

# Frequently Asked Questions

Part of



## John Deere Gen. 4 devices and Gatekeeper

(4200 and 4600 series displays)

Gatekeeper has a long history of exchanging data with John Deere controllers, starting with the original 'Brown Box', then the Gen. 3 series (specifically the 2600 and 2630 units) - and now the Gen. 4 terminals.

The Gen. 4 boxes run on a completely new 'language' than previous units, which means that currently there are some differences in how information can be exchanged that users should be aware of.

John Deere do not currently support structured jobs in the Gen. 4 controllers, which means Gatekeeper cannot export the full job for recording in the way that customers used to exchanging data with the 2630 will be used to. However, the Gen. 4 controllers can import field-by-field shape files which can be easily exported from Gatekeeper to provide some basic task information in-cab. This provides users with a workaround until a more complete integration can be established.

### Data exchange with Gen. 4 devices

The current level of integration with Gen. 4 devices is as follows

Direction of data	Data type	Method
Export from Gatekeeper to John Deere	Field names, product lists, machinery guidance	Export through 2630 node onto USB
	Variable rate maps	Export through SHP node into 'Rx' folder on USB
<i>At this moment in time there is no option to upload data from Gatekeeper to Gen. 4 terminals wirelessly.</i>		
Import to Gatekeeper from John Deere	Records of work done	Import from USB to Gatekeeper via Gen. 4 node: <u>or</u> , Import via wireless connection via Gen. 4 node.
	Field boundaries or guidance	<i>Please contact support for further information</i>

## Exporting to Gen. 4 Devices

In order to get the best from the controller we strongly recommend that you export the field and product lists from Gatekeeper. This will ensure that the details are available to select on the Gen. 4 controller, and do not need to be entered manually. You may also chose to export guidance data from Gatekeeper if required.

It is also possible to export shape files containing the information for variable rate applications. If a variable rate plan is exported without the field and product lists, you will need to manually create them on the controller and link the maps to the fields.

*If this is your first attempt at linking to a John Deere device, full steps for setting up devices for the first time may be found on p.18 of the [precision modules handbook](#).*

### Preparing the USB

- Insert a 'clean' USB stick into your computer.
- Use File Explorer to view the USB stick. Create a new folder on the USB stick called Rx.

NB – the 'Rx' folder is only required if you wish to export shape file prescriptions to the unit. If you only wish to send field and product lists, ensure the USB is clean and proceed to the next step.

### To export the field and product lists

- Go to devices module
- Navigate the tree view on the left to *John Deere > JD GS3 2630* and either:
  - Select an existing device, or
  - Add a new device:
    - Click 'Setup Devices'
    - Click 'Add'
    - Enter a device name (often the tractor name)
    - Click 'OK'
    - Select newly created device from the list on the left
- Click 'Device Sync'
- Select the 'Local Exchange' tab
- Select the 'Export' subtab
- Click on the '...' icon by path, and select your USB (make sure you select the USB itself, and not any folders on it)
- Select the 'Fields' subtab and:
  - Select any field groups you wish to export, or tick 'Select all groups'
  - Select any crops you wish to export, or tick 'Select all crops' (please note – your Gatekeeper crops must be linked to their relevant John Deere crops to be able to export. Click 'Setup Crops' to check, or see p.63 of the [precision modules handbook](#) for process specific instructions).
  - Select any guidance layers you wish to export, or tick 'Select all guidance'
- Select the 'Lists' subtab and tick any product and machinery lists you wish to export
- Click 'Export' (in the bottom right corner of the screen)
- Close back to the devices module.

This has placed your field and product lists (and guidance if selected) onto the USB ready to take to the tractor.

## To export shape files

All maps to export will need to be in an issued plan before proceeding.

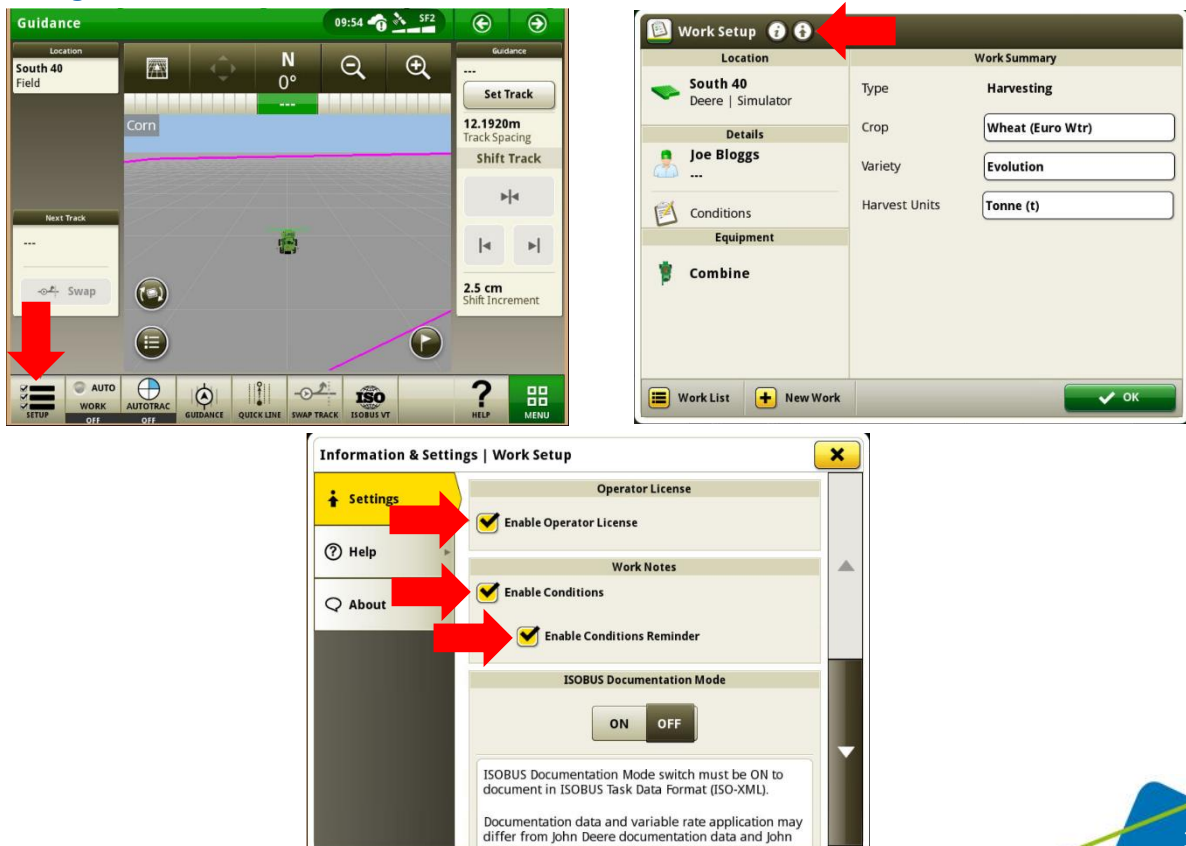
- Within the devices module, navigate the tree view on the left to *Farmplan/Generic > Target Data > Target Grid Shape SHP (WGS84)*
- Click 'Device Sync'
- Select the 'Local Exchange' tab
- Select the 'Export' subtab
- Click on the '...' icon by path, and select the 'Rx' folder on your USB
- Select the 'Fields' subtab, and:
  - Select any field groups you wish to export, or tick 'Select all groups'
  - Select any crops you wish to export, or tick 'Select all crops'
- Select the 'Plans' subtab and select the plan(s) containing the maps you wish to export
- Click 'Export' (in the bottom right corner of the screen)
- Close back to the devices module.

This has placed the shape files containing the variable rate maps onto the USB. To check the export has been successful, if desired, use Windows file explorer to look at the USB; you should have two folders now visible, 'GS3\_2630' and the Rx folder created earlier. The Rx folder will contain a minimum of three files for each field (.shp, .shx, and .dbf). The USB may now be removed from your computer and taken to the cab for use.

## Data capture on Gen. 4

To get the best out of the data capture whilst using a John Deere Gen. 4 display it is advised that users turn on the ability to capture operator and HSE data from within the Setup button. This will allow the logging of this data per field and the subsequent import of it to Gatekeeper.

### Enable recording



## Recording against jobs

Conditions [i] [X]

Weather

Field

Current Conditions

Temperature 23.0 °C

Wind Speed 5.0 km/h

Wind Direction East

Sky Condition Sunny

Humidity 30.0 %

Clear Weather Entries

Conditions [i] [X]

Weather

Field

Current Conditions

Soil Moisture Dry

Soil Temperature 12.0 °C

Clear Field Entries

## Importing from Gen. 4

Data recorded on Gen. 4 units may be imported to Gatekeeper via a MyJohnDeere account, or from a USB stick. Where the import is direct from a USB, we advise copying the data from the stick to a local drive location (folder on your computer) before importing.

*If this is your first attempt at linking to a John Deere device, full steps for setting up devices for the first time – including linking to your MyJohnDeere account - may be found on p.18 of the [precision modules handbook](#).*

### Import options and preparation

The Gen. 4 data is around 10x larger than previous formats, so we recommend some specific steps in order to make importing as quick as possible. It is recommended that the following Gatekeeper import options are not used as these will result in a slower import experience:

Import Options

Preview imported data by the job

Job maps NOT to be saved

Clip job plots to field boundary (if any are removed product quantities are recalculated)

Keep all out of work job plots

Auto find job field by GK boundary

Work done uses outstanding field area

Store job plot height data

Historic yield maps import mode

In addition, we do not recommend that you try to load an entire year's harvest data in one go. Handling large amounts of Gen. 4 data in Gatekeeper will be extremely slow and may cause the program to go 'Not Responding' while it works its way through processing the data.

If you have a large amount of data to import, you can help to make the import process more efficient by adjusting the data Gatekeeper is looking up at the point of import. When your data is downloaded (whether onto USB or by wireless transfer), it will sit in a folder structure that looks like this:

- ▼ [Folder Icon] Containing Folder Name
- ▼ [Folder Icon] JD-Data
- ▼ [Folder Icon] log
  - [Folder Icon] 2019\_Farmer Name\_Crop\_Field Name

You will have multiple folders in the 'log' folder, each containing the data for a session within a field. A large number of folders in the 'log' location is what will cause Gatekeeper to respond slowly, because it is trying to display all the information held within those folders.

To streamline the process, consider duplicating the entire folder structure (at the level above 'JD-Data'), and then limiting the number of folders in each 'log' location. So for example, in the first copy of the data, leave the first 20 folders visible; then in the second copy, leave folders 21-40 visible, etc.

*Please note - do not attempt to re-distribute the 'JDL' files within each field folder. They must be in the correct folder structure for Gatekeeper to be able to read them.*

### *Import process*

Data may be imported to Gatekeeper either via the USB taken from your in-cab controller, or using the wireless link with your MyJohnDeere account.

To import data from a USB:

- Go to devices module
- Navigate the tree view on the left to *John Deere > JD GS4 4600* and either:
  - Select an existing device, or
  - Add a new device:
    - Click 'Setup Devices'
    - Click 'Add'
    - Enter a device name (often the tractor name)
    - Click 'OK'
    - Select newly created device from the list on the left
- Click 'Device Sync'
- Select the 'Local Exchange' tab
- Ensure you are on the 'Import' subtab
- Click on the '...' icon by path, and select your USB (make sure you select the USB itself, and not any folders on it)
- The 'Data to Import' area of the screen will import with data available to import. Select the data to import, matching to plans as appropriate, and click 'Import with Preview'. *For more detailed guidance on the import process, please see p.24 of the [precision modules handbook](#)*

To import data using the wireless connection to MyJohnDeere:

- Go to devices module
- Navigate the tree view on the left to *John Deere > JD GS4 4600* and either:
  - Select an existing device, or
  - Add a new device:
    - Click 'Setup Devices'
    - Click 'Add'
    - Enter a device name (often the tractor name)
    - Click 'OK'
    - Select newly created device from the list on the left
- Click 'Device Sync'
- Select the 'Cloud Exchange' tab
- Ensure you are on the 'Download' tab
- Click 'Download'

- The files which are available for you to download from MyJohnDeere will be visible. Click 'Start Download'
- The 'Data to Import' screen will display the first downloaded chunk of data. Match to field (and plan if required) and import as usual. *For more detailed guidance on the import process, please see p.24 of the [precision modules handbook](#).*
- Click 'Download' again. Select the next chunk to import and click 'OK', and repeat.