



## MPanel FEA - soon to be released!

Exciting news for MPanel users—MPanel FEA, a new finite element analysis software tool that integrates with MPanel, is presently in Beta testing, and is expected to be released soon.

Andrew Askwith, the program developer, cautions that the program will not suit every MPanel user. He says:

**“If an MPanel user is comfortable estimating fabric and cable stresses in a model, then the FEA add-on should be really useful. MPanel FEA easily produces stress plots, in AutoCAD, for a variety of wind and snow load conditions, and will produce the boundary loads required for steelwork engineering.**

**If however, the MPanel user is not comfortable with making a stress estimation, then the FEA package will probably involve concepts that are unfamiliar, and it would be best to leave the stress analysis to an engineering firm that specializes in tensile structures.”**

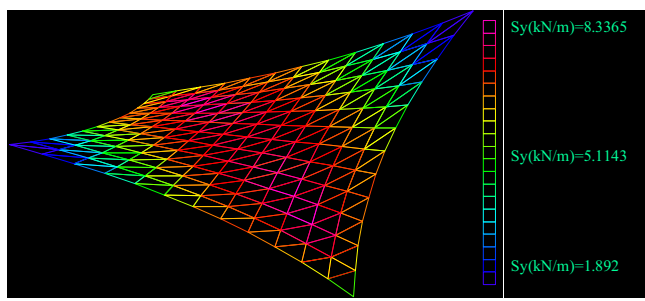
MPanel FEA simplifies the complicated subject of non linear FEA, through an easy to understand interface program running in AutoCAD, coupled to a powerful and robust solver.

The MPanel FEA interface reads a standard MPanel model and builds an FE model ready for analysis. Then the solver is run, to determine the model displacements for the load conditions.

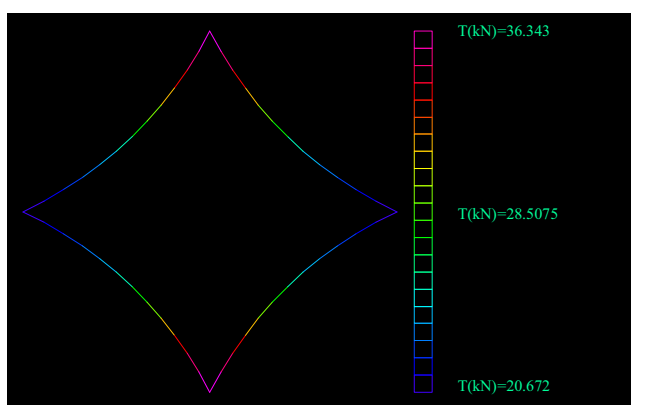
The non linear solver can cope with large deformations, slack fabric, and models that partially or completely invert under load.

Andrew further cautions:

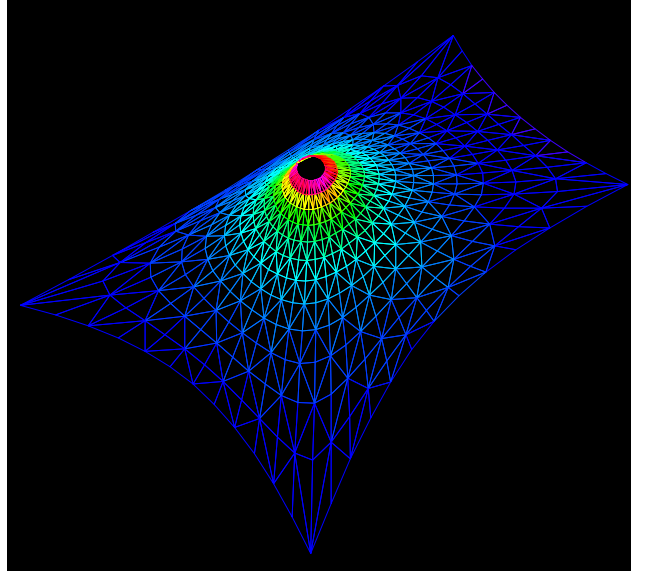
**“Despite these powerful new features, introducing FEA into any design department requires a learning curve and we recommend starting with simple structures, such as barrel vaults, hypars, flat sheets, and fixed edge structures. Once some experience has been achieved, then more complicated structures could be considered. There will always be structures so complicated that the analysis should be left to expert engineering firms.”**



A hyperboloid showing the stress induced between the low points with a wind uplift.



Showing the cable stresses of the above hyperboloid

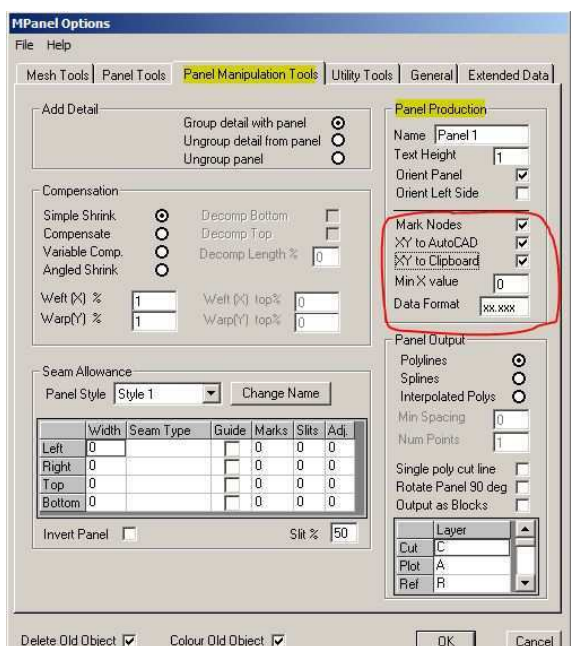


A cone tent showing the static distribution of the prestress

MPanel FEA will be offered as an optional supplemental product to our MPanel software.

MPanel customers with a current Technical Support contract will be offered a reduced price on MPanel FEA for a limited time, in acknowledgement of their continuing support of MPanel. Users should [contact us](#) to register their interest in taking advantage of this offer.

## MPanel...Not Just for Cutting Tables



As you can see by our Options screen, shown at the right, MPanel can also output to cutting tables and paper plotters in several formats.

Plotting to a paper template is a low investment step towards having a full cutting system, and lets you validate the design process without a large investment.

Each plotter and cutter will have different file requirements... MPanel has options to produce polyline, interpolated polyline, single polyline or splines, on a user defined set of layers, that will suit almost any plotter or cutter.

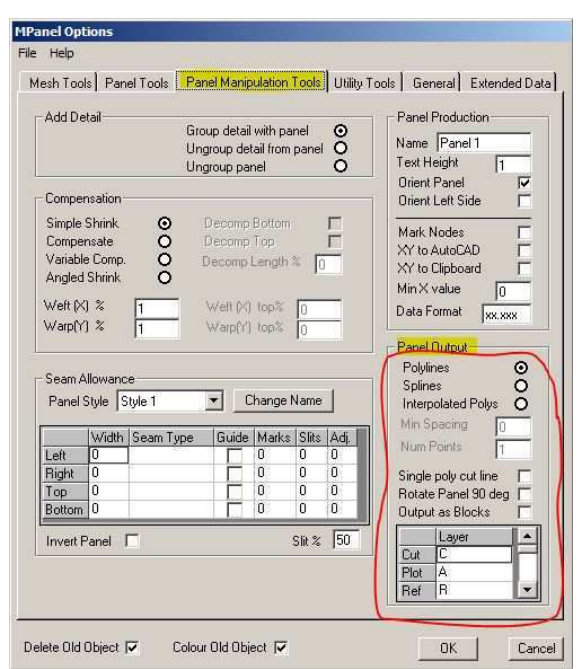
Please [contact us](#) if you would like to receive a 30 day evaluation copy of MPanel.

Do you want to get into CAD but are held back by the initial investment of software and cutting tables?

With MPanel, you don't need a cutting table to get started with CAD. As shown on the left, with our production tools, you can send your xyz coordinates to the clipboard, ready to be copied into a spreadsheet and/or show them on your AutoCAD drawing.

When pasted into Excel or other spreadsheets, your data is formatted correctly with one entry per cell.

You can also paste your coordinates into a text document for quick referencing when using a grid system for manually cutting your patterns.



## SWIFA Meeting April 3-5

The annual Southwest Industrial Fabrics Association meeting will be held in Dallas on April 4-5. MPanel's Timothy Akes will be attending the Saturday session and will be co-chairman of the Roundtable with Ryan and Ryan Chism from 10:45 to 12:00.

Tim will also be available at the Market Day to answer any questions you may have about the use of MPanel, so stop by our table from 12:00 to 3:00 if you would like to talk to Tim about the advantages of using MPanel in your design department.

**APRIL 3, 2008** - (Thursday) SWIFA Golf Tournament at Bear Creek Golf Club, 2300 S. Airfield Drive, Dallas, Texas 972-456-3200.

**APRIL 4-5, 2008** - The SWIFA Convention is to be held at:  
Wyndham DFW Airport North hotel  
4441 W. John Carpenter Freeway  
Irving, TX 75063.

[Click here](#) for more information.

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