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## ESRI File Geodatabase Export of XYZ files in HYPACK

By Connor MacDonald

HYPACK® 2021, introduces some new features to be compatible with ESRI software.

One of the first things we have done is add the ability to export XYZ files from our software to an ESRI File Geodatabase. Here, I will give you a rundown of how to export an XYZ file to an ESRI File Geodatabase.

### ***THE GEODATABASE***

At this stage in our development, to export to a File Geodatabase you must already have a database created with a Multipoint Feature Class, and with the correct spatial reference to match your HYPACK® project. It is easiest to use the ESRI ArcCatalog software for this purpose.

First, create a new File Geodatabase, then create a Feature Class inside. When creating the Feature Class, be sure to make the Type of features stored in the Feature Class “Multipoint Features”, and ensure that the coordinates include Z values. The ESRI ArcCatalog software then guides you through setting up the Spatial Reference parameters, which you should match with the settings for your HYPACK® Geodesy.

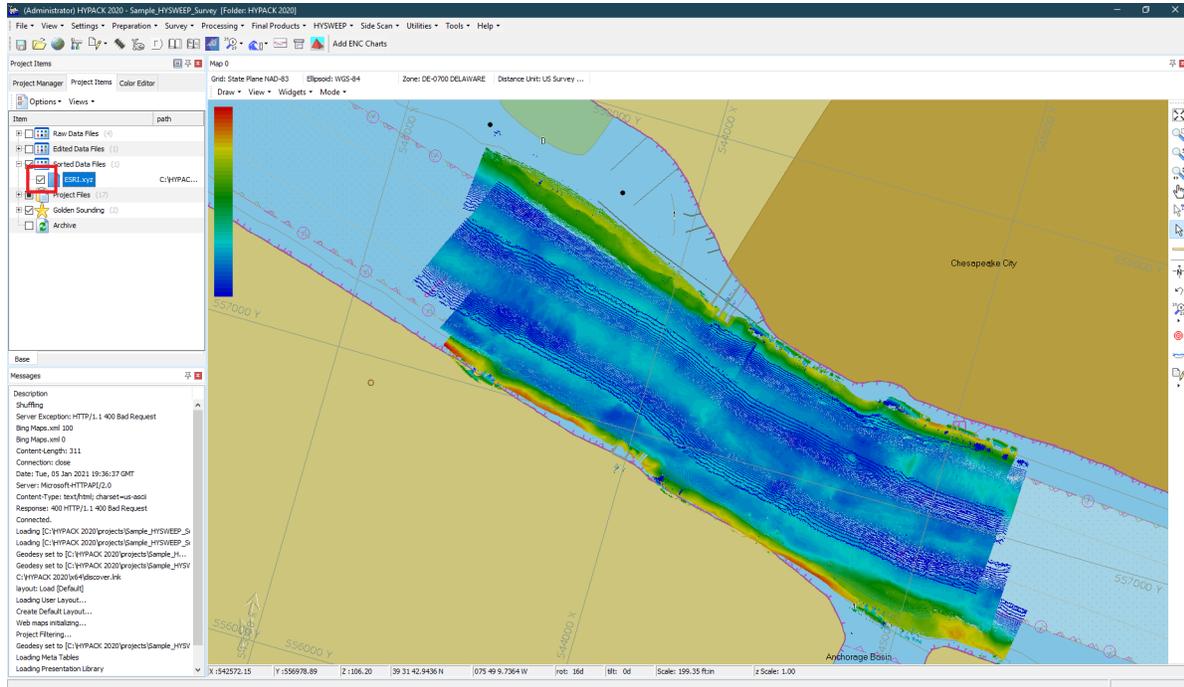
### ***EXPORTING XYZ DATA TO THE GEODATABASE***

1. **In the HYPACK Shell, make sure the file you would like to export is checked.** This loads the XYZ points in the file into the application.

**NOTE:** The soundings do not have to be fully drawn for the export to work. They just need to be loaded.

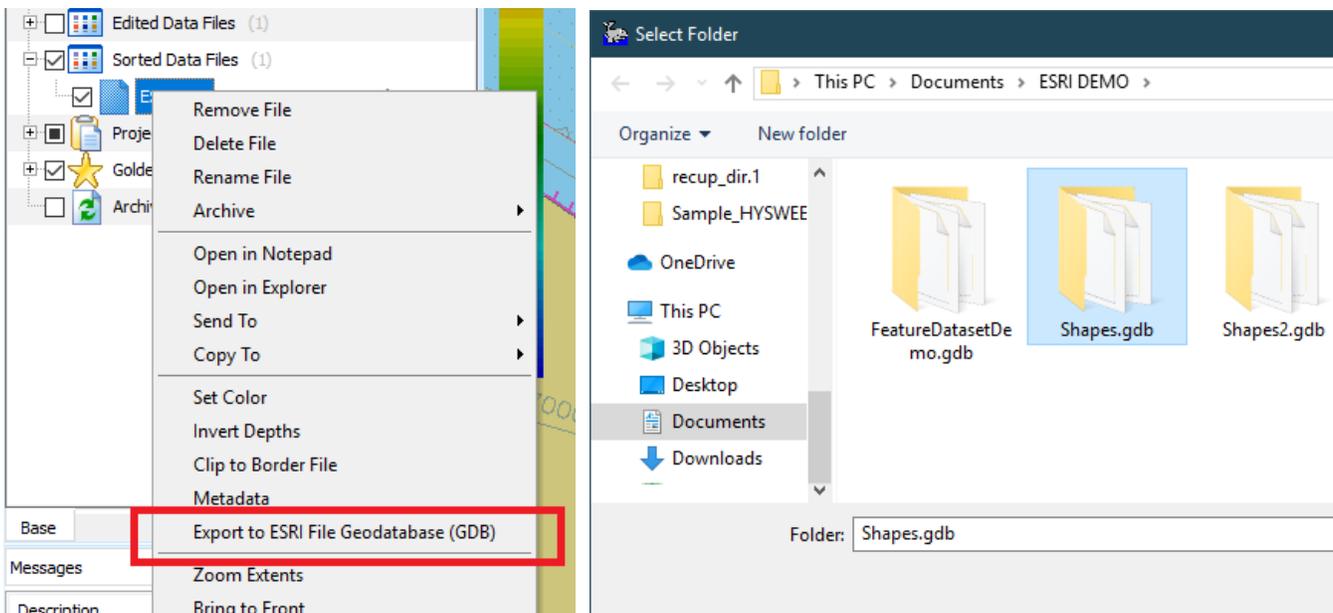
**Tip:** To speed up draw times in the Shell, I recommend setting the sounding style to Pixel in the Shell’s Settings menu.

## XYZ File Enabled in the Project



2. Right-click the XYZ file, and select the “Export to File Geodatabase (GDB)” option.
3. Select the Geodatabase in which the exported data should be stored.

### Exporting XYZ Data to your Geodatabase from the Project Items List

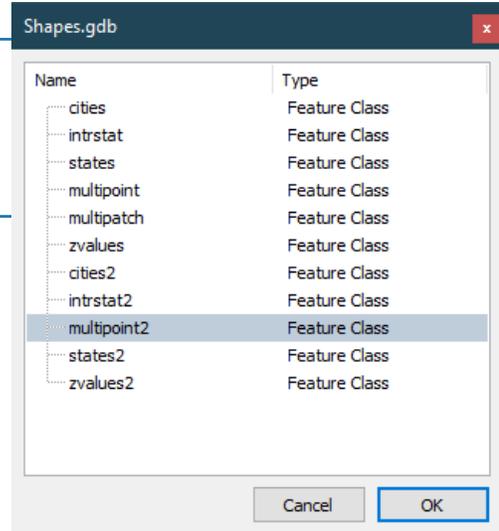
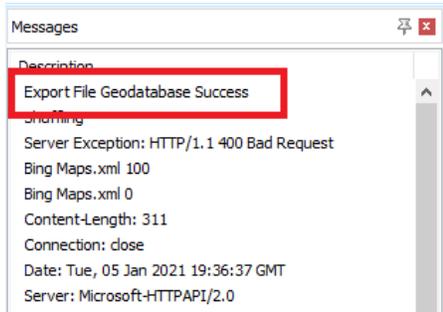


4. Select the table to which you would like to export the XYZ data and click [OK].

*This Dialog Shows the Available Tables in a Geodatabase.*

You can check the Messages log in the HYPACK Shell to verify that the export was successful.

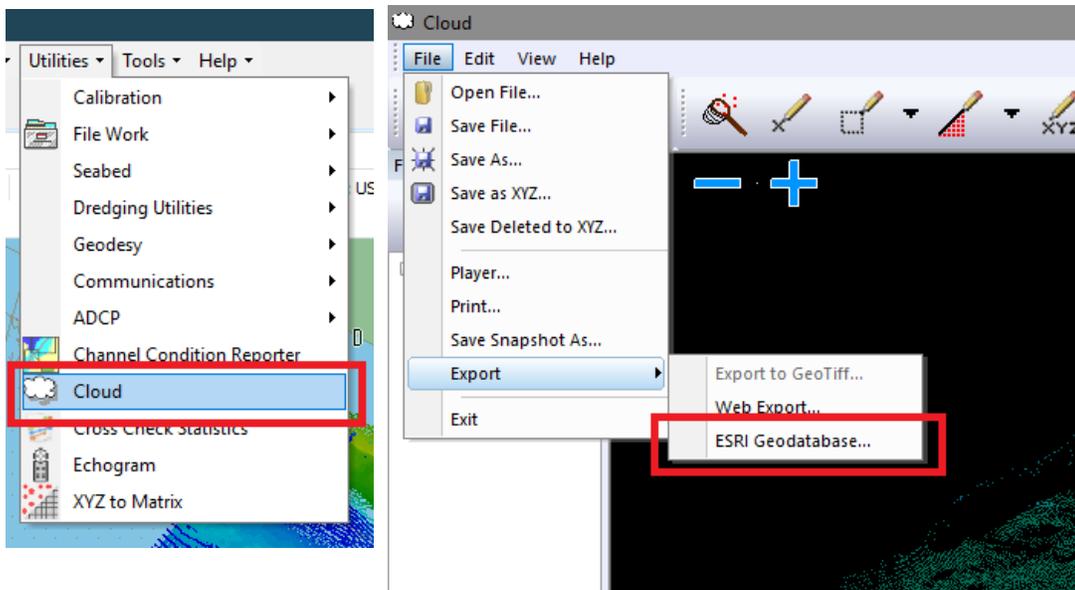
*Confirming Export Success*



## EXPORTING POINT CLOUD DATA TO THE GEODATABASE

There is also an export function in our CLOUD program, which can be accessed through the Utilities menu of the Shell; select FILE-EXPORT-ESRI GEODATABASE to initiate the same process as in the HYPACK® Shell.

*Exporting Data from HYPACK® CLOUD*

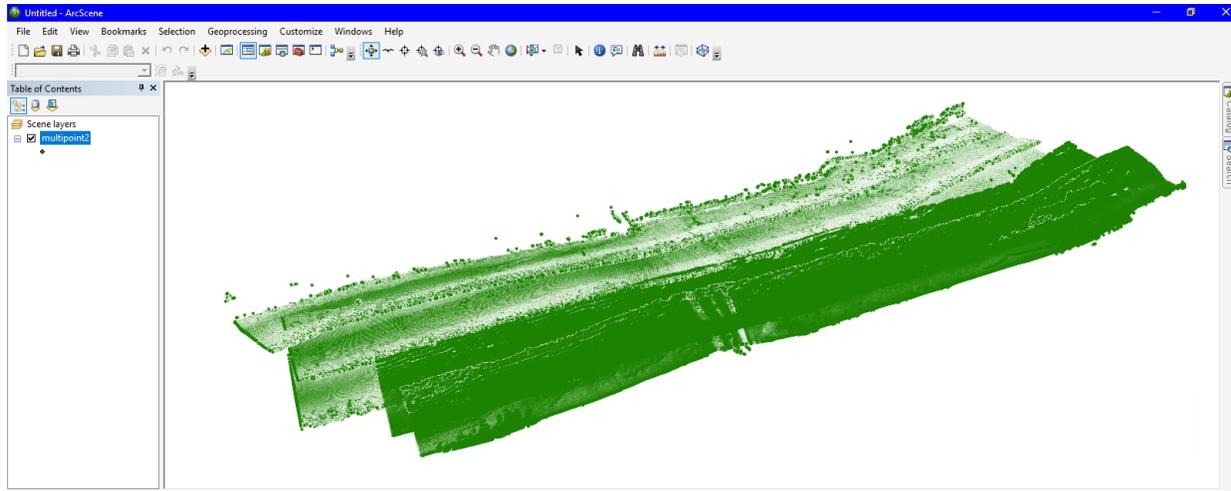


Here is an example of the data in the first image exported to a Geodatabase and loaded in ArcScene:

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## Sample Output.

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## DEVELOPMENT IDEAS

We plan to continue development on ESRI interoperability. Our near future goals include creating the File Geodatabases and tables in HYPACK®, conversion features to convert our geodesy to the ESRI Spatial Reference and back again, and support for export of other file formats to the File Geodatabases.

You can let me know if you have any ideas or suggestions at [connor@hypack.com](mailto:connor@hypack.com).

Thanks!