



DREDGEPACK® – Matrix Files as your Dredging Plan

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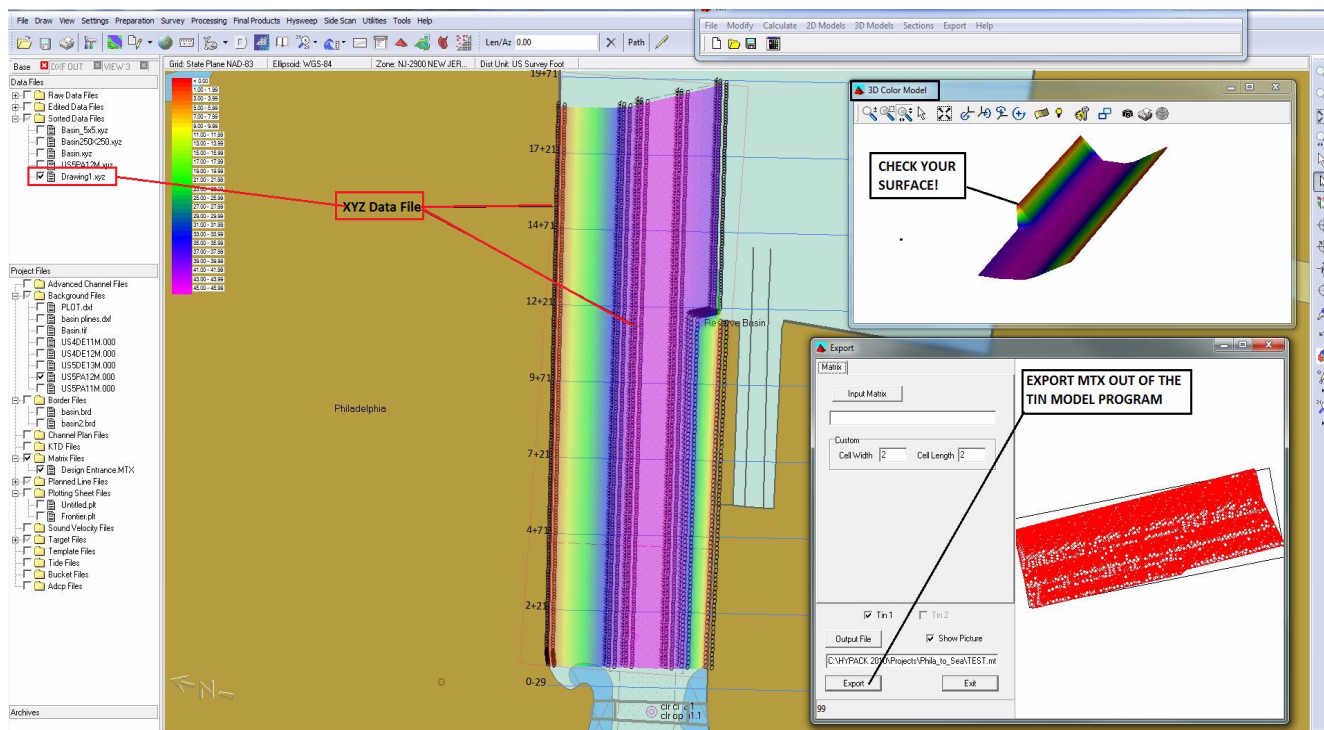
It is now possible to use a matrix file produced from HYPACK® as your dredging template (dig plan) in DREDGEPACK®. The following describes how to construct such a matrix file and how to load it to DREDGEPACK® to use as your channel file

In the past, CHN files exported out of the TIN MODEL program were used as a template in DREDGEPACK®. The downside of this method was that if the file size was too large, they were slow to load and sometimes did not load at all due of the number of small faces the program had to handle. As dredging plans have gotten more complicated, HYPACK® implemented the ability to draw a matrix file as design prism. It works great!

CONVERTING THE XYZ FILE TO A MATRIX

First, start out with an XYZ file that contains the depths of the template. The XYZ data should contain the top of slope values as well as the varying bottom depth values. You can also use a survey XYZ surface as the design. It can be as complicated as you wish. This is the upside using a Matrix as a design file in DREDGEPACK®.

FIGURE 1. Converting the XYZ File to a Matrix File in TIN MODEL



Here is what you need to get started once you have your XYZ data file:

1. **Build a model of your XYZ data** in the TIN MODEL program.
 - a. **Select FILE-NEW.**
 - b. **Enter your XYZ data file** as Input file.

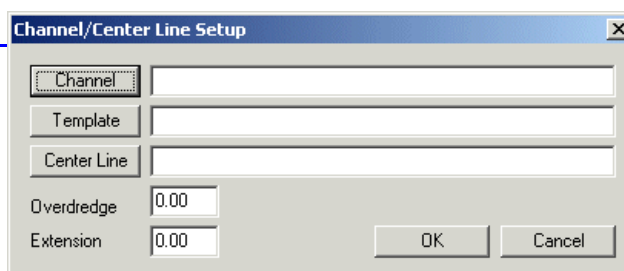
- c. **Choose a TIN Max Side** large enough to interpolate the XYZ data and create your TIN surface.
 - d. **Click [OK].**
2. **View your surface in the 3D color window to verify the results** match the dredging plan you intend. (You may also use the Modify/Edit window to edit your TIN model.)
3. **Export your surface in matrix format.**
 - a. **Select EXPORT-MATRIX**
 - b. **In the Matrix Export window, type in your cell size.** This is important as it determines what the resolution of the matrix will be. In my test I used a 2'x2' resolution.
 - c. **Click [Output File] and give your matrix a name.**
 - d. **Click [Export].** You now have a design matrix.

LOADING THE DESIGN MATRIX TO DREDGEPACK®

In the HYPACK® Shell, enable only the matrix file you are painting with your dredge depths in DREDGEPACK®. *Do not have both the design matrix.* The design matrix file will be loaded into the DREDGEPACK® program in another manner as follows:

1. **In DREDGEPACK®, select CHART-CHANNEL.** The Channel/Template Setup dialog will appear.

FIGURE 2. Channel Template Setup Dialog



2. **Click [Channel].** Change the "File of Type" in the file selection window to *.MTX and select the design matrix file you exported from the TIN MODEL.
3. **Specify your overdredge** if necessary.
4. **Click [OK].**

DREDGEPACK® will now use your matrix as your template in the Profile window (which is opened in the Vessel Setup dialog) and as the reference surface in the Map window when you are using the Channel-Dredge matrix view option.

To access the Matrix view options, in the DREDGEPACK® Map screen, select MATRIX-DISPLAY OPTIONS.

FIGURE 3. Matrix View Options in DREDGEPACK®

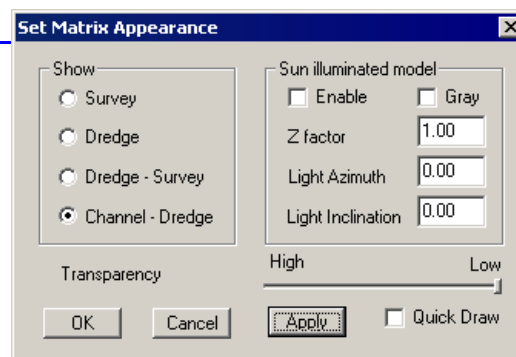


FIGURE 4. Loading the Matrix as Your Channel Design

