

HOW TO CALCULATE VOLUMES IN FIELDGENIUS

Volumes from a datum – calculate volume of excavation of basement down to level 92.9

This screenshot shows the initial setup for volume calculation in FieldGenius. It consists of three panels:

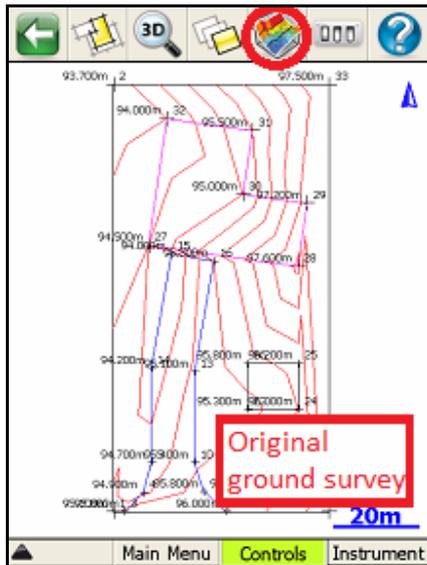
- Map Panel:** Displays a site plan with various points labeled (e.g., 1-33, EP, HOUSE, SHED). A red circle highlights the '3D' icon in the top toolbar, with a red arrow pointing to it and the word 'Tap' written next to it.
- Surface Manager Panel:** Shows the 'User Surfaces' list. Under the 'Point Database' section, the 'Contour Lines' checkbox is checked and circled in red, with a red '1' next to it. The 'Volumes' button at the bottom is also circled in red, with a red '2' next to it.
- Volume Calculation Panel:** Shows the 'Reference Surface' section. The 'Datum 1' radio button is selected, and the value '92.300m' is entered in the adjacent text box, both circled in red. The 'Constrain volume calculation within area' checkbox is checked and circled in red, with a red '2' next to it. The 'Define Area' button is circled in red, with a red '3' next to it.

This screenshot shows the final volume calculation results in FieldGenius. It consists of three panels:

- Map Panel:** The same site plan as above, but now with red contour lines overlaid. A red arrow points to one of the contour lines with the text 'Tap on line'. At the bottom, a message box says 'Select figure to define area for volume calculations.' and the 'Close' button is circled in red.
- Volume Calculation Panel (Left):** Shows the 'Reference Surface' section. The 'Datum' radio button is selected, and the value '92.900m' is entered in the text box. The 'Constrain volume calculation within area' checkbox is checked. The 'Calculate' button at the bottom is circled in red.
- Volume Calculation Panel (Right):** Displays the final calculation results:

| | |
|---------------------|-----------------------|
| Calculated Surface: | Point Datab |
| Datum: | 92.900m |
| Positive Volume: | 1955.2 m ³ |
| Negative Volume: | 0.0 m ³ |
| Net Volume: | 1955.2 m ³ |
| Average Thickness: | 2.370m |
| Plan Area: | 0.000m ² |

Volumes between two surfaces – calculate volume of berm created from excavation of basement



Surface Manager

- User Surfaces
 - Point Database
 - Contour Lines
 - TIN (Wireframe)
 - TIN (Solid face)

Settings Volumes Load Remove **Save** Close

Surface Manager

Enter a new name for the surface 'Point Database' to be saved. Note that duplicate surface names cannot be used per session.

OK Cancel

Key Pad

OrigGrdLvl

| | | | | |
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| OK | Calc | Cancel | | |

Save Surface File

FG Sample2

Application Data

ConnMgr

| Name | Size | Date |
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Save as filename

Save File Cancel

Key Pad

OrigGrdLvl

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| OK | Calc | Cancel | | |

Save Surface File

FG Sample2

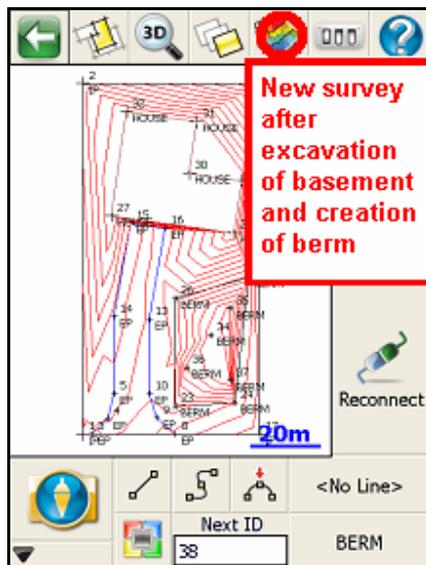
Application Data

ConnMgr

| Name | Size | Date |
|------|------|------|
| | | |

Save as filename

Save File Cancel



Surface Manager

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Settings Volumes **Load** Remove Save Close

