

# HYPACK: Turn Channel Files into Matrix Files for DREDGEPACK®

## by Peter Hamlett

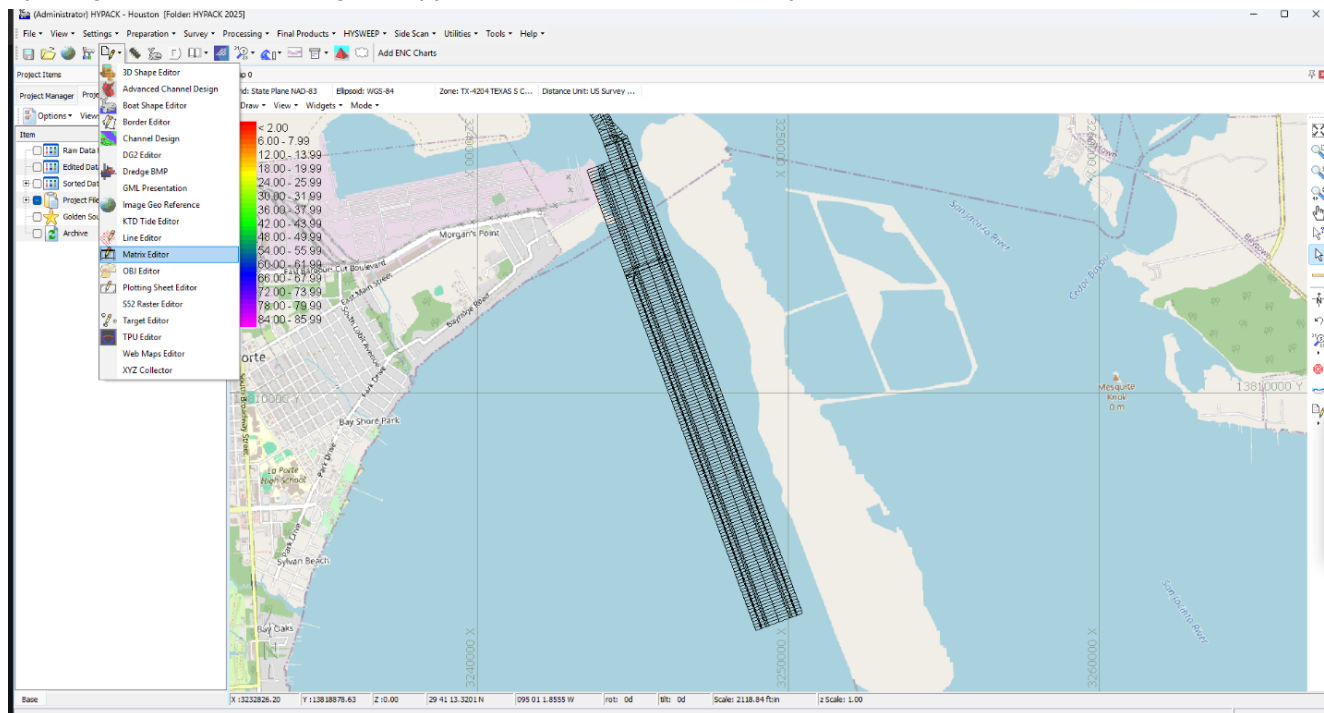
Quite often, our customers run into an issue with a Channel file (\*.CHN) not loading into DREDGEPACK®, especially when the \*.CHN file is extremely large and/or long and has too many faces for the program to handle, causing DREDGEPACK® to crash.

The quick and easy way to resolve this issue is by converting a portion of your Channel file (\*.CHN) into a Matrix file (\*.MTX) that will be used as your 'Channel' file in DREDGEPACK®.

Here's a step-by-step guide to perform this function.

### Matrix Editor

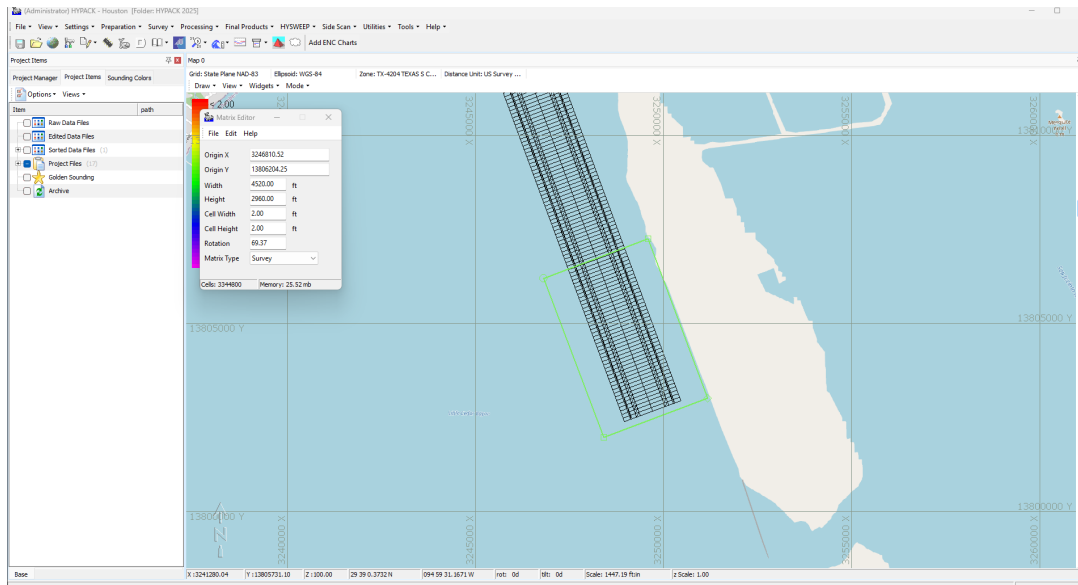
- 1) Make sure your Channel file (\*.CHN) is loaded in the HYPACK Main Shell (for visual use).
- 2) From the HYPACK Shell, click Editors -> Matrix Editor. The Matrix Editor window opens, and a green rectangle depicting the matrix bounding box appears in the HYPACK Shell Map window.



- 3) In the HYPACK Shell, manually rotate and resize the 'new' green matrix box until it covers the desired area of your Channel file (\*.CHN).

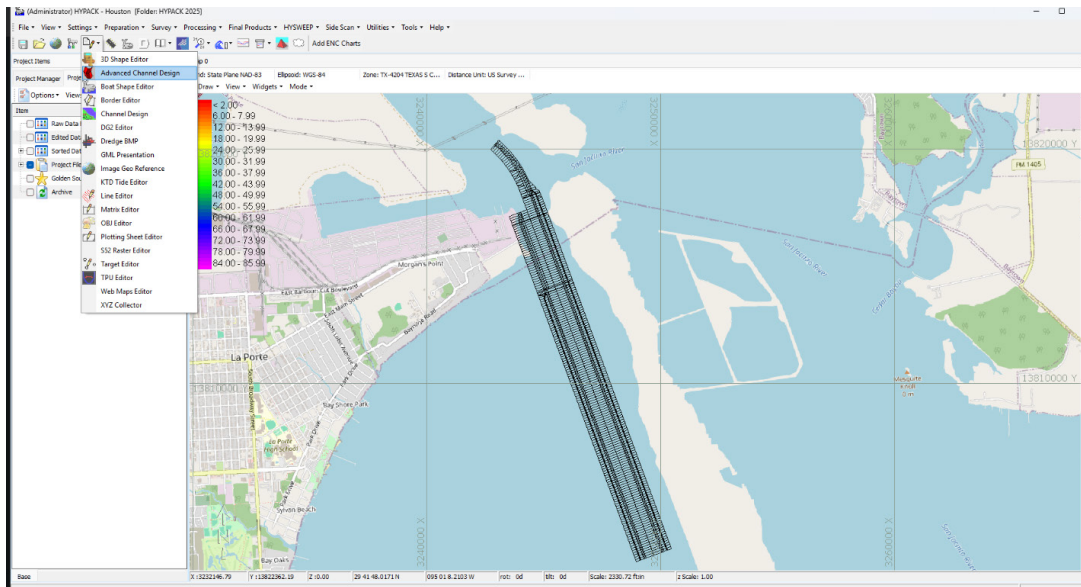
(NOTE: It can be the entire channel file or just a small portion of it. For this example, I am only doing a small portion of the channel file).

- 4) In the Matrix Editor window, adjust your Cell Height and Width values to match the parameters of your digging tools.
- 5) Choose 'Survey' as your Matrix Type.
- 6) Click File -> Save and name your matrix according to your desired area (i.e. Station\_300 to 850.MTX).
- 7) Close the Matrix Editor.



## Advanced Channel Design

- 1) From the HYPACK Shell, click Editors -> Advanced Channel Design. The Advanced Channel Design window opens.



- 2) In the Advanced Channel Design window, click the Open icon to open your channel file (\*.CHN).



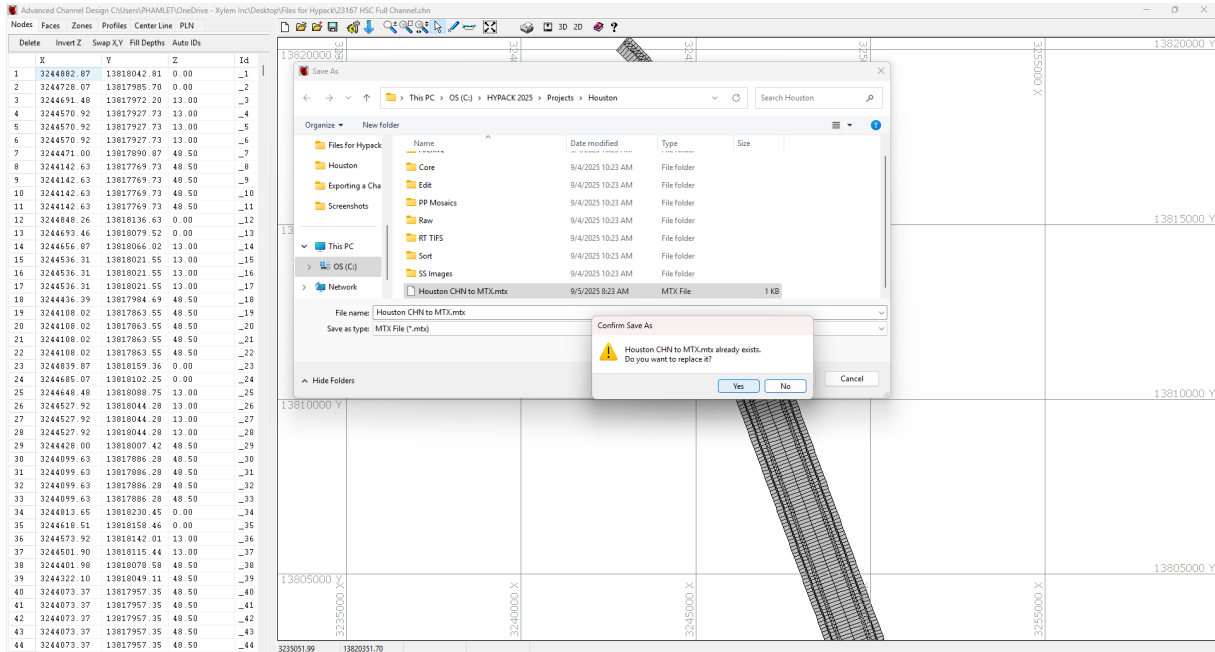
3) Click on the Save icon.



4) When the Save As window appears, change the Save As Type from Channel File (\*.CHN) to MTX File (\*.MTX)

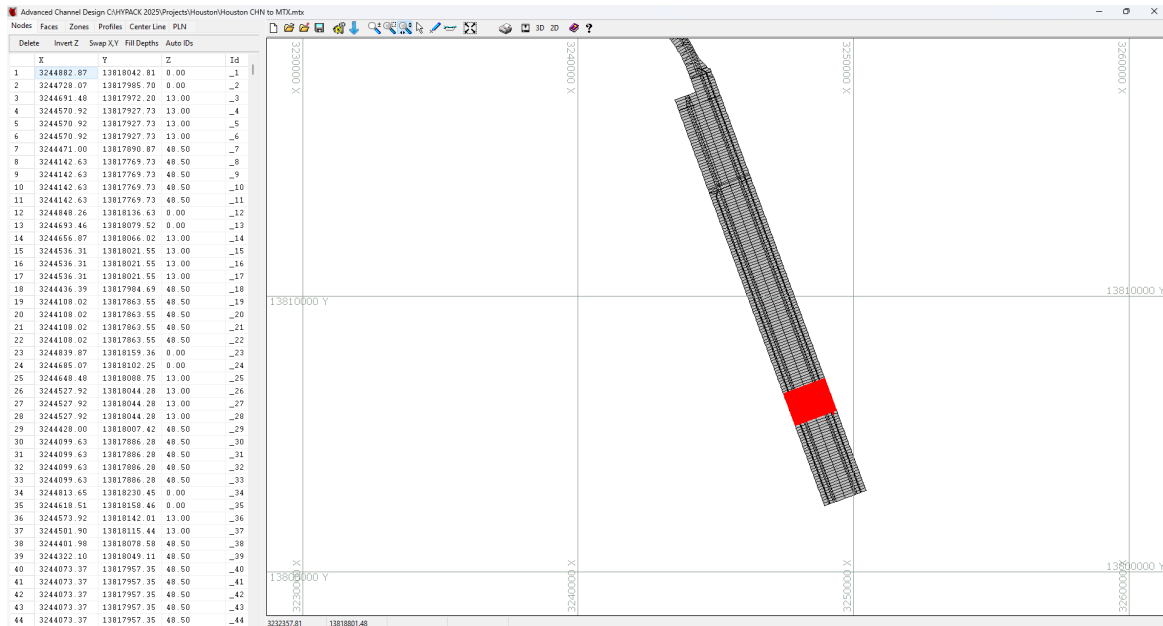
5) Select the 'new' Matrix File (\*.MTX) that you created in the previous Steps

6) Click the [Save] button, then click the [Yes] button to overwrite the matrix file. This will fill the matrix's cells with the 3D Z-values from the channel file.



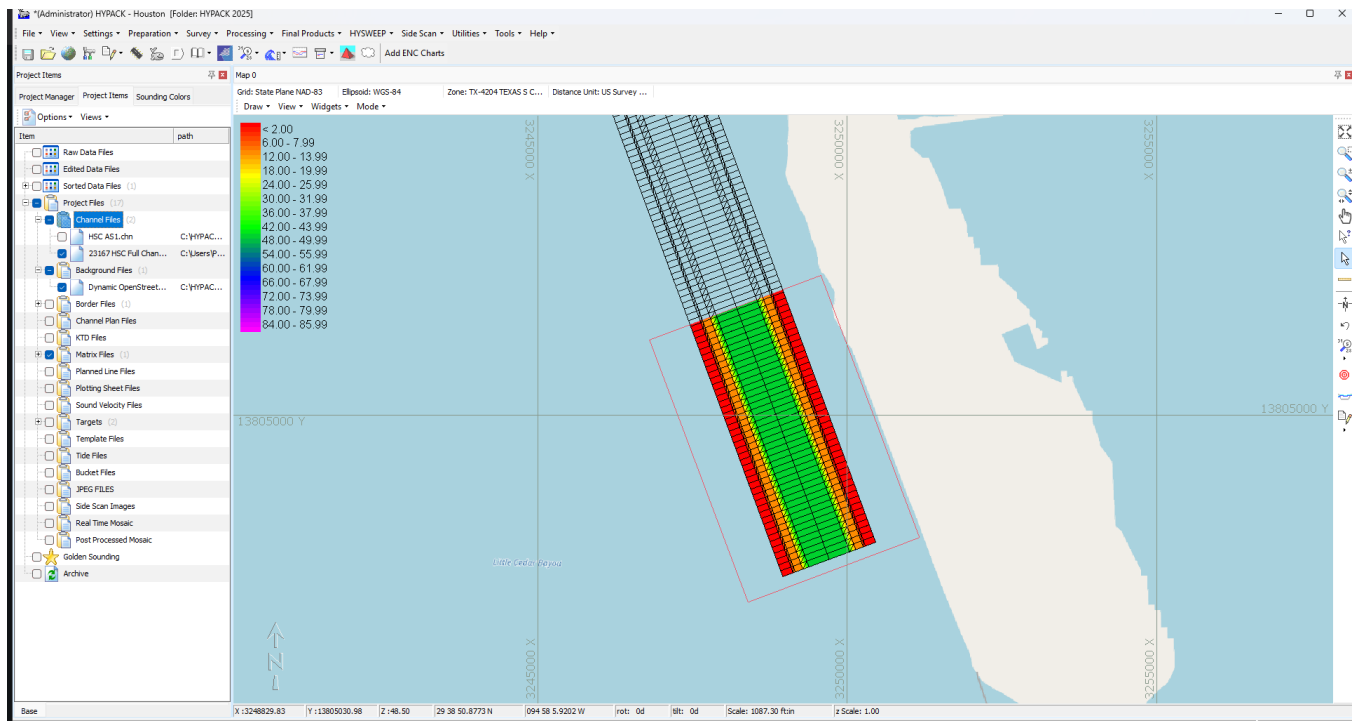
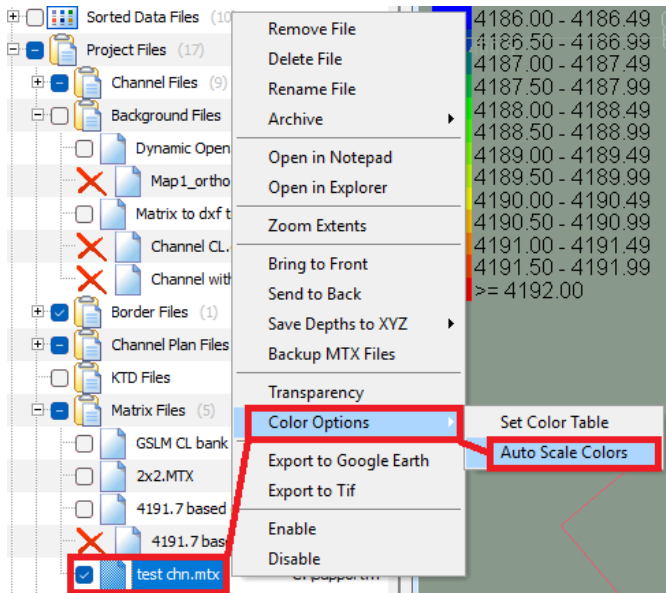
You will now see the portion of the channel file populating the inside of the matrix file.

7) Once it's finished painting, close the Advanced Channel Design window.



# HYPACK Shell

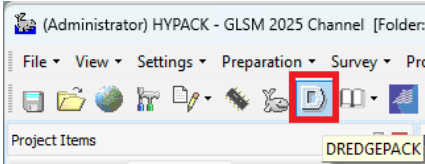
1) Back in the HYPACK Shell under the Project Items tab, navigate to Project Files -> Matrix files. right click on the name of the matrix file you created and click Color Options -> Auto Scale Colors.  
This will allow you to see that the channel file's 3D Z-values have properly populated the matrix file.



- 2) Disable the 'new' matrix in the HYPACK Shell by unchecking the box next to the file name.
- 3) Enable your dredge matrix in the HYPACK Shell by checking the box next to the file name.

# DREDGEPACK®

1) Open DREDGEPACK®. From the HYPACK Shell, click the DREDGEPACK icon. The DREDGEPACK window opens.



2) In the DREDGEPACK window, click Chart -> Channel.

3) In the Channel/Center Line Setup window, click on the [...] button next to the Channel field.

4) In the Select Channel Plan File window, change your file type (bottom right) to Matrix Files (\*.MTX).

5) Select the Matrix file (\*.MTX) that you created in Advanced Channel Design.

6) Click [Open]. The matrix file name appears in the Channel/Center Line Setup window.

7) Click [OK].

