



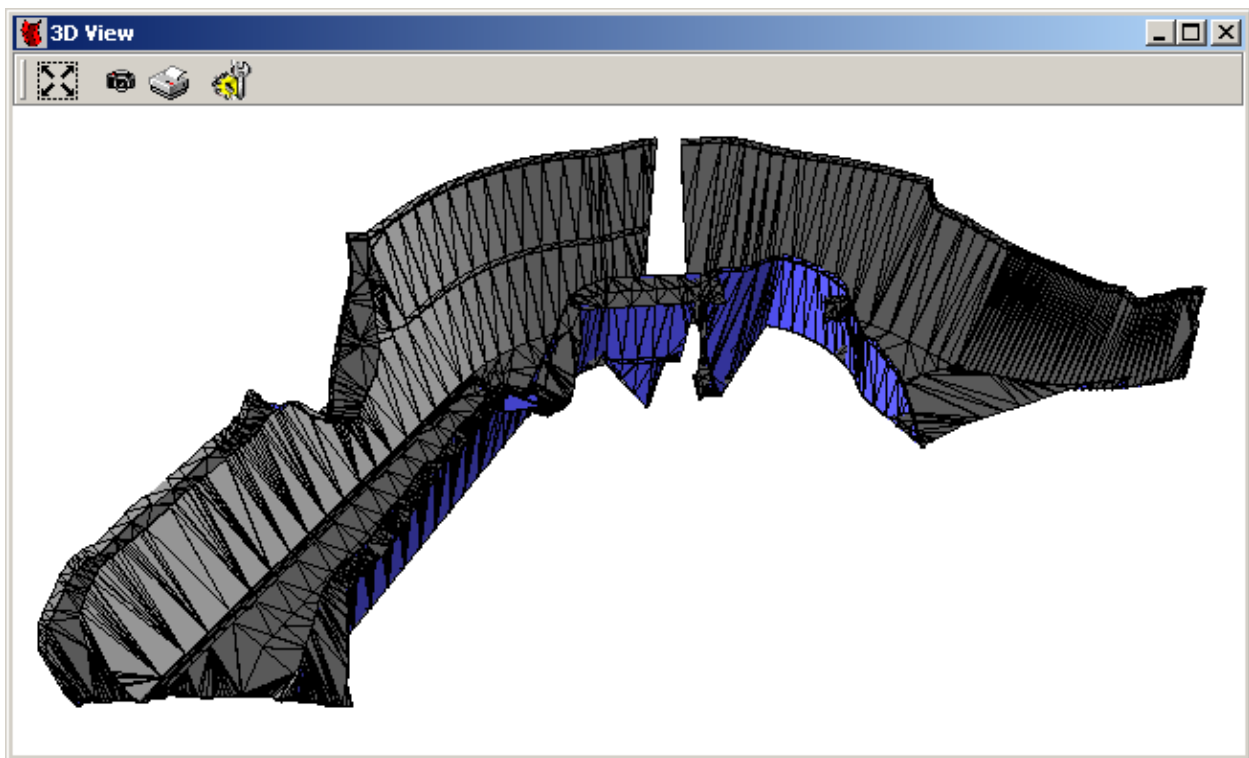
New Additions to ADVANCED CHANNEL DESIGN (ACD)

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IMPORT 3DFACE ENTITIES FROM DXF (DXF TO CHN CONVERSION)

The File Open option in ADVANCED CHANNEL DESIGN supports the DXF format (as well as CHN, PLN, LNW, XYZ). If the DXF format is selected, the program searches for a 3DFACE group in the ENTITIES section. Each 3DFACE object is converted to an ACD face and the 3DFACE vertices are added to the ACD node list.

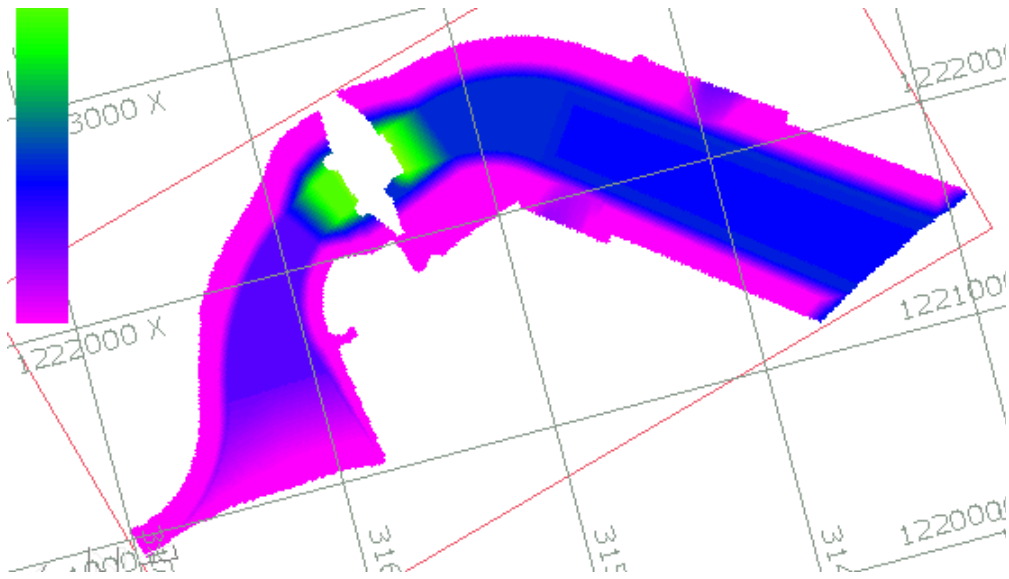
FIGURE 1. Sample DXF to CHN Conversion



SAVE THE CHANNEL IN MATRIX FORMAT

ACD can also convert the channel (*.CHN) to a matrix file representing the channel contours. At times, a CHN file can be very complex (as in Figure 1) and DREDGEPACK® will reject it because of a lengthy profile calculation routine. In such cases, the solution is to convert the CHN file to the matrix format. Now, it is possible to make such a conversion directly from ACD. In the Save File dialog, you must select the matrix file output file type. The picture below is the result of such conversion.

FIGURE 2. Matrix file Generated from a Channel File in ADVANCED CHANNEL DESIGN



NEW ALGORITHM TO CREATE FACES IN THE CENTER LANE IN A PLN TO CHN CONVERSION

If we import a PLN file or start an empty PLN, the center lane faces are created automatically. The algorithm assumes that left and right toes nodes are “balanced”. In most cases, it creates a “natural” division of the center lane into convex polygons. But, sometimes the algorithm fails. For this reason, we added a safe algorithm that produces a perfect division of the center lane.

FIGURE 3.

