

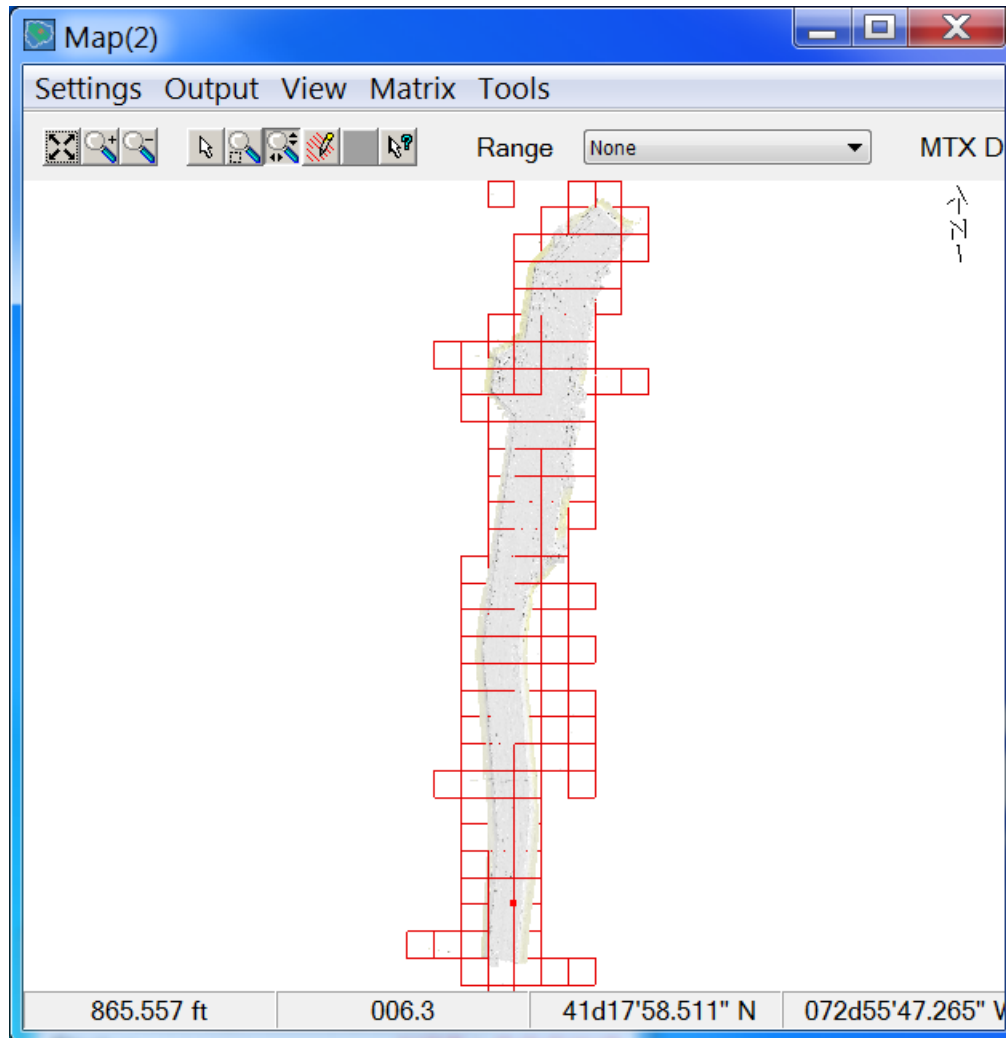


HYSWEEP® Matrix Log Files

By John Lindberg

As most HYSWEEP® users know, HYPACK® 2014 introduced the Auto-Matrix. Rather than having to create and size matrix (*.MTX) files to the survey area, you were given the option to generate painted matrices on-the-fly. For the majority of users working in a relatively small survey area, only a few matrices would be created. In a large survey area, you could potentially have hundreds of matrices generated as shown in Figure 1:

FIGURE 1. *Matrices Generated by Auto-matrix*



AUTO-MATRIX VIEW OPTIONS

In HYPACK® 2015, we added more Auto-Matrix viewing options. You can now display minimum depth, maximum depth, average depth, standard deviation or sounding count for each matrix cell. Each Survey map is individually configurable using the MTX Display drop-

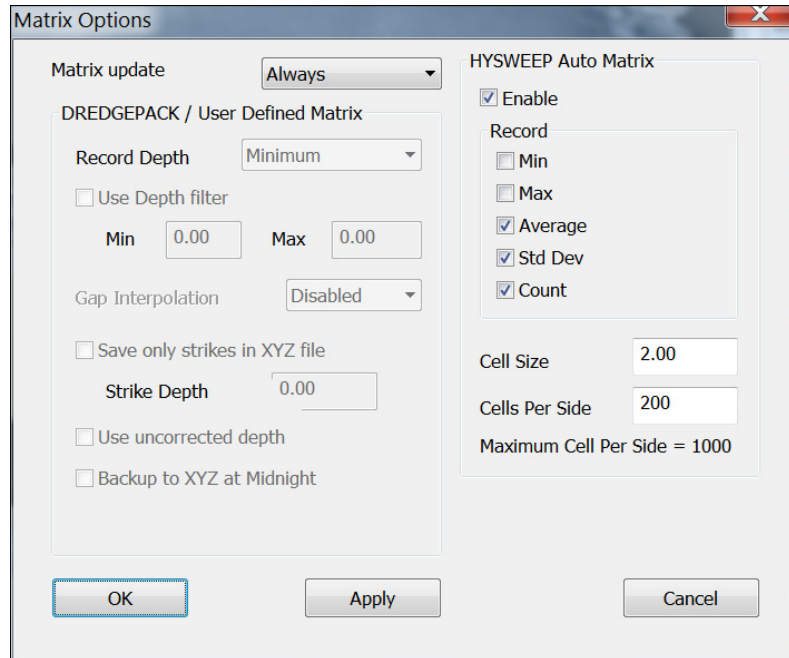
down in the toolbar so, for example, you can display average depth on one map, while displaying standard deviation on a second map.

AUTO-MATRIX RECORD OPTIONS

You can choose one or more of the same values to be logged in the Matrix Options dialog.

Depending on the Record values selected, a matrix will be generated for each area, for each record value. So, in a survey area where you may have had 100 Auto-Matrix files generated in HYPACK® 2014, you could potentially have five times that number now in HYPACK® 2015!

(By default, only Average, Standard Deviation and Count are selected in the Matrix Options. For those that prefer only one matrix type, simply uncheck the matrix types you do not want and those additional matrix files will not be created.)



MATRIX LOG FILES

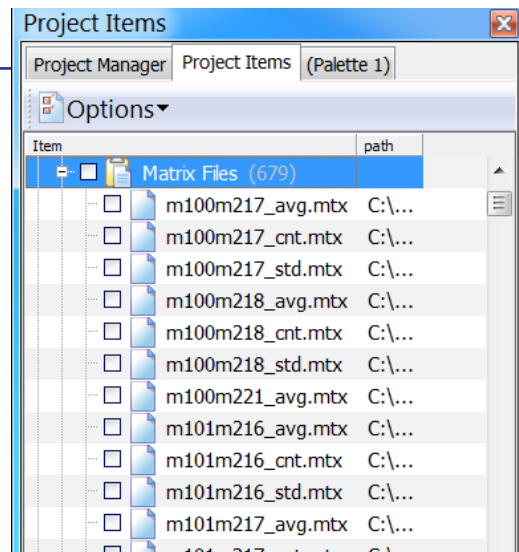
During development we came across a few issues. The biggest issue was how to organize the matrices. At first they would be all listed in the Matrix Files folder (Figure 2):

FIGURE 2. Preliminary Development of Matrix Files in the Project Items List

Imagine having to go through the list to enable just the average depth matrices when you have hundreds of Auto-Matrix files generated! We soon came up with the solution: the matrix log file (*.MLOG).

A matrix log file is simply a list of matrix files. You can open one up in a text editor and you will see the matrix files contained.

Survey will automatically group the Auto-Matrix files by the record value, each resulting in a Matrix Log file. This cleans up the Matrix Files folder



dramatically, as any matrix file within the MLOG will only be displayed under that matrix log tree (Figure 3):

FIGURE 3. Sample Matrix Log Files in HYPACK®

Now the you can easily enable/disable the matrices of one record type (the standard deviation matrices, average depth matrices, etc.) all with one click of the mouse.

HYPLOT also works with Matrix Log Files (Figure 4), and other programs will follow suit throughout 2015 as requested.

FIGURE 4. Sample Matrix Log Files in HYPLOT

