



Smart Construction
Pilot

Functionality of 2DMG

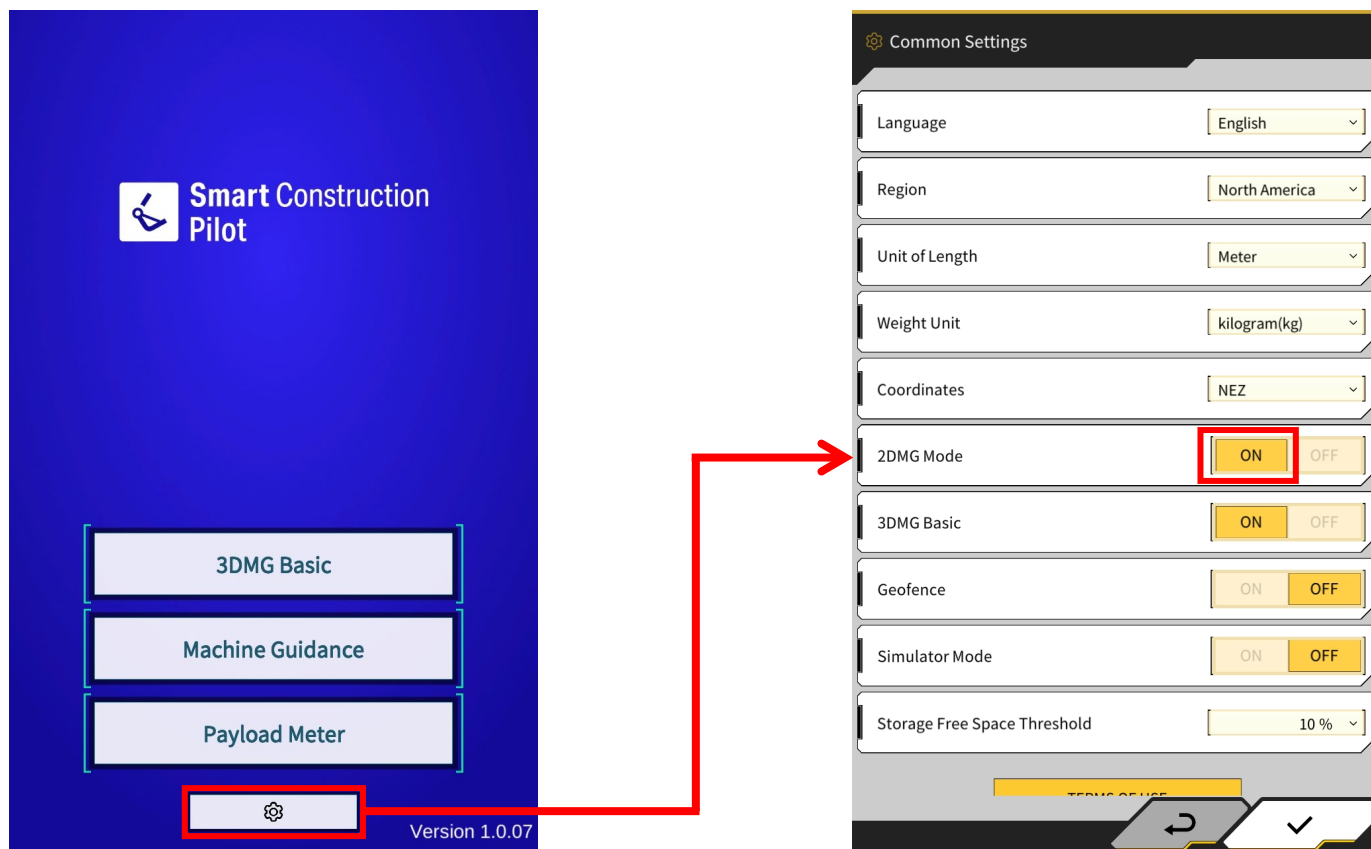
1. [Enable 2DMG functionality](#)
2. [How to create a design surface](#)
3. [In case of Tilt Bucket](#)



EARTHBRAIN

1. Enable 2DMG functionality

1) Enable 2DMG functionality from a Common Settings



Enter Common Settings from the startup screen  and turn on the 2DMG Mode. Then tap  to save the settings and launch Machine Guidance.

※ The same applies if you want to switch back to 3DMG Mode from 2DMG Mode, set 2DMG Mode to OFF.

2) About 2DMG functionality

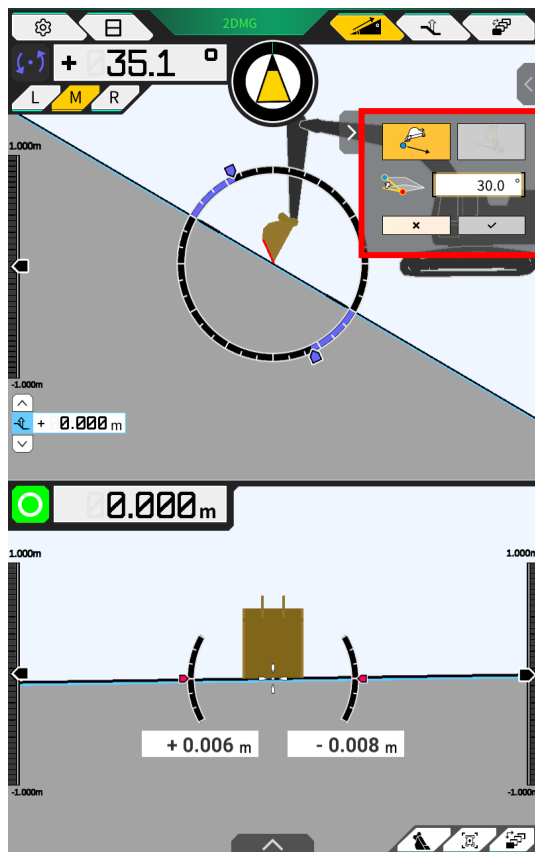
- 2DMG functionality can be used for Machine Guidance functions as a site where GNSS is not available or in urban civil construction where position accuracy is not stable.
- Since 2DMG does not use GNSS, it is necessary to recreate the design surface when the machine moves or turns.
- It is not able to select a project file, use settings and information related to GNSS, measure the bucket tip position, or check the bucket position.
- It is also not be able to get a construction result. If you would like to get construction result, please use 3DMG instead of 2DMG.
- If the machine has been moved or turned, or see the message **Reset Design Surface** on guidance screen, please recreate the design surface before using Machine Guidance functions.

2. How to create a design surface

1) How to create simple design surface in 2DMG

There are two ways to create a simple design surface.

- ① Set "Start point" and "Slope" to create.
⇒ This is used in the case "Slope" is fixed such as a design surface.
- ② Set "Start point" and "End point" to create.
⇒ This is used in the case "Slope" is not defined such as a rubbing work.



Set "Start point" with the coordinates of the bucket tip.



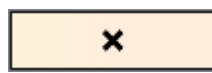
Set "End point" with the coordinates of the bucket tip.



Set "Slope" of design surface to be created. "Slope" is calculated automatically when both "Start point" and "End point" are set.



Create a simple design surface with the specified conditions.



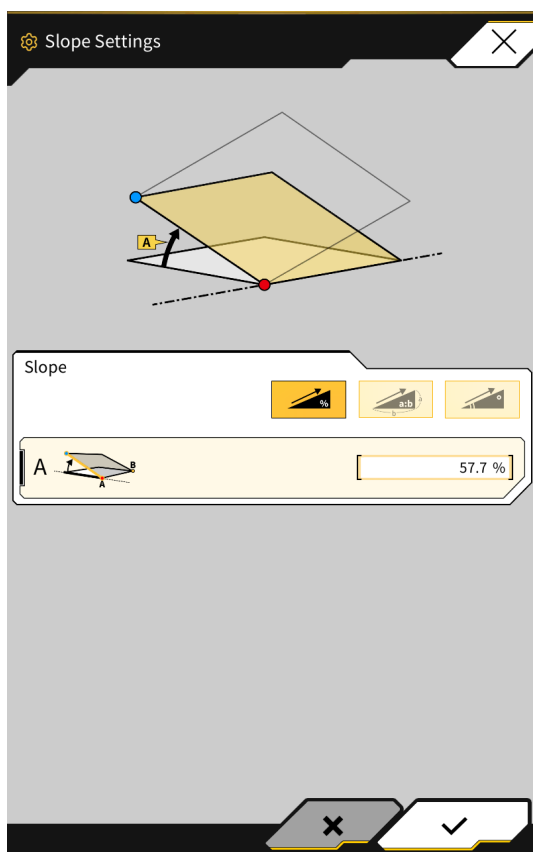
Clear the "Start point" and "End point" settings.

If you use "Slope" values, you can create a simple design surface after set "Start point" and then tap "✓".

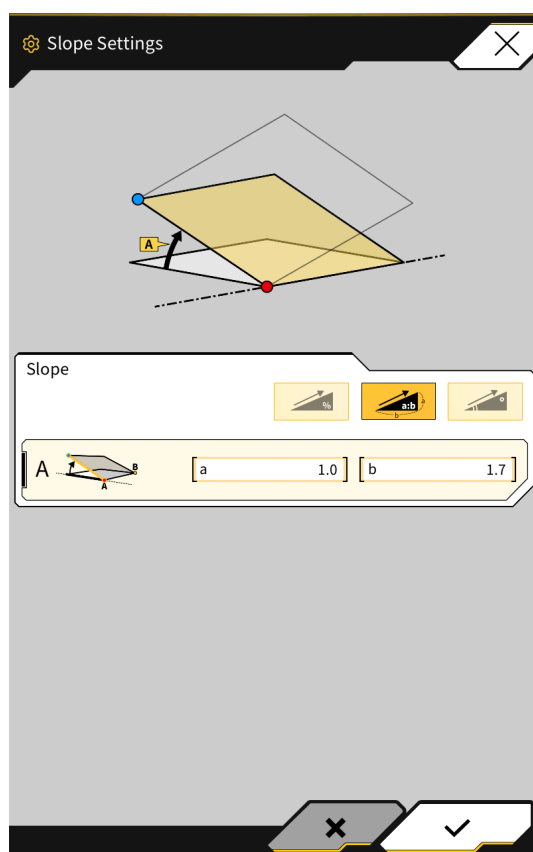
2) About the type of "Slope"

You can select "Slope" types from the following three.

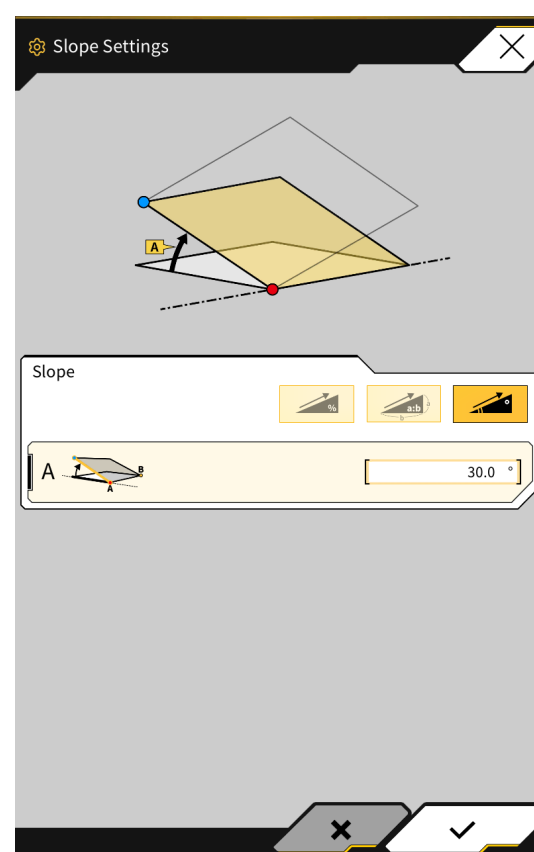
*The "Slope" is the angle from a horizontal.



Percent (%)



Ratio (a : b)

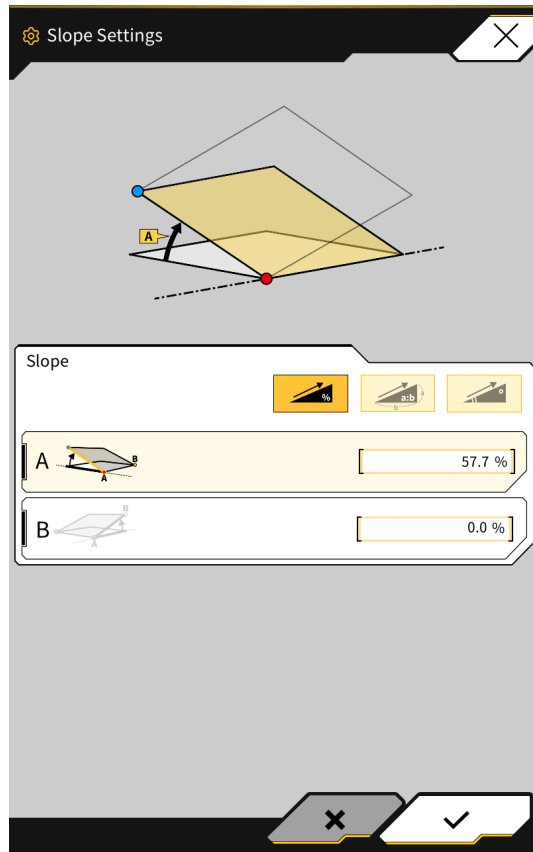


Degree (°)

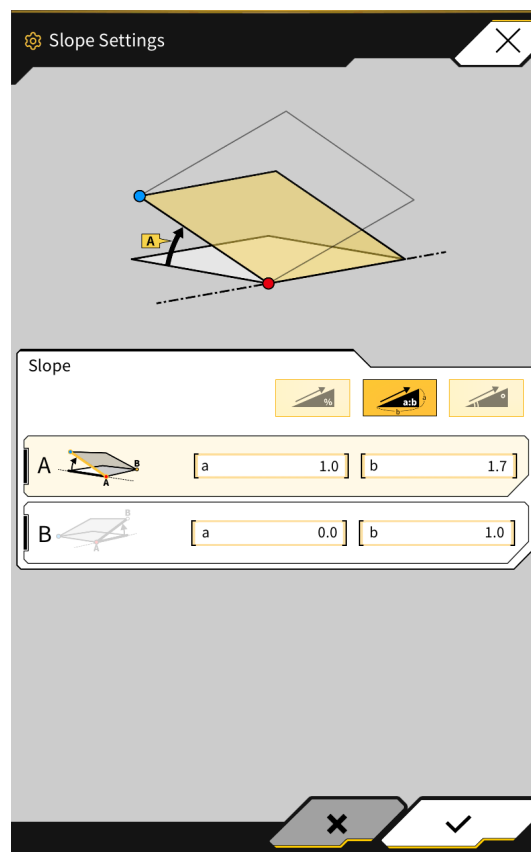
3. In case of Tilt Bucket

1) How to create simple design surface in case of Tilt Bucket

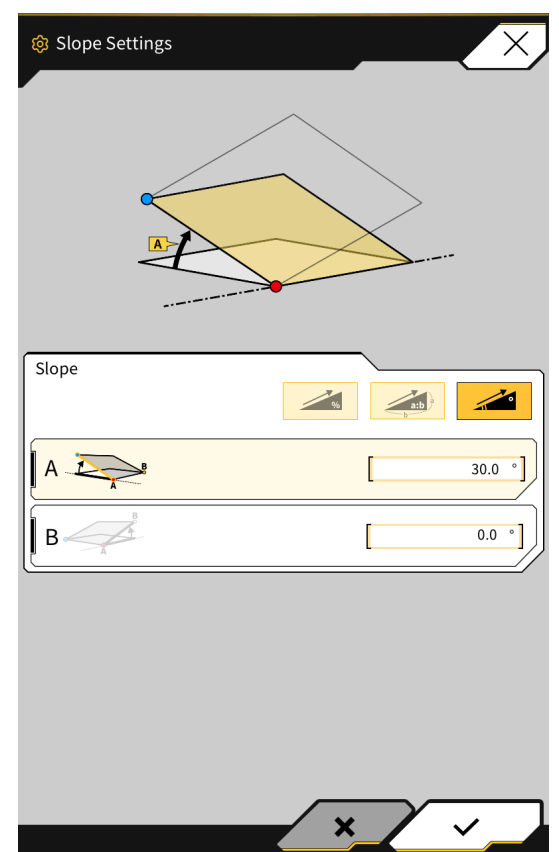
When using the Tilt Bucket function, you can set the "Slope" in the cross-sectional direction "B".
*The "Slope" is the angle from a horizontal.



Percent (%)



Ratio (a : b)



Degree (°)