Release notes for trueSpace2 Trial Version

trueSpace2 Trial Version is a 30-day trial version of trueSpace2 v2.0. It is a full-featured version of trueSpace2 with the following exceptions:

> The Trial Version does not allow you to save individual objects. However, you may save entire scenes, including animations. Any scenes you save are fully compatible with trueSpace2 v2.0.

> The Trial Version allows you to render scenes to a file, but restricts the file format to the .avi file format with 320x200 resolution.

> Note: You must install Video for Windows in order to render .avi files. You may do this after you install the trueSpace2 trial version by running **setup.exe** from the \vfw1.1e\disk1 directory on the CD-ROM.

The trueSpace2 Trial Version may be freely copied and distributed. All other rights are reserved.

For more information or to place an order for trueSpace2 v2.0, please call Caligari Corporation at 1-800-351-7620 or 1-415-390-9600.

Common Questions and Answers

Q: What kind of system do you recommend?
A: While **trueSpace2** runs on slower 486 systems, we recommend at least a 486 DX2 processor, and for those of you with a larger budget, **trueSpace2** is Pentium optimized. At least 8 MB of RAM are recommended, and if you are going to use large models or a lot of ray tracing you should think about getting 16 MB of RAM or more. A Windows graphics acceleration board (preferably local bus or PCI) makes the program much more enjoyable to use. If you get one that supports Intel 3DR, you will be able to enjoy full-screen interactivity even in solid render mode.

Q: What resolution and bit depth do you recommend?
A: trueSpace2 works best in 8 bits (256 colors) at 1024x768 resolution. However you can run in any resolution. If you run in 16 or 24 bit depth, you will see nicer color output on your screen but your screen refresh will be slower and the program will require more memory to run. Note that the color information in files created by trueSpace is independent of the color settings of your screen.

Q: Why do some objects appear inside out when I work in Solid Mode?
Because of speed purposes, the real time renderer only renders one side of the object. Since objects created in programs other than **trueSpace2** may have incorrect information for sides they can appear to be inside out. You can correct this by selecting the object, then the Reverse Normals tool from the Utilities group.

Q: When I move the mouse for translation or rotation, the object or eye does not move smoothly, rather it jumps with big increments. Is there anything wrong with the mouse driver?
A: You may have the grid turned on by mistake. You can tell by looking at the grid icon and seeing if it is dark (selected/highlighted). Turn it off by clicking the grid icon until it is light (deselected).

Q: My display encounters problems such as slowness and improper colors in high color modes and sometimes crashes. Is there anyway to speed up or fix

this?
A: A slow display or anomalies in the display could be caused form errors in you windows display driver. We have provided some alternate display modes as possible work arounds for these problems. To access alternate display modes hold the CTRL key down while booting trueSpace. Here are brief descriptions of the alternate display modes:

DDB (Device Dependent Bitmap) - standard display mode.
DIB (Device Independent Bitmap) - requires less memory then DDB or Mixed.
Mixed - a combination of DDB and DIB
Low - dithers to 8 bit (256 colors) regardless of current windows display driver settings.

Q: What are the advantages of ray tracing and how do I turn it on?
A: Ray tracing enables some additional visual effects: accurate mirror-like reflections, refraction or bending of light through objects such as water or glass, and sharp shadows from any light source. You can turn it on from the rendering options panel which you get by right-clicking on any Render icon.

Q: Sounds great! Is there any reason to not use ray tracing?
A: Yes, there are two very good ones: speed and memory. Ray tracing takes considerably longer than rendering without it. Thus, if you can design scenes and especially animations that do not need ray tracing to look good, you will save a lot of rendering time. Rendering 3D objects can quickly require a lot of memory when using ray tracing. Thus you can create scene which are so complex that you will run out of memory when ray tracing, but you can render them without ray tracing.

Q: Is there any way to get ray tracing-like effects without using ray tracing?
A: You can get shadows by using shadow maps without using ray tracing. Shadow maps only work with spotlights and they are not as sharp as ray trace shadows. If you shadow looks "blocky" you can try increasing the shadowmap resolution or decreasing its sharpness. You can simulate reflections by using 2D Environment maps. These can be created using the Image Utilities.

Q: Is there anything I can do if my rendering runs out of memory?
A: There are a few things you can try to do to fix this. If you are running other programs at the same time as **trueSpace2**, you may want to exit them before you start. You can try increasing your Windows swap file. You can also simplify your scene, either by eliminating some objects or by rebuilding some objects so that they contain fewer faces. If you are using texture, bump, or environment maps, see if you can use smaller images as your maps. Many paint programs will allow you shrink an image. If your budget allows, consider buying more memory especially if you have less than 16MB of RAM.

Q: How do I set the Windows swap file?
A: To find out about your swap file open up the Windows Control Panel, open the 386Enhanced section, and click on the Virtual Memory button. The recommended size for your swap file is twice the size of your actual RAM if you have enough disk space. It is usually not helpful to set the swap file any larger than this.

Q: Why don't my shadows show up?
A: Shadows do not show up in object renders. Ray-traced shadows will not show up unless ray tracing is turned on. To set the type of shadow used, right-click on the shadow button on the light panel. Also, the shadow may not be where you think it is. Try setting up a camera view from the spotlight's point of view. This lets you to position the spotlight much more precisely.

Q: Why are there strange horizontal lines on my beveled TrueType text when ray tracing?
A: Unfortunately, with the Bevel function it is easy to create self-intersecting geometry and ray tracing cannot handle such geometry properly. The best solution is to try not to create self-intersections. For instance, try using a smaller bevel. If this is not possible then there is a Fix Bad Geometry function which attempts to fix self-intersecting geometry. Be aware that after the object is fixed certain operations (Sweep, Lathe, Slice) will no longer be possible on this object. The Fix Bad Geometry tool is in the Util(ity) group in the same pop-up with Quad Divide and Mirror.

Q: Why do some faces on my object seem to disappear when looking from some directions?
A: If the object was created by point editing a 2D object to make it into a 3D object, then it may have some flags incorrectly set. Try using the Clean Up Geometry tool mentioned in the previous answer.

Q: Why does trueSpace2 sometimes start accessing the hard disk a lot and slowing down?
A: You are probably running into paging. This happens when the program requires more memory than you have real RAM, and has to use the swap file frequently. The only way to alleviate this is to not use ray tracing, simplify your scene, or buy more memory.

Q: How do I output my animations?
A: The easiest way is to use Video for Windows format. When .AVI output is selected **trueSpace2** will produce Video for Windows movie (version 1.1) which can be immediately played by the Windows Media Player. Some graphics boards can play these movies quite fast and in full-screen size. Another possibility is a Flic animation. **trueSpace2** will output a animation file with the .FLC extension. This file can be played back via the use of a shareware program such as AAPLAY.EXE, which is available on CompuServe, America Online, and various FTP sites. A third possibility is the Targa format. Numbered .TGA frames can be recorded with a single frame controller or played back in real time with some of the new compression boards such as the PAR from DPS.

Q: Does trueSpace2 do morphing?
A: trueSpace2 does not allow you to select two different objects and morph them into a third object. However, you can animate the transformation or deformation of one object into a variation of itself. This makes it easy to stretch a character's skin, create puffy cheeks or bulging muscles.

Q: How do I get realistic looking metal?
A: Use metal shader, turn the shininess up higher, you may want to use environment map (even simple 1D) and above all use lots of lights as they create nice specular highlights characteristic of metals.

Q: How do I print out my images?
A: Render your scene to a .TGA or .BMP file. Load the .TGA or .BMP into a graphics package like Paintbrush (comes with Windows), or any other graphics application that takes in these files and has a print command. **trueSpace2** does not have an automatic dpi setting so it must be done manually at the time of render. Keep in mind that dpi means dots per inch so simply multiply the intended size of your picture by the desired dpi then enter that number as your resolution in the Render to File requester. As an example a 4' x 4' print at 300dpi would be rendered at 1200 x 1200 pixels.

Q: Can I project an image from a light source?
A: Yes, prepare texture by applying transparency from the image utility panel. Position the texture in front of the shadow-casting light. Make sure that you have ray tracing and ray traced shadows enabled. You should see the texture projected.

Q: I understand that trueSpace2 offers the ability to accelerate the solid display via the use of 3D accelerator cards. Where can I get one?
A: The MGA Impression Plus card developed by Matrox is capable of accelerating the solid display. There will be more 3D cards coming out in the future, so be sure to check you readme file, our BBS and other online forums for release information.

Q: I import an object (DXF, OBJ, etc.) and apply a bitmap texture, but the texture doesn't appear on the object. What am I doing wrong?
A: When you initially import a DXF object, it has no UV space. You must assign UV space to the object in order to see the texture map.

Q: How can I cause an object to appear or disappear?
A: In **trueSpace2** we have added the feature of animated opacity values for textures (see the Keyframes Monitor). Note that this feature applies only to solid color textures and will not have an effect on bitmap textures. Also, to accomplish total transparency there can be no reflection value assigned to the texture.

Q: How can I make lights blink or dim?
A: In **trueSpace2** we have added the feature of animated light intensity. To adjust the light intensity between frames, simply, go to that key and adjust the intensity value. trueSpace2 will evenly interpolate the op intensity values between keys.

Q: I set a background for my image and have transparent textures with refraction vales. Why do I not see refracted light from the background image?
A: The use of backgrounds in trueSpace2 is a superimposition. Therefore, transparent objects with refraction values have no effect on the background image.

Q: Is there on-line support for trueSpace2?
A: Yes! **trueSpace2** now has forums and user groups on America Online, CompuServe and an internet email address at caligari@netcom.com. You can also call our support BBS at (415) 390 0585. Please use the ZMODEM protocol to speed up your downloads.
CompuServe user ID: 74774,350
CompuServe Users Group: GO GUGRPA
CompuServe Support: GO CALIGARI
America Online ID: Caliga
America Online Forum: Keyword Caligari
Also, check out these sites on the internet for trueSpace2 artwork, tips, and software updates:
avalon.chinalake.navy.mil   /pub
ftp.netnet.net   /pub

Q: I don't have a modem. Where can I call to speak to a technical representative?
A: You can call our technical support line at (415) 390-9600 Monday through Friday 9:00 am to 5:00 pm Pacific time.