Software Update

Generation 4 OS installation time: Approximately 20 minutes, with no existing data. Installation time will vary depending on the amount of existing data and the software version currently on the display.

The latest packages for the Generation 4 Displays below can be downloaded and installed over-the-air or using a USB drive and John Deere Software Manager, available on StellarSupport.com within the "Software Updates" page. If using Online Display Software Update Process on the Generation 4, over-the-air software download time will vary based on cellular coverage or wireless internet connection strength. Reference "Download Instructions" for more help.

	Package	Version
	Generation 4 OS	10.14.978-88
	Generation 4 OS Help	10.3.60-1
	AMS Applications	10.14.978-88

Machine Application Software Updates
Machine Applications are located under machine settings in the Generation 4 Display menu. A John Deere dealer will be required to install any required updates to Machine Application software using Service ADVISOR™.

Release Notes Content

Important Notes
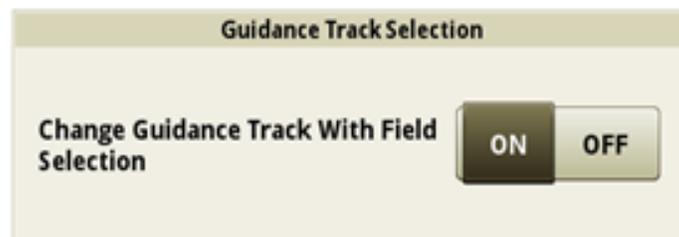New Features/Improvements
General Information
Training

New Features and Improvements

Guidance-

- To prevent undesired tones while not actively using guidance, Autotrac™ related tones are now suppressed when the system is turned off. AutoTrac™ can be turned off by using the toggle on the Guidance main page or by selecting the AutoTrac™ shortcut button.
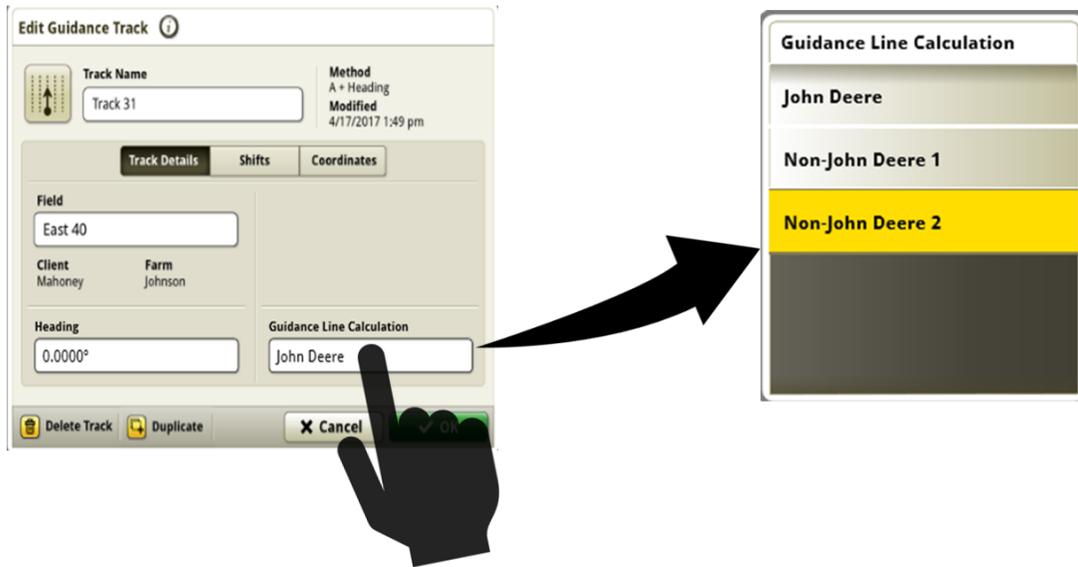

- To improve ease of use, a new feature has been added to automatically change guidance track when the operator changes the active field. This feature uses the following logic to change track:
   - If the new active field has no track associated with it, track name will change to "---" indicating that no active track is associated to the field. The operator will need to select the guidance track from the Track List by selecting Set Track on the Guidance main page.
   - If the new active field has only one track associated with it, that track will automatically be selected as the active track.
   - If the new active field has multiple tracks associated with it, then the first track from the guidance track list will be selected as the active track.
   - If the operator clears selection for Client/Farm/Field, then the track name will change to "---" indicating no active track. The operator will need to select the desired guidance track from the Track List by selecting Set track on the Guidance Main page.
   - Active track will not change if the operator changes field while Autotrac™ is engaged.
   - If the operator uses Swap Track to switch between guidance lines, the new active track gets added to the swap track list.

Note: This feature is on by default. An operator can disable this feature by toggling off within the Guidance application advanced settings page. A factory data reset or software programming event will cause this feature to default to on.

- An operator can now create a new Straight Track or edit an existing Straight Track guidance line on Generation 4 displays using non-John Deere calculations. Throughout the industry, there are different calculations used for creating guidance lines. This feature allows an operator to select John Deere's format, or between two other formats:
    - Non-John Deere 1: Uses BEELINE calculations
    - Non-John Deere 2: Uses Trimble® calculations

Note: Guidance Line Calculation defaults to John Deere. Select Non-John Deere 1 or Non-John Deere 2 from Guidance Line Calculation drop-down box to change calculation. This feature is only supported for Straight Track guidance lines.
Trimble is a registered trademark of Trimble Navigation Limited Corporation.

- An operator can now edit the heading of a straight track if it was created with either A+ Heading method or Lat/Lon+ Heading method. The valid range for data inputs in this Heading field is 0.0000 – 359.9999 degrees. New heading information will be saved to the existing track each time that this value is modified. If data is exported to Operations Center after modifying the heading value, the modified track will replace the track if it previously existed in Operations Center.
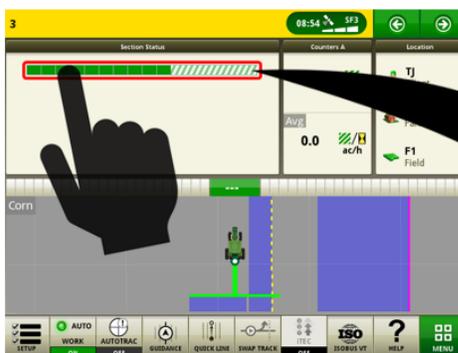
Section Control –

- A diagnostic page has been added to assist with understanding the current Section Control command state. If a section or sections are commanded off, this page provides a description of why the system is commanding off. If more than one reason exists for the system to command a section off, the diagnostic page will show the highest priority off reason.
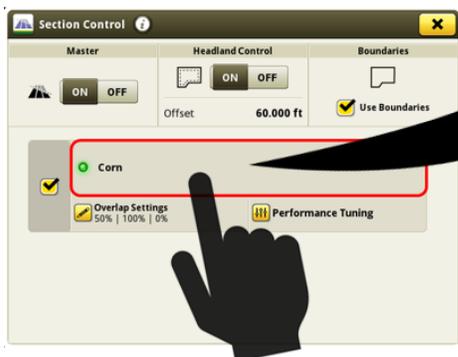
  The existing off reasons that will display are listed below in order from highest to lowest priority:

  > *Low Speed Threshold (below minimum ground speed)*
  > *Interior Headland Boundary*
  > *Exterior Headland Boundary*
  > *Interior Boundary*
  > *Exterior Boundary*
  > *Prescription Zero Rate*
  > *Coverage*

  For example, if a section was over an area that has previous coverage and is outside of an exterior headland boundary, the diagnostic page will only display exterior headland boundary. This page is intended to be used during operation for diagnostics, not when stationary. If attempting to use while stationary, all sections will show the off reason indicating that the machine is below the minimum ground speed threshold.

- (South America only) FVR equipped planters will gain Section Control functionality on the display. *(Requires FVR controller software version 1.03 or newer)*

Fields & Boundaries –
- RTK base station settings can be saved to each field and automatically recalled for use. This feature works by saving the RTK settings that are entered in the StarFire™ VT page to the field that is currently selected. The saved RTK base station settings will be automatically recalled for use when the field is selected in the future. If required, RTK settings can still be manually changed through the StarFire™ VT page when using this feature. This feature must be enabled by navigating to Fields & Boundaries application, then Advanced Settings. Saved RTK settings can be imported and exported between Generation 4 Displays with a USB. Future enhancements are planned to allow importing and exporting these settings from Operations Center.
  (Requires: StarFire™ 6000 receiver with 19-2 software, John Deere RTK Radio 450 or 900, and Generation 4 display with 19-2 software.)
- Top and bottom headlands can now be created, imported, and exported.
- Driven headland boundaries can now be imported. Driven headland boundaries cannot be created on the Generation 4 Displays.
  (Note: Due to the format in which they are saved, top and bottom and driven headland boundaries will all be displayed as custom offset boundaries if they are imported to the display. A display can only have one custom offset boundary associated to each field at one time.)
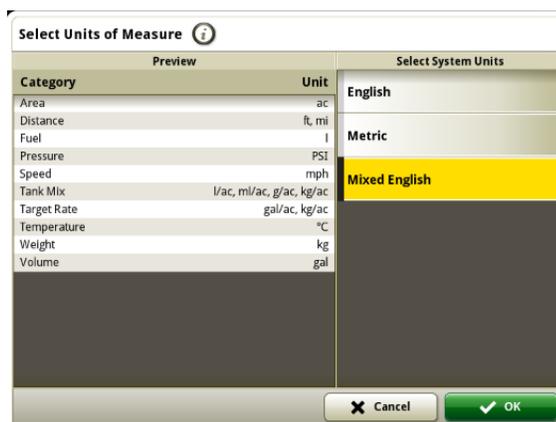

In-Field Data Sharing-
- An operator joining a work group can now automatically set up their client, farm and field. Additionally, they can select their crop or product, varieties, and tank mix to match an existing display in the work group.
- An operator can identify a work group to join based on GPS proximity.
- Guidance line shifts can be more easily shared. The operator receiving the shift can select a different guidance line and reselect the original line to receive the shift.
- Operator name of other machines in the workgroup will be displayed on the map while sharing. The operator name is entered in the Work Setup application.
  (Note: By default, operator name and license information is only enabled on sprayers and spreaders. To enable operator name on other machines, navigate to Work Setup application then Advanced Settings. Check the "Enable Operator License" selection. After closing Advanced Settings, a new section for operator details will be available on the left side of the Work Setup application. Select the operator details section, then select "Add Operator" to define the operators name.)
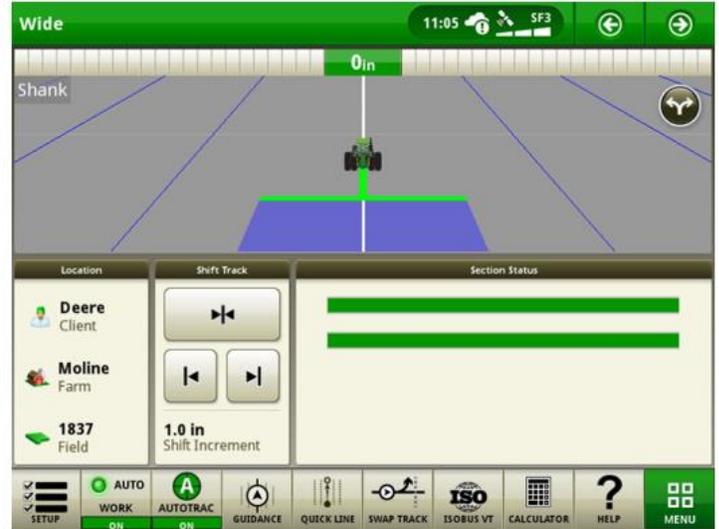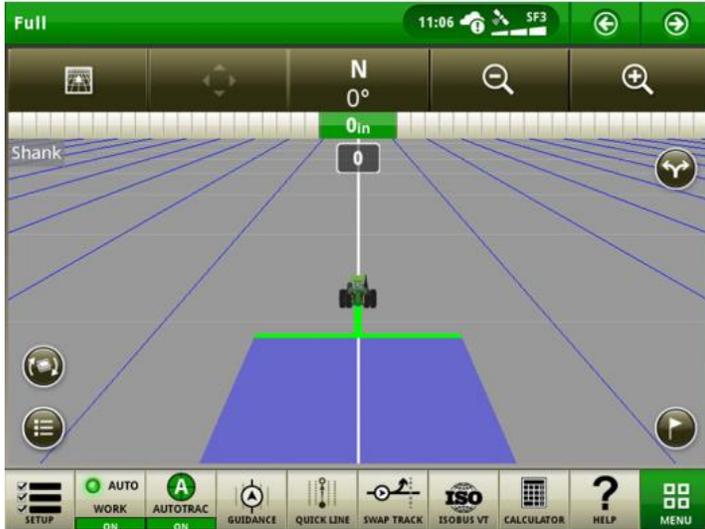
Language and Units –
- A new option for units of measure titled Mixed English has been added for operators who prefer to utilize English units of measure for most values except for using metric units for weights, temperature, and select volumetric measures. This allows operators to define tank mixes with units such as l/ac or kg/ac.

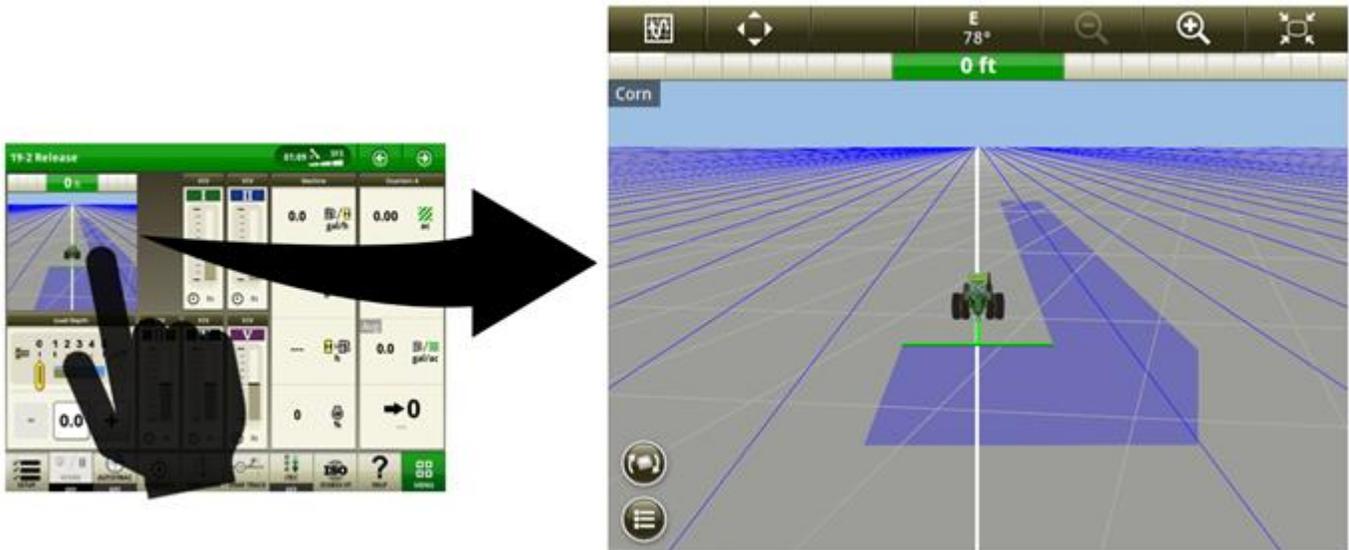| Select Units of Measure ⓘ		
Preview		**Select System Units**
Category	**Unit**	**English**
Area	ac	
Distance	ft, mi	
Fuel	l	**Metric**
Pressure	PSI	
Speed	mph	**Mixed English**
Tank Mix	l/ac, ml/ac, g/ac, kg/ac	
Target Rate	gal/ac, kg/ac	
Temperature	°C	
Weight	kg	
Volume	gal	
		✗ Cancel ✓ OK

Mapping -

- Additional run page map modules to allow greater customization. Run pages can be configured using the Layout Manager application.

- Small run page map modules without map control buttons will now expand to a full screen map view when selected. This action can be performed with a map module on the primary display or the extended monitor.
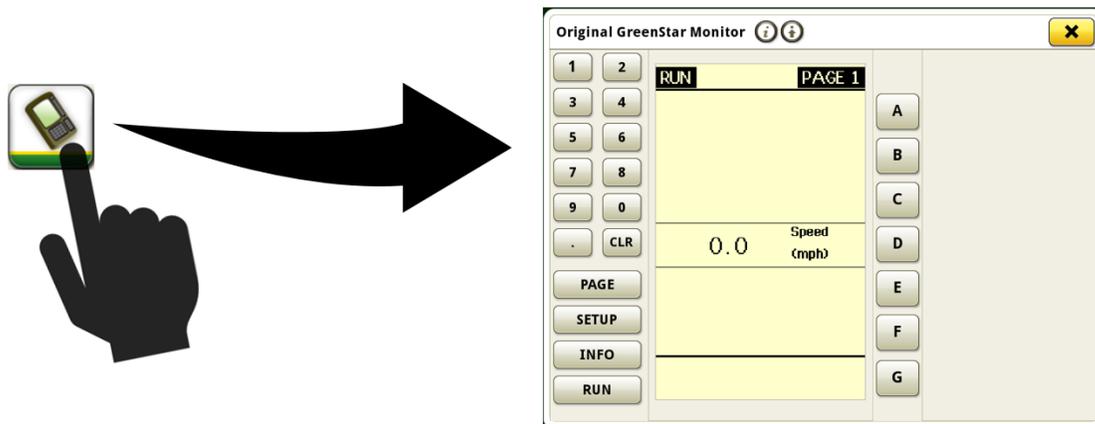
Generation 4 Machine Sync-
- Generation 4 Machine Sync will assist the follower in automatically selecting the appropriate leader to connect with based on machine proximity. To use this new capability, ensure that Sharing is ON and the machine has sufficient cell coverage.
- Operator name of other machines in the workgroup will be displayed on the map while using In-Field Data Sharing and 19-2 software. For additional information, reference the In-Field Data Sharing section on page 5 of this document.

Original GreenStar™ Monitor Emulator- This application can be used on a 4640 Universal display with 19-2 software to display information from controllers that are designed for use with the Original GreenStar™ Monitor. The Original GreenStar™ Monitor emulator is turned OFF by default. This feature can be enabled and disabled by navigating to Original GreenStar™ Monitor application, then Advanced Settings.
Note: For the 19-2 release Original GreenStar™ Monitor Emulator is now compatible only with '00 series, '10 series, and '20 series (with CCD Bus) Tractors and row guidance on 70 Series Combines.
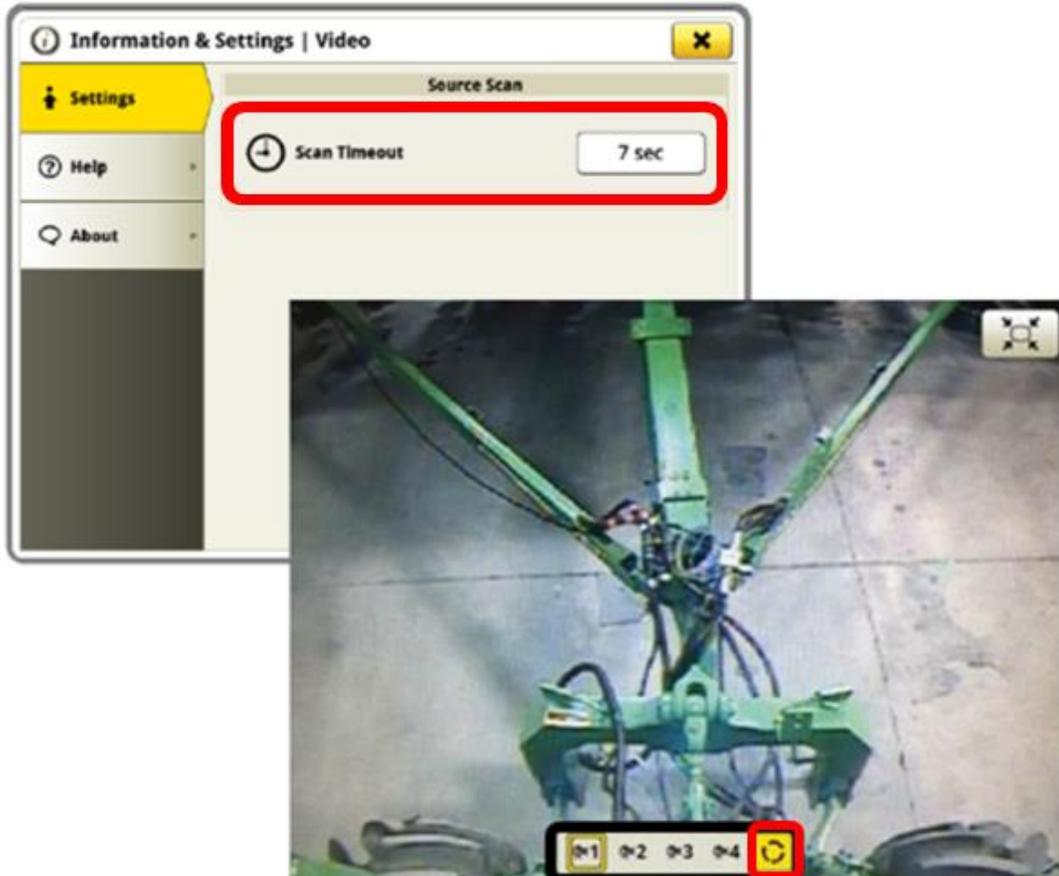

4640 Universal Display Compatibility With '00, '10, '20 Series Tractors
The following tractors equipped with CCD bus communication are now compatible with 4640 Universal Display. For full functionality with these tractors, the Original GreenStar™ Monitor Emulator must be ON. Compatibility includes the following:

- 9X20/9X20T Series (2002-2007)
- 9X00 Series (1997-2001)
- 9X00T Series (2000-2001)
- 8X20/8X20T Series (2002-2005)
- 8X10/8X10T Series (2000-2002)
- 8X00 Series (1994-1999)
- 8X00T Series (1997-1999)
- 7X10 Series (1997-2003)
- 7X00 Series (1992-1996)
- 6X10 Series (1999-2002)
- 6X00 Series (1992-1998)

Video- Generation 4 displays are now able to scan or loop through all the available video feeds for a specified duration. Default scan time per image is set to 7 seconds. The scan time is customizable between 1 and 300 seconds per image before continuing the loop.

Calculator- A new shortcut is available to allow quick access to the calculator on the Generation 4 display. This shortcut can be added to the shortcut bar within the Layout Manager application.

Equipment Manager- Third party tow between air carts can now be configured with improved detail within Equipment Manager. If an air cart is present, then the operator can designate if it is a tow between configuration and provide measurements for each piece of equipment.

Connectivity- Generation 4 displays are now capable of using Data Sync in conjunction with a customer's third-party data plan (through an access point) without an MTG and JDLink™ Connect subscription. To use this feature, establish a Machine to Wireless internet connection within the Wireless Settings application. After this is complete, then navigate to the File Manager application and select the Operations Center tab. Select Display Registration to complete the display registration to your Operations Center organization. The display will provide a website and a generated code to complete registration. This establishes a connection for the display to automatically send work data to Operations Center. Regionally specific activations or subscriptions including Data Sync are required to utilize this feature.

Note: 4240, 4200, and 4600 Displays require a wireless USB adapter to utilize this feature. 4640 Universal Displays can utilize their built-in wireless capabilities. Wireless connectivity is automatically prioritized by the display starting with MTG (if equipped), then built in wireless capability (4640 only), and lastly wireless USB adapter (if installed).

For additional information on any of the above features, contact your John Deere Dealer.
(John Deere Dealer: reference Ag Sales Manual for additional details)

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Data Management

Importing

- The John Deere 4640 Universal Display allows users to import and export machine profiles, however the Generation 4 CommandCenter™ does not import machine profiles.

- To import prescriptions, shapefiles must be in "Rx" folder at root of USB drive.

Exporting

- When exporting work data, use a separate USB drive for each Generation 4 CommandCenter™. Exported Generation 4 work data cannot be placed in individual profile folders. Exported "Setup" data is placed in the "JD4600" folder. Exported "Work" Data is placed in the "JD-Data" folder.

- An operator cannot export a field boundary to a USB drive which already contains that boundary, even if it's within a different profile

- Access Tracks cannot be exported from Generation 4 Displays.

Exporting for use with a GreenStar™ 3 2630 Display

- Generation 4 CommandCenter™ setup profiles do not include Implement Profiles, which are needed by a GS3 2630 Display. Before exporting Generation 4 CommandCenter™ profiles for use in a GS3 2630:

  o Export data from the GS3 2630 Display with the profile name "JD4600".

  o Using the same USB, export Setup Data from the Generation 4 CommandCenter™. All data will be merged into the JD4600 profile folder.

  o Import "JD4600" profile into the GS3 2630 Display

Within John Deere Operations Center

- If planning to manage data in John Deere Operations Center, properly document Client, Farm, and Field information when performing work.

- Generation 4 Display work data such as seeding, application, harvest and boundary information, can be directly imported into John Deere Operations Center.

- "Automatically Sync Work Data" is enabled on Generation 4 Display through Data Sync. It sends Work Data files to "Field Analyzer" in Operations Center.

- "Manually export to Operations Center" is enabled on the Generation 4 Display through Wireless Data Transfer. It sends Work Data to "Files" in Operations Center. After the Work Data is delivered to "Files" in Operations Center, it will also get sent to "Field Analyzer".

General Information

- Software activations are non-transferrable in the event of lost, stolen, or destroyed equipment. It is recommended to insure machines with a Generation 4 CommandCenter™ at full value, including software activations.

- Software for the controllers listed below can be updated using the Generation 4 display. The newest software versions available at the time of this Generation 4 software release are also provided for reference.

Controller	Software Version
Application Controller 1100	2.71 X
Application Controller 1120	1.51 W
AutoTrac™ Universal 100	1.13 A
AutoTrac™ Universal 200	2.30 A
AutoTrac™ Universal 300	3.23 C
GreenStar™ Rate Controller Dry	2.11 A
GreenStar™ Rate Controller	3.70 K
StarFire™ 3000 Receiver	2.70 A
StarFire™ 6000 Receiver	4.20 K
AutoTrac™ Vision Guidance	4.01L

Training

Onscreen Help - Onscreen help supplements the information found in the Operator's Manual. Press the Information icon at the top of any page to view relevant help information for that page. When viewing help, press the Book icon under Table of Contents to view all other available content related to the given page. Generation 4 CommandCenter™ Onscreen Help is now available on displaysimulator.deere.com.

Training Simulators - To learn more about the Generation 4 Displays, there is an online Training Simulator available for download under the Parts & Service Menu in the Manuals & Training Page in displaysimulator.deere.com.

Release Notice

These are Generation 4 OS and AMS Applications software update release notes for the Generation 4 Displays. Release notes can be found on www.stellarsupport.com. Note: Your use of the software is governed by the End User License Agreement included with the software.