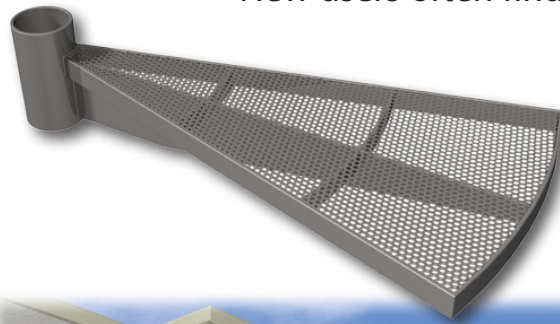


New users often find that they cannot render the 3D patterns they have spend time creating and wonder if there is a way around this issue.

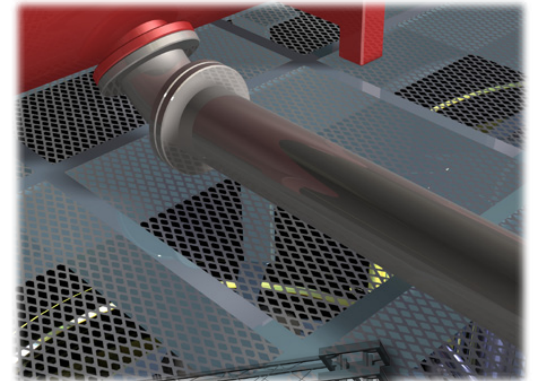


Wrought Iron Works



Perforated Metal

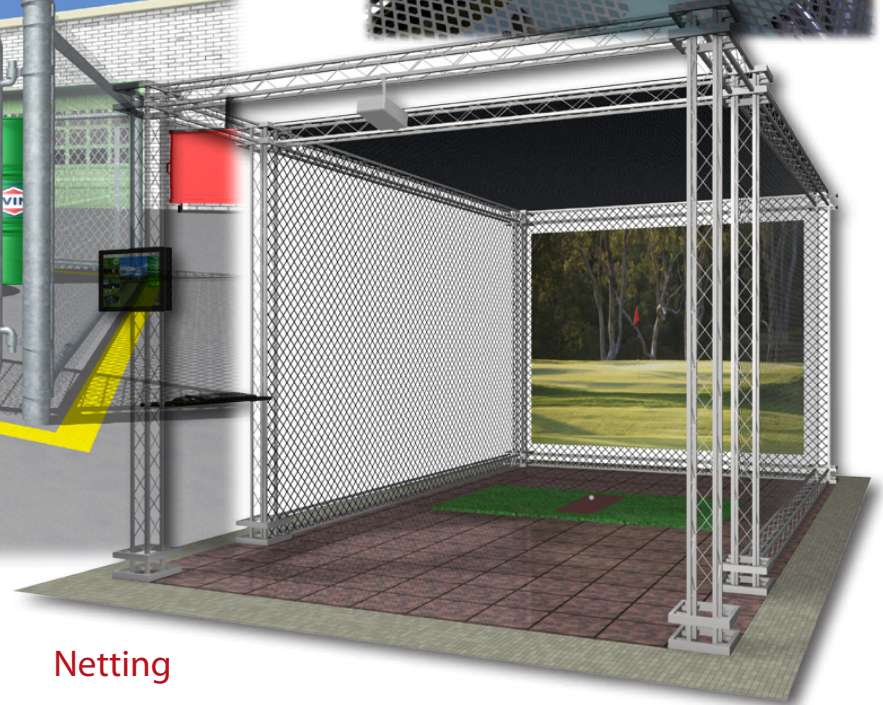
Expanded Metal



Cage/Grill



Chain Link Fence



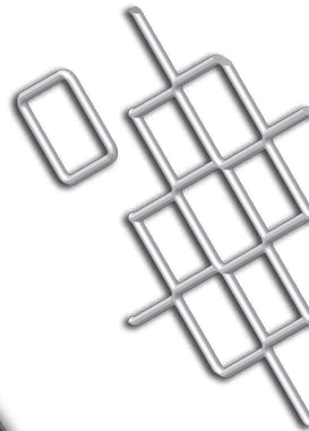
Netting

It really comes down to two choices when it comes to mesh or other openwork objects. There is full 3D modeling or rendered facsimile.

Full 3D modeling of the various mesh objects that are required for a project may not be the best route to take when it comes to CAD illustration. This is due to the fact that creating these objects is very resource intensive when considering computing power. Even in wireframe mode it doesn't take long to start experiencing a noticeable drag. It also doesn't take long to realize that one will never be able to render the completed project. This doesn't mean that 3D modeling is out of the question, but it is important to know when to use it.



A whole chain link fence
would be 3D unfriendly



The shopping cart
is 3D friendly

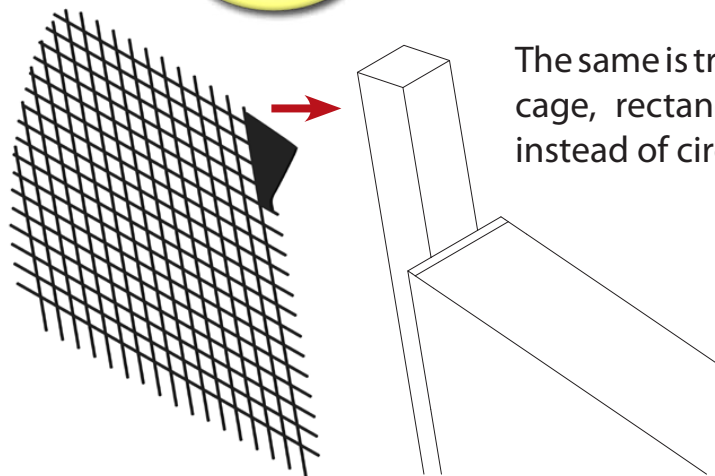
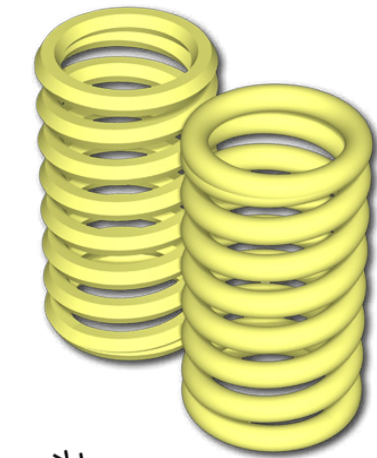
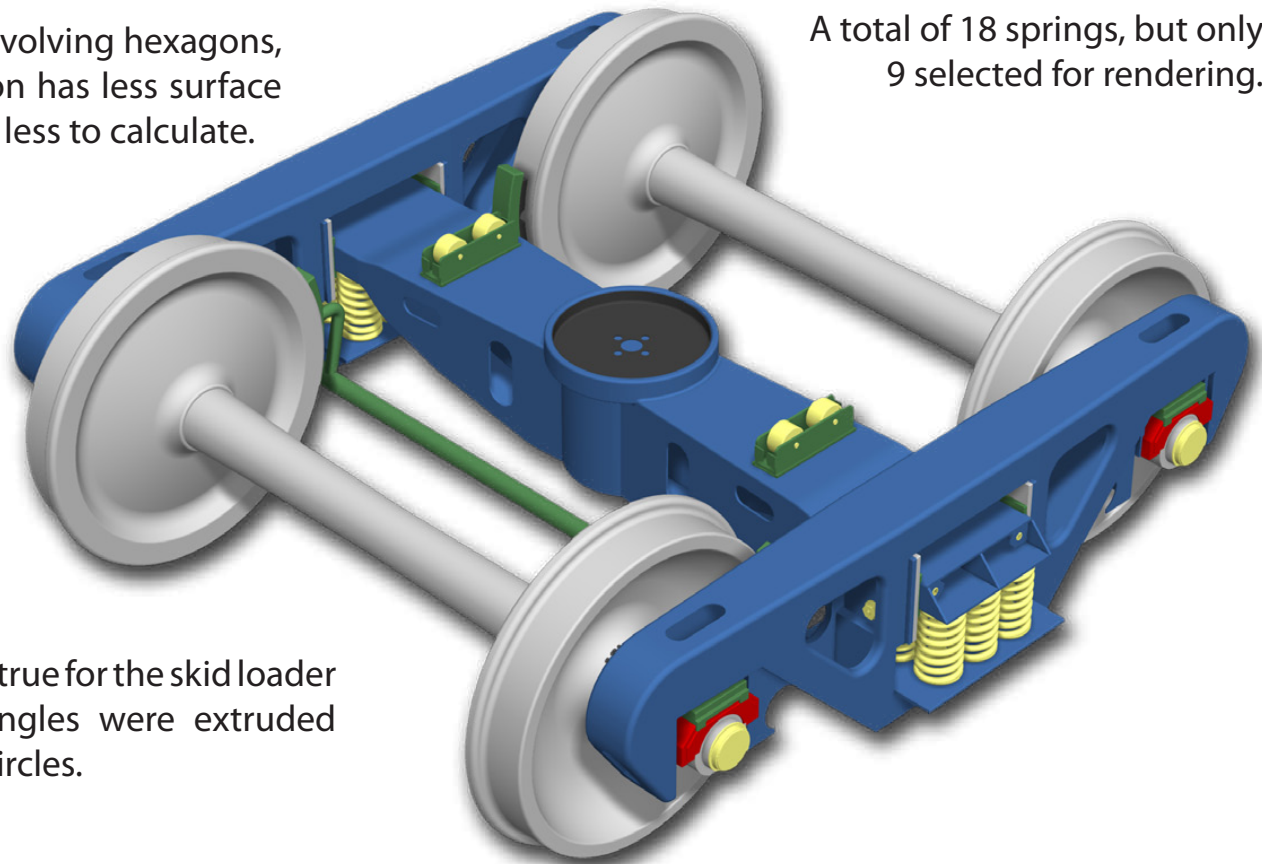


The objects on this page utilize 3D modeling. The cage of the skid loader is simple enough that there is not that much extra computing power required to generate and render the objects. The shopping cart, although a bit more resource intense, would lack appeal if not created in all its 3D glory.

If the required objects must be 3D constructs it may be prudent to simplify.

The railcar truck coil springs were made by revolving hexagons, as opposed to circles. In TurboCAD a hexagon has less surface area than a circle (fewer facets), which means less to calculate.

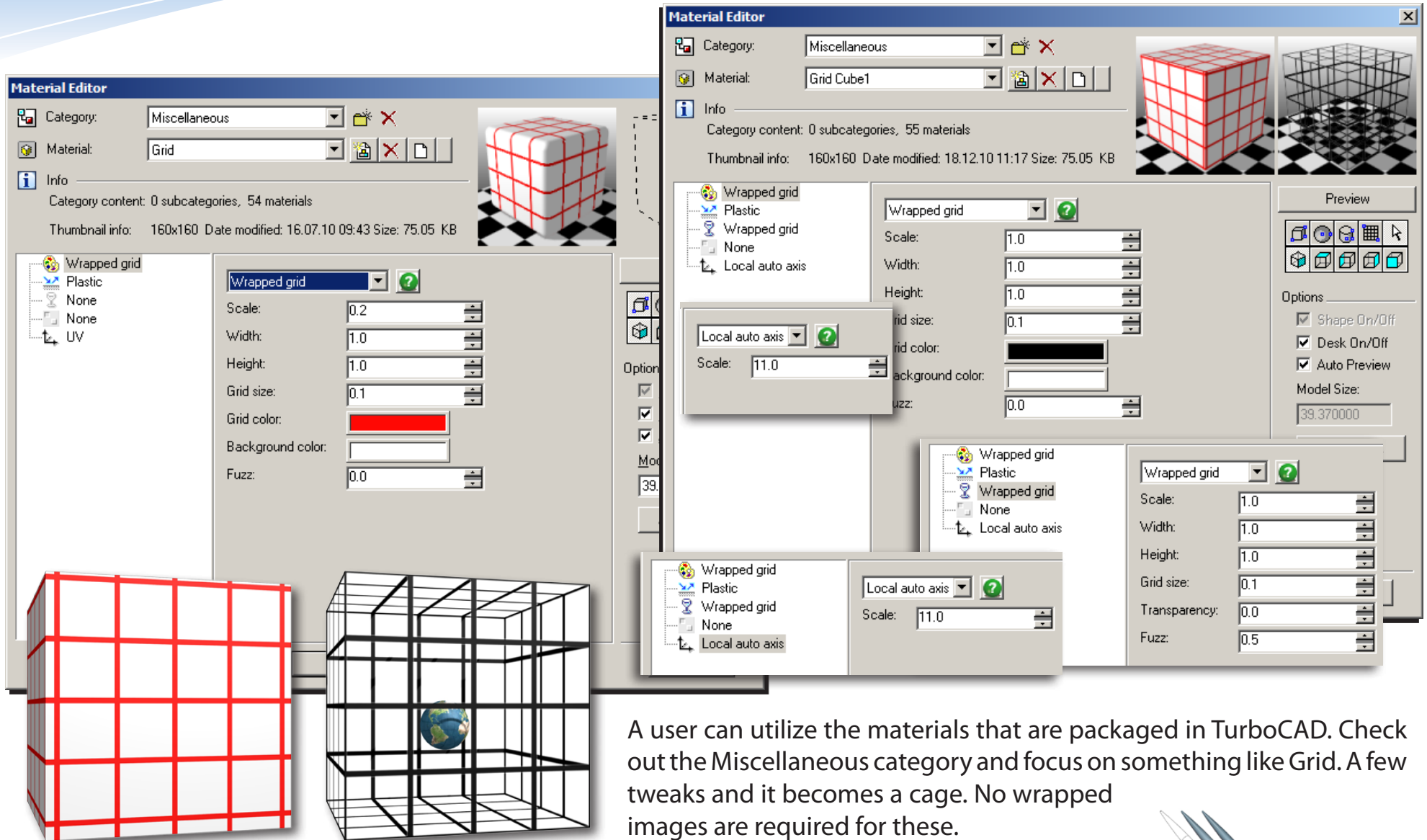
A total of 18 springs, but only 9 selected for rendering.



The same is true for the skid loader cage, rectangles were extruded instead of circles.

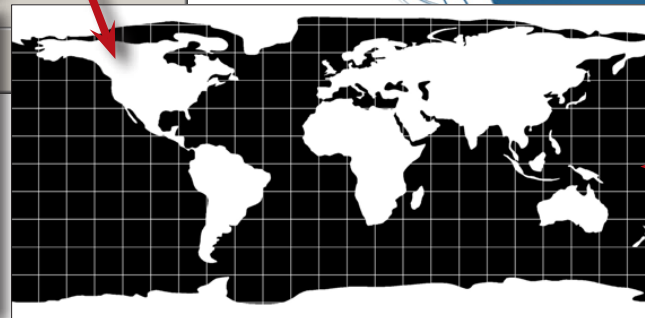
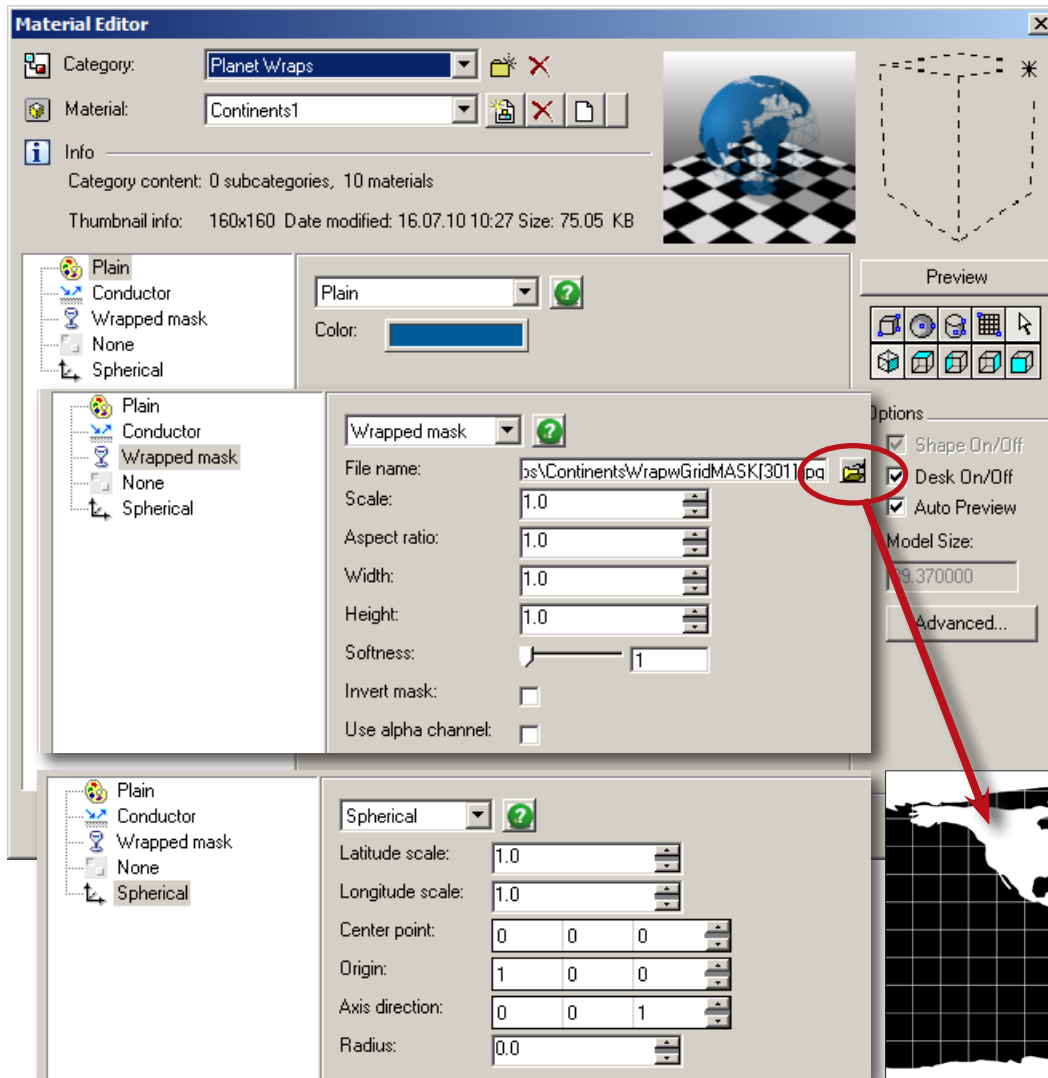
Note too that any objects that are not seen in the rendered view are not selected for rendering. TurboCAD will calculate everything in a drawing before rendering, even objects on hidden layers, so selecting only those visible objects will help keep calculations to a minimum.

Using a rendered facsimile can produce some great results.



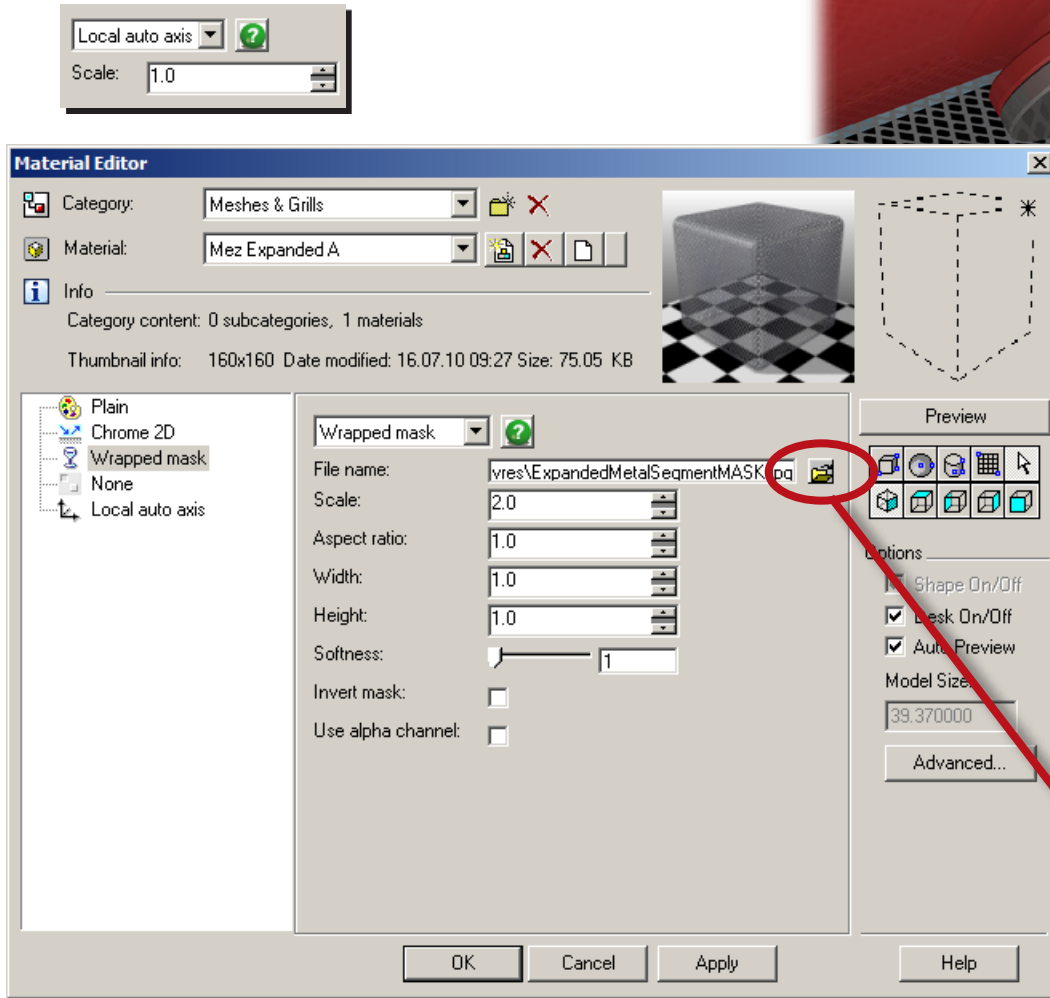
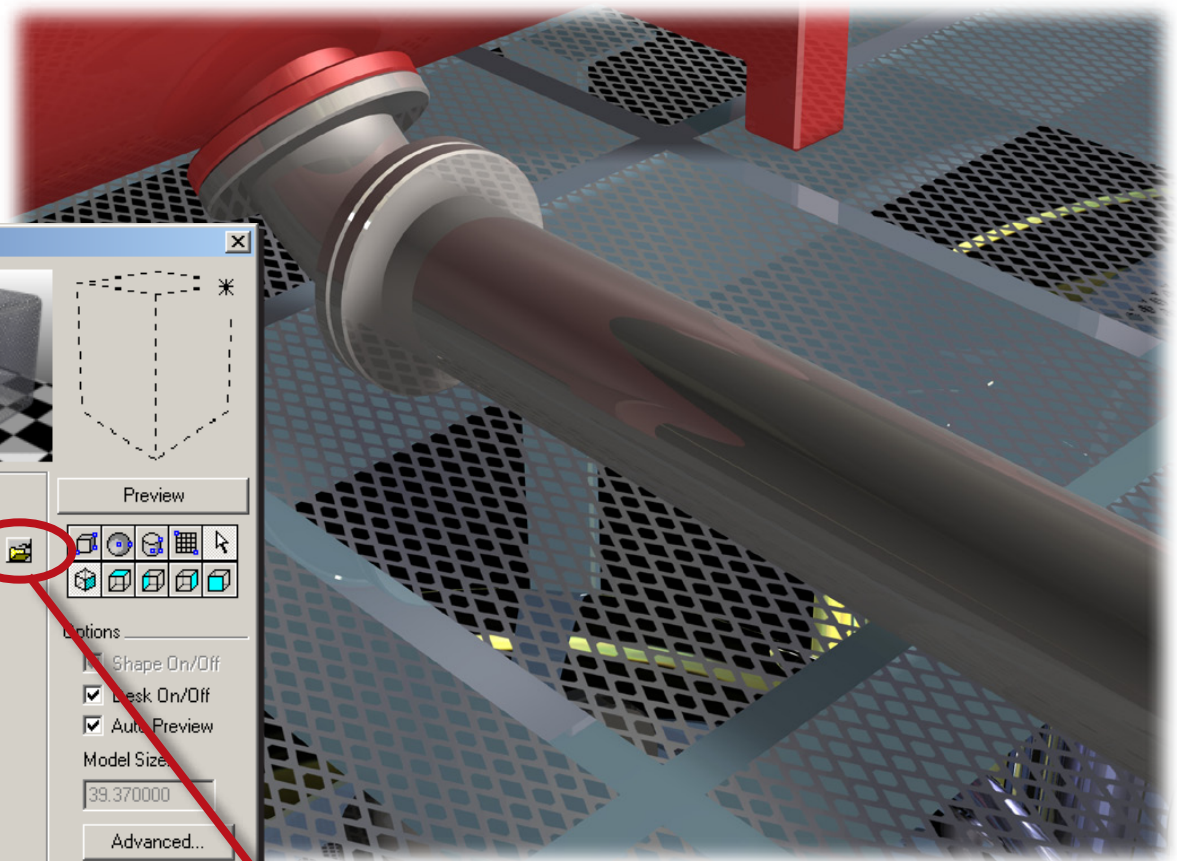
A user can utilize the materials that are packaged in TurboCAD. Check out the Miscellaneous category and focus on something like Grid. A few tweaks and it becomes a cage. No wrapped images are required for these.

Using a rendered facsimile (color & mask) can produces some interesting results like this globe.



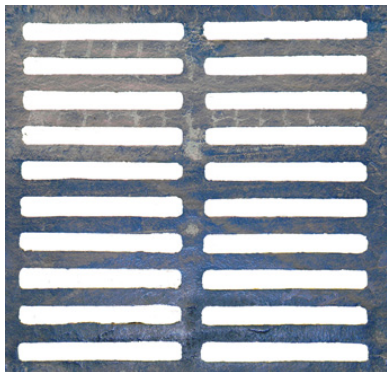
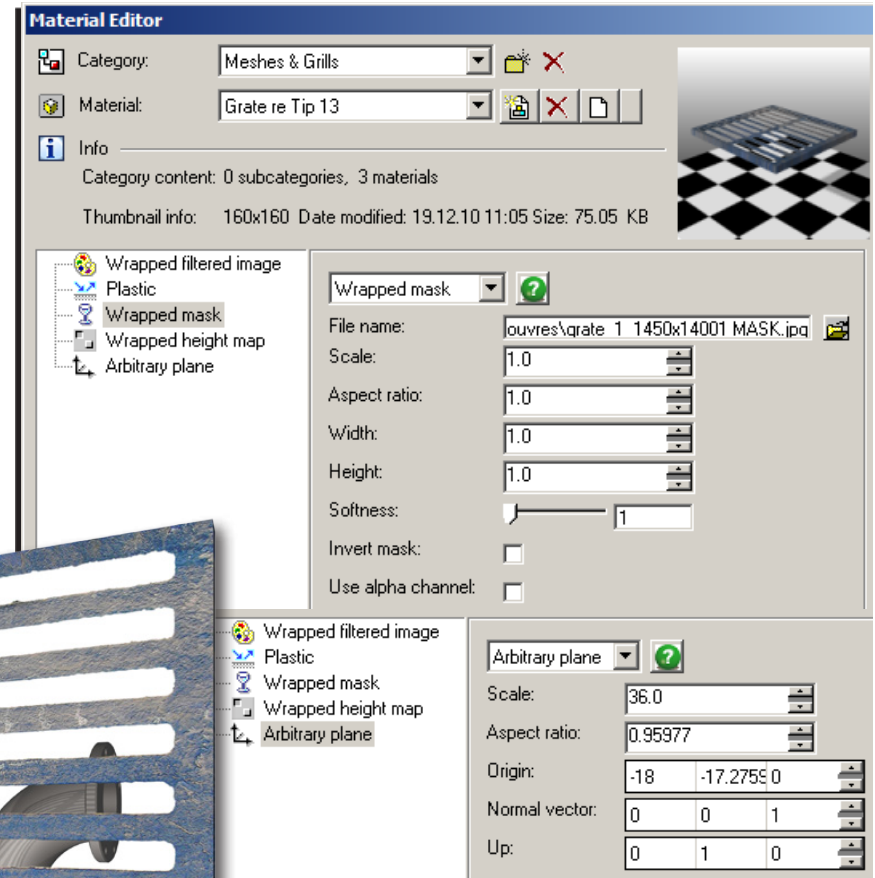
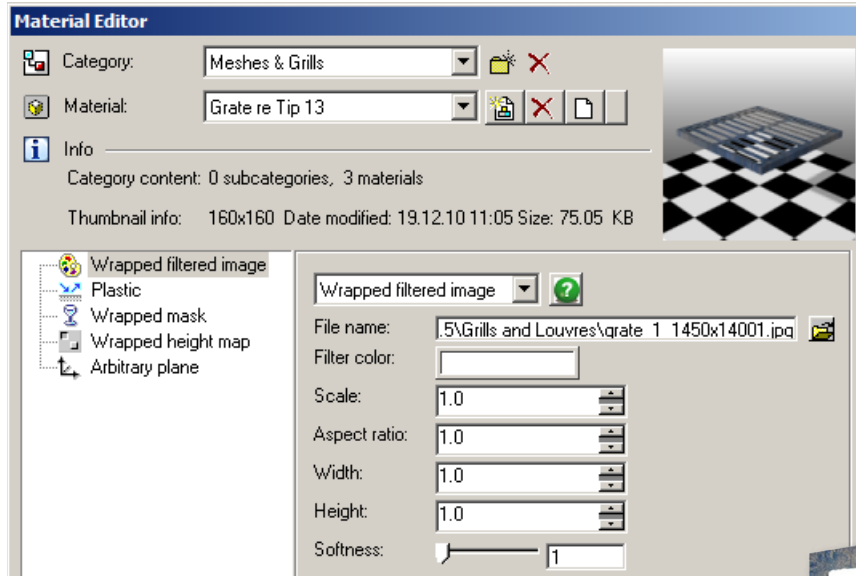
The Mask
Black masks in the
render

Another example using a rendered facsimile (color & mask).



← The Mask

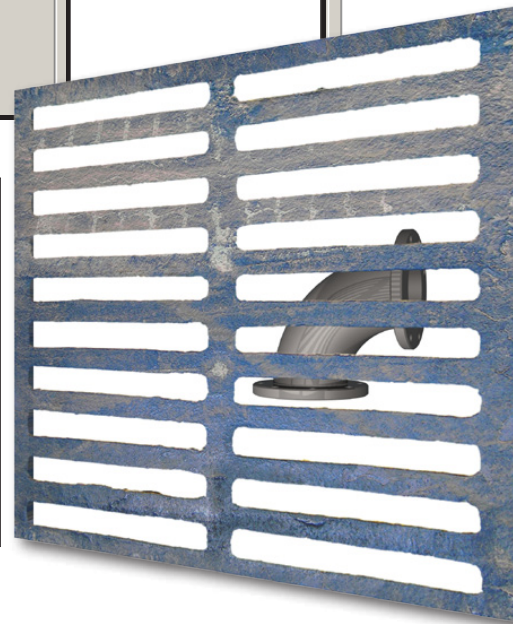
Using a rendered facsimile (image wrap & mask) can also produce some great results.



The Image



The Mask

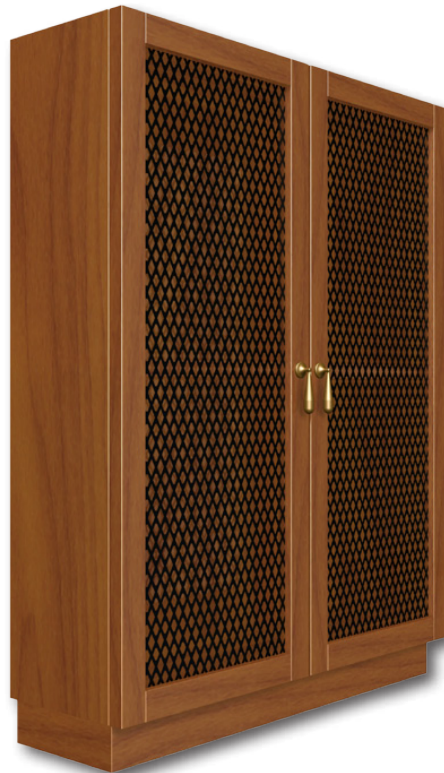


Wrapped Height Map tab not illustrated, but it uses the same image wrap and a 0.2 Depth Scale

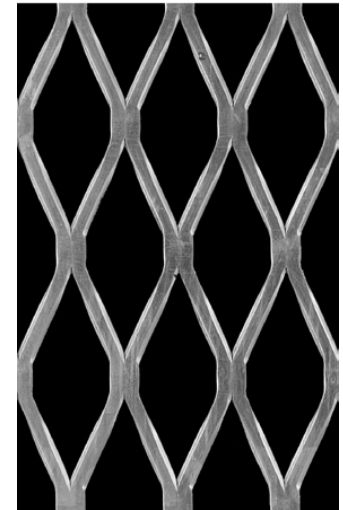
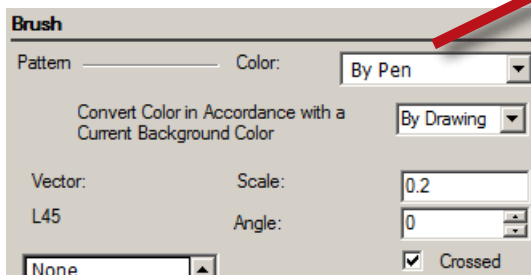
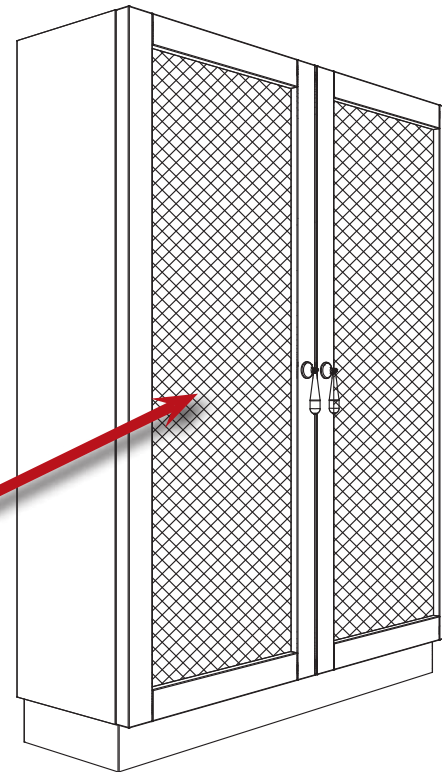
There are a couple drawbacks when using the masking method. When wrapped to an object it is wrapped all around the outside of the 3D object, so a double layer can result along with unsightly sides. As such, it is best to wrap to an ultra thin 3D object and skip close-up views that might not be as impressive had there been an allowable thickness.



Wrapped to Thick Box



Secondly, the wrapped objects will not show the patterns in Hidden Line view. One suggested method to bypass this shortcoming in Hidden Line renders is to illustrate the desired pattern with a similar hatch pattern and then, if desired, include an inserted photo and data for the required material.



Flattened Expanded Mesh
Style 1-1/2 F
.500 x 1.0
Center to Center of Bridges

If you found this TurboCAD tip helpful, please consider purchasing a full Textual Creations TurboCAD project tutorial that will lead you through an entire project, keystroke by keystroke. You won't be disappointed! Visit the [Textual Creations Shopping Page](#)