

MPANEL NEWS

Form-finding and patterning software for AutoCAD

February 2009

Do You Know the Full Potential of MPanel?

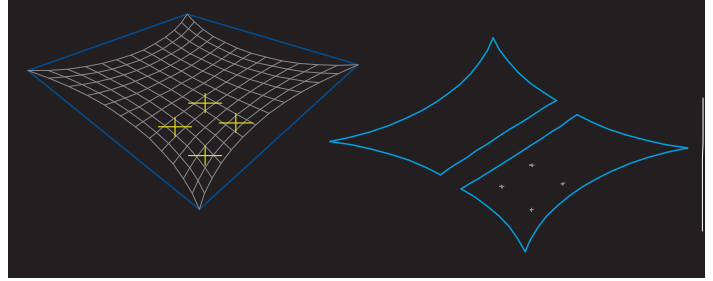


MPanel just keeps evolving! And we are wondering if you are aware of all the features in MPanel v13?

If you have evaluated MPanel in the past, let us introduce you to 2 of the new features in our latest release. You may ask why MPanel is the best design software for you to use...we think it is partly because many of the features in MPanel are asked for by our customers! Each new feature expands on our main theme...making your design work easier and, more importantly, faster.

So we have shown below a few of the features introduced in MPanel v13. Please take a few moments to look at these short explanations of some very smart new features!

The 'Panel a Complete Mesh' tool supports AutoCAD points as markers. In the model on the right, 4 AutoCAD points are drawn in the 3D mesh. They could be indicating the required position of some artwork for a company logo, for instance. They are drawn, using normal AutoCAD methods, roughly in the local mesh plane.

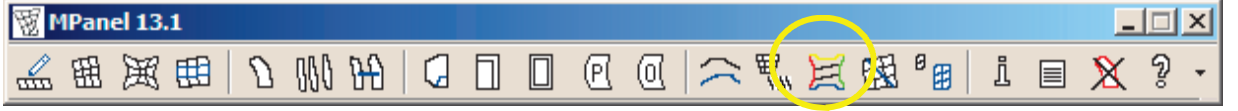
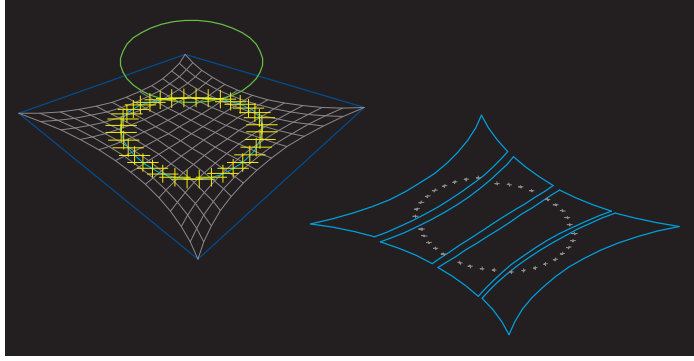


When the mesh is paneled, the 3D points are translated to 2D, and placed in the correct panels, as an annotation mark. The annotation mark is a 2Dpolyline, which will carry through all of the MPanel panel operations, and can be output to a layer that will be plotted out on the panel.

The AutoCAD points can be created in the mesh in several ways.

On the left, we show taking a circular 3D polyline (Green), and using it to create a cross section in the mesh, using the MPanel 'Cross Section' tool set to "Use 3Dpoly as Input" This in effect projects the circular shape onto the curved surface.

The Cross Section is then broken into Points (Yellow) using the AutoCAD "Divide" command. And during paneling, the points are transferred to the panels as annotation marks.

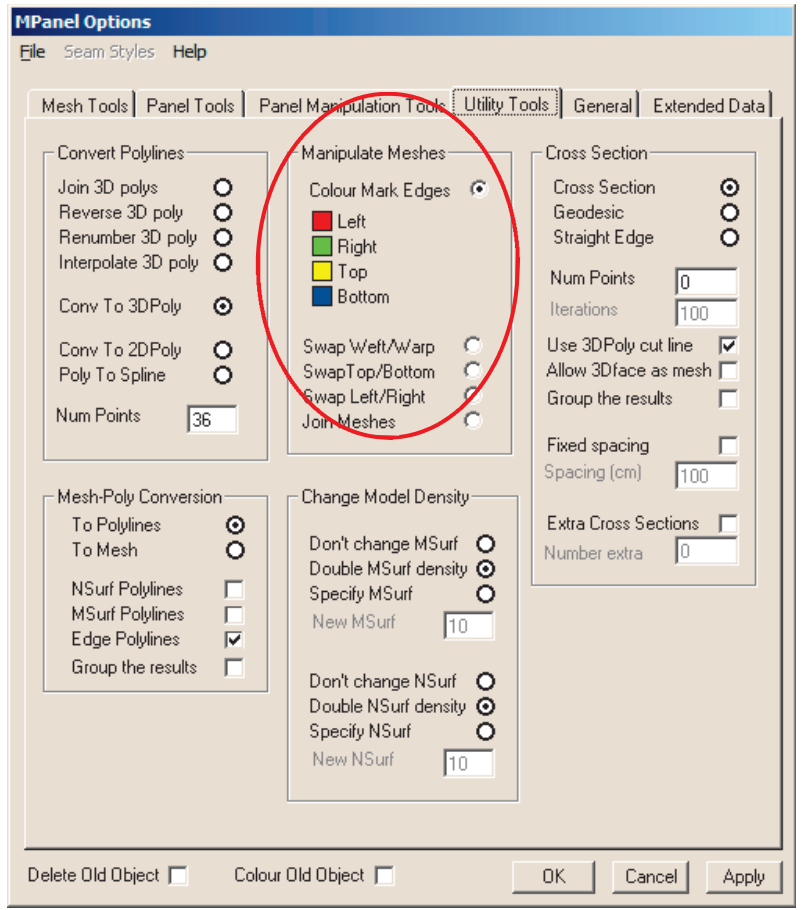


In complicated drawings it is sometimes difficult to remember which is the bottom, top, etc of your meshes. In v13 we introduced a new button that helps with mesh orientation. It can:

- Color code the mesh edges
- Swap Top/Bottom edges
- Swap Left/Right edges
- Swap Warp/Wleft edges

This feature assists in organizing and understanding models, by having a clear identification of the mesh orientation, and the tools to modify the orientation if you need to do so.

Just choose which option you want in the MPanel Options Screen, circled in red on the left, and then select your mesh and run the new 'Mesh Manipulation' tool, circled in yellow. It's that simple!



MPANEL FEA

Finite Element Analysis software for tensile fabric design professionals

Use it for:

- Engineering Analysis of Fabric Structures
- Determine Wind Load Effects
- Determine Snow Load Conditions
- Tension Stress Points
- Cable Tension Calculation
- and more...

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WHAT IS MPANEL FEA SOFTWARE?

MPANEL FEA software is a comprehensive set of engineering tools that assist a user with the design and refinement of tensile fabric structures and industrial fabric materials. It acts as a floating application inside AutoCAD Release 14 or greater.

Finite Element Analysis Tools

An update to MPanel FEA v4.0 was released in January, 2009. All registered users should have received this update automatically.

This update added support for multiple load cases, improved defining of entity lists, and new results drawings including Gradient, used to show potential ponding areas on the loaded membrane, and Sum Reactions, which can show the overall force on frame members.

If you have not yet had a chance to try our finite element analysis software and you would like to receive a demo of MPanel FEA, please send an email to support@mpanel.com, or contact any of our Support Team members. We will be pleased to send you an evaluation copy of MPanel FEA for you to try, free of charge or obligation, for 30 days.

As always, our MPanel Support Team members are available to answer any questions you may have about MPanel. With locations in the US, the UK, and Australia, someone is nearly always available, wherever you are in the world!

Please contact us [by email](mailto:support@mpanel.com) or call one of the representatives below for further information on any of our MPanel products. We will be happy to discuss your tensile fabric design requirements, and whether MPanel is really the product for you.

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