



# JOHN DEERE

This policy describes how John Deere and its affiliates' processes and uses your data. References in this policy to **John Deere, we** or **us** shall mean John Deere GmbH & Co. KG, Intelligent Solutions Group, Straßburger Allee 3, 67657 Kaiserslautern, Germany.

We would like to emphasize that we take the protection of your privacy and your personal data very serious and that we process your data in accordance with applicable data protection laws. We would like to explain to you below in more detail which personal data we collect in connection with your MyJohnDeere™ access and how we use related data.

## 1 What data do we collect?

We collect and process data about you when you interact with us and our products, while using the MyJohnDeere™ access. MyJohnDeere™ processes data generated by the use of, collected by, or stored in machinery and equipment as well as data entered through any other system interfaces.

### 1.1 Production Data

Production Data is information about the work you do with your equipment and the land where you do that work. For example:

- field task details
- area worked
- route travelled
- crop harvested and yield data
- agronomic inputs applied

You can see and manage your Production Data in the John Deere Operations Center and mobile apps.

### 1.2 Machine Data

Machine Data is information that indicates machine health, efficiency, and function.

Machine Data comprises:

- machine health indicators, settings and readings
- machine hours or life
- machine location
- diagnostic codes
- software and firmware versions
- machine attachments, implements or headers

You can see the Machine Data available in the John Deere Operations Center, JDLink™ Web and mobile apps.

### 1.3 Administrative Data

Administrative Data is information that helps us support your account and activities in our system.

For example:

- your data sharing permissions
- users linked to your account
- machines, devices, and licenses linked to your account
- number of acres and size of files
- information about how you use your account

You can see and manage Administrative Data in the John Deere Operations Center and mobile apps.

You can use the above listed data in the tools and features of MyJohnDeere™ like described in "MyJohnDeere™ Privacy Notice", Annex A (Feature Description) which can be found on [deere.com/agreements](https://deere.com/agreements).

John Deere strives to provide you with the best possible experience. For improving our products and the usability we are using analytics technologies by 3<sup>rd</sup> parties. The

information collected doesn't allow us to identify you but helps analyzing crashes, bugs and relevant information to improve and enhance the quality of our products and services. The IP address from your access provider is being scrambled in the last digit group which only allows an approximate localization of the access but not any exact identification of your location and person. You have the possibility to disable this tracking and analytics functionality via the Cookie Statement settings provided on the [deere.com](https://www.deere.com) website. The Cookie Statement explains further technologies in more detail which might be used in this regard.

## **2 For what purposes and on what legal basis do we use your data?**

We process this personal data for the following purposes:

- As required to establish and fulfill a contract with you, as defined in the MyJohnDeere™ Terms and Conditions and the Feature Description in Annex A. Customer acknowledges that John Deere may access and use the data in anonymized and aggregated form for statistical purposes as well as to improve or enhance the services provided under this contract, develop additional or new John Deere products and services, and/or identify new usage types of equipment.
- Compliance with applicable laws and protection of John Deere's legitimate business interests and legal rights, including, but not limited to, use in connection with legal claims, compliance, regulatory, investigative purposes (including disclosure of such information in connection with legal process or litigation).
- John Deere may disclose the data to outside parties when we have a good faith belief that disclosure is reasonably necessary to (a) comply with any applicable law, regulation or compulsory legal request (e.g. from government authorities and/or law enforcement officials); (b) protect the safety of any person from death or serious bodily injury; (c) prevent fraud or abuse against us or our users; (d) to protect our property rights; or (e) defend Deere and its affiliates or personnel from any legal proceedings arising out of the data.

## **3 Who will we share your data with?**

We share your information with the following recipients:

- Third parties at your direction. You may share and disclose data in the John Deere Operations Center and other connected portals and apps. By setting permissions for your account, you control other parties' access and visibility into your data. Please note that when you share your information with someone other than John Deere, the recipient may decide to copy, use, modify, or distribute it to others, and John Deere has no control over, or responsibility for, any such activities.
- John Deere Dealers. John Deere Dealers may access Machine Data so that they can support you. To remove dealer access to Machine Data from machines in your account you must do both of the following: remove Service ADVISOR™ Remote access for each machine from the Terminal Settings tab in the Operations Center and remove access to machine notifications and advisors from the Partner Access tab in Operations Center.
- John Deere affiliates. We share your information with our parent company Deere & Company and its wholly-owned subsidiaries as necessary to provide you with the Site services and to enable your use of the Site features and for the other purposes described in this notice. Information is shared to provide joint content and services (e.g., registration, transactions); improve products and services; to detect, investigate and prevent improper or unauthorized activities; identify, protect, detect, respond and recover from security events and incidents; to comply with laws and regulations (e.g., laws and regulations of countries where Affiliates of John Deere operate); and establish, exercise, and defend legal rights. See for more detailed information at [deere.com/agreements](https://www.deere.com/agreements) and select your country to see the enterprise privacy statement applicable to that country.
- Trusted suppliers. We share your information with trusted suppliers as necessary to provide you with the Site services and to enable your use of the Site features. Depending on how you use the Site and the Site features and on the preferences you set, these suppliers include companies that provide the following technology

and computing services, including internet and software services: data hosting, data conversion, and cloud computing capabilities, account management and security, testing, debugging, error reporting, and usage analytics, as well as mobile telecommunication providers to provide SMS messaging. If you use our JDLink™ service, we also engage suppliers of mobile telecommunication services that may include cellular, satellite, and other wireless communication services.

- Official disclosures. We may disclose your data to comply with court orders and legal or regulatory requirements; to prevent injury, death, losses, fraud or abuse; to protect John Deere's rights or to defend John Deere in legal proceedings (or John Deere affiliates); and where needed in connection with the sale or transfer of business assets.

Personal data may be shared with government authorities and/or law enforcement officials if required for the purposes above, if mandated by law or if required for the legal protection of our legitimate interests in compliance with applicable laws.

#### **4 Where will we send your data?**

Where information is transferred outside the EEA, and where this is to a John Deere affiliate or vendor in a country that is not subject to an adequacy decision by the EU Commission (a list of such countries is available [here](#)), data is adequately protected by John Deere's use of EU Commission approved [standard contractual clauses](#) according to Art. 46 (2) GDPR when setting up such relationships with affiliates or vendors. A copy of the relevant protection mechanism can be provided to you on request via John Deere's Data Subject Rights Request Form which can be found on [deere.com/agreements](#). The adequate level of data protection is ensured by relying on the hosting provider's Privacy Shield certification according to Art. 42 GDPR which is accessible [here](#) or the service provider's binding corporate rules. Transfers to affiliates of John Deere will take place using adequate measures, such as binding corporate rules, standard contractual clauses adopted by the European Commission to protect Personal Data, other valid transfer mechanism(s), or on the basis of permissible statutory derogations.

#### **5 What rights do you have in relation to your data?**

You have the right to ask us:

- for access to and a copy of your personal data that we hold on you (Art. 15 GDPR)
- for a copy of the personal information you provided to us and to provide it to you or send to a third party in a commonly used, machine readable format (Art. 20 GDPR)
- to update or correct your personal data in order to make it accurate (Art. 16 GDPR)
- to delete your personal data from our records in certain circumstances Art. 17 GDPR)
- to restrict the processing of your personal data in certain circumstances (Art. 18 GDPR)

And you may also:

- object to us processing your personal data in certain circumstances (in particular, where we don't have to process the data to meet a contractual or other legal requirement, or where we are using the data for direct marketing - Art. 21 GDPR)

These rights may be limited in some situations – for example, where we can demonstrate that we have a legal requirement to process your data. In some instances, this may mean that we are able to retain data even if you withdraw your consent.

Where we require personal data to comply with legal or contractual obligations, then provision of such data is mandatory: if such data is not provided, then we will not be able to manage our contractual relationship, or to meet obligations placed on us. In all other cases, provision of requested personal data is optional.

If you wish to receive further information on your Data Subject Rights please visit our enterprise privacy statement on [deere.com/agreements](#). If you want to exercise your rights regarding your personal data, please use the Data Subject Rights Request Form which can be found on [deere.com/agreements](#).

In the event you have unresolved concerns, you also have the right to lodge a complaint complain with a supervisory authority, in particular the data protection authority in the Member State of your habitual residence or place of work.

## **6 Which John Deere entity is my data controller?**

The data controller for your information is John Deere GmbH & Co. KG, Intelligent Solutions Group, Straßburger Allee 3, 67657 Kaiserslautern, Germany.

In addition to the above, your data is shared with Deere & Company in the US (Illinois).

## **7 How long will you retain my data?**

We store the data for the duration of the contractual period and to the extent permitted, after the end of that relationship for as long as necessary to perform the purposes set out in this notice. Laws may require John Deere to hold certain information for specific periods. In other cases, John Deere may retain data for an appropriate period after any relationship with you ends to protect itself from legal claims, or to administer its business.

## **8 How do you protect my data?**

We have implemented and will maintain standards and procedures designed to prevent misuse of information in your account:

- We maintain physical computer and network security.
- We educate our employees about the importance of data security and customer service through standard operating procedures and special training programs.
- We maintain security standards and procedures to help prevent unauthorized access to information about you, and we update and test our technology to improve the protection of your information.

# Annex A

## *MyJohnDeere™ Feature Description*

### **1 MyJohnDeere™**

MyJohnDeere.com is a centralized location to access the following tools which requires a user account and registration. This includes access to current applications such as JDLink™, JDParts™, and StellarSupport™. Additionally, MyJohnDeere.com hosts new applications such as the Operations Center, the first place to go in order to monitor the current work status, and my equipment which gives owners a quick overview of their machines and associated machine capabilities.

The user account includes customer address, phone number, email address, user preferences, records about consents, user's system settings as well as information entered by the user, optional information about supporting dealer.

Data can be made available in MyJohnDeere™ through various interfaces: e.g. file upload via web service, file upload via Windows tools, mobile applications, 3<sup>rd</sup> party applications using interfaces provided by John Deere and machines which are capable of sending data directly into the MyJohnDeere™ System. The received data is aggregated, enhanced and converted to be stored and made accessible to the customer enabling the MyJohnDeere™ features, described below.

#### **1.1 Operations Center**

Operations Center is John Deere's agriculture web portal. It is a platform for products and services that improve machine uptime, logistics management, and agronomic decision making, all housed in a centralized location.

It enables customers to access the tools and information they may need to manage their land and fleet of machines. Access to MyJohnDeere.com is possible from any Internet-connected device, including laptop, smartphone, tablet, or desktop.

Also, Operations Center integrates on-board and off-board in order to plan, run, and manage a producer's operation more efficiently through the entire farming cycle.

##### **1.1.1 Creation of Organizations**

Organization are grouping entities for a farm, dealer, agronomic advisor or any other unit with staff members. Every user can create its own organizations or be invited to any organization. There is no hierarchy between organizations or a legal relation between a user account and an organization. Organizations can be connected via partnerships and share data between them.

All data you which is stored and processed in your Operations Center account is associated with an organization as grouping entity. In addition to your data John Deere stores and processes information about access rights of users and other organizations to your organization.

##### **1.1.2 Team Manager and Sharing Model**

Within Team Manager, formerly known as "My Organization", the user has the ability to add staff members and easily adjust the data access rights of their employees. The user can add partners to the system that they would like to share data with on a regular basis. Examples of partnerships are connecting with a dealership to exchange machine performance and management data, or with an agronomic adviser to share field information in order to receive quick decision support in the middle of the season.

Customer may also authorize or restrict Dealer, Partner Organizations and/or 3rd party access and use Customer's Data. Deere may provide on behalf of the customer Dealers and/or 3rd party information and data for the purpose of servicing Customer's equipment including machine diagnostics, remote servicing and machine component software updates.

### 1.1.3 Permissions Report

In the Operations Center Tools section is a report about permissions of direct staff members as well about partner organizations available. This helps the customer to keep track of who has access to customer's data and at which level.

### 1.1.4 User and Organization Preferences

In Operations Center there is a preferences dialog for the organization preferences. There some settings which are depending on the customer's preferences and needs can be done. Also the organization address can be configured here. Like described before there is no legal relation between a user account (and the provided address) and the organization. The customer is obliged to enter and update a valid address and country for the organization. The country has impacts on how John Deere processes and stores customer's data according to the applicable country law. Any wrong information entered here keeps John Deere away from any claims about data privacy concerns.

In the "User Preferences" under the "Connections" tab the user gets an overview about all 3<sup>rd</sup> party apps where the user has granted access in the past. This page gives the ability to revoke such access. As reminder: When a customer gives access to a 3<sup>rd</sup> party application the access approval is for this user and grants access to all organizations where the user is member or has access via organization partnerships. The access to the organizations data is limited to the user permissions the user has in each context.

### 1.1.5 Map View

The operations center provides a quick and descriptive overview of ongoing activities on a map to help users to make fact-based decisions around resource planning, machine productivity, and logistics. MyJohnDeere.com users can check machine location, work progress of the equipment (location history) and, when clicking on the machine icon, a detailed machine flag will reveal additional information such as fuel tank level, machine state, and current speed.

#### 1.1.5.1 Location History

Location History enables remote monitoring of machine productivity during operations. Machine location, machine state, fuel level, heading, and path are monitored and reported through the Operations Center.

Data points are collected for every 15 degrees of heading change or when machine state changes. Examples of machine states are idle, work, or transport. Collected information is reported and displayed in Operations Center, according to cellular report interval (call-in frequency) of each machine. This information is sent according to cellular report intervals using JDLink™ hardware to display machine path in Operations Center.

If you have enhanced Location History, you will see updates on a much more frequent basis (10 minutes or less) when machine is active and operating within the collection criteria listed above.

Location History data is accessible for a running 60-day period, but only 24-hour periods can be viewed at a time.

#### 1.1.5.2 Weather

To enable users to make timely and efficient logistics and productivity decisions, MyJohnDeere™-Operations Center allows static weather radar image in addition to a 5 day weather forecast to overlay on their assets on the map. In order to see the static weather radar and the 5-day forecast, users will have to toggle the weather icon on the map.

Weather information shown will be based on the center location of the map. The User can click on current conditions to get the 5 day forecast and change location of weather by zip code or city/state (map automatically centers to the new location when applied).

### 1.1.6 Notification Center

Notification Center allows users the ability to see up to date information on activities being performed within operation. The following types of notifications are available:

- Action Required - Select to display notifications that require action. Examples of this type of notifications are: permission requests and pending file assignments.

- Announcement - Information only notification that doesn't require an action. Example: new features released in John Deere Operations Center.
- Weather - Displays weather alerts for a specific client, farm, and field
- Pest management - If conditions are favorable for certain pest activity, user receives a notification that lets them know what specific field they need to treat.
- Equipment Management - Displays machine specific notifications for machine terminal transfers and terminal retrievals.
- File Management - Displays notifications for files sent wirelessly from a machine and files transferred to an insurance agent.
- Organization Management - Displays alerts related to the staff and partners within the organization. Example: Organization permissions update, partner validation report request, new permissions request.

### 1.1.7 Land Manager

Land Manager helps to manage fields with the associated Client and Farm and location-based attributes of the field such as guidance lines and boundaries.

### 1.1.8 Product Manager

Products Manager contains all products used in the specific organization. Products include chemicals (including fertilizers) and varieties. Active products in Product Manager populate in the product list in Setup Builder and Jobs. Products help ensure accurate documentation in the field and for records when they are sent to the display in a setup file. Products are populated in the list by manually adding each one. Products that are part of incoming field documentation do not currently populate the products list.

### 1.1.9 Field Analyzer and Agronomic Reports

Field Analyzer allows users to view agronomic documentation data like: yield, rate, and variety or product maps from current and previous years. Users can determine which operation and layers they wish to view to perform a comparison of previous years. The Agronomic Reports provides a summary by operations and fields providing totals and key information.

### 1.1.10 Crop Planner

Crop planner allows users to create, manage, and view their crop production systems. The user is able to assign fields to crop production systems and set target yields. In addition, crop planner allows to plan all field operations for the specific operation such as tillage, seeding, application, harvest, etc. for each crop production system. Jobs can be added to the planned operation and executed via MyJobs and MyJobs Manager Applications.

### 1.1.11 MyFiles

MyFiles is file management and routing tool of Operations Center. Files can be uploaded via several paths into MyFiles: Web browser upload, John Deere Data Manager, Mobile Data Transfer, Wireless Data Transfer or any 3<sup>rd</sup> party application via API access. File types which are supported are: machine display documentation data, prescription maps, PDF's, setup files and harvest ID.

Please be aware that the upload of any other files is also possible and they will be processed and stored, also if they are then not accessible via MyFiles. Also other files which are included in a valid file type's ZIP file will be stored, processed and potentially shared. It is the customer's obligation to ensure that no sensitive or data where he has no rights is uploaded and distributed via MyFiles.

MyFiles allows you to share supported file types with other users and organizations and to send data to a machine. It is your responsibility to ensure that the data is treated confidential and according to national law when sharing. When you or someone where the data is shared with is downloading the file John Deere can't control access and distribution anymore.

### 1.1.12 Setup Builder

Setup Builder is a tool which allows you to write a machine display setup which contains preconfigured documentation settings like information about the equipment, the

employees, the products and fields. Such setup files can be sent directly to the machine and are available in MyFiles.

#### 1.1.13 Prescription Creator

The prescription creator is a tool, which allows you to create a free zone prescription for your fields or to create zones out of previous operation data from the field. The prescription file can be sent to a machine display for execution and is available in MyFiles and be assigned to a MyJobs™ task. For prescription creation your operational data plus related data will be sent to a 3<sup>rd</sup> party supplier of John Deere which is then contributing the created prescription back into your MyJohnDeere™ account. When using the prescription creation tool the supplier gets access to the following categories of data:

- Georeferenced agronomic data from field operations (Application, Tillage, Harvesting and Seeding)
- Access to all files from MyFiles (Agronomic data files can contain multiple data elements depending on the data format, data source and customer settings. These data elements can contain georeferenced log files and totals from field operations like applications, seeding, tillage and harvesting, prescription maps, product lists, machine and operator data, job and task information. Agronomic data files can also contain setup information like client, farm and field data which includes boundaries and guidance lines as well as machine, operator and product setup information. Data formats which are containing such data are: ISOXML, ADAPT, AgLeader, John Deere CDF and EIC data, Trimble and Topcon data formats. Most of the data formats in their respective data packages might contain log files, CAN traces and screenshots from the machine display, but also any other data which is contained in the storage media used by the customer for the data transfer.)
- Access to all Job information available for the organization within MyJobs
- Setup base data: Client, Farm, Products, User information, Fields and Boundaries etc.
- Information about organization partnerships including names and permissions and access to above listed data from partner organizations

#### 1.1.14 John Deere Data Manager

Data Manager is a Microsoft Windows desktop tool available through MyJohnDeere.com site. Install John Deere Data Manager to unload data from a Universal Serial Bus (USB) drive and transfer data to an organization's account in Operations Center.

#### 1.1.15 John Deere Software Manager

Software Manager is a Microsoft Windows desktop tool available through MyJohnDeere.com site. This tool allows you to update the software of your GreenStar™ machine display.

#### 1.1.16 MyJobConnect™

The John Deere MyJobConnect™ package enables the user to run the newly developed Job Management through a John Deere Operations Center account. The package includes the MyJobs™ app, the MyJobs™ Manager app and the Jobs functionality in the Operations Center. Contractors and managers of arable farms will benefit and be able to reuse all the fields, clients, machines, and products they have into their Operations Centers. MyJobConnect™ allows them to schedule, send, and monitor jobs, being deeply connected with the operators all of the time. Keep working from anywhere thanks to the app's offline capability.

Whether in the office, the cab, or on the go, users will be able to view a list of jobs, the details of every single job, and keep others up to date on their work statuses.

From a manager's perspective, the feature can be accessed in two ways: from the office as an integrated tool within the Operations Center, or on the go, utilizing a dedicated MyJobs™ Manager App on an iPad. Operators will use the dedicated and simplified MyJobs™ App on an iPhone or iPad specifically designed to match their needs.

- MyJobs™ Manager app:  
An iPad® app for the manager to create, schedule jobs on the go, visualize

planning in a 5-day calendar view, and add work instructions/work questions. Send jobs to operators or monitor job progress and edit planning accordingly.

- MyJobs™ app:  
An iPhone®/iPad app for the operator to receive jobs (job details, field locations, equipment assignment, work questions requested by manager). Be able to start, pause, and stop the jobs and seamlessly report work status. Answer work question requested by manager to enable invoicing.
- Jobs in Operations Center:  
Create and plan jobs, view work status, and create Jobs reports based on previous operator inputs/answers to work questions. Be able to export Jobs reports in csv. format to enable invoicing.

For the following countries (Germany, France, Denmark, Netherlands, UK) there is the possibility to order MyJobConnect™ Premium additionally including access to the MyLogistics™ application.

#### 1.1.17 MyMachineConnect™

The John Deere MyMachineConnect™ package enables the user to access and manage all machine related data. MyMachineConnect™ consisting and sold by the following features.

##### 1.1.17.1 Equipment List in Operations Center

Equipment page allows users to search, add, edit, and delete equipment produced by John Deere and other companies. Equipment can be self-propelled machines or implements and don't need any machine connectivity to exist as machine asset. All machines which have a connectivity hardware like JDLink™ automatically available in the equipment list in Operations Center. By clicking on a machine more detailed information can be shown depending on the connectivity type of the machine.

##### 1.1.17.2 JDLink™

JDLink™ is John Deere's telematics system connecting all make/model machines in the field with the office and mobile devices. The technology bases on a modular telematics gateway (MTG) controller that collects and transmits data via cellular network, selective data points even in near real-time. The solution enables growers to keep track of their fleets, monitor work progress, manage logistics, access important machine information, analyze and optimize machine performance, receive alert SMS or email messages, perform remote operator support and automate data exchange.

Leveraging a FarmSight™ service package, growers can further benefit from increased machine uptime utilizing remote dealer service capabilities such as diagnostics, CAN-data tracking, software updates, and operator support.

Information and features can be accessed through either the Operations Center (recommended for daily operation) or the JDLink™ tab (recommended for detailed machine analysis) on MyJohnDeere.com or leveraging the JDLink™ app and mobile devices in general.

Depending on the subscription level and machine type the following information will be stored and processed. This includes:

- Machine Agronomic data
  - Agronomic data files can contain multiple data elements depending on the data format, data source and customer settings. These data elements can contain georeferenced log files and totals from field operations like applications, seeding, tillage and harvesting, prescription maps, product lists, machine and operator data, job and task information. Agronomic data files can also contain setup information like client, farm and field data which includes boundaries and guidance lines as well as machine, operator and product setup information. Data formats which are containing such data are: ISOXML, ADAPT, AgLeader, John Deere CDF and EIC data, Trimble and Topcon data formats. Most of the data formats in their respective data packages might contain log files, CAN traces and screenshots from the machine display, but also any other data which is contained in the storage media used by the customer for the data transfer.

- Position data of the Machine (for map view or providing mobile RTK corrections via JDLink™)
  - Latitude and Longitude position coordinate
  - Date and time of the position
  - Heading
  - Speed and slip
  - Altitude
  - Inclination
  - Quality information about position fix
- Machine data provided via CAN bus (e.g. serial number, operating hours, if applicable threshing hours, coolant temperature, rotation speed, fuel consumption, service intervals, diagnostic trouble codes, working state, etc.)
  - Fuel level and consumption
  - AdBlue (urea) fill level and consumption
  - Exhaust cleaning filter, cleaning cycles and cleaning aborts
  - Coolant-, transmission oil, hydraulic oil and surrounding air-temperature
  - Engine speed and torque
  - Machine working state
  - Cellular or satellite connection strength
  - Usage time of AutoTrac™
  - System voltage and battery voltage
  - Alerts (Machine diagnostic trouble codes, DTC)
  - Information about non visible emissions, after-treatments and system health information which are not visualized to the customer. This information is collected only to prove compliance with mandatory emission regulations and used internally by Deere & Company in anonymized format for support, problem detection, problem resolution, and future product development.
  - Tractor specific:
    - Flow settings of hydraulic valves (SCV)
    - PTO speed
    - Front- and rear-hitch flow setting and limits
    - Transmission modes and gears
    - Usage time of MFWD, IPM, FieldCruise™, Differential lock
  - Self propelled forage harvester specific (SPFH):
    - Settings, occurrences and duration of stone detections
    - Settings, occurrences and duration of metal detections
    - Actual cutting length and cutting length range
    - Kernel processor settings
    - Feeder-house speed and duration split by rotating direction
    - Header rotation speed and operating hours
    - Harvesting throughput and durations
    - Usage time of automated header control and inclination control (AHC)
    - Usage time of street and field mode
    - Usage time of row feeler
    - Usage time after last knife sharpening and number of shear bar adjustments
    - Usage time of automated fill control (AFC)
  - Combine harvester specific:
    - Harvest header operating hours, header height and usage times of automated header control (AHC)
    - Header reel speed and automation function usage
    - Threshing drum speed and operating hours
    - Threshing clearance
    - Cleaning fan speed
    - Shaker or rotor speed
    - Position of upper and lower sieve
    - Grain loss sensor values

- Kernel cleaning sensitivity
- Elevator speed
- Usage times of the residue chopper
- Grain tank fill level
- Usage time and states of unloading auger
- Harvest throughput operating hours and harvesting performance
- Moisture sensor values
- Usage time of street and field mode
- Inclination and usage time of John Deere HillMaster™
- Usage time of HarvestSmart feature
- Construction and Forestry Machines
  - Brake Utilization
  - Cross Axle Lock (CDL) Utilization
  - Inter Axle Differential Lock Utilization
  - Differential Lock Utilization
  - Distance Travelled Loaded / Unloaded
  - Fuel utilization in each gear
  - Fuel Rate Average Loaded and Unloaded
  - Loaded and Unloaded Idle Time
  - Loaded and Unloaded Speed Average
  - Loaded and Unloaded Time
  - Low Gear Overspeed
  - Odometer
  - Retarder Oil Temperature and Utilization
  - Transmission modes and gears
  - Tire Pressure and Temperature by Tire (TMO)
  - Payloads and Totals
  - Trip Counter
- Forestry Machines with TimberLink™
  - Productivity information about trunk volume, number of trunks and fuel consumption per harvesting volume
  - Average quality information about trunk classification
  - Harvesting processor utilization, saw efficiency and fuel consumption
  - Boom utilization
- Large Square Baler
  - Lifetime Bale Count
  - Average Feeder Fork Ratio
  - Average Flakes per Bale
  - Average Moisture
  - Average Machine Load Setpoint and Actual Measure
  - Average Tension Pressure

#### 1.1.17.3 Wireless Data Transfer

WDT allows users with JDLink™ enabled machines to transfer agronomic data (like defined in above JDLink™ section) over a cellular connection to and from the GreenStar™ 3 2630 Display or the Generation 4 CommandCenter™ without the use of a USB drive. Setup and Prescription (Rx) files can be sent to the display from the Web, mobile device, or farm management software, such as Apex™ software. Setup, Documentation, and Harvest ID, Cotton (HID) files can be sent from the display to the Web, mobile device, or farm management software.

The received data is aggregated, enhanced and converted to be stored and made accessible to the customer MyJohnDeere™ Operations Center and its features.

#### 1.1.17.4 Remote Display Access and Reports

This will enable farm managers, dealers, and even ISOBUS implement manufacturers to remotely assist operators with machine setup, optimizing machine performance and troubleshooting – like being virtually in the cab. In the tools section a detailed report about RDA usage can be generated.

RDA can only be requested when the user account has appropriate permissions in the organization or the machine is in one of the partner organizations where machine data is shared. In all cases the operator on the machine has to accept the RDA session.

When a RDA session is accepted the display on the machine sends a live stream via the MyJohnDeere™ servers to the browser of the supporting user.

#### 1.1.17.5 Service ADVISOR™ Remote

Your dealer can remotely access your machine's diagnostics systems via the JDLINK™ infrastructure so they can make sure it's running at peak performance. It's like having your own personal infield technician who travels with your machine everywhere it goes.

It saves you time on repairs as your dealer doesn't have to make a visit to carry out diagnosis and then a follow up visit with the appropriate parts. Instead they can remotely identify any issues, diagnose the problem and bring out the right parts – all in a single visit.

With Service ADVISOR™ Remote it is possible to remotely update the software of your machine components, receive Diagnostic Trouble Codes (DTC's) when your machine has an active JDLINK™ and you have not limited the access to SAR.

#### 1.1.17.6 Further usage and collection of MyMachineConnect™ data

John Deere is using the anonymized data internally to improve the experience with our equipment and to develop new products and services.

John Deere is anonymizing and aggregating and analyzing the data from multiple sources: JDLINK™ Telematic data like listed above including Service ADVISOR™ Remote data, Warranty reports, Dealer Business System, JDCP, Customer and Dealer Support Center cases (DTAC), Expert Alerts if consent given, Factory production and master data (eMDM).

#### 1.1.17.7 John Deere Expert Alerts

John Deere offers the possibility of using Expert Alerts which requires explicit consent which can be given in the MyJohnDeere™ Consent Manager. The following description explains what this optional service provides: Expert Alerts utilizes JDLINK™ machine connectivity and data analytics to predict service needs, reduce diagnostic time and minimize downtime. This results in higher levels of machine availability, improved machine performance and lower cost of operation. Unexpected machine downtime during critical busy times of year is a risk for producers and service providers, especially as farm sizes continue to increase and seasonal operating windows become tighter. The use of Expert Alerts allows customers and dealers to reduce service costs and improve operational efficiencies to get the work done on time with fewer service interruptions.

#### 1.1.17.8 John Deere Mobile Data Transfer

John Deere MDT reduces the need to manually transfer data via USB flash drive between office, machine, and business partners, increasing customer uptime and productivity, reducing the risk of data loss, and enabling easy data sharing and quicker decision making. That allows data to flow between machines and the Operations Center reducing the risk of data loss and increasing user uptime and productivity. MDT also enables customers to consolidate data from multiple-branded displays into one centralized location enabling easy data sharing and quicker decision making.

MDT is one element of the John Deere's full fleet connectivity solution with the Operations Center. With MDT, the user can share display setup files as well as field documentation information and prescription maps.

Agronomic data files can contain multiple data elements depending on the data format, data source and customer settings. These data elements can contain georeferenced log files and totals from field operations like applications, seeding, tillage and harvesting, prescription maps, product lists, machine and operator data, job and task information. Agronomic data files can also contain setup information like client, farm and field data which includes boundaries and guidance lines as well as machine, operator and product setup information. Data formats which are containing such data are: ISOXML, ADAPT, AgLeader, John Deere CDF and EIC data, Trimble and Topcon data formats. Most of the data formats can contain in the data package log files, CAN traces and screenshots from

the machine display, but also unwanted data from the customer if the used storage media was not empty before data transfer.

#### 1.1.17.9 Terminals Tool

A terminal is a hardware connecting a machine to MyJohnDeere™ or JDLINK™. Typical a terminal is a MTG but can be also a built in connectivity device into the machine display, a mobile device or a 3<sup>rd</sup> party connectivity hardware.

Detailed information for terminals in your organization is displayed like the machine assignment, subscription status and machine display connectivity. Change terminal settings, transfer terminals to new owner, and view third-party terminal access is possible via this tool.

## 1.2 JDLINK™ Dashboard

The application JDLINK™ Dashboard is the name for the Construction & Forestry view on MyJohnDeere™ like Operations Center is the view for the Agriculture divisions. It is possible to access this website with agriculture user accounts and vice versa.

### 1.2.1 Dashboard

The Dashboard view gives a summary chart about alerts, machine activity and utilization, fuel consumption and maintenance of machines.

### 1.2.2 Map

The map view of JDLINK™ Dashboard is very similar to the Operations Center and shows machine locations on a map with a machine icon showing detailed information about a machine.

#### 1.2.2.1 Landmarks

Landmarks are location points on a map with some additional information about this location. Locations can be e.g. construction sites, storage locations, etc.

#### 1.2.2.2 Equipment

Equipment page allows users to search, add, edit, and delete equipment produced by John Deere and other companies. Equipment can be self-propelled machines or implements and don't need any machine connectivity to exist as machine asset. All machines which have a connectivity hardware like JDLINK™ automatically available in the equipment list. By clicking on a machine more detailed information can be shown depending on the connectivity type of the machine.

### 1.2.3 Maintenance Plans

This is a tool providing an overview about current and upcoming maintenances for a machine. Maintenance Plans can be preconfigured ex-factory for some machines but also user defined schedules if the equipment is not supported or the customer requires individual schedules.

### 1.2.4 Tools

The tools section of JDLINK™ Dashboard allows to access several report tools like described below:

#### 1.2.4.1 Fuel Utilization Report

This report generates and overview about the fuel utilization of machines in the organization.

#### 1.2.4.2 Engine Hours Report

This report generates and overview about the engine hours of machines in the organization.

#### 1.2.4.3 Engine Utilization Report

This report generates and overview about the engine load utilization of machines in the organization.

#### 1.2.4.4 Terminals

A terminal is a hardware connecting a machine to MyJohnDeere™ or JDLINK™. Typical a terminal is a MTG but can be also a built in connectivity device into the machine display, a mobile device or a 3<sup>rd</sup> party connectivity hardware.

Detailed information for terminals in your organization is displayed like the machine assignment, subscription status and machine display connectivity. Change terminal settings, transfer terminals to new owner, and view third-party terminal access is possible via this tool.

#### 1.2.4.5 My Organization

Within Team Manager, formerly known as “My Organization”, the user has the ability to add staff members and easily adjust the data access rights of their employees. The user can add partners to the system that they would like to share data with on a regular basis. Examples of partnerships are connecting with a dealership to exchange machine performance and management data.

#### 1.2.4.6 Equipment Groups

This tool allows to group equipment in huge organizations to have a better overview of an organization and define rules and alerts for certain equipment groups.

#### 1.2.4.7 Mixed Fleet Data Solution Providers

The construction industry has standardized interfaces for exchanging machine information between manufactures. This site provides further information about this interface.

#### 1.2.5 Notifications

Notification Center allows users the ability to see up to date information on activities being performed within operation.

### 1.3 API access via [developer.deere.com](https://developer.deere.com)

John Deere APIs enable both agriculture and construction industry software to securely access agronomic, machine, and logistics data.

#### 1.3.1 MyJohnDeere™ API

With MyJohnDeere™ API, you can develop apps that allow farmers, dealers, organizations, and partners to access and share information in Operations Center via PCs, tablets, and smartphones. MyJohnDeere™ API uses the wireless data transfer capability provided by the combination of cloud services, machine telematics, and a JDLINK™ subscription. With approval from the customer and John Deere, you can use this API to share data, transfer files to JDLINK-enabled machines, and securely share files between Operations Center organizations.

#### 1.3.2 Machine Data

Get machine data through both the MyJohnDeere™ API and the AEMP API. AEMP is a telematics standard widely used for construction and heavy equipment.

The AEMP API provides:

- Equipment information such as make, model, equipment ID, and serial number.
- Machine location & elevation.
- Cumulative machine hours and fuel consumption within the last twenty-four hours.

JDLINK™ Machine Data API: The new ISO standard (15143-3) includes more comprehensive machine data with nineteen new data fields and a simpler way to access data, making its consumption and integration easier than ever.

#### 1.3.3 Offline SDK – EIC

EIC can read and "decode" data that was generated by legacy John Deere displays. The EIC framework is only still required for only unique scenarios and the ADAPT plugin is now recommended.

##### 1.3.3.1 ADAPT

ADAPT (Agricultural Data Application Programming Toolkit) is an SDK that consists of a data model and supporting management tools developed by AgGateway. The goal of this

data model is to make it easier and less expensive to share agronomic data, gathered by a variety of devices, companies, and vendors, between software applications. This data model will ensure that data collected by different systems are rendered in the same format through plugins that "translate" the data. ADAPT also includes APIs and other tools that can be integrated into Farm Management Information Systems under AgGateway licensing terms.

#### 1.3.3.2 John Deere ADAPT Plugin

The John Deere plugin for ADAPT functions for all currently supported GreenStar™ displays. These plugins will read and write data from the displays in the format specified by the ADAPT data model. For instance, the plugin can import and export data to and from a GreenStar3™ 2630 display data card and the ADAPT framework. Likewise, the same plugin can reads and writes data to and from a GreenStar4™ 4600 display in the same manner.

#### 1.3.4 Logistics API (AgLogic™)

The AgLogic™ application is a web application that is designed to help an Agronomics Provider schedule and manage the delivery and application of Agronomics products. AgLogic™ is designed to work with an Agronomics Providers existing Business Management System (BMS). Since it works with and does not replace a BMS, AgLogic™ needs mechanisms for importing data from a BMS, and exporting data to a BMS. Furthermore, AgLogic™ is agnostic as to the types of BMS that it will integrate with. Any system that can provide data in the format that AgLogic™ expects can integrate with AgLogic.

AgLogic™ provides two types of mechanisms for integration: Web Services and File Import. The Web Services mechanism is the preferred integration mechanism since it provides a "hands off" machine to machine mechanism of exchanging data. The file import is provided for the BMS that do not have the means for a web service exchange, but do provide some sort of file export.

#### 1.3.5 FieldConnect API

John Deere Field Connect monitors precise soil moisture levels and environmental conditions in the field. Probes, which are made up of multiple capacitance sensors placed at specific depths, collect data that is continuously logged, stored, and transmitted to the Field Connect web application. John Deere Field Connect makes various probe lengths available to accommodate a range of crops and soil types. The collected data informs producers and helps them make better decisions. Data may be accessed online; both the full web version and the Field Connect Mobile app are available.

### 1.4 StellarSupport™

StellarSupport™ is a John Deere website service which allows the customer and dealers to manage product activations (availability based on country), get access to operator manuals, software updates, training material and other support features. For offering customized support the user can login with his MyJohnDeere™ user account and access customer specific services. Also for the product activation process customer's data is being processed.

### 1.5 JDParts™

The JDParts™ systems allows to search for spare parts, part numbers and access service manuals. For offering customized support the user can login with his MyJohnDeere™ user account to get individual site customizations for his equipment.

### 1.6 Display and CommandARM™ Simulator

This part of MyJohnDeere.com gives customers the possibility to get access to simulators of a tractor and combine GreenStar™ display and CommandARM™ display software. Those can be downloaded as Microsoft Windows software and have their individual license agreements.