Platform

Platforms · https://mes100.com/docs/platform/

Platform Input

Go to ‘Platform’ and click the edit icon to start platform input. For a platform with three sides, its proposed level definition is based on point (corner) while for platform with four sides or more, its proposed level definition is based on edge.

Click once on the application ‘Input’ screen to activate snapping, trace the shape to the input platform. All platforms input have to be closed polygon and should not overlap each other.

Platform now can be input in three (3) ways; **line platform, arc platform and curve platform.**

Note:

During input the platform, right click mouse can cancel the previous step and Shift + right

Pressing Esc cancels only the line currently being drawn; the corners already placed are kept. Press Esc a second time to exit the platform input.

Line Platform

Line platform is platform type that is commonly used as it involves straight line platform edges and must be in a closed polygon.

Users can insert the platform line edge distance in metres by clicking on the line’s starting point and then inputting the required distance. This allows the user to specify the exact length of the entities.

The corners can also be typed in as coordinates (`x,y`), or as a length and angle (`45<80`). Typing every corner as `x,y,z` gives each corner its elevation. See Drive Inputs by Typing Coordinates, Lengths and Angles.

Arc Platform

Arc is a platform type that can be used to insert a uniform curvature platform.

To do an arc platform, first select the first point of the curve and select ‘Arc; platform then select the second point.

Move your cursor to create and arc.

Curve Platform

Curve is a platform type that can be used to model a curve platform directly in MiTS Earthwork.

To do a curve platform, the user is advised to turn on SNAP to the nearest to ease the modelling process.

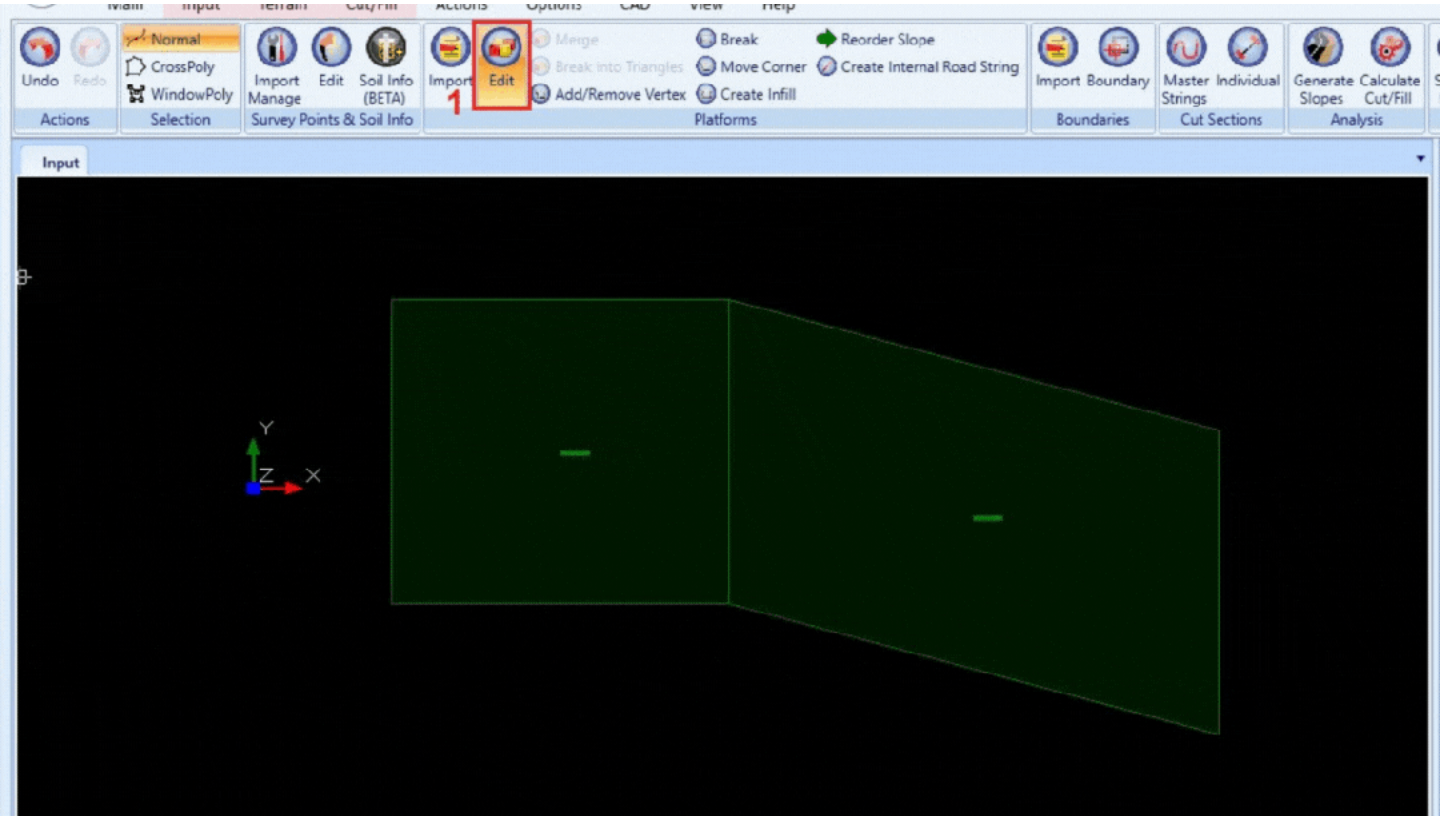
Select the first point and select curve© and start modelling the platform.

Platform Editing

Platform can be easily edited by using ‘Merge’, ‘Break into Triangles’, ‘Add/Remove Vertex’, ‘Break’, ‘Move Corner’, ‘Create Infill’, and ‘Create Internal Road String’.

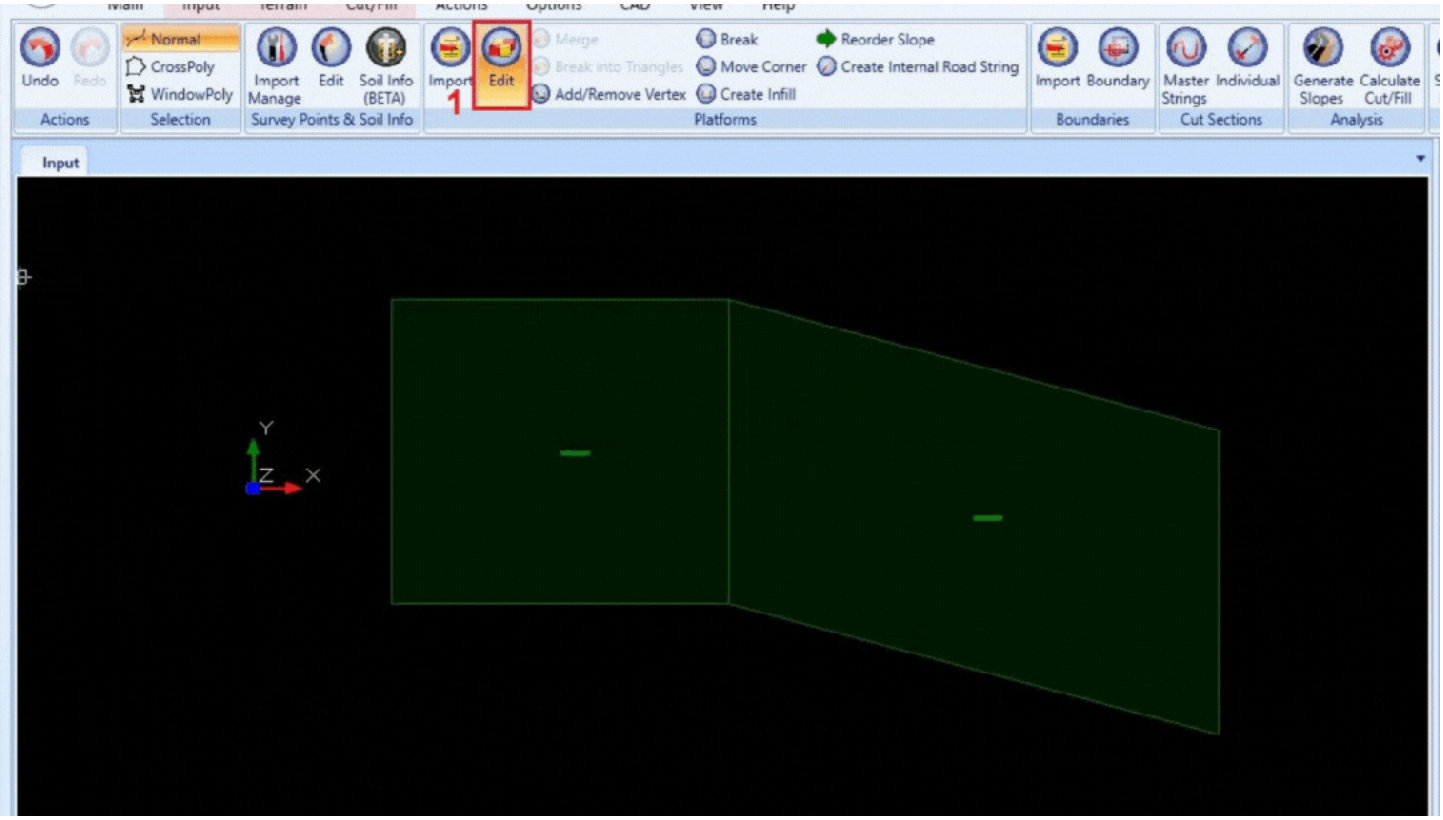
Merge

To merge two or more platforms. Select a particular platform to be merged then click ‘Merge’.



Break into Triangles

To break a platform or more, just select a particular platform and then click ‘Break into Triangles’.



Add/Remove Vertex

Click the both buttons ‘Edit’ & ‘Add/Remove Vertex’ and select the particular platform.

To add vertex:

Click once at the edge of the selected platform to activate the add/remove vertex operation, and click again to add/locate the vertex. (If adding vertex fail message is pop out, kindly go to Object Snap Setting, ticked ‘Nearest’ option and re-do the adding vertex operation).

To remove vertex:

Double click the particular vertex to remove the vertex.

Break

a. Break a platform by points

To break a platform by points, just select two points (red circle represented) from the platform to break.

b. Break a platform by edge

To break a platform by edge, select a reference edge, the reference edge will move along the mouse, left-mouse click to break.

Break distance can be inserted and the unit is in meters.

Note:

Each platform edge will have its own numbering; parallel edges are represented by the same set of colour while for other edges which don't have opposite edges which are parallel, their 'Height' or edge numbering is being highlighted in grey colour and is not editable.

To make the edge height editable, either make the opposite edge become parallel by using 'Break' (break a platform by edge) or break the platform into triangles.

c. Break for slanting platform

Click Break tab and choose the starting edge

Referring to the above image, the blue line is the starting edge and ends at the purple line.

Image 2

Pavement: Pavement thickness

Slope : Slope in percentage from the edge (blue/purple) towards the parallel edge of it

Platform Type : Choose the platform type, if needed

Fix Height : Fix the height, if needed

Example:

Input:

Image 4 (1:40) = (2.5:100)

Move Corner

Click buttons ‘Platform’ & ‘Move Corner’ and select the platform, click on a corner of a platform then click again where the corner is wished to be located/ moved.

Create Infill

Infill platforms can be created at an empty area but it must be closed and bounded by platforms. Click buttons ‘Edit’ & ‘Create Infill’ and double click an empty area which is closed and bounded by platforms.

a. Constant height platform

In ‘Constant height platform’, insert platform height in meter.

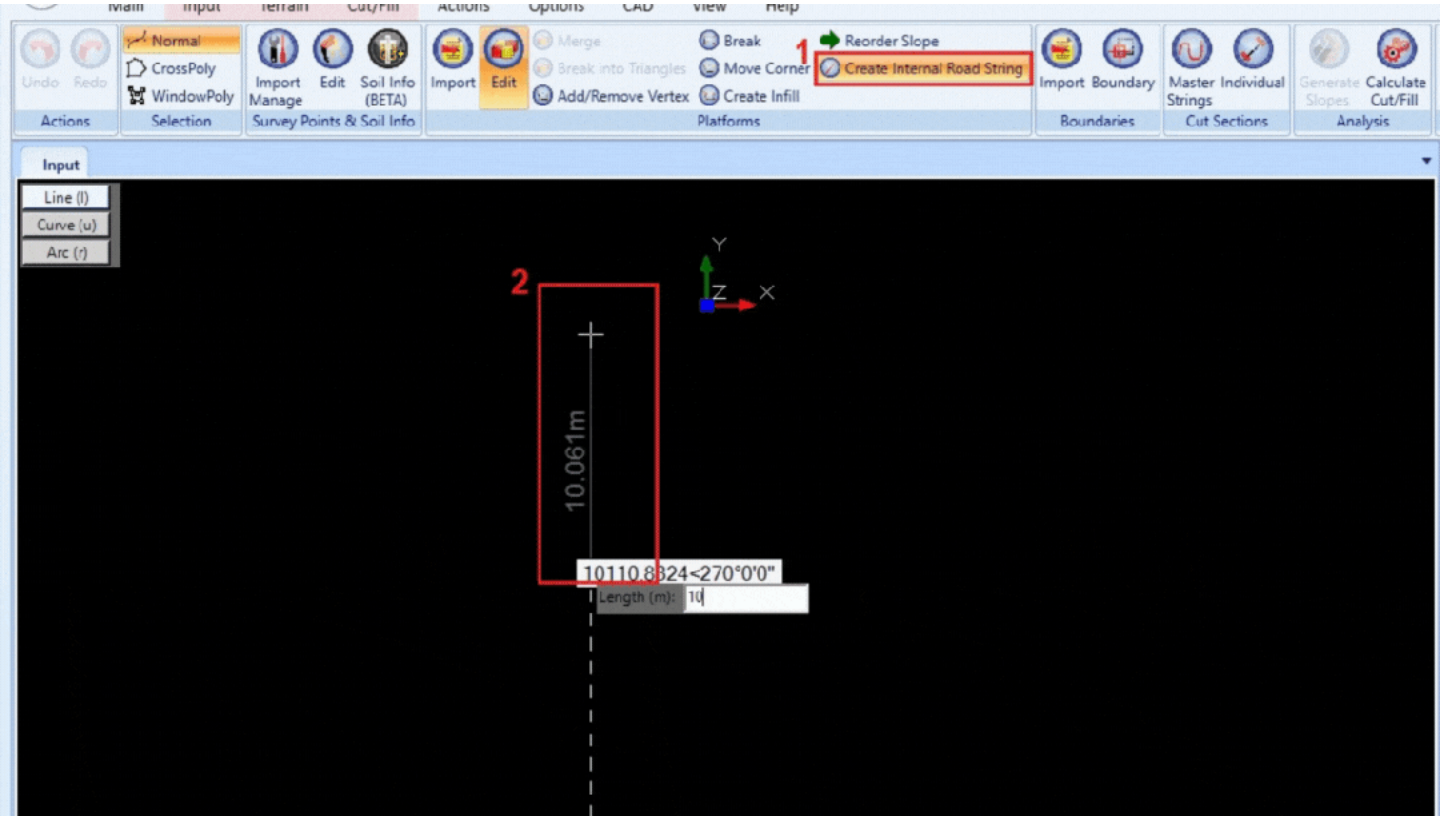
b. Connect to edge triangulated

In ‘Connect to edge triangulated’, a triangular platform will be created. Mits will propose platform height to match with the neighbouring platform level.

Create Internal Road String

To create an internal road string, click ‘Create Internal Road String’, then determine a reference line, this reference line will act as a middle line for your platform.

Fill in the Internal String setting in the appeared window. Click ‘OK”.



Platform Properties

Users can view platform properties by clicking the buttons ‘Edit’ & ‘Spread Input’ or by properties grid at right hand side of the application.

Index & Mark

‘Index’ number is platform numbering defined by a program which is not editable while ‘Mark’ is platform marking is editable. Users can always turn off the marking by changing the ‘Yes’ to ‘No’ in the ‘Show Mark’ column.

Subgrade or Concrete Thickness

Users can input subgrade or concrete thickness in **meter units** during project modelling.

The effect of applying subgrade or concrete thickness in project modelling is shown as below:-

Note:

The calculation of earthworks volume using DTM method is including autoslope and subgrade/concrete thk while earthworks volume using ***Grid method is excluding the autoslope and subgrade/concrete thk***.

Height

Height of a platform in software is defined as the proposed level of that corresponding platform. Users can always turn off the height label by changing the ‘Yes’ to ‘No’ in the ‘Show Height’ column.

Users may also edit the proposed level of that selected platform at the properties grid on the right hand side panel.

Input Platform Elevation Level

a) Input platform elevation by corner: platform edges not parallel

- double click at the platform to turn ON the ‘platform editor’ and input

platform elevation level by corner

- Users will be required to specify exactly three (3) points as the remaining points will tend to follow and merge with the defined elevation level.

b) Input platform elevation by the edge: platform edges parallel

As for parallel edges platform, user can input the elevation either by edge or corner

Import Platform

Users can simply import platform from ACAD drawings by clicking Import button in Platform Tab and choose the selected file then click open.

As Line or As Polyline Function

When importing a platform from drawings, it is important to check the “Import Polyline as polyline or just line” section to ensure that the platform is imported in the correct format. This will ensure that

the platform is properly represented in the design. There are two options for users to choose which are “As Line” or “As Polyline”.

1. As Line

Applicable if the user is unsure whether the platform polyline has a z-value or not because the software will identify the text inside the platform as a platform level.

2. As Polyline

Applicable if the platform polyline has z-value. Users need to ensure that the ***polygon in the .dwg file is closed*** before importing it as a platform in MiTS.

Note:

If users are experiencing issues with the platform having a weird shape and not appearing as per traced drawing as highlighted in image below. This could be because the platform is imported as an unclosed polygon which makes software interpret the shape incorrectly, resulting in a distorted or incorrect representation.

If this issue happens, there are two options either to close the polygon in the .dwg file (making sure that the first and last vertices are connected, creating a closed loop) or import the platform into MiTS “As Line”.

Layers

Next, make sure user only select Platform layer.

Drawing Scale

The user needs to go to Drawing Scale and select the units in order to adjust the scale of the imported ACAD drawings.

How to Check Layer of Entities in the Dialog Box for Tracing/ Platform/ Survey Import

To identify the layer from the imported drawing, click on any line or object within the imported drawing until small blue boxes appear. The information about the selected entity will be displayed at the left side panel.

To verify the layer of the selected entity, user can filter the name of the layer at the right hand side panel.

Note: It is worth noting that the software is unable to display multiple layers when a user click on multiple entities as in the image below, just like AutoCAD.

Layer will not displayed when clicking on multiple entities

Related



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I'm the Benevolent Dictator for Life for MiTS Software cum Editor of this website. Read more here.

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