Aquaterra
by CGS Labs

QUANTITY TAKE - OFF

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Quantity take - off Tutorial

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INTRODUCTION

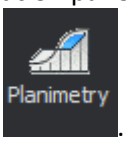
This step-by-step instructions will lead you through the workflow procedure in order to get familiar with the software environment. »Aquaterra Quantity Take-off.dwg« file should be used. You will learn how to define the planimetry polygon and add/edit materials. In the next step you will learn how to calculate the quantities by sections as well as how to create the summary for the whole area.

1. PLANIMETRY

Based on the constructed cross-sections, it is possible to precisely calculate cut, fill and other quantities. The calculation is made based on so-called planimetry polygon lines that represent borders of planimetry quantities.

Open the drawing »Aquaterra Quantity Take-off.dwg«.

1.1 Fill

1. From the Ribbon under *Cross Sections* tab, on **Mass calculation** panel click on the icon *Planimetry* 

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2. In dialog box define a set of cross sections, where quantities should be defined. Press  button to select all cross sections.

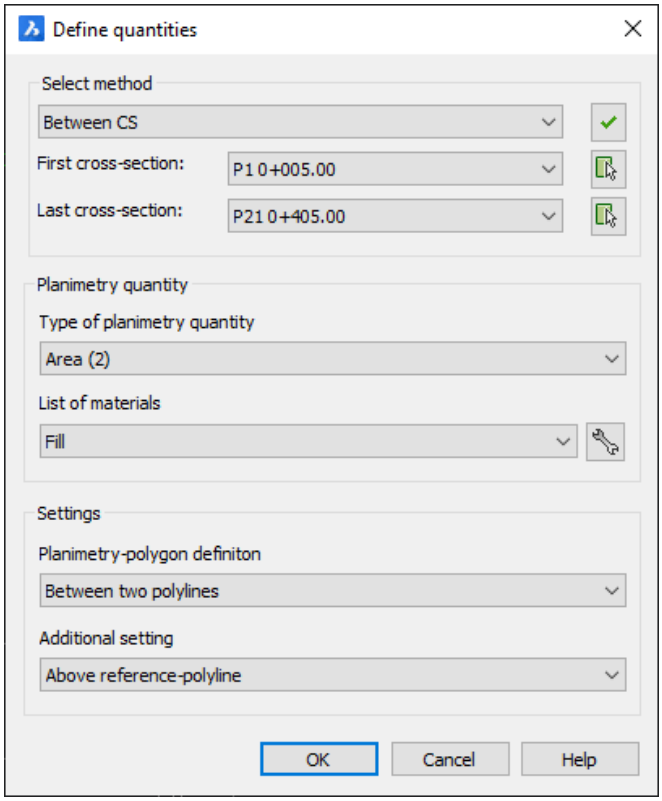
3. Type of planimetry quantity: *Area(2)*
   List of materials: *Fill*

4. Settings:
   Planimetry-polygon definition: *Between two polylines*
   Additional settings: *Above reference-polyline*

5. Confirm with *OK*.

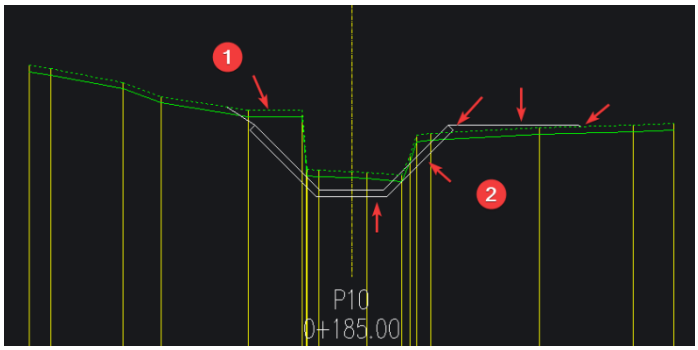
6. Select the *Terrain Line* (1) as a reference polygon.

7. Confirm with OK.



8. Select the elements that define the second reference polygon on the right side of the cross sections (2).

9. Repeat the procedure on the left side of the cross section.



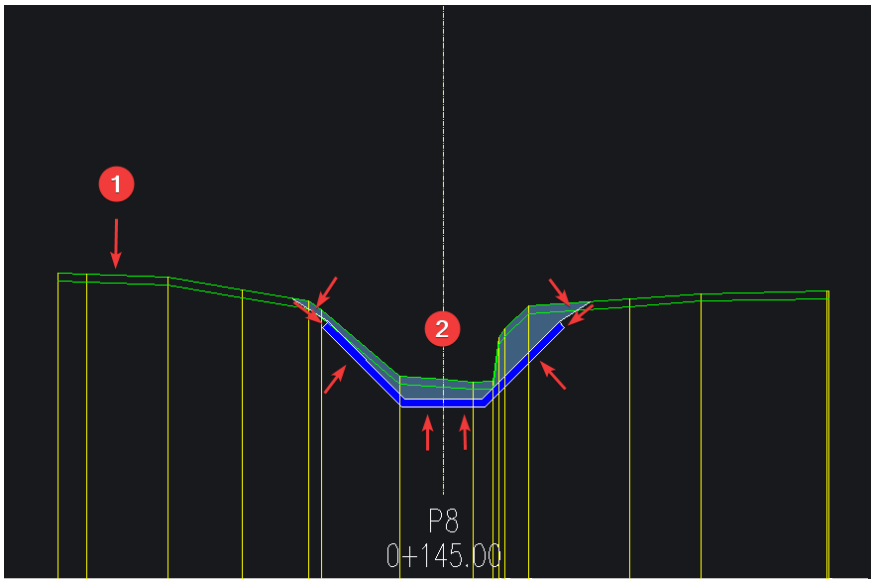
1.6 Cut

1. Click on the icon *Planimetry*  .

2. In dialog box define a set of cross sections, where quantities should be defined. Press  button to select all cross sections.

3. Type of planimetry quantity: *Area(2)*
   List of materials: *Cut*
   Planimetry-polygon definition: *Between two polylines*
   Additional settings: *Under reference-polyline.*

4. As reference polygon select *Terrain Line* and press *Enter*. As second polygon select lines which represent polygon borders (left embaknment, all outer parts of the channel and right embankment).



2. QUANTITY TAKE - OFF

The command calculates the quantities by sections as well as the summary for the whole area. The results can be saved to a file and/or displayed in the drawing.

1. From the Ribbon under *Cross Sections* tab, on **Mass calculation** panel click *Quantity takeoff*. 

2. In dialog box define a set of cross sections, where quantities should be calculated. Press  button to select all cross sections.

3. Calculate by cross sections:
   Check *Insert in drawing;* select a point in the drawing you want to have materials listed.
   Text height: 1.5 mm
   Number of decimal places: 3

4. Summary of quantities:
   Calculation method: *Standard*
   Check *Insert in drawing;* select a point in the drawing you want to have table inserted.
   Table style: ARO_MAINPTSTBL
   Check *Add alignment name alongside profile name label*

5. Confirm with *OK*.