

visit us online at [ditchassist.com](http://ditchassist.com)

# INTRODUCING DITCH ASSIST

SIMPLE. AFFORDABLE. GRADE CONTROL.



DITCH ASSIST  
BY NORTHERN PLAINS DRAINAGE SYSTEMS



## MEET Ditch Assist

Ditch Assist is a more affordable solution to fully automated GPS-based machine grade control. It's designed for use with equipment such as scrapers, land levelers, rotary ditchers, and more.

### 1 Smart Machine Control

Slope-IQ™ calculates a best fit slope design so you won't move an inch more dirt than necessary. Or, use Ditch Assist in Grade Control Mode to hold a grade or level land.

### 2 Wireless Communication

Ditch Assist™ is the only grade control system to use Wi-Fi communication between the cab and the implement. This makes the system simple to install, use, and move.

### 3 Compatible

Ditch Assist™ works with every brand of GPS, every implement that's raised and lowered hydraulically, and any tractor - regardless of it's age. Don't be tied to one brand!

### 4 Android Based

Ditch Assist's user interface is a free Android app that runs on Android tablets. This makes Ditch Assist the most affordable and easily updatable grade control system available.

## NOW INCLUDES SLOPE-IQ™!

With Slope-IQ™ you can be confident you aren't moving any more dirt than you need to be. Simply drive along the proposed drainage route (or across a field you'd like to land level) in survey mode. Then, specify the minimum slope you'd like to maintain for your ditch or plane. Ditch Assist will do the rest!

min. 0.65% slope (F per 100')

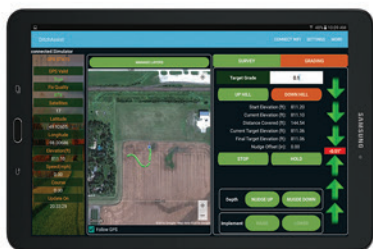
**SIMPLE. AFFORDABLE. GRADE CONTROL**



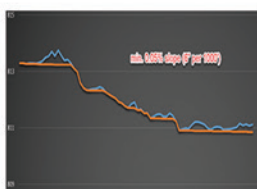
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## FEATURES

- ✓ Advanced features give you the same results as expensive alternatives
- ✓ The first wireless system - makes installation and setup a breeze
- ✓ Runs on low cost Android tablets. No more expensive displays to buy
- ✓ Simple, intuitive free Android App. Easy automatic updates via app store
- ✓ Works with any GPS, any tractor, and any implement with up/down hydraulics



## DITCH ASSIST APPLICATIONS



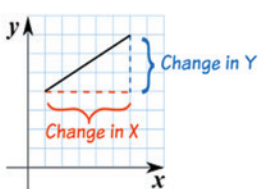
### Create 'Best Fit' Drain

Survey the proposed route (it can be a straight line or a curve) by driving it. Enter Slope-IQ design screen and enter the minimum required slope. Review and accept the design. Implement design.



### Grade a Field or Area

In smaller or uniform fields, use Slope-IQ to design a variable slope through the middle of the field. Ditch Assist will 'stretch' the design across the field to create a plane.



### Maintain a Grade

Use Survey Mode if needed to determine the grade between two points. Drive to point A, lower your implement to ground. Enter the target grade, and select if you are working Uphill/Downhill. Hit 'Start'.



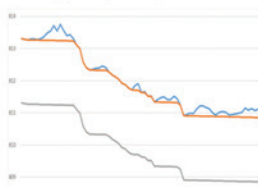
### Guidance for Digging

Mount your GPS antenna on the boom, then use the up/down light-bar on the Ditch Assist App to check grade each time you return it to a set position. No laser to move!



### Levelling a Pad

Create a level area using Grading Mode by entering a grade of 0. Or, if required, first drive around the area in Survey Mode to determine the average elevation, then enter this as the target height to equalize cut/fill.



### Trench or Lay Pipe

Use the Nudge function to increase the target depth by as many inches as required. In Slope-IQ mode this will follow the contours of the land. In Grading Mode it will hold a grade.

**ADVANCED FEATURES. SIMPLE OPERATION. LOW COST**

TO LEARN MORE AND LOCATE YOUR NEAREST DEALER VISIT

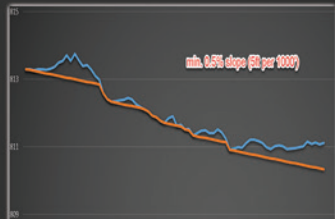
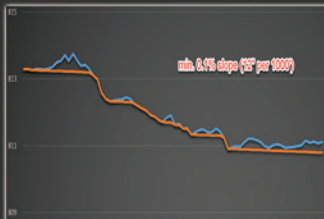
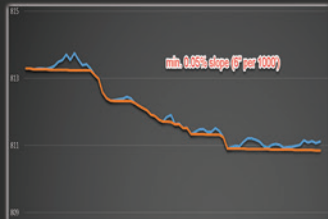
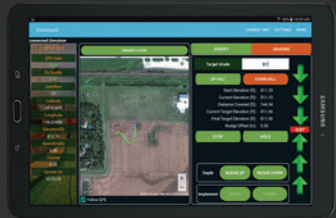
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# SLOPE-IQ™

'BEST FIT' TECHNOLOGY



**WITH SLOPE-IQ™ YOU CAN BE CONFIDENT YOU AREN'T MOVING ANY MORE DIRT THAN YOU NEED TO BE. SIMPLY DRIVE ALONG THE PROPOSED DRAINAGE ROUTE IN SURVEY MODE THEN SPECIFY THE MINIMUM SLOPE YOU'D LIKE TO MAINTAIN. DITCH ASSIST WILL DO THE REST!**

**MOVE**

*up to 60% less dirt!*

Wherever the land has sufficient natural slope, you won't move any more dirt (unless you decide to by using the Nudge Down function). Wherever there's a hump that would hold back water, Slope-IQ™ will implement your minimum grade. The end result is a drain that always has at least your minimum slope, but you won't move an inch more dirt than needed.



## SLOPE-IQ™ WORKS WITH CURVED OR STRAIGHT-LINE ROUTES

Slope-IQ also works for variable slope land-forming on smaller fields, or areas of a field that are fairly uniform. Drive in a straight line down the center of the field or area to be land-formed in survey mode, and design the run as normal. When you start working on either side of your original survey, Ditch Assist will fetch the target height from the nearest point on the original route, effectively 'stretching' the design and allowing you to make multiple passes using one original survey. On larger fields, you can repeat this process, effectively dividing the field into smaller areas of similar uniformity.

**LEARN MORE AT [DITCHASSIST.COM](http://DITCHASSIST.COM)**

# LAND LEVELING

## USING DITCH ASSIST

**GPS STATS**

- GPS Valid: True
- Fix Quality: RTK
- Satellites: 13
- Latitude: 49.75911
- Longitude: -97.89058
- Elevation(ft): 807.76
- Speed(mph): 2.93
- Course: 97.36
- Update On: 21:52:45

**MANAGE LAYERS**

**SURVEY**

Target: 1

UP HILL | DOWN HILL

Start Elevation (ft): 813.06  
Current Elevation (ft): 807.76  
Distance Covered (ft): 45.79  
Current Target Elev. (ft): 807.73  
Final Target Elev. (ft): 807.56  
Nudge Offset (in): 2.00

STOP | HOLD

**GRADING**

Grade(%)

-0.43%

NUDGE UP | NUDGE DOWN

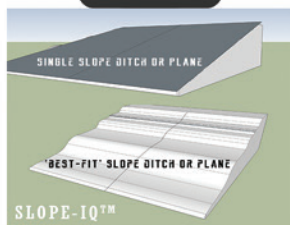
RAISE | LOWER

### 3 METHODS:

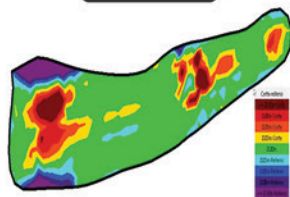
#### LEVEL A PAD



#### CREATE A PLANE



#### IMPORT DESIGN



### HOW IT WORKS

Ditch Assist can now be used for land leveling and land forming on equipment such as scrapers and levelers with a single up/down hydraulic circuit:

1. Create a level area or pad by either entering a target grade of 0 or a target elevation for the area.
2. Use SLOPE-IQ to survey a route and design a single or variable slope solution just like making a ditch. Ditch Assist 'stretches' the design on either side of the original survey route to create a plane. Great for maintaining laser-leveled fields!
3. Import an advanced design from 3rd party software in XYZ text file format to implement....

### IMPORTING DESIGNS

Import a land leveling design from 3rd party software into the Ditch Assist App in Lat/Lon/Height text file format. Ditch Assist will read the target heights from the file, and also automatically interpolate them to create a smoothed target surface. As you drive over the field, the target elevation is constantly computed and used to adjust the implement height. You can also add a geo-referenced cut/fill map to the map screen to guide you as you work. Where cuts are too much for one pass, simply use Nudge Up to reduce the cut on that pass, then Nudge Down on future passes until you are on target.

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