

# GRADE-MANAGEMENT SOLUTIONS



JOHN DEERE



## GRADE-MANAGEMENT SOLUTIONS



# GRADE YOUR WAY.

John Deere offers the widest range of integrated grade-management-capable machines with the most flexible upgrade options in the industry. From motor graders and excavators to crawler dozers, compact track loaders, and skid steers — and with economical upgrade paths from 2D or 3D Grade Guidance up to fully integrated SmartGrade™ — you can choose the factory-ready solution that helps you make the most of your equipment fleet.

### **Weigh the benefits**

John Deere grade-control solutions can help reduce labor needs, improve accuracy, complete tasks faster, and save material rework compared to working without grade-management technology.

### **Create your own path**

Ranging from 2D Grade Guidance and 2D Grade Control up to 3D Grade Guidance and SmartGrade for 3D Grade Control, our grade-management technology is ready to evolve with the demands of your application.

### **Skilled labor**

Running machines equipped with grade control lets operators of all experience levels quickly produce reliable results, helping to optimize operator efficiency for novices and pros alike.

### **Risk reduction**

Integration of key grade-control components such as wire harnesses and sensors into the machine's cabin and structures helps shield them from the risk of damage or theft.



***GOGRADE.DEERE.COM  
PROVIDES MOBILE-FRIENDLY  
SETUP & OPERATION***

#### **Asset management**

Moving up to SmartGrade enables jobsites to be prepped for final grade using the same machine and operator — and without delays or needing to add other crew members or equipment.

#### **Get connected**

JDLink™ provides real-time machine data and alerts to help maximize productivity, efficiency, and uptime. To optimize uptime and lower costs, JDLink also enables John Deere Connected Support™.

#### **Support system**

Our grade-management solutions come factory ready and are fully backed by your Deere dealer, including service, warranty, upgrades, and financing.

#### **Closing the distance**

SmartGrade remote support includes Wireless Data Transfer (WDT) and Remote Display Access (RDA), enabling dealer technical support from inside the cab to help boost jobsite productivity and reduce downtime.

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# MOTOR GRADERS

## IMAGINE THE POSSIBILITIES.

Grade-control technology is a must-have tool for maximizing jobsite productivity and maintaining a competitive edge. Start with cross slope, standard on all Grade Pro (GP) models. Or upgrade to industry-first John Deere SmartGrade Motor Graders that are fully integrated and calibrated from the factory to arrive at your jobsite ready to work.

### Automated cross slope

Standard on all GP models, cross slope maintains slopes by automatically adjusting one side of the blade while the operator controls the other. Cross slope can also be operated in “manual mode” as a slope meter.

### Effortless operation

Automated cross slope simplifies holding a consistent slope by reducing operation to a single lever. Both dual-joystick controls and fingertip armrest controls come equipped with cross slope and can be easily upgraded to 3D SmartGrade.

### Suite deal

Standard with SmartGrade 3D Grade Control, Automation Suite streamlines the number of controls needed to perform common tasks such as Auto-Articulation, Machine Presets, Blade Flip, Machine-Damage Avoidance, and exclusive Auto-Pass. Our automation advantages for all GP-Series Motor Graders are also available as field kits that can be unlocked on SmartGrade models.

### Run without limits

In-cylinder position sensing allows the machine to stay on grade no matter what blade pitch, articulation angle, or circle offset you're running, without the limitations imposed by masted systems. Built with flexibility in mind, laser, sonic, mmGPS, and total-station solutions can also be utilized, enabling unmatched jobsite versatility.



**INTUITIVE  
AUTOMATION SUITE**  
STANDARD WITH  
SMARTGRADE™

### MOTOR GRADER GRADE-MANAGEMENT OPTIONS

**Cross Slope** standard on all GP-Series Motor Graders

**SmartGrade 3D Grade Control** available on all GP-Series Motor Graders

**SmartGrade upgrade kit** available for GP-Series Motor Graders

# EXCAVATORS

## PUT INTELLIGENCE TO WORK.

Grade management can be a huge advantage in the earthmoving business. Choose economical 2D or 3D Excavator Grade Guidance with an easy path for future upgrades. Or opt for a SmartGrade™ machine with fully integrated 3D grade control from the factory. The system is also available as an upgrade for Grade Guidance and SmartGrade-ready models.

### Nice and precise

Grade Guidance arms operators with elevation and position of bucket cutting edge relative to target plane (2D) or design surface (3D). It's ideal for precision projects including digging trenches for pipes, shaping ditches or slopes, or excavating structure foundations.

### All about control

With SmartGrade-ready 2D and SmartGrade 3D solutions, the operator sets and holds grade while controlling the arm as the machine automatically controls the boom and bucket.

### Protect your grade

Overdig protect in SmartGrade prevents digging below target grade for both 2D and 3D systems.

### Know your boundaries

Virtual fence in SmartGrade allows operators to establish boundaries and will trigger an alert when the boom and bucket approaches them.

### EXCAVATOR GRADE-MANAGEMENT OPTIONS

**Excavator 2D / 3D Grade Guidance** available on 210G/210G LC, 350 P-Tier, 380 P-Tier, and 470 P-Tier Excavators

**SmartGrade-Ready 2D / SmartGrade 3D Grade Control** available on 210G/210G LC, 350 P-Tier, 380 P-Tier, and 470 P-Tier Excavators

**3D Grade Guidance and SmartGrade 2D / 3D Grade Control upgrade kits** available for 210G/210G LC, 350 P-Tier, 380 P-Tier, and 470 P-Tier Excavators



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**SMARTGRADE IS  
FACTORY INTEGRATED  
& CALIBRATED**

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# CRAWLER DOZERS

## READY TO DIG IN.

With Slope Control on your John Deere crawler dozer, you can maintain a selectable blade position and improve accuracy without GNSS or laser. When you're ready to raise the stakes, purpose-built SmartGrade fully integrated grade control that leverages the power of the Deere track load-sensing system is as easy to upgrade as it is to run.

### Angle of attack

Slope Control automatically maintains a selectable blade angle or slope for quick and easy creation of flat pads and slopes.

### Get up to speed

No external lasers or GNSS references are needed with Slope Control. Both new and veteran operators can hold grade with less effort, fewer corrections, and minimal blade adjustments.

### Sure and secure

The external masts and cables of traditional grade-control systems — and the time needed for installation and removal plus the risk of those components being damaged or stolen — are eliminated with fully integrated SmartGrade.

### Grade to the head of the class

Auto SmartGrade settings optimize performance based on soil type and load size, raising the blade whenever heavier loads are encountered during rough grading, preventing stalling and track slip so you can use the dozer in all phases of grading.

### CRAWLER DOZER GRADE-MANAGEMENT OPTIONS

**Crawler Dozer Slope Control** available on 450K, 550K, 650K, 700L, 750L, and 850L Crawler Dozers

**SmartGrade 3D Grade Control** available on 650K, 700L, 750L, 850L, and 950K Crawler Dozers

**Crawler Dozer Slope Control to SmartGrade 3D Grade Control upgrade kit** available for 700L, 750L, and 850L Crawler Dozers

**SmartGrade 3D Grade Control field kits** are available for 650K, 700L, 750L, 850L, and 950K Crawler Dozers



**REDUCE TRACK SLIP  
& STALLING WITH  
SMARTGRADE™**

# COMPACT TRACK LOADERS/SKID STEERS

*THINK SMALL, DREAM BIG.*

Your compact equipment can maneuver in tight spaces where larger machines often can't. And when you can use it to work along walls, curbs, and landscape edges, small equipment becomes a pretty big asset. Engineered to boost accuracy and productivity, our large-frame compacts — including the 333G SmartGrade™ Compact Track Loader (CTL) — can return unimaginable results for your operation.

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## It's all relative

Optional onboard grade indicate provides an accurate readout in either percentages or degrees of cross slope (machine roll) or mainfall slope (machine pitch). Use relative value readout to alter grades relative to existing or reference grades.

## In control on slopes

Slope Control lets operators automatically maintain the position of the blade without using external lasers or GNSS, to hold grade with less effort, fewer corrections, and minimal blade adjustments. New laser option helps make Slope Control even more productive.

## Ready, set, grade

The first CTL to feature fully integrated 3D-grade-control technology, the 333G SmartGrade includes the operator-friendly DozerMode control system. Pushing a button on the sealed-switch module switches to the electrohydraulic (EH) control pattern for enabling intuitive crawler operation.

## On the cutting edge

John Deere-designed and -built six-way SG96 Dozer Blade on the 333G SmartGrade is tough enough to cut grade, but it can also smoothly spread or fine-grade materials precisely where they need to go.

### CTL / SSL GRADE-MANAGEMENT OPTIONS

**SSL / CTL Grade Indicate** available on 330G/332G SSLs and 331G/333G CTLs

**CTL 2D Slope Control** available on 333G CTL only

**CTL 2D Slope Control With Laser field kit** available on 333G CTL only

**SmartGrade 3D Grade Control** available on 333G CTL only

**Slope Control upgrade kit** available for 333G CTL only

**Slope Control to SmartGrade upgrade kit** available for 333G CTL only



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**GRADE CONTROL  
HELPS BOOST COMPACT  
MACHINE VERSATILITY**



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