

# Bathymetry




In this section (Generic data – Bathymetry) you can specify the bathymetry data that can be used in all tools. Bathymetry data consists of 2 types, a cross-shore profile (which is required) and a spatial varying field (which is an optional extra).

The generic bathymetry data is available in all tools. The cross-shore profile data is used at locations where a spatial varying field is not available.


## Cross-shore profile

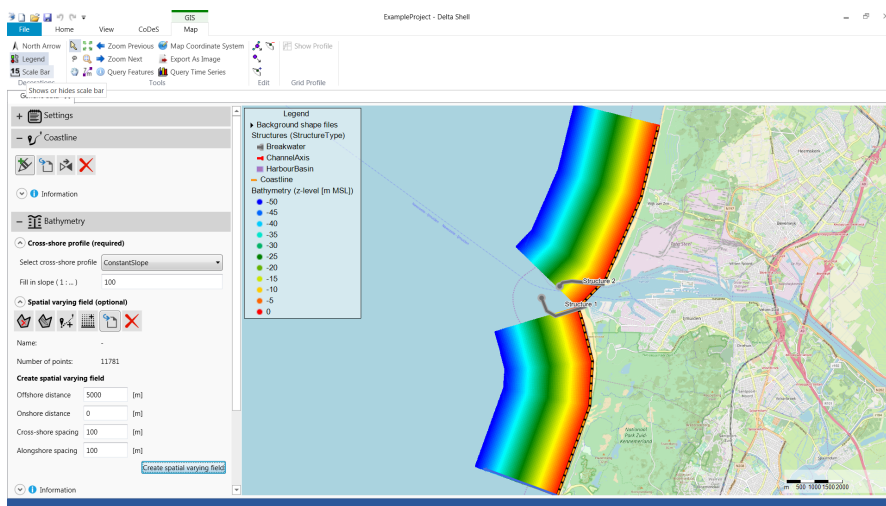
The cross-shore profile can be defined manually and uses the coastline as a reference line (from Generic data - Coastline). At this moment, only a constant slope is supported. Fill in a slope as a 1:.. (e.g. 1:100) value.

## Spatial varying field






The spatial varying field can be loaded from \*.xyz and \*.asc (ASCII-grid) files by clicking the () button, and is available in CoDeS as a point cloud.

Besides loading the pointcloud from an external file, you can also generate and/or modify the bathymetry yourself.

Click the () button to generate a spatial varying field based on the constant slope and the coastline. Fill in the offshore distance, the onshore distance, the cross-shore spacing and the alongshore spacing of the grid on which the bathymetry is calculated.



Once a spatial varying field is available in CoDeS, it can be modified:

-  click this button and put your pointer on the map. Click the LMB and start drawing a polygon. Double click the LMB to close the polygon. Within the selected polygon, all points can be modified using the edit mode. You can choose between:
  - Set Value - Give all points within the polygon a single value.
  - Add - Add a value to all points within the polygon.
  - Subtract - Subtract a value from all points within the polygon.
  - Multiply - Multiply all values within the polygon with a value.
  - Division - Divide all values within the polygon with a value.
-  click this button and put your pointer on the map. Click the LMB and start drawing a polygon. Double click the LMB to close the polygon. Click Confirm to delete all points from the map.
-  click this button and enter a value. Click the () button and move your pointer to the map. Click on a location to add a point with the provided value at that location.
-  click this button to delete the spatial varying field from CoDeS.