 3D software: the xsheet will be completely empty, except for some pegbars information (N/S, E/W and Field values) that track the dummy objects positions.
7. Load as full color levels the 3D rendered scene and assign the pegbars to the animated levels in order to make them “follow” the dummy objects position.
8. Preview the scene and when satisfied by the result, run the compositing process in Toonz.

Note that complex multi-layering of 2D & 3D is a rather simple production process that only involves multi-pass 3D render. For example, if you want to have a 2D driver visible through the window “into” a 3D car, you can render the car in slices to be used in Xsheet on top and behind the 2D driver.

Demo Scene (Softimage | XSI only)

Inside the CD you will find a directory named Toonzexport_demo which contains a complete Softimage|XSI scene (named mushroom_global) and a directory named Toonz_material which contains all the Toonz levels and the . xsh file you need for the demo.

1. Select the project Toonzexport_demo\mush from the CD-ROM and load the mushroom1. 5or mushroom2. 0scene according to your Softimage|XSI version.
2. Set a window as Explorer and select the following objects in the scene:

Note

You can export all Softimage|XSI objects (Primitives, Null, Polygon Meshes, Curves, Surfaces, Implicits).

Note

If no camera is selected in Softimage|XSI or Softimage|3D, the default Camera Root will be used.

- grass1, grass2 at the main level
 - inside the mush hierarchy select mush1>export1; mush2>export2; mush3>export3; mush4>export4.
 - you do not need to select any camera as the involved camera is the default one, automatically selected.
3. Press the Toonz Export button: the Toonz 3D Export dialog box opens.
 4. Choose the path where you want to save the . xsh file and its name, then press **Ok** (you do not need to change any parameter in the popup as the scene works with the default values).
 5. Open the Toonzshell and load the xsi _pl ugi n. set upyou can find in the Toonzexport_demo\mush\toon_z_mat eri al directory.
 6. Run Xsheet and load the . xsh file you saved before.
 7. Load the mushroom. pi c(in the render_pi ct uresdirectory) in the first column of xsheet.
 8. Load with the Load Level command the following items from the toonz_mat eri al \xsheet directory: sub_bug_a1. xshin the column1, sub_bug_j ump2. xshin the column 2, sub_bug_j ump3. xsh in the column 3, sub_bug_a4. xshin the column_4, sub_bug_j ump5. xshin the column 5, sub_bug_j ump6. xshin the column 6.
 9. Assign to each of these six columns the respective pegbar (column 1 to pegbar 1 and so on).
 10. In the **Windows > Output Setting** window select the NTSC camera.
 11. Open the **Windows > Preview** window to check the final result.
- The final xsheet, named xsi _pl ugi n_f i nal . xslis available in the toonz_mat eri al \xsheet directory: you can use it if you want to skip points 5 to 9.