



New 3D Sort Program

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For those of you familiar with the old SORT program, you know that it will thin a data set by a given radius or X/Y difference on the X and Y planes. This is great for flat displays, like CAD plots, etc. but, as we move more into 3D displays of our data, this approach was no longer acceptable. So, at the request of a customer, we have expanded the SORT program to sort on all dimensions. This new SORT program will be released in the 2012 version of HYPACK®, but anybody who has a need for it can request it from HYPACK® Technical Support.

Below is an example of a large data set shown in both programs:

FIGURE 1. *The Data Set in HYPACK Shell*

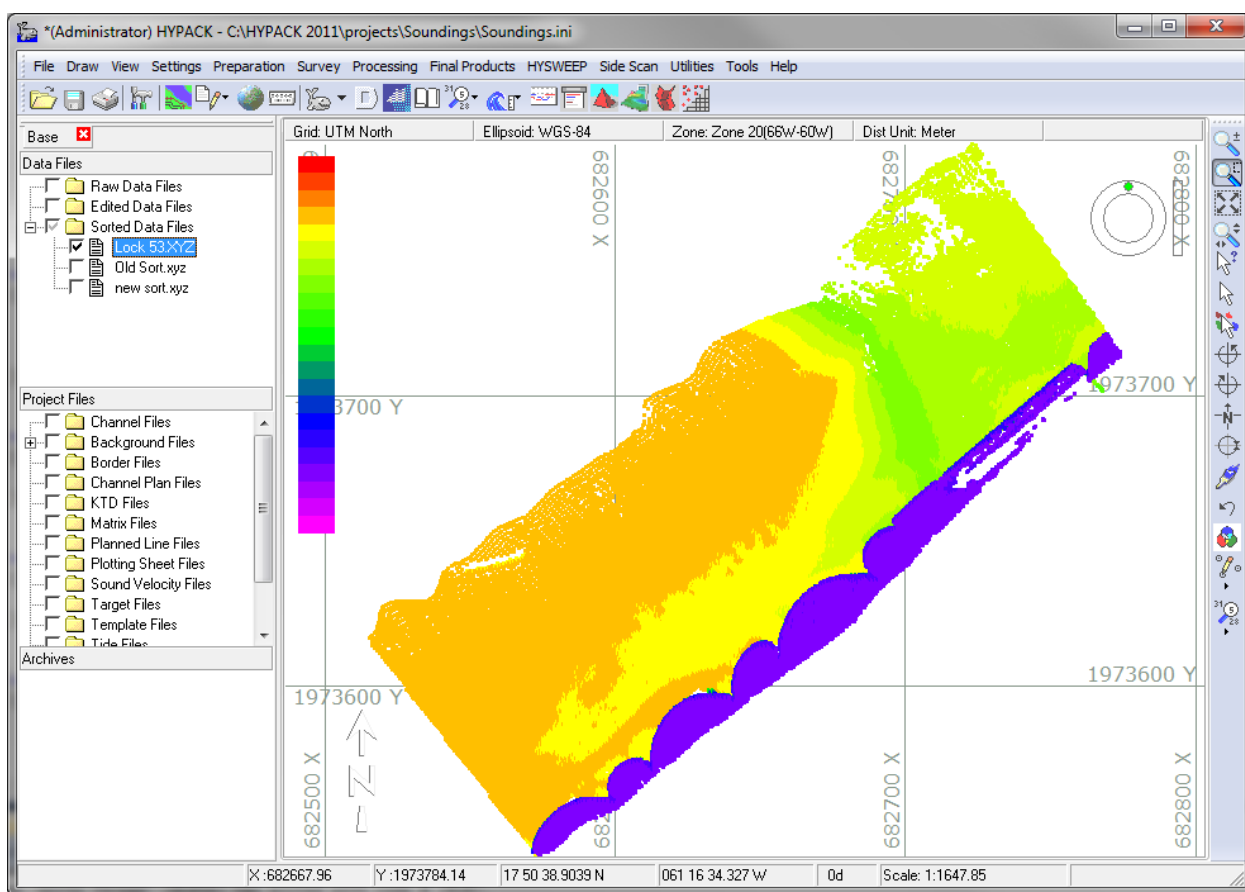


FIGURE 2. Old Sort Program

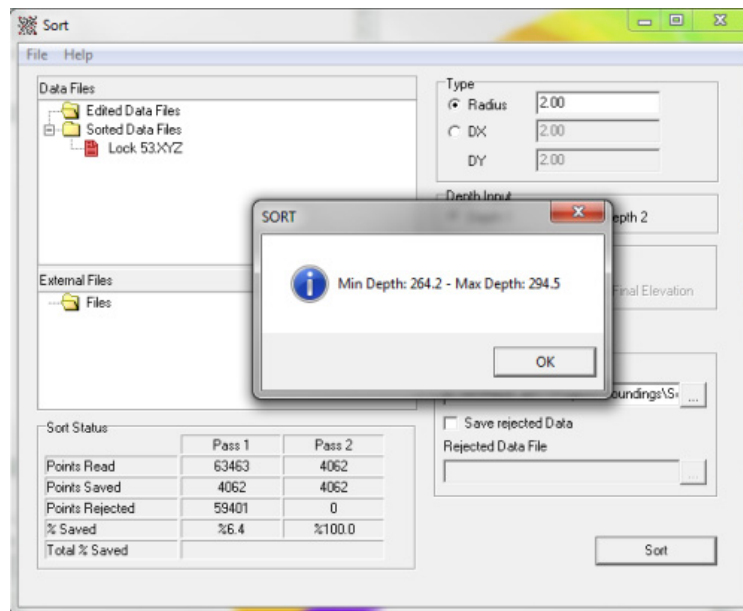


FIGURE 3. Result in the HYPACK Shell

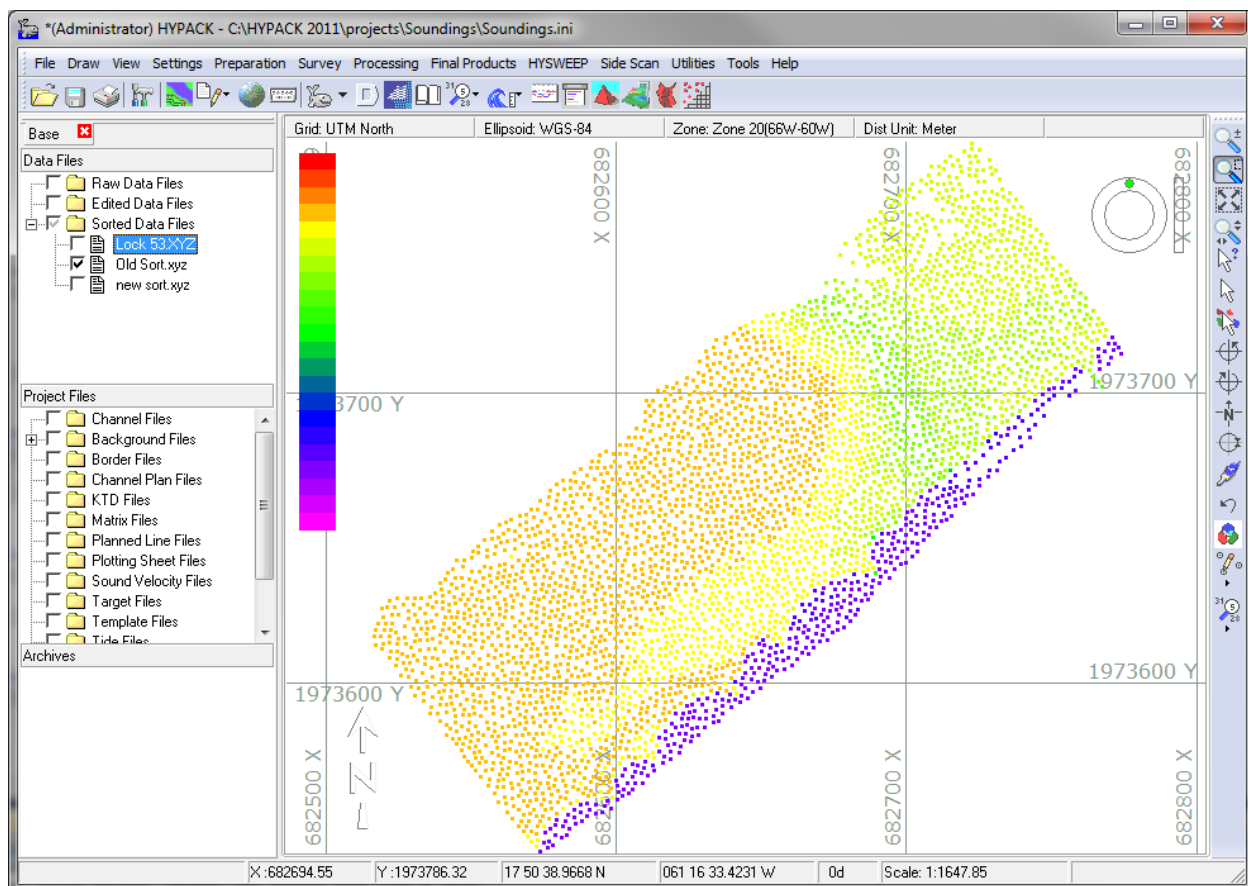


FIGURE 4. New Sort Program

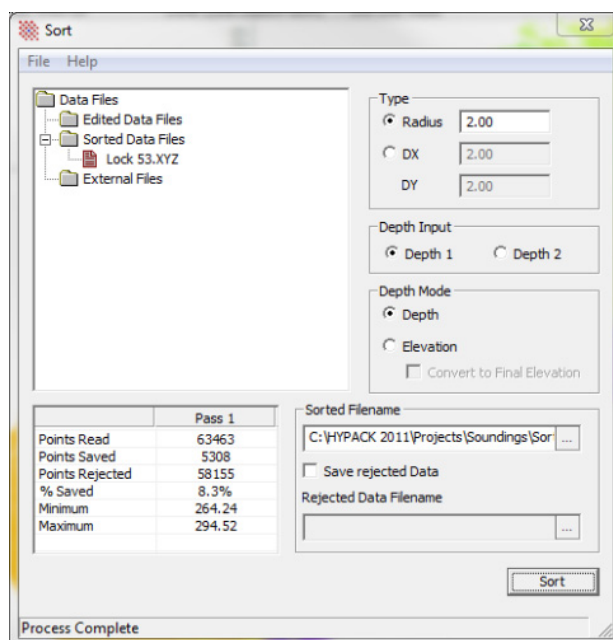


FIGURE 5. Result in HYPACK Shell

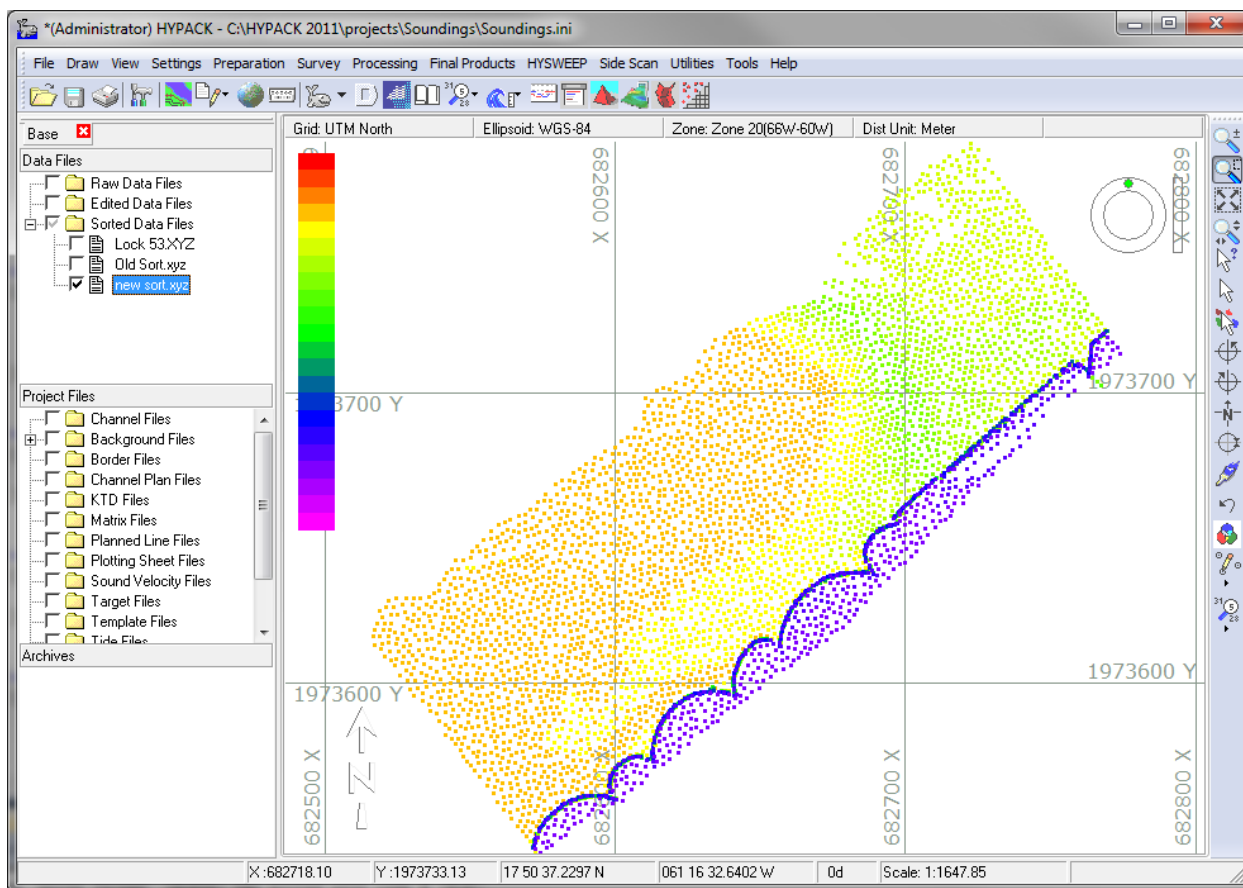


FIGURE 6. Old Sort Result in Cloud

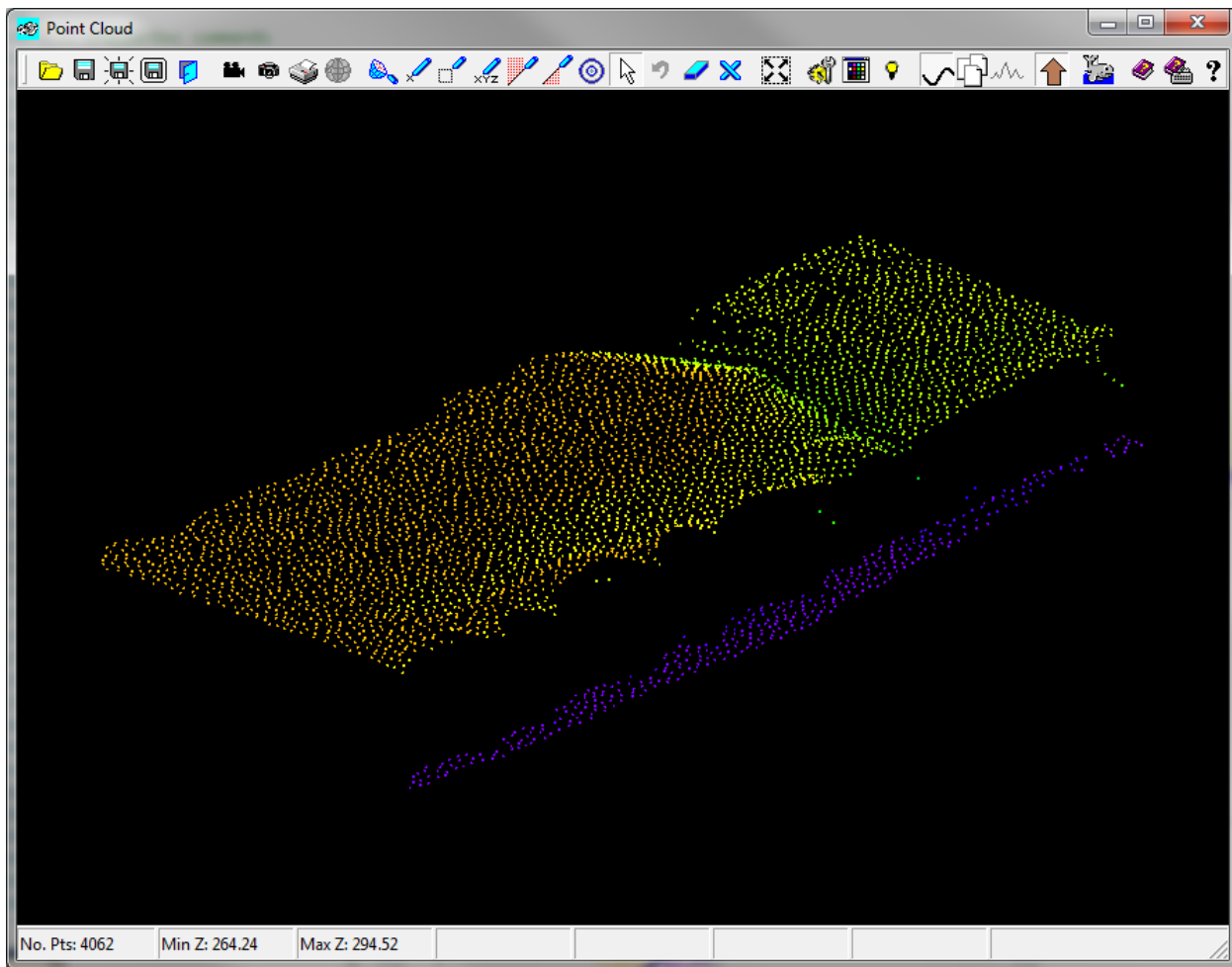
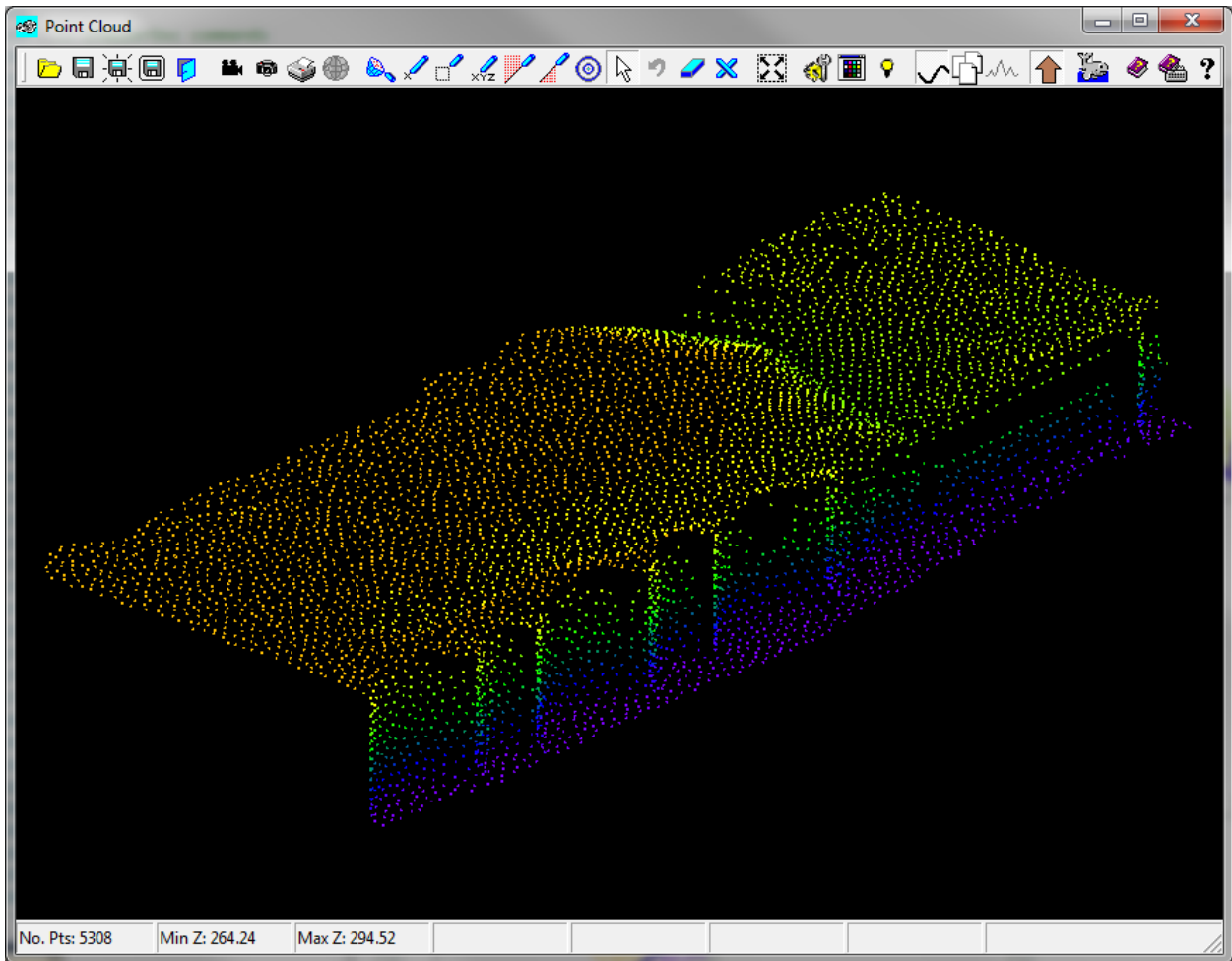


FIGURE 7. *New Sort Result in Cloud*



You see that the vertical wall is maintained.

The new SORT program keeps the dX/dY sort option that is *still 2-dimensional*.

The other advantages to the new SORT program:

1. **Faster on large data sets.** The algorithm for the sorting has changed. Instead of going file by file and using 2 passes, all of the data is loaded into partitions and sorted in one pass using better sorting algorithms. Conversely, it is a bit slower on smaller data sets. There are a lot more comparisons that have to happen with the 3rd dimension, so the time savings come in the sorting techniques.
2. **Handles larger data sets.** No longer will the program decide to crash if it runs out of memory. The data is cached to disk to handle virtually any data set.