Online - Display and CommandARM™ Simulator

Help Guide

- GS2 1800 Display
- GS3 CommandCenter™ Display
- GS3 2630 Display
- Generation 4 CommandCenter™ Display

Last Updated: February 2017

Applies to Online Simulator Version: 2.14

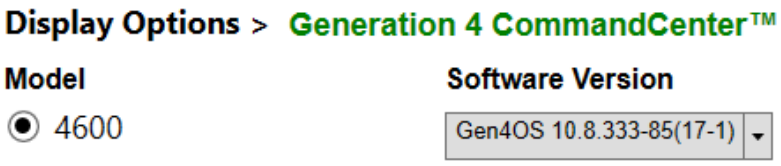
Table of Contents

Online-Display and CommandARM™ Simulator is a cloud-based application that can be accessed by installing a small application for managing the server connection.

The purpose of this simulator is for supporting and learning to use John Deere displays and associated equipment software. The simulator replicates the display software, equipment controller software and connected sensors. There may be slight differences from the actual software.

What's New in Release 2.14

- Gen 4 CommandCenter™ 17-1 Update (version 10.8.333-85)
- Language support for Gen 4 CommandCenter™. The simulator language is set automatically by the computer's operating system. In English, the display will take about 10 seconds to load, but in other languages it will take about 50 seconds.
- Users can select between Gen 4 CommandCenter™ SU16-2 and SU17-1 versions in Display Options.



Known Issues in Online Version:

- The Gen 4 CommandCenter™ simulator starts up every time like the first time it is connected to each implement. Some implement interfaces (object pools) may take up to 2 minutes to load.
- GS2 and GS3 display simulations always start in English, but users can change the language through the display settings, like in a real display.
- 1775NT Planter is not available with Tractor Controllers Simulation selected for Generation 4 CommandCenter.
- L330 and L340 Large Square Balers not available with Gen 4 CommandCenter.
- Several CommandARM™ buttons are not yet functional.

Refer to Information sections of this document for known limitations, additional information, and operating instructions for each machine.

Refer to Troubleshooting Section for computer specific items.

Minimum System Requirements

- **Operating System:**
  - Microsoft Windows® 7, 8, and 10 (32 & 64-bit)
- **2 GB of RAM**
- **Screen Resolution:** The simulator is optimized for 1280 x 800, but will work with most resolutions. Utilizing a HDMI or Display Port cable will provide better resolution for viewing on projectors and TVs.
- **Internet Connection:** The simulator requires an internet connection. 3Mbps connection speed is recommended.

Overview

There are two ways that machines and implements are simulated:

Actual – The software from the product is used, so that it is as accurate as possible. Equipment sensor signals are simulated.

Simulated – User interface is recreated. Expect pages to be fairly realistic, but there may be some inconsistencies with the actual product.

Machines	Models	Model Year	Type
Tractor	None	---	Simulated
Tractor[1]	7R, 8R	2014	Actual
Self-Propelled Sprayer	4730, 4830	2010	Actual
Combine	S-series	2012	Actual
Cotton Harvester	CP690, CS690 7660, 7760	2016 2012	Actual
Sugar Cane Harvester	CH330, 3520 CH570	2014 2015	Actual
SPFH	None	---	Simulated

Implements	Models		Type
Air Cart	1910	2014	Actual
Air Seeder	1990 CCS	2012	Simulated
Baler	469, 569 Premium L330, L340	2015 2016	Actual
Planter	1720, 1770NT, 1790 1775NT	2012 2016	Simulated

Displays	Models		Type
GS2 1800		2013	Actual
GS3 2630		2016	Actual
GS3 CommandCenter™		2015	Actual
Gen 4 CommandCenter™	4100, 4600	2016	Actual

Technology Solutions	Models		Type
Active Implement Guidance		2016	Simulated
AutoTrac™ Controller – Raven®		2016	Simulated
AutoTrac RowSense™		---	Simulated
AutoTrac™ Universal		2010	Actual
Business Pack (Europe only)		---	Actual
GreenStar Rate Controller		2012	Actual
GreenStar Rate Controller Dry		2012	Actual
Harvest ID Cotton		2011	Simulated
Machine Sync Shared Data		---	Actual
Mobile Weather		2011	Simulated
StarFire™ Receiver	3000 6000	2011 2016	Actual
Wireless Data Transfer		---	Actual

Notes:

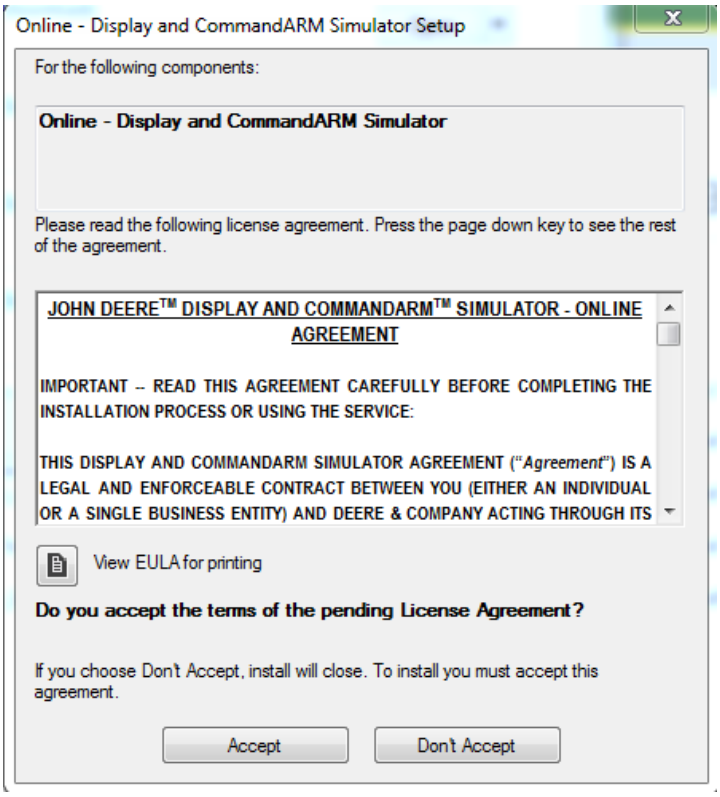
1 – 7R and 8R tractors are only available with selection of Generation 4 CommandCenter™ display.

2 – Raven is a registered trademark of RAVEN Industries

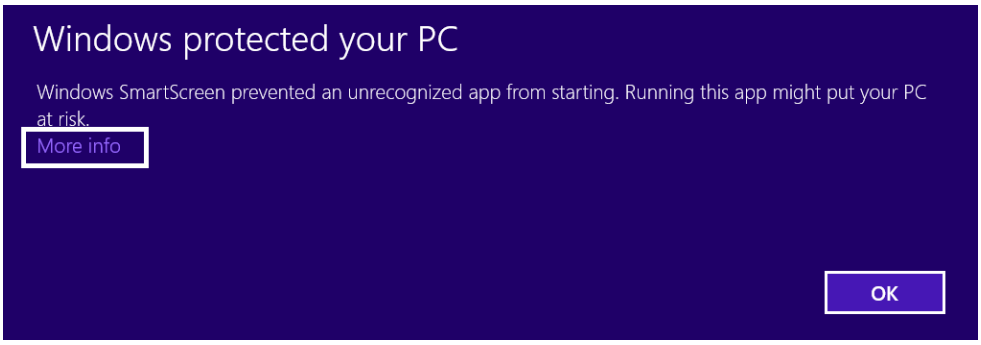
Installation and Updates

Installing the Online Connection Manager Application

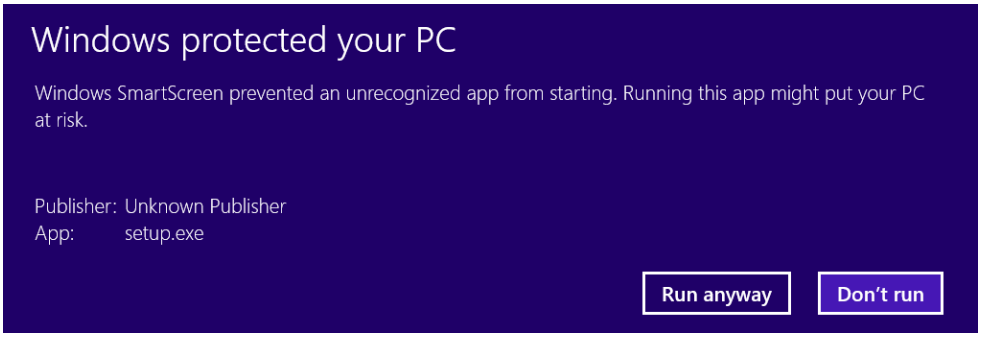
1. Download setup.exe and select Run.
2. Follow prompts to install.



a. If **Windows protected your PC** message appears, select **More info**



b. Then select **Run anyway**



Updating Display and CommandARM™ Simulator

The online connection manager application will update itself as needed, when you open it.

Getting Started

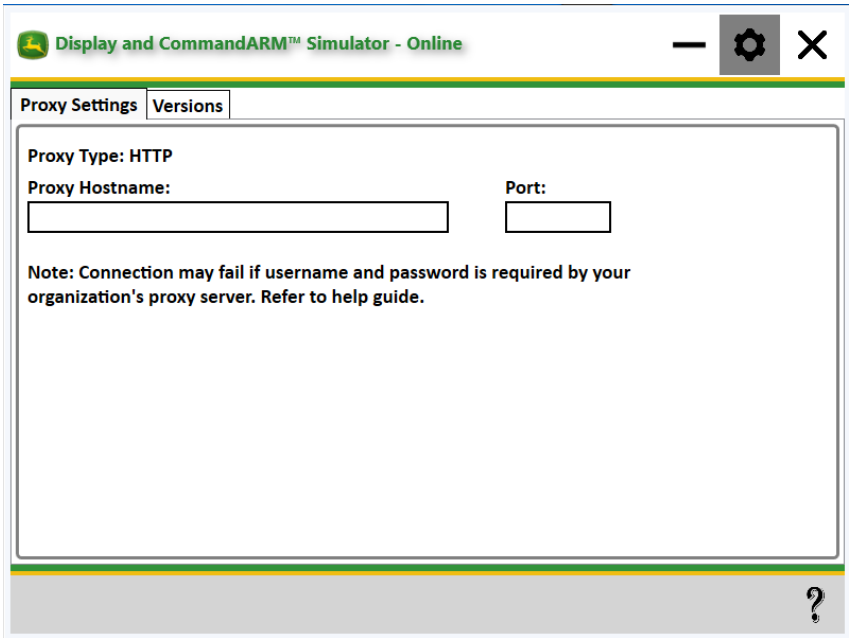
Proxy Settings

The simulator requires proxy settings for proxy server or VPN internet connections. Only HTTP proxy type is supported.

Settings – select to edit proxy settings.

Close the simulator – reopen if editing the proxy settings while connection is in progress.

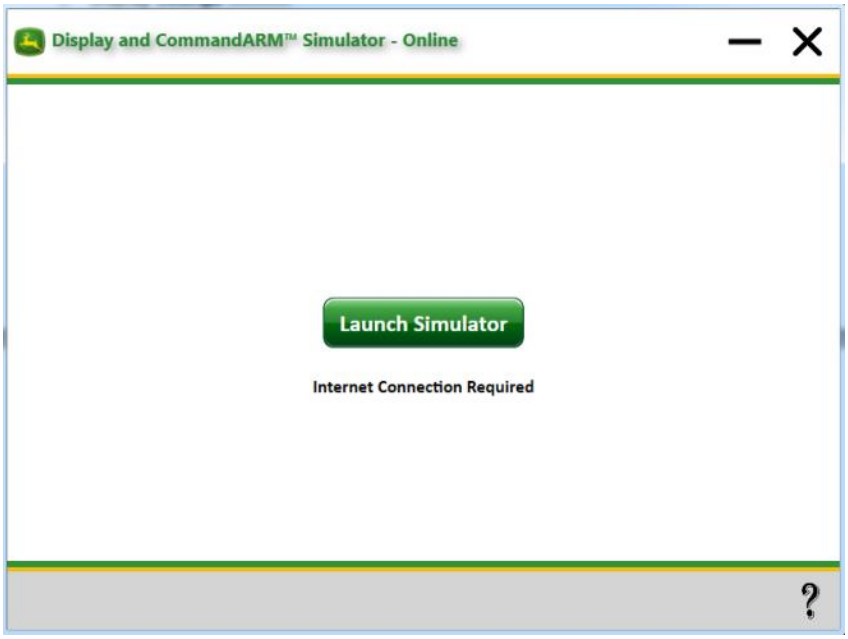
Progress Indicator – normally spins for about 20 seconds before simulator launches. If the simulator detects that proxy settings are required, a message will appear. If the simulator does not detect the proxy server properly or the settings are incorrect, the progress indicator will spin until it times out.



NOTE: Connection will fail if username and password is required by your organization's proxy server and not detected by the simulator. This may be resolved by accessing any external website through your web browser and restarting the simulator. Another solution is to use a different internet connection.

Open the Simulator

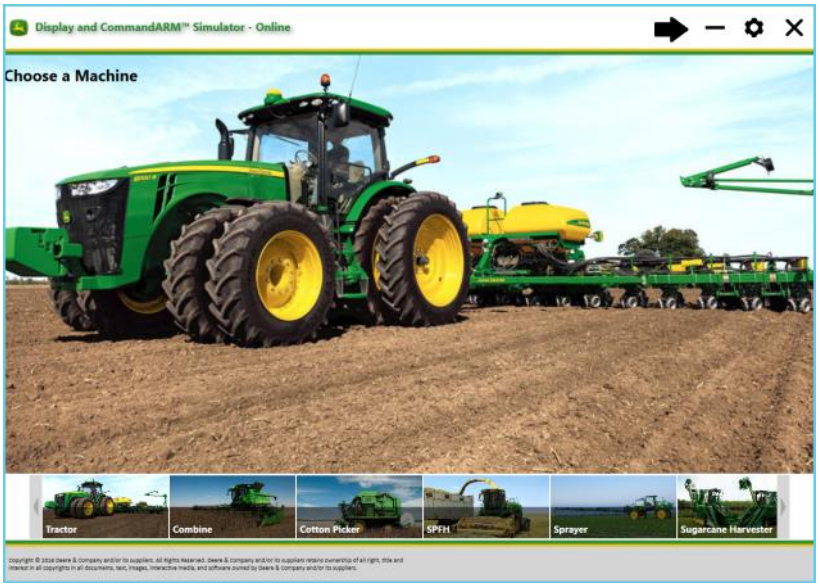
1. On your computer desktop, select **Online - Display and CommandARM™ Simulator**.



Online Connection Manager Application

2. **Launch Simulator** – to connect to simulator over the internet. The simulator will open and stream to your laptop.

Launch Simulator

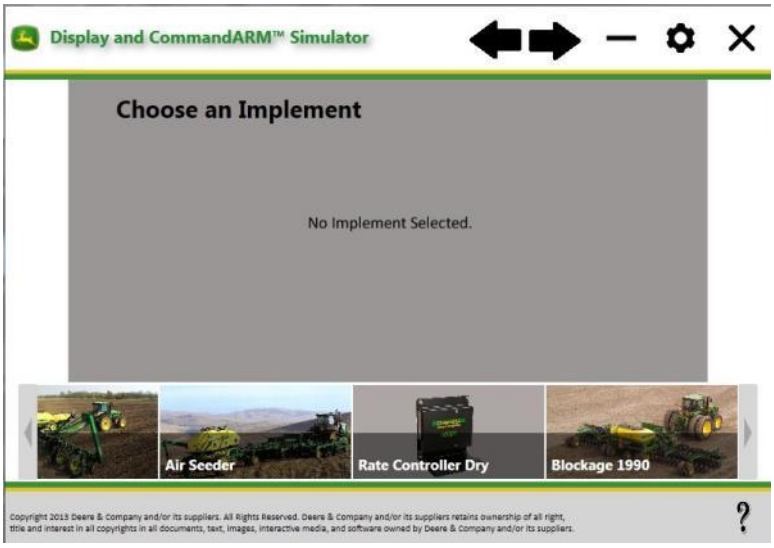


Simulator setup page will normally appear within 20 seconds, but may take up to 4 minutes depending on number of users.

1. Choose a Machine

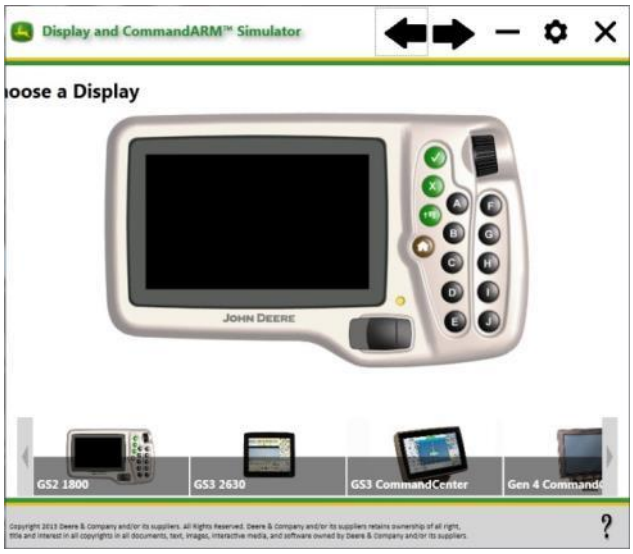
2. Choose an Implement

If you chose Tractor as the machine, then you will be prompted to choose an implement.



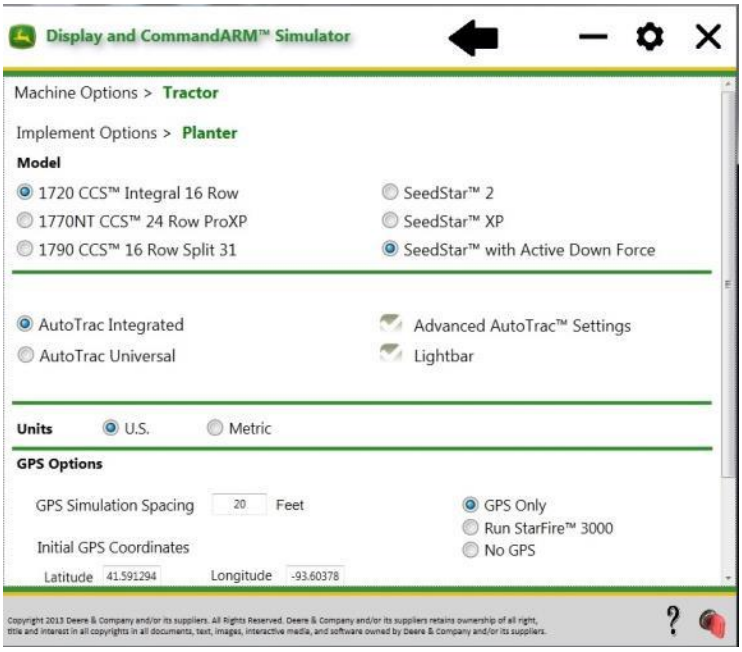
3. Choose a Display

The displays that are compatible with selected machine and implement will appear.



4. Select Options

The available options depend on the selected machine, implement, and display.



- **Run StarFire™ 3000:** StarFire 3000 interface will populate on the display.
- **AutoTrac™ Integrated:** Makes the simulator behave like it is connected to an AutoTrac Capable machine.
- **Advanced AutoTrac Settings:** Makes the simulator behave like it is connected to a machine with a SSU capable of Advanced AutoTrac Settings.
- **AutoTrac Universal:** Makes the simulator behave like it is connected to an ATU.
- **GreenStar™ Lightbar:** Makes the simulator behave like it is connected to a GreenStar Lightbar (i.e. the GreenStar Lightbar Settings will appear in Guidance Settings).

Initial GPS coordinates

Enter the GPS coordinates of a field to locate the GPS simulation over it.

NOTE: Moving the GPS location far from the selected field's reference point will make the machine icon on the map look skewed. Create a new field name to solve this problem.

Languages

The following languages are supported by the simulator.

Bulgarian	Estonian	Italian	Russian
Chinese	Finnish	Latvian	Serbian
Croatian	French	Lithuanian	Slovak
Czech	German	Norwegian	Slovenian
Danish	Greek	Polish	Spanish
Dutch	Hungarian	Portuguese	Swedish
English	Icelandic	Romanian	Turkish

Changing the Language on Setup Pages

The simulator setup page language will be set automatically by the computer's operating system.

1. ***Start*** menu on the computer
2. ***Control Panel***
3. ***Region and Language***

Changing the Language on the GS2 1800 and GS3 CommandCenter™ Displays

1. ***Menu*** 
2. ***Display*** 
3. ***Settings*** 

4. Scroll to list box and select language 

Changing the Language on the GS3 2630 Display

1. ***Menu*** 
2. ***Display Settings*** 
3. ***Global Settings*** 
4. ***Regional*** tab

Changing the Language on the Gen4 CommandCenter™ Display

The simulator language is set automatically by the computer's operating system. In English, the display will take about 10 seconds to load, but in other languages it will take about 50 seconds.

General Simulator Functions

Common Buttons

Next

Previous

Close

Minimize

Settings and Software Updates

 **Ignition Key**

 **Help**

 **Insert / Remove USB drive to display**

(GS2 1800, GS3 CommandCenter™, and GS3 2630 displays only)

 **Screen Capture**

Turn Simulation ON / OFF

The key switch  turns on / off all selected machine, implement and display simulators. It may take roughly 60 seconds for the display to load.

Help

The Help button  opens the website where updated help information can be accessed.

Implement Functions

 Toggle through available alerts

 Cancel alerts toggle. Note: this button will NOT clear alerts that are triggered by the machine / implement software.

 Air cart - triggers Front Tank Low error condition

 Air cart – meter calibration switch

Sounds

Most beeps and other sounds are set to OFF. They can be turned ON/OFF by adjusting the volume in Display Settings. Guidance alert sounds and tracking tones will still be ON. Tracking tones may be turned OFF in Guidance Settings, as in an actual display.

GPS Simulation

Increase Speed 

Information about Machines

Combine

Known issues and limitations:

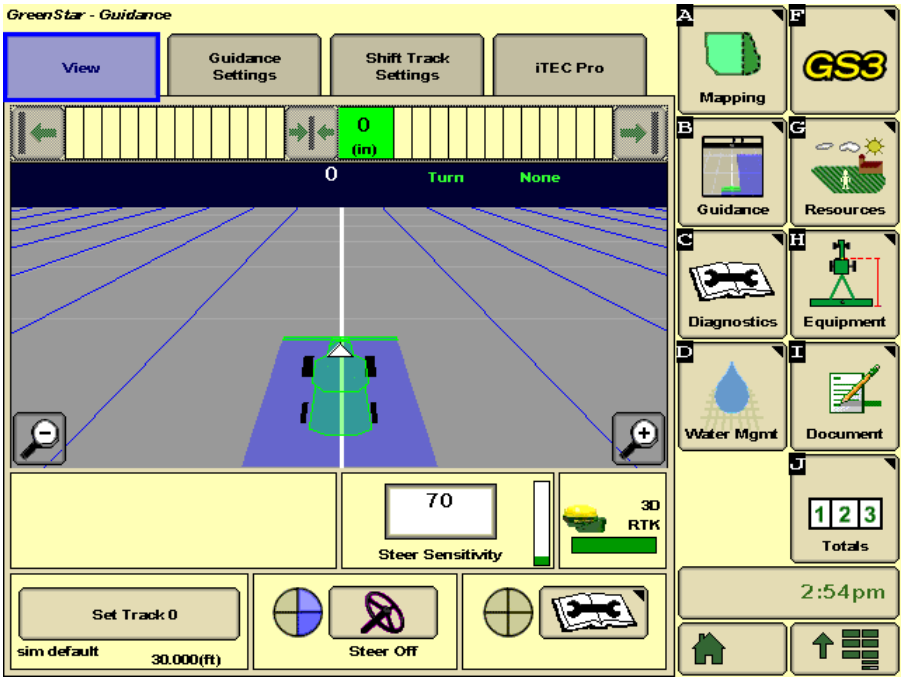
- Software shows all options at the same time on combine main page
- Several buttons on CommandARM™ do not function
- PDU Display not fully functional

How to Begin Harvesting

1. Engage Separator 
2. Engage Header 
3. Set full throttle 
4. Set gear 

5. Select the middle of the Multi-Function Lever and move forward.

Yield map should now be recording.



RowSense™ on Combine

The RowSense option is checked by default in the options for the combine simulator.

Operating RowSense:

1. Select the middle of the Multi-Function Lever and move forward.
2. Setup a guidance line on the display.
3. Enable RowSense
    a. Menu 
    b. GS3 
    c. Guidance soft key 
    d. Change RowSense Settings 
    e. Guidance Settings 
    f. Enable System Status 
    g. Note that the Row Entry method can be set to Manual or GPS status.

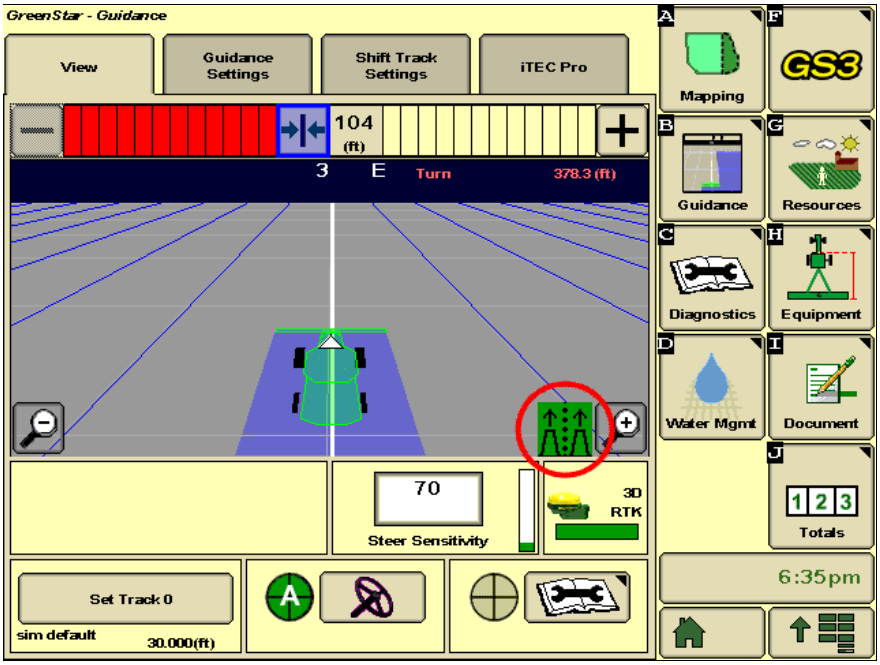
Operating with **Manual Row Entry method:**

1. Drive combine into row
2. Press number 3 button to lower head 
3. Press number 3 button a second time to engage guidance and row sensors.

Operating with **GPS Row Entry method:**

1. Drive combine into row
2. Press number 3 button to lower head and engage guidance 
3. Press number 3 button second time to engage row sensors.

Simulation RowSense States:



RowSense sensor is installed and enabled

Row Sensors Out of Crop – AutoTrac is active and there is valid GPS data, but no data from the crop feelers. *NOTE: Simulator will set crop yield input to 0 for out of crop simulation.*

Differential Correction Lost – AutoTrac is active and there is a valid data from crop feelers but there is insufficient data from StarFire™ GPS. *NOTE: AutoTrac will run for up to 3 minutes without GPS.*

AutoTrac is active and there is a valid GPS and sensor data from the crop feelers.

NOTE: Reference the AutoTrac RowSense operator manual for more detailed instructions.

Cotton Harvesters

Known issues and limitations for CP690 and CS690:

- Wrap misfeed alert sometimes appears when bale is full size. Accept and press Auto button wrap bale.

- GS3 2630 will sometimes lockup when selecting Menu > Message Center. Restart simulator to recover.
- Cotton Counter – Bale count does not increase automatically.

How to Begin Harvesting on CP690 and CS690

1. Engage Fan

2. Engage Units

3. Set full throttle

4. Turn off Park Brake

5. Select the middle of the Multi-Function Lever and move forward.

6. Press Auto button when bale is full size. First accept wrap misfeed alert if it appears.

RowSense™ on CP690 and CS690

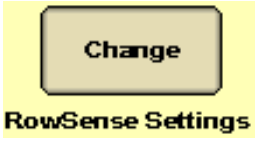
1. Before starting simulator, select GPS option.

2. Select AutoTrac RowSense™ option

3. Turn Key ON

4. Go to GS3 in Menu

5. Go to RowSense Settings in Guidance Settings



RowSense Settings

6. Enable RowSense

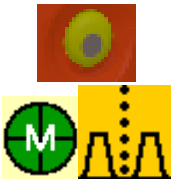
7. Select Steer ON in Guidance

Steer ON

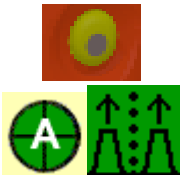
8. Begin Harvesting

9. Engage RowSense

10. Press Resume for Manual RowSense



11. Press Resume again for Automatic RowSense



Sugarcane Harvesters

Known issues and limitations:

- CH570
  - Several buttons on CommandARM™ do not function
  - Harvest simulation
  - Elevator Setup
- 3520 and CH330
  - CommandARM™ and PDU display
  - Harvest simulation
  - Elevator Setup
  - 6 trouble codes appear at startup

How to Begin Harvesting with CP690 and CS690

1. Engage Fan

2. Engage Units

3. Select planter **Power Generation ON** in display.

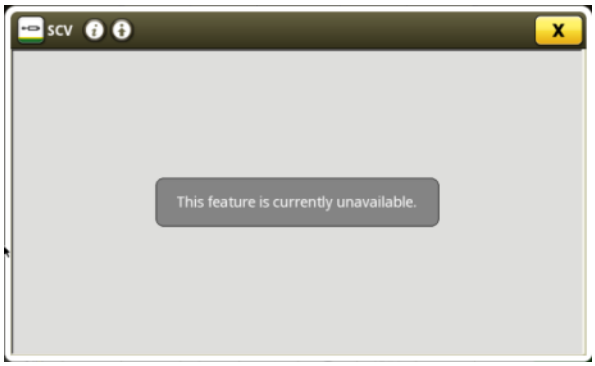
4. Select **Planter Down** in Navigation window.

Tractors - 7R and 8R with Generation 4 CommandCenter™

Known issues and limitations:

- CommandARM™, Navigation bar, and PDU display not available for the following configurations:
  - 7R e23™
  - 7R CommandQuad™

Check  **Machine Controllers Simulation** in Machine Options to simulate Tractor Settings like PTO, Hitch, and Transmission. If unchecked, tractor settings applications in Gen 4 CommandCenter™ will appear like the image below.



Information about Implements

Baler

Known issues and limitations for 469 and 569:

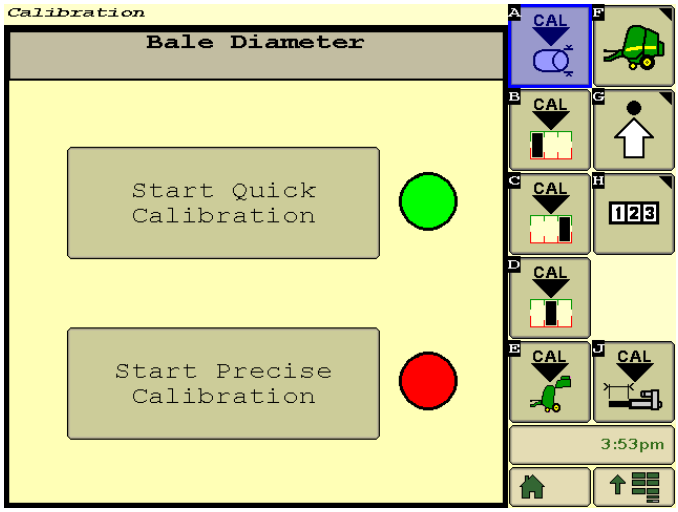
- Twine tying is not supported.
- Automation 1 and 2 is not fully supported.

Known issues and limitations for L330 and L340:

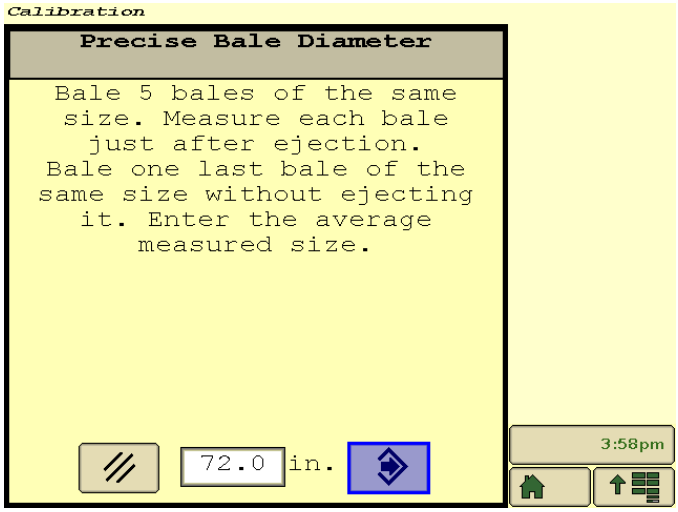
- In Online Simulator, “Feeder forks plugged” stop alert appears during startup. Accept to continue.

469 and 569 Baler Calibration:

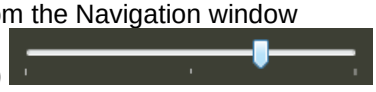
If you perform a Quick Calibration for Bale Diameter, then you must also perform a Precise Calibration. Both Quick and Precise Calibration statuses must be green before other calibrations can be completed.

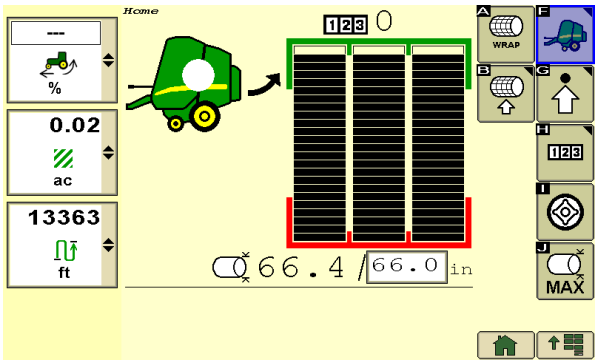


Enter 72 inches as bale diameter for Precise Calibration.



469 and 569 Baler Operation:

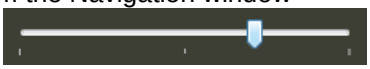
1. Switch ON the **PTO**  from the Baler window
2. Increase **Speed**  from the Navigation window
3. Increase crop flow (**Yield**) 

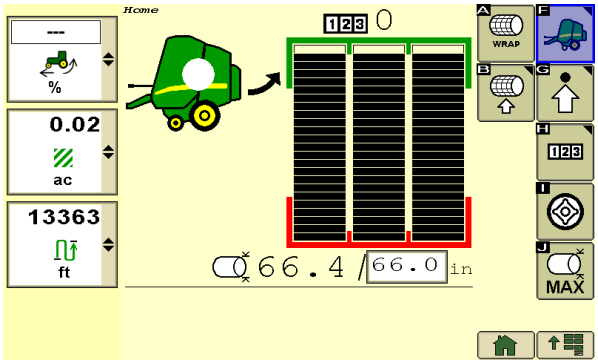


Crop flow (Yield) will automatically reset to **None** when bale size is reached for simulation purposes.

4. Open gate  from the Baler window.
5. Close gate  from the Baler window.

469 and 569 Baler Operation Example with B-Wrap:

1. Switch ON the **PTO**  from the Baler window
2. Increase **Speed**  from the Navigation window
3. Increase crop flow (**Yield**) 



Crop flow (Yield) will automatically reset to **None** when bale size is reached for simulation purposes.

4. After wrapping is complete, switch OFF the **PTO**  from the Baler window.
5. Open gate  from the Baler window.
6. Close gate  from the Baler window.

*NOTE: Use **Reset** button on Baler window if wrapping simulations fail or Actuator open load alert appears frequently.*

L330 and L340 Baler Operation:

1. Select **PTO ON** in Navigation window.
2. Increase crop flow (**Yield**)

Planter

Known issues and limitations

- 1775NT Row Cleaner sensor simulation sometimes fails.
- 1775NT seed meter vacuum not simulated.
- 1775NT Planter simulated seed rates are sometimes erratic and section control disappears intermittently.

How to Begin Planting with 1775NT Planter

1. Select **PTO ON**.

   On CommandARM™

   On Navigation Window, in case CommandARM™ was not selected on startup.

2. Select planter **Power Generation ON** in display.

3. Select **Planter Down**

   Push SCV1 forward to detent position

   On Navigation Window, in case CommandARM™ was not selected on startup.

Raise Planter

1. Select **Planter Up**

   Pull SCV1 backward to detent position (note: extend flow time should be set to 8-10 seconds).

   On Navigation Window, in case CommandARM™ was not selected on startup.

GreenStar Rate Controller

Rate controller option is available when air seeder, blockage, planter, sprayer, or rate controller are selected. GreenStar Rate Controller has the following configuration groups, based on what machine and implement it is running with.

Implement – planter, air seeder, or blockage

- Liquid Fertilizer (default)
- Pull-behind Sprayer
- NH3

Implement – GreenStar Rate Controller

- NH3 (default)

- Pull-behind Sprayer
- Planter

Machine – sprayer

- Self-propelled Sprayer

Information about Displays

GS2 1800 Display

NOTE: The GS2 1800 simulator screen will appear fuzzy, because it was scaled 75% to fit on a computer screen.

Navigation

There are 3 options for scrolling the thumbwheel in the simulator:

1. Left-click the mouse on the top or bottom of the thumbwheel.
2. Hover the mouse over the middle of the thumbwheel and turn the mouse wheel.
3. Use the up and down arrows on the keyboard.

There are 2 options for selecting a button in the simulator:

4. Press the check button. 
5. Press down on the middle of the mouse (this option may be required for Live Edit Entries)

Thumbwheel Mouse wheel Live Edit Entry

GS3 2630 Display

Features Not Currently Available

- Saving settings from one session to the next is not available in the online simulator.
- Importing and exporting data is not available in the online simulator.
- Surface Water Pro Plus.

Generation 4 CommandCenter™ Display

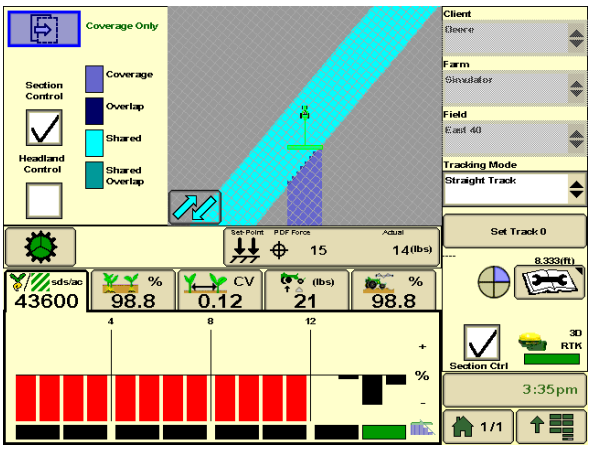
Features Not Currently Available

- Saving settings from one session to the next is not available in the online simulator.
- Importing and exporting data is not available in the online simulator.

Information about Options

Machine Sync Shared Data

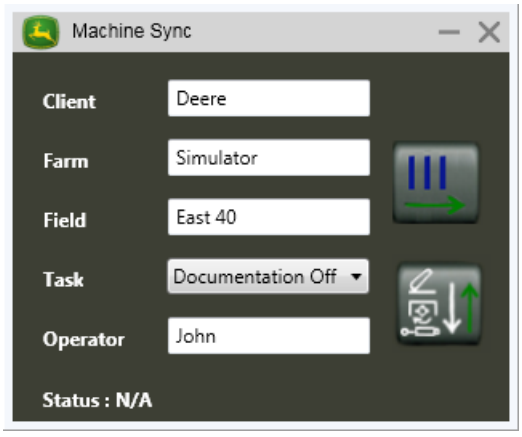
This feature simulates coverage data and guidance lines coming from and going to a second machine (Machine 2). The coverage of Machine 2 drives at 4 mph (6.4 km/h) with an implement width of 60 feet (18.3 meters) and turns around after 0.5 miles (0.8 km). The Machine 2 icon is not displayed and it is not capable of section control.



Setup Sharing

Note: Network setup is saved between uses of the simulator.

1. Choose any Machine and Implement option with GS3 2630 display
2. Select **Machine Sync Shared Data** in **Display Options** page. The Machine Sync window will appear after you turn the key to start the stimulator.



3. Select the same **Task** in both the Machine Sync window and display. If you select a Task other than Documentation Off in the GS3 2630, you will need to setup Documentation (Softkey I).
4. Setup Network in display
    a. Go to **Menu > GS3 > Equipment (H) > Network tab**
    b. Select **Manage Networks**

c. Select **Add New**

d. Enter any name for **Network Name**

e. Select **Connect**

f. Select **Accept**

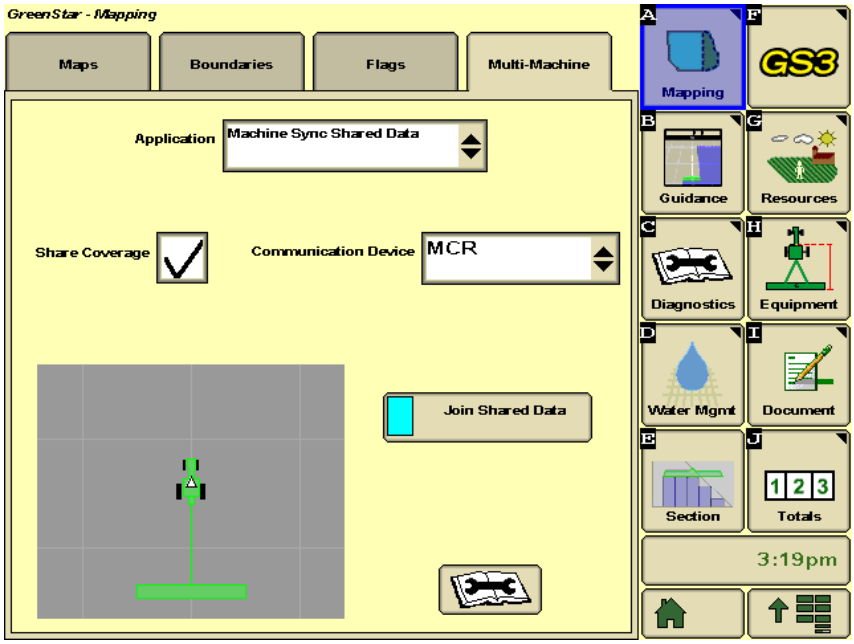
g. **Machine 2** will now show up on Network. Various signal qualities are simulated for demonstration.

5. Go to **Mapping (A) > Multi-Machine tab**

a. Select Application from list: **Machine Sync Shared Data**

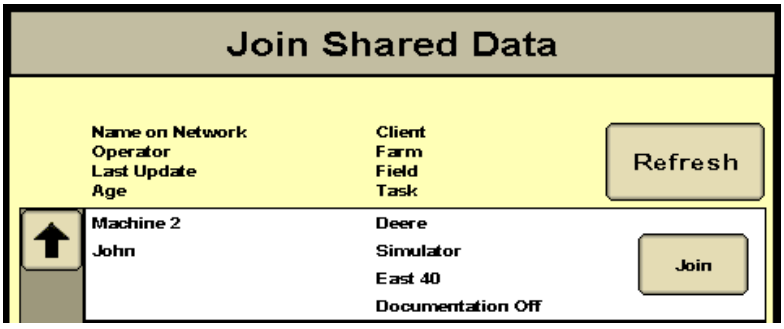
b. **Check** Share Coverage

c. Select Communication Device from list: **MCR**



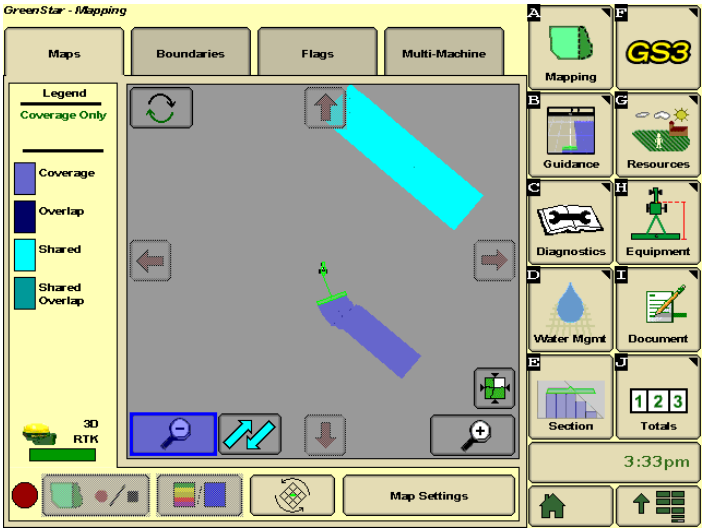
Join Coverage

1. Go to **Menu > GS3 > Resources (G)**
2. Select **Join** from Field list box
3. Select **Join** for Machine 2 in the window that appears. If Machine 2 is missing from the list, restart the simulator.



Note: On some computers, a communication lost alert may appear. As long as the machine or implement still appears in the Menu, the simulation is still working.

4. Go to **Mapping (A)**
5. Select **Recording**  on the **Machine Sync window**. The second machine coverage will display on the map to the right of the first machine. You may need to zoom out to see it.



Share AB Line from Machine 1

1. Go to **Menu > GS3 > Guidance (B)**
2. Select **Set Track 0**
3. Select **Share AB Line**
4. Status on Machine Sync window will show: AB Line Received

Share AB Line from Machine 2

1. Select **Send Guidance Line** 
2. **AB Line Received** message will appear on the GS3 2630. **East Line_001** is the name of the track.

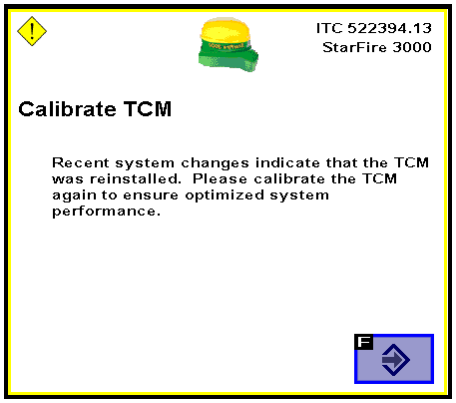
   Note: This AB line is created for the default GPS location of the simulator.

Reference the Machine Sync Operator Manual for more information.

StarFire™ 3000

Calibrate TCM Alarm

The Calibrate TCM alarm will appear once every time the simulator is started with a different Machine, Implement, or Display and the TCM has not been calibrated for that combination.



1. ***Menu*** 
2. ***StarFire*** 

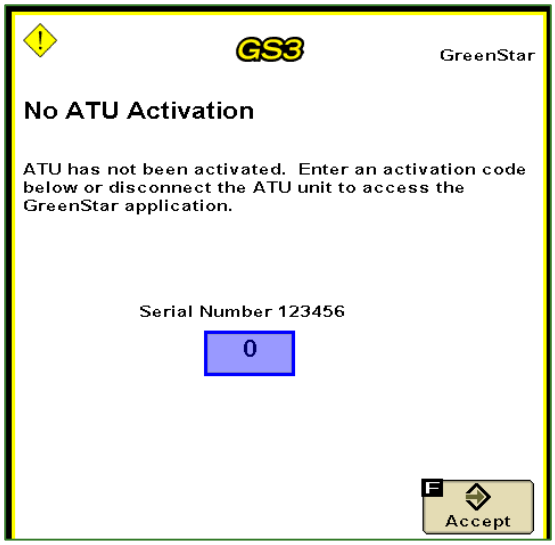
3. ***Setup*** tab
4. ***CAL*** 

5. Select ***Accept***  on the next 3 messages

AutoTrac Universal (ATU)

ATU Activation

The first time you run the ATU with a display you will need to activate it by entering **323**. With the GS2 1800, turn the thumbwheel of the display using mouse wheel.



Troubleshooting

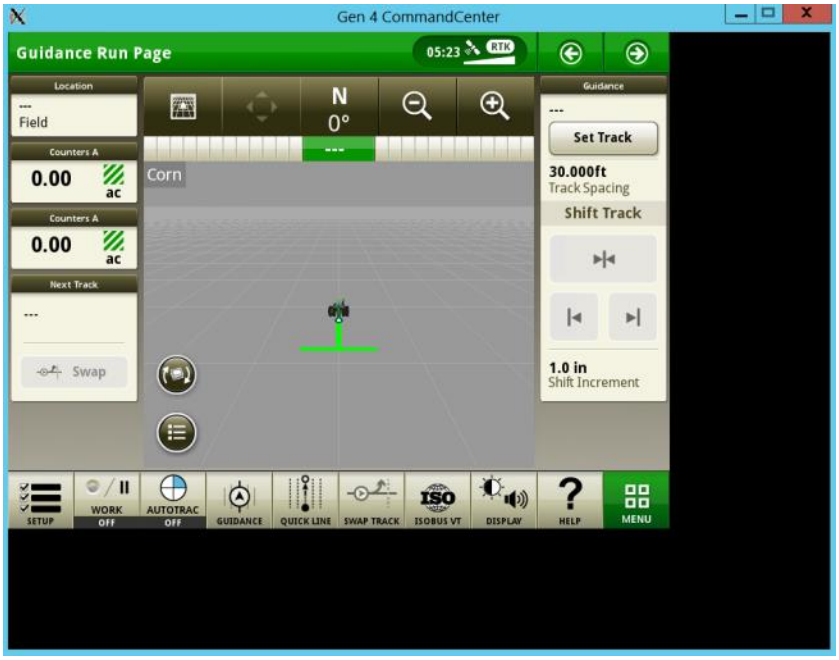
Simulator Fails to Launch

Launch Simulator

Progress Indicator

Normally the simulator takes 20 seconds to launch. It may take up to 4 minutes if many users are starting the simulator at the same time. A longer time may be due to a proxy server or VPN internet connection blocking the simulator connection. Refer to the section on Proxy Settings.

Gen 4 CommandCenter™ Appears in Only Part of Window



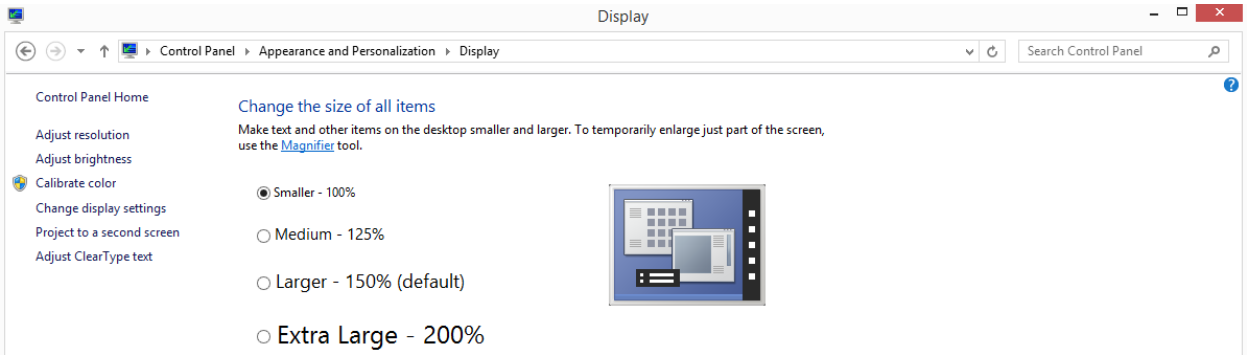
Common Cause:

- Desktop size is set to greater than 100%

Common Fix:

1. Open Control Panel > Appearance and Personalization > Display
2. Change to Smaller – 100%

Note: This setting will affect the text size on your desktop icons and windows. Reducing computer screen resolution will enlarge them.



Reporting Issues

Report issues and submit feedback at www.JohnDeere.com/amscontact. Please state that it is regarding the Online-Display and CommandARM™ Simulator and include the exact text of errors you are reporting.