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We have made a slight change to how VDatum files are chosen. As you may know, VDatum files may be used when setting up an RTK method in GEODETIC PARAMETERS. They provide an important piece of information to the equation for determining tides in real time using a kinematic accuracy GPS.

VDatum files are stored in folders in your HYPACK® installation in a vdatum folder under the datum folder. An example might be "C:\HYPACK 2021\datum\vdatum\FLpensac02_8301" for vertical datum files appropriate for use in the Pensacola Florida region. A VDatum installation takes quite a bit of storage space—currently around 10 gigabytes.

(*For future versions of HYPACK®,* we are considering storing the VDatum files in the C:\HYPACK Store location. This is a special folder for storing files available to any version of HYPACK®. This would bring a substantial space savings for those who keep multiple versions of HYPACK® on their computers. It would also mean installing only once instead of each time you install a new version of HYPACK®.)

*Geodetic Parameters Dialog—VDatum Options*
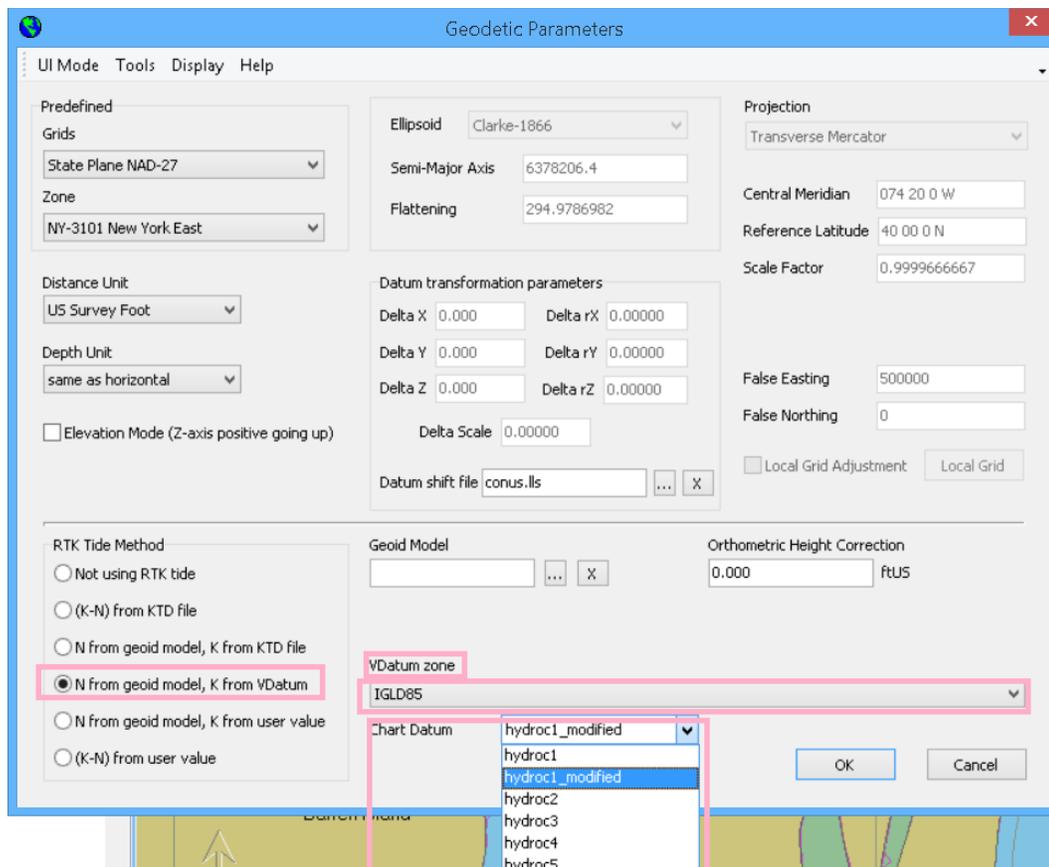
**New VDatums Immediately Available:** Previously, the only VDatum choices available were those already encoded in our geopar database. We now scan the vdatum folder and allow the choice of any appropriate files found. This allows you to download VDatum updates and use them immediately rather than waiting for HYPACK to update the database. You could also remove any VDatum folders you are sure you don't require to free up disk space.

**VDatum Descriptions:** A difference you will notice right off is that the VDatum Zones drop-down selector now lists the name of the actual folder rather than area descriptive text. Such text is not distributed by NOAA but was added by HYPACK® after the fact. We feel displaying the NOAA-approved names is more appropriate as these are probably the most familiar to geodesists, and when adding new zones to your installation, such descriptive text is not available. There are a few zones included for use in France and the names are a bit more self descriptive than those distributed by NOAA. For instance, "FR_Dunkerque" would be for the Dunkirk region of France.

**Chart Datum Options:** Another change you may notice are the available choices in the Chart Datum selector for a given VDatum zone. VDatum zones allow one to correct to different standard levels like Mean Sea Level or Mean High Water. HYPACK® decodes standard names found in a Zone folder as follows:

- tss.gtx: Mean Sea Level
- mhhw.gtx: Mean Higher High Water
- mhw.gtx: Mean High Water
- mtl.gtx: Mean Tide Level
- mlw.gtx: Mean Low Water
- mllw.gtx: Mean Lower Low Water
- dtl.gtx: Diurnal Tide Level
- lat.gtx: Low Astronomical Tide
- hat.gtx: High Astronomical Tide
- cdl.gtx: Chart Datum

With our new dynamic folder scanning, you may see other choices! For example in the IGLD85 folder, you will see choices like "hydroc1, .. hydroc5". Although we know this folder corresponds to the International Great Lakes Datum 1985, we don't have a good key for decoding the datum files. In such cases, we simply list the name of the file without the extension. We leave it up to you to select the file which is most appropriate for the effect you are trying to achieve.

Besides this greater flexibility, the actual usage of a VDatum correction is exactly how it's been in previous versions of HYPACK®.