Volume descriptor

Title Volume descriptor

Description

Calculates the volume and more accurately the height for each delineated feature contained in the input shapefile.

Illustration

Usage

The **"Volume descriptor"** calculates the best approximation of the vertical relief and the volume of the feature. These calculations are based on the Cookie-Cutter method and are performed on a feature-by-feature basis, slowing down considerably the processing time.

This tool can be used to describe any confined morphological features, regardless of the approach adopted to delineate them. Even manually mapped features can be characterised using this tool.

Syntax

Volume_descriptor_ (inputDEM, in_features, in_fill_direc, workspace, outFeat, {delTemp})

Parameter	Explanation	Data Type
inputDEM	Dialog Reference The DEM that will be used as input. There is no python reference for this parameter.	Raster Layer
in_features	Dialog Reference Shapefile delineating the features to be described. This can be the output of one of CoMMa's delineation tools, manually mapped or obtained by another mapping approach. There is no python reference for this parameter.	Feature Layer
in_fill_direc	Dialog Reference The targeted features' vertical relief (POSITIVE or NEGATIVE).	String

	There is no python reference for this parameter.	
workspace	Dialog Reference Geodatabases cannot be used in this version of the CoMMa Toolbox. There is no python reference for this parameter.	Workspace
outFeat	Dialog Reference The name of the shapefile that will contain the additional fields calculated by this tool. There is no python reference for this parameter.	String
delTemp (Optional)	Dialog Reference When checked all the files within the temp folder will be automatically deleted. There is no python reference for this parameter.	Boolean

Code Samples

There are no code samples for this tool.

Tags

Feature description.

Credits

Arosio, R., Gafeira, J. & De Clippele, L. (2023) CoMMa Toolbox - Version 1.0 (https://github.com/ricarosio/CoMMa/tree/main)

Riccardo Arosio (University College Cork) and Joana Gafeira (British Geological Survey) conceived the original idea of the new ArcGIS Pro based on a previous toolbox created by Joana Gafeira, the BGS Seabed Mapping Toolbox (Gafeira, J., 2017). Riccardo Arosio wrote the Python scripts while Joana Gafeira and Laurence De Clippele performed extensive testing.
The tools development was mainly funded by INFOMAR through the Irish Marine Institute's research grant PDOC 19/08/03. The British Geological Survey and iAtlantic have also supported the creation of the toolbox.

Use limitations

You are currently using the Item Description metadata style. Change your metadata style in the Options dialog box to see additional metadata content.