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Translation of the Original Instruction Manual SMART COMMAND

System for Smart Farming Applications

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1 General Information

This section contains general information about the "SMART COMMAND" product, the manufacturer, and instructions that are relevant to you as the user of the product.

1.1 Manufacturer's Data

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1.2 General Information on SMART COMMAND

Please observe the following information about SMART COMMAND.

1.2.1 Warranty and Liability

Warranty or liability claims apply according to the General Terms and Conditions of Reichhardt GmbH Steuerungstechnik. You can find the General Terms and Conditions at www.reichhardt.com.

Reichhardt reserves the right to supply replacement products or a credit note for faulty parts.

Reichhardt assumes no liability for damage caused by improper use.

Use of non-approved accessories and spare parts

Only accessories and spare parts approved by Reichhardt may be used for SMART COMMAND.
These are specially designed for Reichhardt products and meet high safety and reliability standards.
Reichhardt expressly indicates that accessories or spare parts that have not been approved by Reichhardt must not be used on Reichhardt systems. Otherwise, the safety and operational readiness of the system may be impaired. In addition, personal injury or damage to property may occur due to a malfunction of the system.
Reichhardt assumes no liability for the use of non-approved accessories or spare parts.

Unauthorized changes to SMART COMMAND

As soon as changes are made to the system that have not been expressly approved by Reichhardt, any warranty claim and any liability on the part of Reichhardt in the event of possible malfunctions of the system will become void.

Other regulatory approvals may also become ineffective. This also applies to the removal of factory-fitted seals or sealing wax.

Quality of work results

The system supports users with their work and facilitates individual work processes. However, the driver shall still remain responsible for the quality of the work results. The more exact the system is configured and operated, the higher the quality of the work results will be.

1.2.2 Service and Repair

For questions about SMART COMMAND and ordering system extensions, licenses, or spare parts, please contact your nearest dealer or the manufacturer directly.

Always immediately report any damage to the system to your respective dealer or to Reichhardt directly.

1.3 General Information About the Instructions

Please read and observe the following information. It contains important information about these instructions.

1.3.1 Reading and Following the Instructions

SMART COMMAND operating instructions

These operating instructions describe the commissioning, configuration, and operation of SMART COMMAND from Reichhardt GmbH Steuerungstechnik.

The operating instructions are an integral part of SMART COMMAND and must be passed on to the new owner when sold.

Please observe and follow all notices and instructions in these operating instructions precisely to ensure the fault-free operation of SMART COMMAND and to prevent any personal injury or property damage. If there are parts of the instructions you do not understand or if you require other help, please get in touch with the contact person from whom you purchased SMART COMMAND.

SMART COMMAND is available in a variety of configurations and with different licenses.
The scope of functions and components also varies depending on the configuration variant.
These instructions apply to all of the configuration variants. Therefore please be aware that the SMART COMMAND version you are using may not have the functions described here.

Additional instructions may also be supplied.
Please note that depending on the work step being completed, knowledge of the corresponding instructions is required. This may include the following instructions:

SMART GUIDE operating instructions

Individuals who configure and operate SMART GUIDE or SMART CONTROL must know and follow the instructions and notices of the SMART GUIDE operating instructions. The use of SMART SECTION is also detailed in these instructions.
The instructions are an integral part of SMART COMMAND and must be passed on to the new owner when sold.

ISO FLEX operating instructions

The ISO FLEX module is required when using the SMART COMMAND app or RTK data.

Individuals who install, operate, or use ISO FLEX must be familiar with and follow the instructions and notices in the ISO FLEX operating instructions. The instructions are an integral part of the ISO FLEX module and must be passed on to the new owner when sold.

Installation instructions for Reichhardt steering systems (SMART COMMAND with SMART CONTROL)

Individuals (dealers) who install, commission, maintain, or temporarily operate a Reichhardt steering system for any of these purposes must have read the installation instructions and follow all of the instructions and notices. These instructions are usually retained by the dealer.

PSR service instructions (SMART COMMAND with SMART CONTROL)

Individuals (dealers) who commission, configure, or temporarily operate SMART CONTROL for any of these purposes must know and follow the instructions and notices of the PSR service instructions.
These instructions are usually retained by the dealer.

1.3.2 Understanding the Instructions

Dimensions

The dimensions in these instructions adhere to the metric system. The imperial system may also be taken into account in English-language instructions.

Directions

The directions "left" and "right" can generally be understood as the direction of travel when sitting in the driver's seat.

Figures/graphics

The figures and graphics shown in these instructions are for reference purposes. They may differ slightly from the actual displays as there are a variety of configurations.

Language

These instructions may be available in other languages. Please contact your dealer for further information.

1.3.3 Warning Indications in these Instructions

This is the warning symbol for a safety-related warning: ⚠
Please pay particular attention when you see this symbol. It provides warnings about possible physical injuries. Please also follow the blue notices to ensure that operation runs smoothly and no damage is caused.

⚠ DANGER

The signal word DANGER is used together with the warning symbol to alert you to a dangerous situation which, if not avoided, will result in death or serious personal injury.

⚠ WARNING

The signal word WARNING is used together with the warning symbol to alert you to a hazardous situation which, if not avoided, can result in death or serious personal injury.

⚠ CAUTION

The signal word CAUTION is used together with the warning symbol to alert you to a hazardous situation which, if not avoided, can result in minor or moderate bodily injuries.

NOTICE

The signal word NOTICE indicates important information which, if disregarded, can result in damage to property or the malfunction of the system or vehicle. Observe these notices to ensure a long service life and proper functionality of the SMART COMMAND components and the vehicle.

2 For Your Safety

Read the following safety instructions carefully and in full.
The safety instructions contain important information that is indispensable for the safe commissioning and maintenance of SMART COMMAND.
Non-compliance with the safety instructions can result in personal injury and property damage and result in the loss of any claims for damages.

In addition to the instructions in this manual, please also observe the instructions in other related manuals, as well as the generally applicable regional regulations on occupational health and safety, accident prevention, and road traffic.

2.1 Intended Use

The SMART COMMAND app may only be used inside the vehicle cab that is equipped with the activated ISO FLEX module.

SMART COMMAND is only designed to be operated by persons working in the agriculture or forestry sector, including specialized cultivations (e.g. vineyards, fruit, and vegetable cultivation), gardening and landscaping operations, and municipal services on private roads and tracks.

Any other use shall be deemed unintended and is therefore prohibited.

Unintended use

SMART COMMAND is **not suitable/designed** for use

- on narrow embankments or dams,
- in locations with a steep slope where there is a risk of the vehicle tipping, or
- in an explosive atmosphere.

Furthermore, the following also applies:

The intended use also includes compliance with the operating conditions, as well as the maintenance and repair guidelines specified by Reichhardt.

Reichhardt assumes no liability for damage resulting from unintended use. The user alone shall bear the risks associated with unintended use.

The hardware components of SMART COMMAND must not come into contact with chemicals such as acids, alkalis, oils, lubricants, or aggressive petrochemical substances.

2.2 Requirements for Operating and Service Personnel

Any person who installs, calibrates, commissions, maintains, or operates SMART COMMAND must fulfill the following minimum requirements:

- The person must understand the operation of the vehicle and be allowed to drive it (have a valid driver's license for the respective vehicle).
- The person must be in a suitable physical and mental condition to control the vehicle and operate the system.
- The person must not be under the influence of any medications, alcohol, or drugs which could impair their ability to react in any way.
- The person has read in full and understood these and any associated instructions.
- The person understands how the system works.
- The person can carry out work on the vehicle and system safely, and can recognize and avoid possible dangers and risks related to the work to be carried out by them.

2.3 Safety Instructions for Measuring, Installation, and Maintenance Work

Installation and maintenance work requires the person to be familiar with the procedures involved.

Measurements, installation, and maintenance work of/on SMART COMMAND components must - as far as technically possible - always be carried out with the vehicle at a complete standstill and the engine switched off. In this context, the operator of the vehicle is responsible for ensuring that the vehicle cannot be started accidentally or contrary to prior arrangements by unauthorized persons or roll away and thus cause injury to persons. Remove the ignition key if necessary.

If installation or maintenance work has to be completed when the vehicle and/or system are switched on, only authorized persons may enter the hazardous area after consulting the operator in detail (see chapter 2.7.3).
These persons must be informed in detail about any possible hazards before entering the hazardous area. All of activities completed between the operator and these persons must be discussed in detail before the work is started. Ensure hands, feet, and clothing are kept away from the hazardous area of power-driven parts. Switch off all of the drive systems; reduce the pressure using the operating elements.

You must also observe the following installation and maintenance specifications:

- Keep the workplace clean and dry.
- Do not work in potentially explosive atmospheres.
- Use and dispose of cleaning agents, substances, and materials properly.
- Avoid sparks and open flames in the vicinity of the battery. There is danger of explosion.
- Be aware of components that may have become hot as a result of operating the vehicle.
- Remove any build-up of grease, oil, or debris on the vehicle.
- A vehicle that is lifted for installation or maintenance purposes must be supported so there is no risk of an accident.
- Use a ladder or platform to make it easier to install, uninstall, or maintain components in an elevated position. Ensure a stable, secure footing and use sturdy, secure handles.
- Do not conduct any measurements, or installation or maintenance work in an elevated position if the weather is wet or icy.
- Observe the safety instructions for electrics (seechapter 2.4) and hydraulics (seechapter 2.7.1).
- Replace any worn or damaged parts.
- Immediately report and/or remedy any damage.
- Always ensure that all components are in good condition and properly assembled. Electrical or hydraulic lines should not be drawn across any sharp edges. This may damage the lines.
- Check for damaged or improperly attached electrical wiring. This can lead to dangerous electric shocks.
- Only purchase parts to be replaced (hose lines, screws, brackets, etc.) from Reichhardt to ensure the reliability, proper functionality, and safety of the vehicle and of SMART COMMAND.

2.4 Safety Instructions for Electrical System

If you are working on the vehicle's electrical system, you should de-energize the vehicle for safety reasons. Turn off the battery main switch. If there is no switch or if you want to perform welding work on the vehicle, or work near the battery, you should disconnect the battery.

The battery can pose a hazard due to electrical currents, a high amperage short circuit, leaking battery acid, or an explosion. This can cause severe burns or irritations. Always start up and shut down the battery in line with specifications.

The following precautions must be observed when starting up and shutting down the battery:

- Remove any jewellery and other metal objects.
- Use a tool with insulated handles.
- Do not place any tools or metal objects on the battery.
- Disconnect the NEGATIVE pole (1) first and then the POSITIVE pole (2) (see Fig. 1).
- Always place the battery horizontally on a clean surface after removing it.
- When installing, secure the battery with the bracket provided.
- Connect the POSITIVE pole first and then the NEGATIVE pole.
- In the case of additional installations, ensure that there is no contact with other metallic objects.

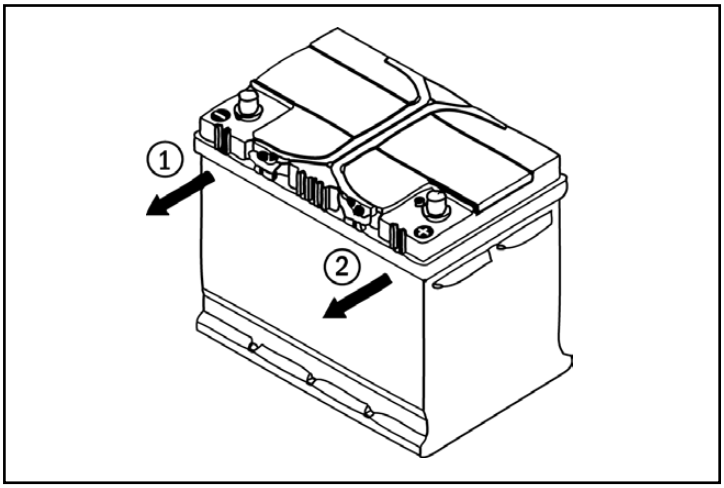


Fig. 1: Disconnecting the battery

2.5 Safety Instructions for Operation – Observing Exceptions in SMART COMMAND

If unplanned system states occur these are displayed as exceptions with warning symbols in SMART COMMAND.

Exceptions are displayed until they are acknowledged manually by the user or automatically by SMART COMMAND. Work with SMART COMMAND may need to be discontinued for a short time.

The exceptions are split by differing degrees of severity. These are explained in the following.

Icon	Designation/severity	Description
	Extremely serious warning: Critical system state that requires immediate action; can cause personal injury.	If ignored, extremely serious warnings can result in personal injury and property damage. They thus require immediate action. Work must be interrupted until the cause of the fault has been resolved. Extremely serious faults primarily occur when using SMART CONTROL. Example: "Risk of tipping. The vehicle is being steered automatically and is traveling at a speed of more than 30 km/h. This speed is too fast and there is a risk that the vehicle will tip over during the automatic steering maneuver. Reduce the speed to below 30 km/h."
	Serious warning: System error or adverse system state that severely restricts its use. Action must be taken.	Serious exceptions require the user to take action as the system can otherwise not be used as intended until the cause of the error has been resolved. Example: "You are connected to an ISO FLEX. However no ISO FLEX is saved for the vehicle setting. Please add it to the configuration settings of the towing vehicle (see section 'ISO FLEX')."
	Warning: System message that requires action	Warnings indicate a vehicle state that requires the user to take action as it can impair the intended use of the system. Example: "ATTENTION, low battery level. Connect the device to a power supply to ensure continued operation of SMART COMMAND."
	Notice: System message	Notices inform the user about processes and system states that can have a significant impact on the use of the system. Example: "GNSS receiver starting, please wait."

2.6 Safety Instructions for Disassembly and Disposal

SMART COMMAND components integrated in the vehicle should be disassembled by qualified personnel (e.g., dealer or Reichhardt service personnel). This particularly applies to components that are connected to the hydraulic system or power circuit of the vehicle. Observe the safety instructions detailed in chapter 2.3, chapter 2.4, and chapter 2.7.1.

To prevent environmental damage during disposal, the following safety regulations must be observed:

- Sort components according to material characteristics and dismantle them if required.
- Find out how to dispose of the individual components from your local municipality or a specialist disposal company. Some components must be treated as hazardous waste.
- Dispose of the components properly.

2.7 Specific Safety Instructions for SMART CONTROL

The safety instructions detailed in the following must be read and observed when using SMART CONTROL.

2.7.1 Safety Instructions for the Hydraulic System (for Retrofitted Hydraulic System)

Hydraulic oil can escape under high pressure from defective or not securely fastened hose lines during vehicle operation and cause serious injuries to the skin or wound infections. If an accident occurs, please seek immediate medical attention. If hydraulic oil penetrates the skin, this must be surgically removed within a few hours.

Observe the following safety regulations when working on the hydraulic system:

- Reduce the pressure in the system.
- Place collecting vessels under the hydraulic connections to catch hydraulic oil that may leak out during the work and thus prevent slipping hazards and environmental damage.
- Properly connect the hydraulic components to the vehicle.
- Check that all of the line connections are firmly tightened before building up the pressure again.

Never try to feel for or seal leaks in hydraulic hoses with your hands. Maintain a sufficient distance, protect yourself and your hands, and use suitable equipment when looking for leaks.

Damaged hose lines must not be repaired or reassembled from old, used parts.
Replace old, worn or damaged hose lines immediately with Reichhardt-approved parts.

The service life of hydraulic hoses should not exceed six years (service life including a maximum of two years of storage). Other reference values may apply to hoses and lines made from thermoplastics.

2.7.2 Attaching and Maintaining Warning Labels

Vehicles that are equipped with SMART CONTROL must be marked with warning labels to indicate possible hazards.
Please stick the warning labels on the A-pillar of the vehicle ensuring they are visible.

The warning labels are part of SMART CONTROL and are included with these instructions.

The warning labels must always be in a clean and legible condition.
Warning labels that are damaged or not clearly legible must be replaced immediately. You can order these warning labels from Reichhardt, if required.

The warning labels are available in a variety of languages. Further information on this is available by telephone or email.

CAUTION! Before commissioning SMART CONTROL, please read the operating instructions as well as the safety and warning notices it contains.

Art. no.: 250122

WARNING! SMART CONTROL must be disabled on all roads and public tracks.

2.7.3 Safety Instructions for Commissioning and Operation

Steering systems must not be used on public roads or tracks.
Before traveling on a road, deactivate the vehicle-specific steering interface, 'Road' switch, or the activation switch provided for the steering (if installed).

In the event of a hazardous situation, switch off the system immediately or take over manual control of the vehicle to prevent any personal injuries or property damage.

Prepare yourself to steer the vehicle manually at the end of the track as the system does not turn automatically.

Pay attention to any obstacles when using the steering system to prevent any damage to the vehicle or other components. The steering system cannot detect them automatically.

Stop operation if poor visibility means that obstacles or persons could not be detected quickly enough.

The steering system deactivates automatically when the driver leaves the driver's seat. Before you leave the vehicle, you must also switch off the system via the activation switch/steering interface and secure the vehicle from accidentally being started or rolling away.

Observe the following instructions to avoid personal injuries or property damage during operation:

- No persons must be in the hazardous area as soon as the steering system is activated (see Fig. 2). When using an implement, observe the safety distances detailed in the instructions for the implement.

  The operator is obliged to stop the vehicle immediately when persons enter the hazardous area. Persons in the hazardous area are at risk of serious or fatal injury. The vehicle could roll over individuals in the event of an operation fault of the vehicle. The operator may only start the vehicle again once there are no more individuals in the hazardous area.

- Individuals may ONLY sit on the front passenger's seat for the purpose of training, maintenance, and brief observations. Any additional persons can distract operating personnel while working with the Reichhardt steering system and could obstruct the view. During training, only particularly experienced persons may be authorized to steer the vehicle that is equipped with this system.

- For safety reasons you should always have one hand in the immediate vicinity of the steering wheel when using the automatic steering system at speeds over 10 km/h. You can thus react immediately if hazardous areas, persons or obstacles appear, or the Reichhardt steering system malfunctions.

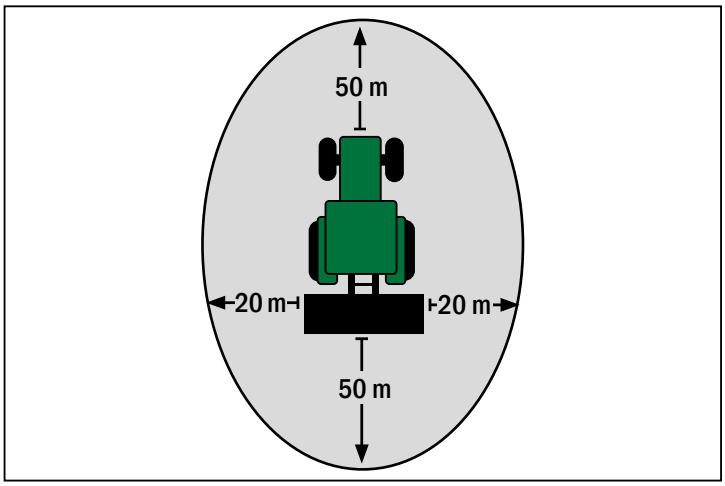


Fig. 2: Hazardous area

3 Product Overview and Description

SMART COMMAND is a system for Smart Farming applications that is operated via a user interface on a mobile end device or terminal.

SMART COMMAND enables users to export device and vehicle data, control implements, and steer the vehicle automatically if additional components are used.

Depending on the product range that has been purchased, the associated components are either connected, attached, or installed in the vehicle.

3.1 Product Range

The scope of the Smart Farming functions of SMART COMMAND is dependent on the licenses that are purchased. Overall, the following products are available for SMART COMMAND:

Product/license	Function/user
SMART GUIDE	Guidance
SMART CONTROL	Automatic steering system
SMART TURN*	Automatic turning on the headland
SMART VT (incl. SMART FILE)	ISOBUS virtual terminal including file management to operate ISOBUS device screens
SMART NTRIP	Enables additional use of ISO FLEX WLAN module as an RTK modem, to receive RTK correction data.
SMART TASK	Controller to manage tasks
SMART SECTION	Automatic section control for SMART GUIDE and SMART CONTROL
SMART RATE	Area-specific spread rate control for SMART GUIDE and SMART CONTROL

* Only available for HOLMER TerraDos.

The scope of individual products and the required equipment and prerequisites are detailed in the following.

Basic equipment required:

Regardless of which of the products detailed above you are using, you will require the following basic equipment to use the SMART COMMAND app or SMART COMMAND terminal:

Variant	Required equipment
SMART COMMAND app	• SMART COMMAND app (see chapter 3.2.1) • WLAN-enabled mobile end device (see chapter 3.2.2) • ISO FLEX module (WLAN module with ISOBUS connection; see chapter 3.2.3)
SMART COMMAND terminal	• SMART COMMAND terminal (see chapter 3.2.4)

SMART GUIDE (guidance)

SMART GUIDE is a guidance tool that uses GNSS position data. RTK correction data can also be used if a high degree of repeatable accuracy is required.

Additional required equipment:

- SMART GUIDE license
- GNSS receiver (including GSM antenna and SMART NTRIP, if required) + connection cable

Not mandatory but may be advantageous:

- Vehicle with ISOBUS preliminary setup
- InCab socket in the vehicle

Upgrading the automatic SMART CONTROL steering system is possible using a SMART iBox.

SMART CONTROL (automatic steering system)

Using a SMART iBox and steering package, that enables the vehicle to be controlled via ISOBUS or the hydraulic system, converts SMART GUIDE to SMART CONTROL.
SMART CONTROL enables GNSS-controlled, automatic steering. RTK correction data can also be used if a high degree of accuracy is required. To achieve this, SMART NTRIP is also required when using the app.

Additional required equipment:

- SMART GUIDE
- SMART iBox MC
- Steering package for vehicles that do or do not have a preliminary ISOBUS setup

Not mandatory but may be advantageous:

- Vehicle with preliminary ISOBUS setup
- InCab socket in the vehicle

SMART TURN (automatic turning)

SMART TURN enables automatic turning when using SMART CONTROL on the headland.

Additional required equipment:

- SMART CONTROL
- SMART TURN license

Not mandatory but may be advantageous:

- Vehicle with preliminary ISOBUS setup
- InCab socket in the vehicle

SMART NTRIP (RTK correction data)

SMART NTRIP enables you to also use the ISO FLEX WLAN module as an RTK modem.

Additional required equipment:

- min. SMART GUIDE
- SMART NTRIP license

Additional prerequisites:

- SIM card with mobile data contract

Not mandatory but may be advantageous:

- Vehicle with preliminary ISOBUS setup
- InCab socket in the vehicle

SMART VT (ISOBUS virtual terminal)

SMART VT enables the operation of ISOBUS implements via SMART COMMAND.

Additional required equipment:

- ISO FLEX (WLAN module with ISOBUS connection)
- SMART VT license
- SMART TASK license

Additional prerequisites:

- Vehicle with preliminary ISOBUS setup

Not mandatory but may be advantageous:

- InCab socket in the vehicle

SMART SECTION (automatic section control)

SMART SECTION enables the automatic activation and deactivation of sections on crop protection sprayers, sowing machines, etc. SMART SECTION can be configured to have up to 255 sections.

Additional required equipment:

- SMART GUIDE
- SMART VT license
- SMART TASK license
- SMART SECTION license

Additional prerequisites:

- Implements with section control

Not mandatory but may be advantageous:

- Vehicle with preliminary ISOBUS setup
- InCab socket in the vehicle

SMART RATE (area-specific spread rate control)

SMART RATE is the optimum addition to the automatic section control (SMART SECTION) and enables the use of different equipment.

Additional required equipment:

- SMART SECTION
- SMART RATE license

Additional prerequisites:

- Implement with variable spread rate control

Not mandatory but may be advantageous:

- Vehicle with preliminary ISOBUS setup
- InCab socket in the vehicle

3.2 Explanation of the Components

SMART COMMAND is operated via the SMART COMMAND app on a mobile end device or via the SMART COMMAND terminal.
Different components are available depending on the product range. These are explained in the following.

3.2.1 SMART COMMAND App

The SMART COMMAND app (see Fig. 3) enables SMART COMMAND to be operated via a mobile end device.

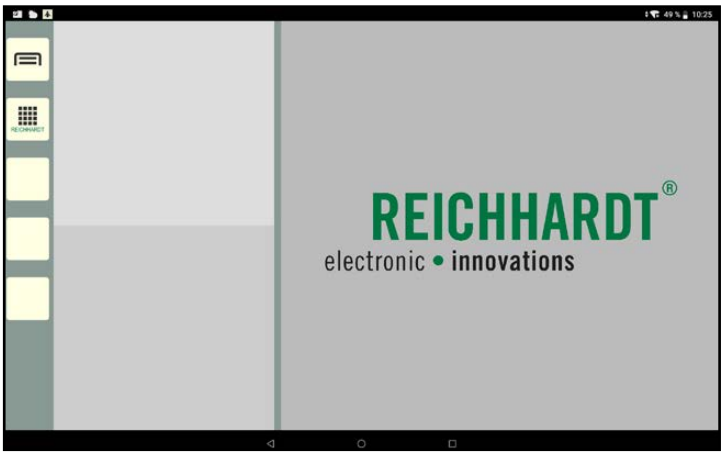


Fig. 3: Interface of the SMART COMMAND app

3.2.2 Mobile End Device

A mobile end device is required to use the SMART COMMAND app. The following system requirements apply:

- Operating system: Android 5, 6, 8, 10, or Windows 10 (version 04/23)
- Resolution: min. HD, preferably full HD
- WLAN enabled
- Processor: >1 Ghz, Dual Core

A minimum of a 10" display is recommended to ensure comfortable operation that is clearly legible, which is why the use of a tablet is preferable to a mobile phone.

The tablet can be purchased independently or from Reichhardt.

The following tablets have been tested with the SMART COMMAND app and are recommended:

Manufacturer:	Version:	Screen:	Processor:	Dimension (H x W x D):
Lenovo Tab 2A	Android 5/6	10.1" 1920x1200	1.5 GHz	24.7 x 17.1 x 0.9 cm
Lenovo Tab 4 10	Android 8	10.1" 1280x800	1.4 GHz	24.7 x 17.0 x 0.8 cm
Lenovo Tab P10	Android 8	10.1" 1920x1200	1.8 GHz	24.2 x 16.7 x 0.7 cm
Huawei Mediapad M5	Android 8	10.1" 1920x1200	1.7 GHz	24.3 x 16.2 x 0.8 cm
Huawei Mediapad T5	Android 8	10.1" 1920x1200	2.3 GHz	24.3 x 16.4 x 0.7 cm
Samsung Galaxy Tab A	Android 8	10.1" 1920x1200	1.6 GHz	25.4 x 15.5 x 0.8 cm
Samsung Galaxy A 2019	Android 10	10.1" 1920x1200	1.8 GHz	25.4 x 14.9 x 0.8 cm
Samsung Galaxy S6 lite	Android 10	10.4" 2000x1200	2.3 GHz	24.4 x 15.4 x 0.7 cm
Panasonic Toughpad FZ-G1 MK	Windows 10	10.1" 1920x1200	2.6 GHz	22.3 x 28.8 x 2.2 cm

3.2.3 ISO FLEX Module

The ISO FLEX module (see Fig. 4) is a cellular 4G telematics device with CAN functionality and Ntrip client for the transfer of RTK correction data.

It enables the SMART COMMAND app and vehicle ISOBUS to communicate with one another (via a WLAN connection to the mobile end device).

It also enables the receipt of RTK correction data if there is an existing SIM card und SMART NTRIP.

Further information and explanations about the ISO FLEX module are available in the "ISO FLEX Operating Instructions".

Fig. 4: ISO FLEX module

3.2.4 SMART COMMAND Terminal

The SMART COMMAND terminal (see Fig. 5) is a modern Smart Farming terminal and is designed to be a SMART COMMAND control unit. The SMART COMMAND software is already integrated.
It is an alternative to the SMART COMMAND app that is used with a mobile end device and the ISO FLEX module.

As it is connected in the vehicle, it is not possible to use the terminal to operate SMART COMMAND in Office mode (e.g., in the office).

The terminal is available with a diagonal screen measurement of 10" and 12".
Apart from the size, weight, brightness, contrast, and power consumption, both of the terminals have the same equipment.

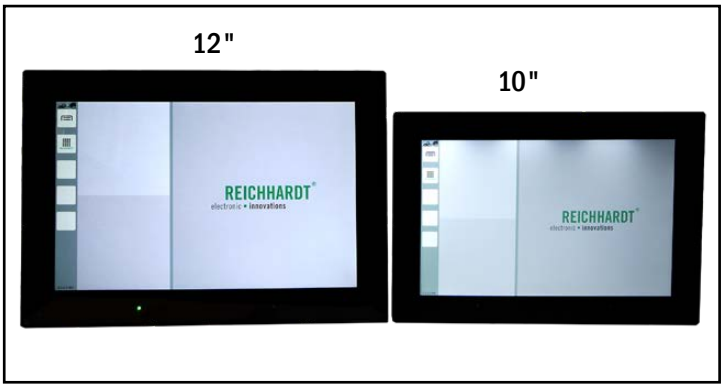


Fig. 5: SMART COMMAND terminal with SMART COMMAND software

3.2.4.1 SMART COMMAND Terminal – Connections

The SMART COMMAND terminal has four connections located on the rear of the terminal (see Fig. 6).

Ⓐ Connector for Reichhardt connection cable (power supply and ISOBUS communication)

Ⓑ Ethernet connector for maintenance purposes.

Ⓒ USB 2.0 connector to import and export Smart Farming data and for terminal updates.
Corresponding cable can be requested from Reichhardt.

Ⓓ USB-C 3.0 connector to import and export Smart Farming data and for terminal updates.
Preferably use dual USB sticks with USB-C on USB.

Ⓔ Four M6 threaded holes to attach the bracket.

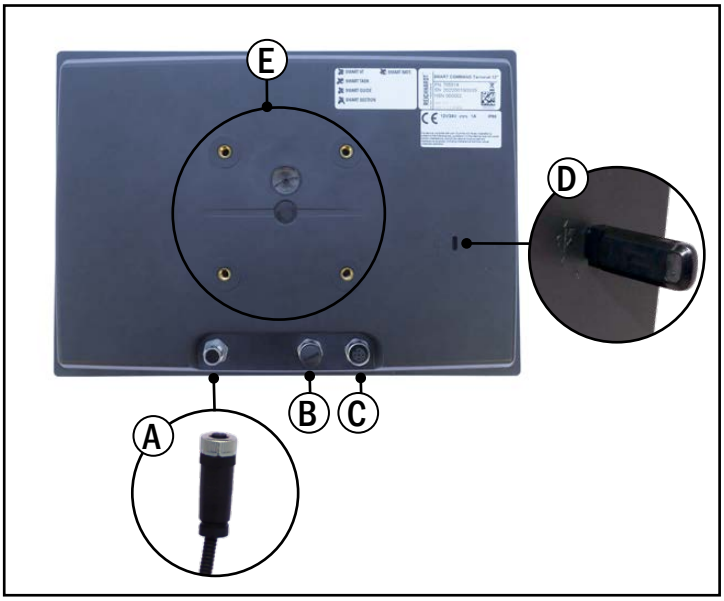


Fig. 6: Connections of the SMART COMMAND terminal

3.2.4.2 SMART COMMAND Terminal – Status LED and Ambient Light Sensor

The SMART COMMAND terminal has a status LED and an ambient light sensor (see Fig. 7).

Ⓐ Status LED:

● Off:
Terminal is switched off

● - ● - ● Flashing yellow:
Terminal is starting up; a short signal tone sounds

● Steady green:
Terminal in operation

● Steady yellow:
Terminal is shutting down or restarting

Ⓑ Ambient light sensor

Dims the brightness of the terminal depending on how bright the ambient light is.

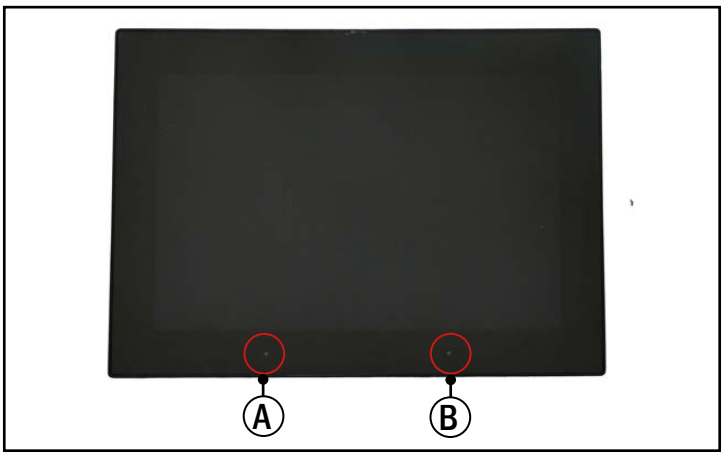


Fig. 7: Status LED and ambient light sensor

3.2.5 Navigation Controller SMART iBox (for SMART CONTROL)

NOTICE

The SMART iBox is only installed when using SMART CONTROL in the vehicle.

The SMART iBox (see Fig. 8) is a navigation controller and is required to use the automatic steering system SMART CONTROL.

The SMART iBox is connected to the remaining system components and vehicle using a vehicle-specific cable set.

Fig. 8: SMART iBox

3.2.6 GNSS Receiver RGS 200 (for SMART GUIDE/SMART CONTROL)

The RGS 200 (see Fig. 9) is a GNSS receiver to ensure a track-for-track accuracy of +/- 30 cm (no RTK).
It is perfect for Smart Farming applications such as automatic section control.

The RGS 200 receiver is highly reliable as it uses all of the well-established satellite systems.

Fig. 9: RGS 200

3.2.6.1 Connector

The RGS 200 has a 14-pin AMP SEAL connector on the rear of the receiver (see Fig. 10 – 1). The receiver is connected to all of the other system components via this connector using a corresponding connection cable.

3.2.6.2 LED

The RGS 200 has a status LED that is located to the left of the connector (see Fig. 10 – 2):

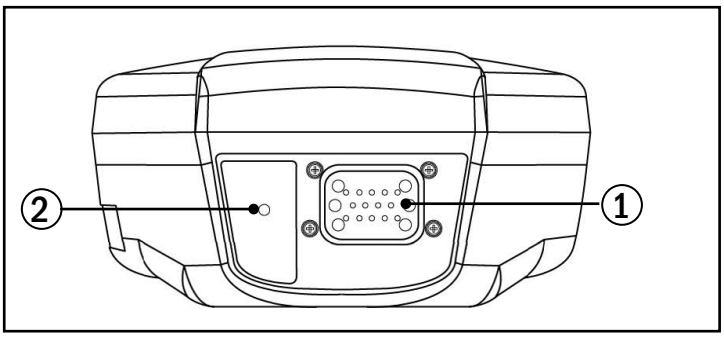


Fig. 10: RGS 200 – Connector and LED

🟢 Steady green:
Ready for operation; high reception quality (PPP, Fixed, or PPP+INS).

🟢 --- 🟢 --- 🟢 Slow flashing, green:
Ready for operation; high reception quality is being prepared.

🟡 Steady yellow:
Ready for operation; standard reception quality (Single Point/SBAS/DGPS)

🟡 --- 🟡 --- 🟡 Slow flashing, yellow:
Ready for operation; identifying satellites, and calculating the initial reception quality.

🟡 - 🟡 - 🟡 Fast flashing, yellow:
Ready for operation and ready to receive the position.

🔴 Steady red:
For approx. 10 seconds after switching on/resetting the receiver.
More than 30 seconds = system error; not ready for operation.

🔴 --- 🔴 --- 🔴 Slow flashing, red:
Position quality warning (unreliable signal quality/high error rate); not ready for operation.

🔴 - 🔴 - 🔴 Fast flashing, red:
Positioning error; not ready for operation.

3.2.7 GNSS Receiver RGS 700 (for SMART GUIDE/SMART CONTROL with RTK Correction)

The RGS 700 (see Fig. 11) is an RTK receiver used to achieve a repeatable accuracy of +/-2 cm.

The RGS 700 stands out for already being able to support future planned signals and is even more reliable in difficult situations (e.g., danger caused by shadow interference) due to the large number of satellites (< 30) beiing received simultaneously.

Fig. 11: RGS 700

3.2.7.1 Connector

The receiver has a 14-pin AMP SEAL connector on the rear of the receiver (see Fig. 12). The receiver is connected to all of the other system components via this connector using a corresponding connection cable.

Fig. 12: RGS 700 – Connector

3.2.7.2 LED

The RGS 700 has a status LED on the side of the receiver base (see Fig. 13).

● Steady green:
Ready for operation; high reception quality (RTK/PPP, Fixed, or RTK/PPP+INS).

● --- ● --- ● Slow flashing, green:
Ready for operation; high reception quality is being prepared.

● Steady yellow:
Ready for operation; standard reception quality (Single Point/SBAS/DGPS)

● --- ● --- ●Slow flashing, yellow:
Ready for operation; identifying satellites, and calculating the initial reception quality.

● - ● - ● Fast flashing, yellow:
Ready for operation and ready to receive the position.

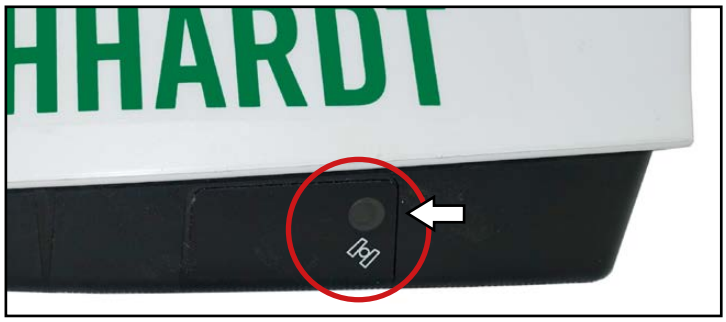


Fig. 13: RGS 700 – LED

● Steady red:
For approx. 10 seconds after switching on/resetting the receiver.
More than 30 seconds = system error; not ready for operation.

● --- ● --- ● Slow flashing, red:
Position quality warning (unreliable signal quality/high error rate); not ready for operation.

● - ● - ● Fast flashing, red:
Positioning error; not ready for operation.

3.2.8 GSM Antenna (Receipt of RTK Correction Data)

The GSM antenna (see Fig. 14) increases the signal reception of the ISO FLEX module for mobile data from the 900/1800 MHz frequency bands.

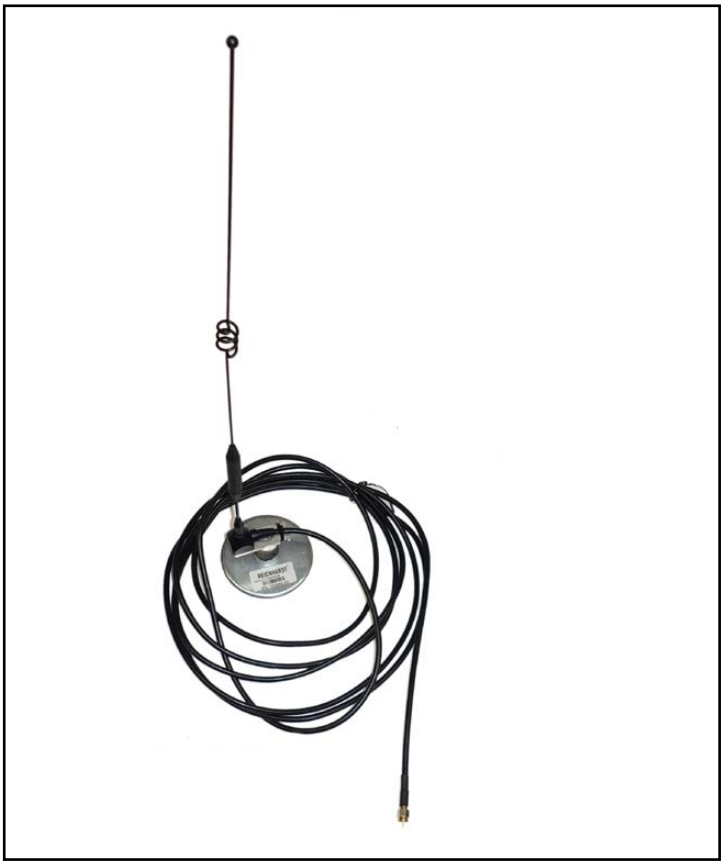


Fig. 14: GSM antenna

4 Commissioning

The following provides a description of the procedures required to commission SMART COMMAND including the associated hardware components.
This includes procedures that generally only have to be completed once and those that have to be completed again and again when work is restarted.

Assembly of the hardware components required for the purchased SMART COMMAND product is not described as part of the commissioning process. Assembly is completed by the dealer and is described in the corresponding installation instructions.

The commissioning and configuration of the ISO FLEX module is described in the "ISO FLEX Operating Instructions" (Reichhardt article no. 560765).

The SMART COMMAND app is operated on mobile end devices (smartphones or tablets). As tablets will probably be used more frequently because of their size, the term "tablet" will be used hereinafter for the purpose of simplicity.

If you are using the SMART COMMAND terminal, you can skip chapter 4.1.

4.1 App-Specific Commissioning

If you are using the SMART COMMAND app, you will first have to download and install it on the tablet you are using. The steps to complete this are described in the following.

4.1.1 Downloading the SMART COMMAND App

If possible, this step should be completed in the office or close vicinity to a WLAN connection.

If you are already in the vehicle, this step can only be completed if the tablet or ISO FLEX module has a SIM card and thus has a data connection to the Internet. A data volume of approx. 50-100 MB will be used.

If you are using a mobile data connection via ISO FLEX, you must connect the tablet to the ISO FLEX via the WLAN and use this data connection to download the SMART COMMAND app from the Internet.
To do so, the ISO FLEX must be placed into operation and configured as per the "ISO FLEX Operating Instructions". The tablet must then be connected to the WLAN of the ISO FLEX (see chapter 4.1.3).

Downloading the SMART COMMAND App from the Internet

Use the tablet to open an Internet browser (e.g., Chrome or Firefox).

Enter the following address in the address bar of the Internet browser (see Fig. 15):

updates.reichhardt.com

Fig. 15: Downloading the SMART COMMAND app from updates.reichhardt.com

Then scroll down to the installation files and tap the corresponding file (see Fig. 16).

SMART COMMAND for Android (*.apk file)

SMART COMMAND for Windows (*.exe file)

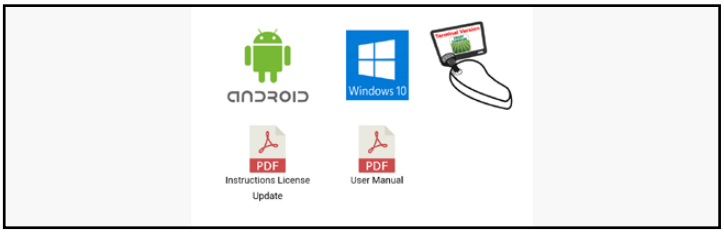


Fig. 16: Downloading the installation file for SMART COMMAND

A warning message may be displayed before the download is started (see Fig. 17). Please acknowledge this message. Otherwise SMART COMMAND cannot be downloaded.

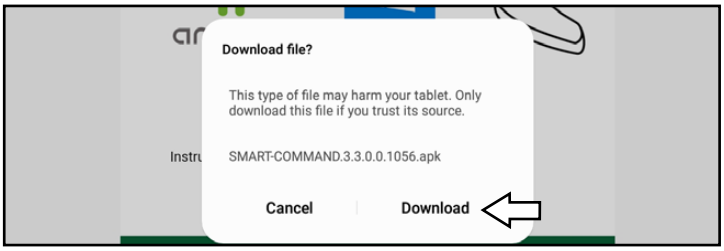


Fig. 17: Acknowledging the warning

The file is then downloaded (see Fig. 18).

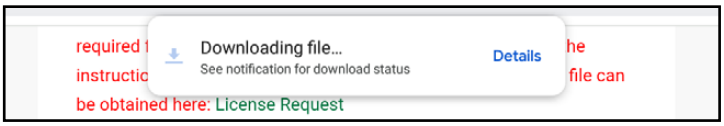


Fig. 18: Installation file is downloaded

Downloading the SMART COMMAND App from ISO FLEX

Alternatively, if you do not have an Internet connection you can download the version of the SMART COMMAND app that is saved on ISO FLEX.
However, this will not be the latest version.

To do so, you must establish a WLAN connection to the ISO FLEX (see chapter 4.1.3) and access the ISO FLEX configuration menu via the browser (open IP 192.168.201.1).

The SMART COMMAND app is saved in the "Files" menu (see Fig. 19 and Fig. 20).

*.apk file: SMART COMMAND for Android

*.exe file: SMART COMMAND for Windows

The structure of the configuration menu is described in the "ISO FLEX Operating Instructions" (Reichhardt article or. 560765).

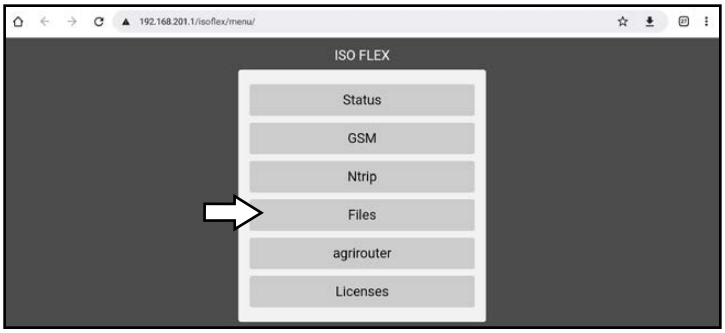


Fig. 19: "Files" menu item in the ISO FLEX configuration menu

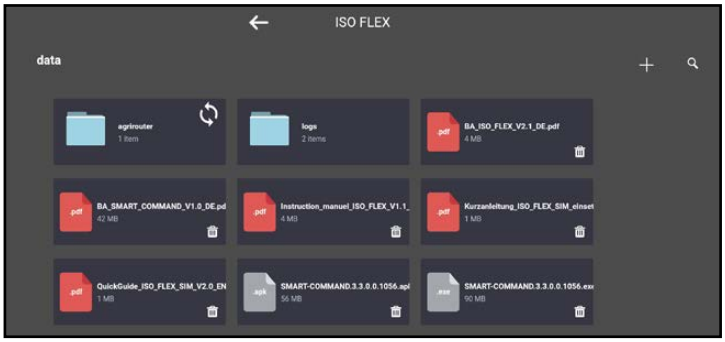


Fig. 20: Downloading the SMART COMMAND app

4.1.2 Installing the SMART COMMAND App

Once the download of the app is complete, you can execute the file directly (see Fig. 21).

Fig. 21: Executing the installation file

The installation file should be located in the Downloads folder of the tablet regardless of whether it was downloaded from the Internet or ISO FLEX (see Fig. 22).

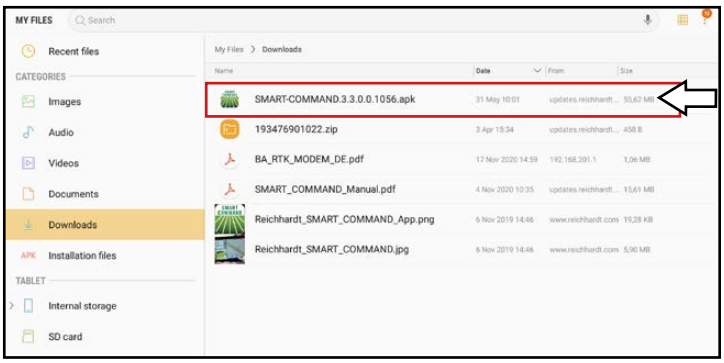


Fig. 22: Installation file in the Downloads folder of the tablet

The installation is started once the installation file has been opened (see Fig. 23).

Tap "Install" to start the installation.

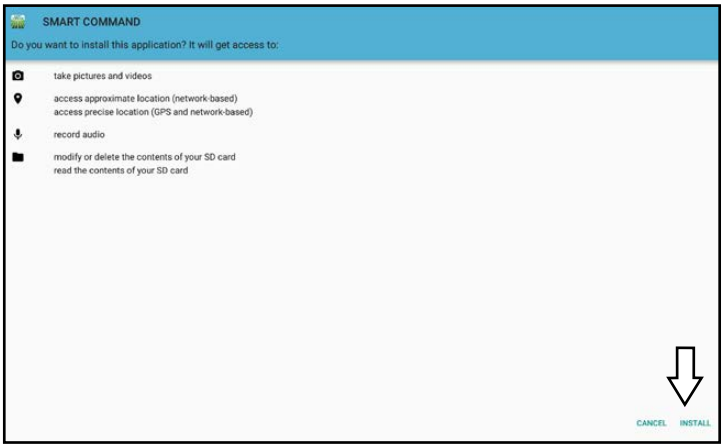


Fig. 23: Starting the installation

SMART COMMAND is then installed (see Fig. 24).

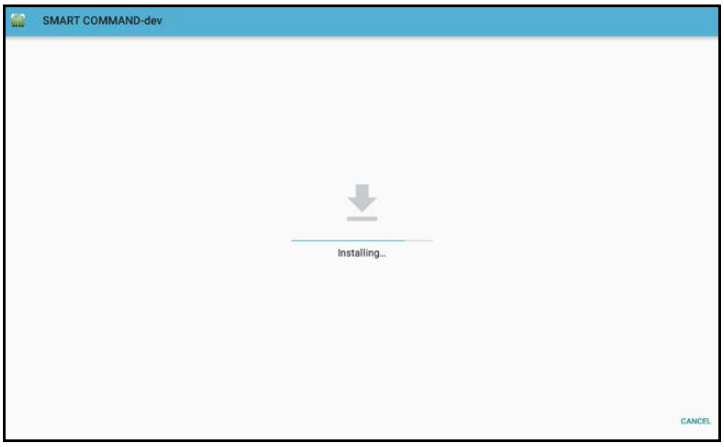


Fig. 24: SMART COMMAND is installed

Following the successful installation, you can start SMART COMMAND by selecting "Open" (see Fig. 25).
However, if you tap "Done" to complete the installation, you will initially continue with the subsequent commissioning steps.

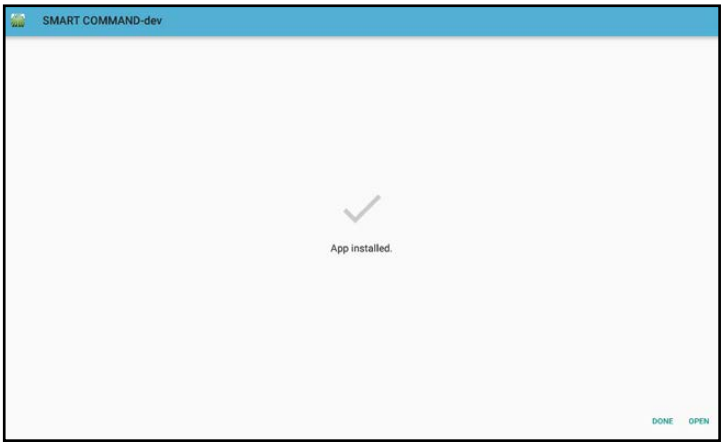


Fig. 25: Installation completed

An icon to start the SMART COMMAND app is created in the menu or specified path and, if applicable, on the start screen of the tablet (depending on the model) (see Fig. 26).

Fig. 26: SMART COMMAND app

4.1.3 Establishing a WLAN Connection Between the Tablet and ISO FLEX

You must connect the tablet to the ISO FLEX WLAN network so that the SMART COMMAND app is connected to the ISOBUS of the vehicle and SMART COMMAND can be used fully.

The WLAN network can be found in the WLAN settings of the tablet (see Fig. 27).
The name of the network is similar to the SSID on the ISO FLEX label.

The password for the WLAN network is also on the ISO FLEX label.

If you do not establish a connection to the ISO FLEX module, you can only use the SMART COMMAND app in "Office mode" and complete the following tasks:

- Download updates,
- create users, and
- create and edit orders.

All of the other settings are not saved fully and are thus not recommended.

Fig. 27: Tablet connected to ISO FLEX

4.2 Starting SMART COMMAND

Starting the SMART COMMAND App

NOTICE

Ensure that the tablet is connected to the ISO FLEX via WLAN.

Only one SMART COMMAND app can be connected to one ISO FLEX at a time.
The basic functions of all of the other apps can be used (e.g., create users, set language, etc.), but the app will not be connected to ISOBUS.

NOTICE

The SMART COMMAND app is used in landscape format and is automatically started in this format. Using the app in portrait format is not possible.

To start the app, tap the SMART COMMAND icon in the menu or on the start screen of the tablet (see Fig. 28).

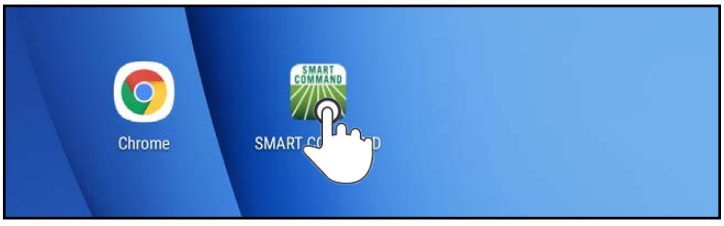


Fig. 28: Starting SMART COMMAND

Starting the SMART COMMAND Terminal

The SMART COMMAND terminal switches on automatically as soon as the vehicle ignition is started and the SMART COMMAND terminal is supplied with power.

4.3 Accepting the General Conditions of Sale and Delivery

The first time you start SMART COMMAND, you must accept the General Conditions of Sale and Delivery (see Fig. 29).

Read the conditions, accept them (1), and tap "Next" (2).

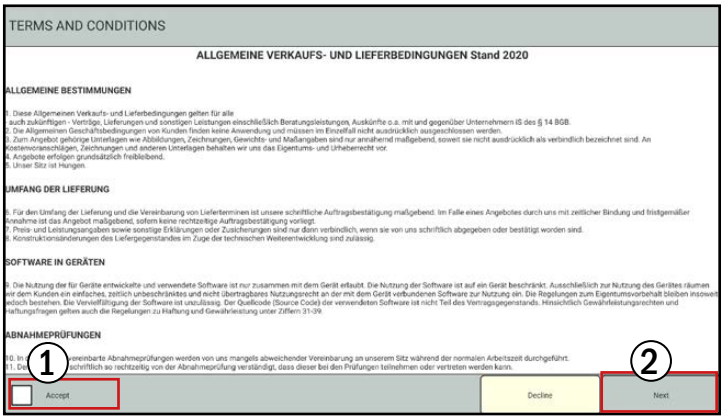


Fig. 29: Accepting the General Conditions of Sale and Delivery

4.4 Initialization Process of SMART COMMAND

At first, SMART COMMAND will implement a few initialization processes following every re-start.
During this process, it is checked whether an ISO FLEX module and other ISOBUS participants are available (see Fig. 30).

Fig. 30: Initialization process

4.5 Observing Warnings

A warning is displayed every time SMART COMMAND is restarted and every time the user is changed.
It notifies you that SMART COMMAND must not be operated outside the driver's cab (see Fig. 31).

This warning applies to using SMART COMMAND on a mobile end device.

Please read and observe this warning.

Tap the screen to hide the warning.

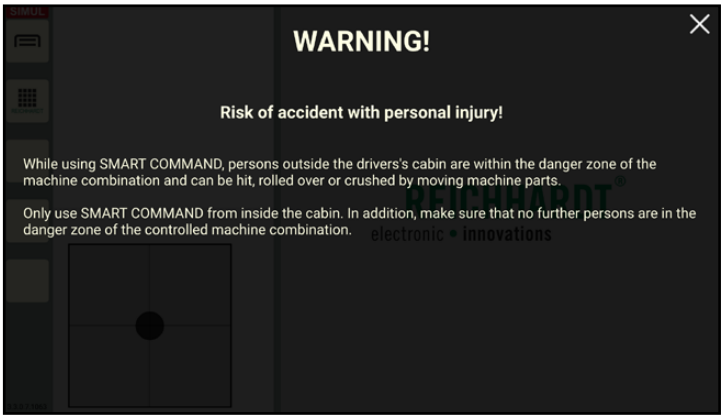


Fig. 31: Observing warnings

4.6 User and Machine Combination Screen

Following every restart and every time the user is changed, a screen is displayed for approx. 10 seconds indicating the selected user and selected machine combination (vehicle with implements).

Tapping it will hide the display again.

During initial commissioning, the default user and no machine combination are selected (see Fig. 32).

Selecting a machine combination is a prerequisite for using some of the functions and applications in SMART COMMAND. This, for example, includes the SMART COMMAND configuration and SMART GUIDE application.

More information on creating and selecting users is provided in chapter 7.3.1.

More information on creating and selecting machine combinations is provided in chapter 7.4.2.

If a machine combination is already selected, it is displayed with some information on the machine combination (see Fig. 33).
However, a prerequisite is that there is a connection to the ISO FLEX or vehicle (CAN bus). The set machine combination can otherwise not be selected and displayed by SMART COMMAND.

① The symbols next to the image of the machine combination provide information about the connection status of the vehicle and implement(s) in the machine combination.
More information about these symbols is provided in chapter 7.4.2.3.

② The combination elements are displayed at the bottom in the information on the machine combination. Warnings can be shown on the images of the machines. They also provide information about the connection status. More information is provided in chapter 7.4.1.3.
It also shows which machine combination specifies the sections.

The user and machine combination screen can be called up in SMART COMMAND via the operating mode symbol (see chapter 5.2.1.2).

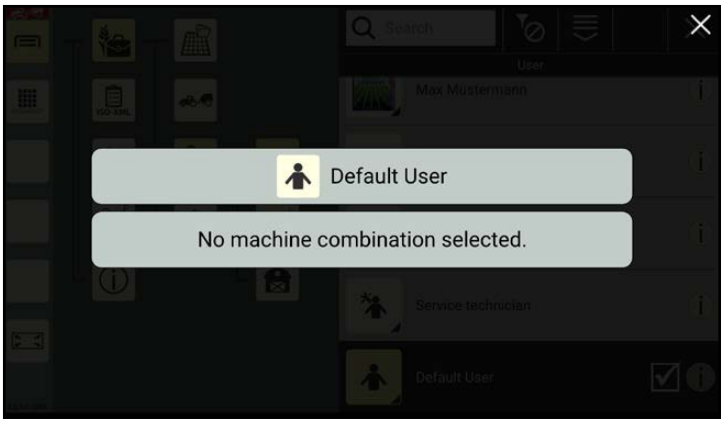


Fig. 32: User and machine combination screen during initial commissioning

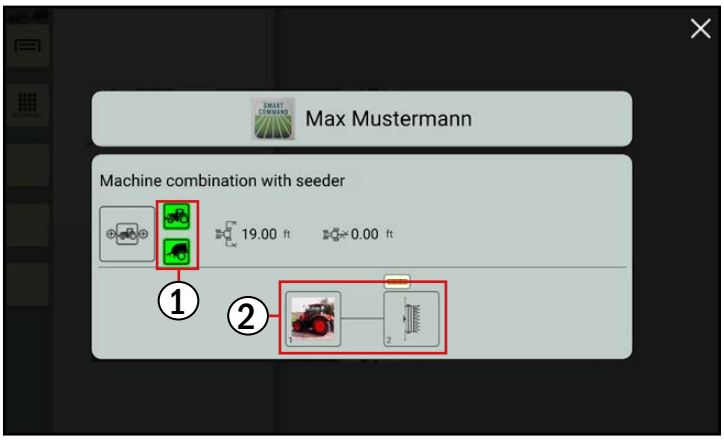


Fig. 33: User and machine combination screen

4.7 Confirming Existing AUX Assignments

Information about existing AUX assignments may be displayed.

Please read them carefully and acknowledge them (see example in Fig. 34).

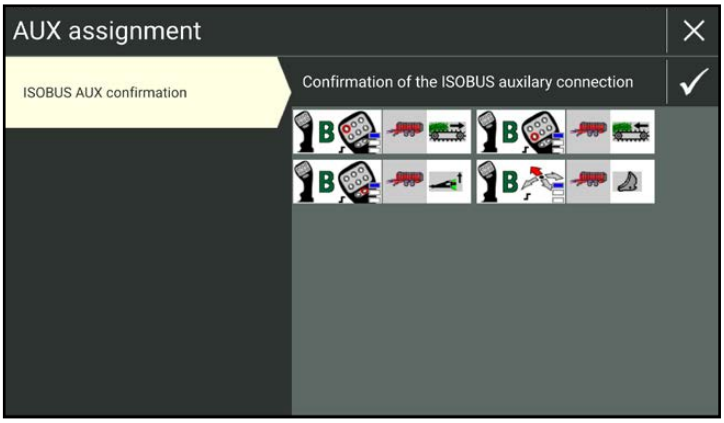


Fig. 34: Existing AUX assignments

4.8 Start Screen

SMART COMMAND is started in operating mode that consists of one sidebar and at least three windows (see Fig. 35).
Various applications can be executed in the windows (see Fig. 36).

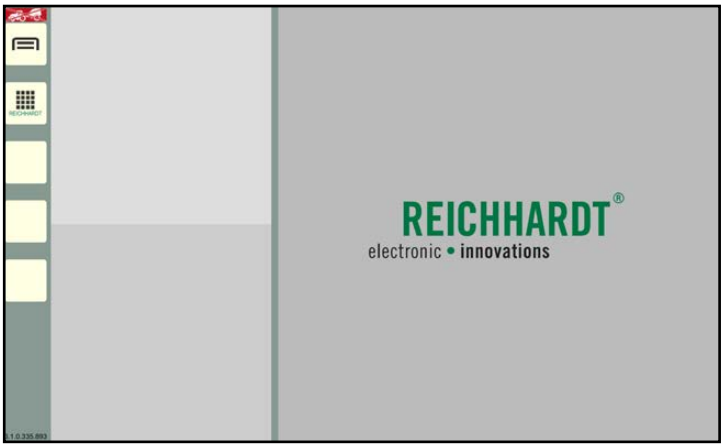


Fig. 35: Start screen – SMART COMMAND in operating mode

If applications were active in the windows the last time SMART COMMAND was shut down, they are opened again (see Fig. 36).

More information about the operating mode and executing applications is provided in chapter 5.

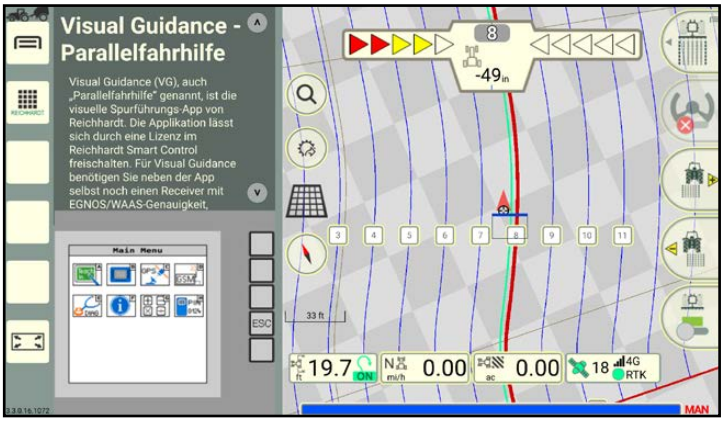


Fig. 36: Start screen – SMART COMMAND in operating mode with active applications

4.9 Checking the Successful Connection to ISO FLEX (SMART COMMAND App Only)

You can check the connection to the correct ISO FLEX via the WLAN settings of the tablet or via the system information (see chapter 6.1) (see Fig. 37 and Fig. 38).

If there is a connection to an ISO FLEX, one of the shown symbols for machine combination mode is displayed in the top left corner of the screen (see Fig. 38).

If there are several vehicles in the reception area with ISO FLEX modules switched on, you must ensure that the tablet is connected to the correct ISO FLEX.

Fig. 37: Successful connection to the ISO FLEX WLAN

Fig. 38: Display of the network name in the system information

If an “OFFICE” symbol is displayed in the top left corner of the sidebar when using the SMART COMMAND app (see Fig. 39), then there is no connection to an ISO FLEX.

Fig. 39: Office mode

More information on machine attachments and Office mode is provided in chapter 6.4.2.1.

4.10 Checking the Successful Connection of ISO-VT

If a SMART-VT license is available, the VT instance is displayed in the top left corner of the screen when starting SMART COMMAND (see Fig. 40).
This indicates that SMART COMMAND has registered on the ISOBUS as an ISO-VT.

You can set the VT instance via the system settings (see chapter 11.4.1).

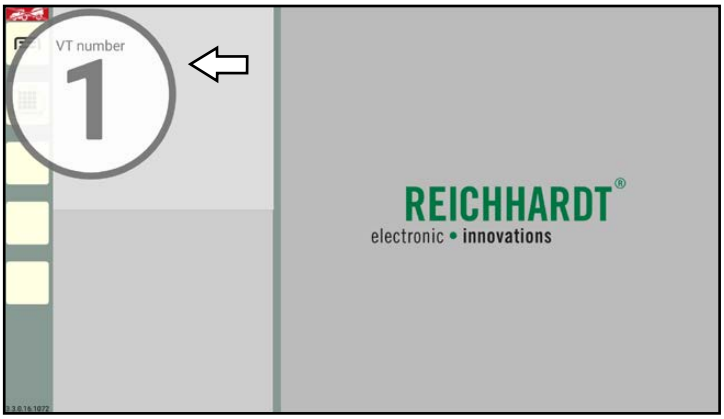


Fig. 40: Displaying the ISOBUS-VT instances

If SMART COMMAND is used as the main instance on to which the screens of the ISOBUS devices should be loaded, and if ISOBUS devices are connected a successful connection can be checked via the application overview (see Fig. 41 – 1).

If ISOBUS applications are displayed in the bottom row, then the connection was successful in each case (see Fig. 41 – 2).

More information about the application overview is provided in chapter 5.2.4.

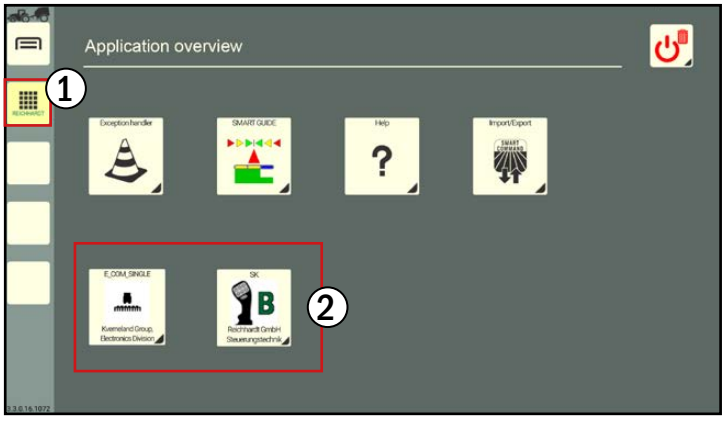


Fig. 41: Application overview with ISOBUS applications

4.11 Checking the Successful Connection and Communication of the Components

If there is a faulty connection to or configuration of a hardware component, this is indicated with a warning (see Fig. 42).

The error that has occurred is explained in the troubleshooting section (see chapter 12.1).

Very serious warning

Serious warning:

Warning

Notice

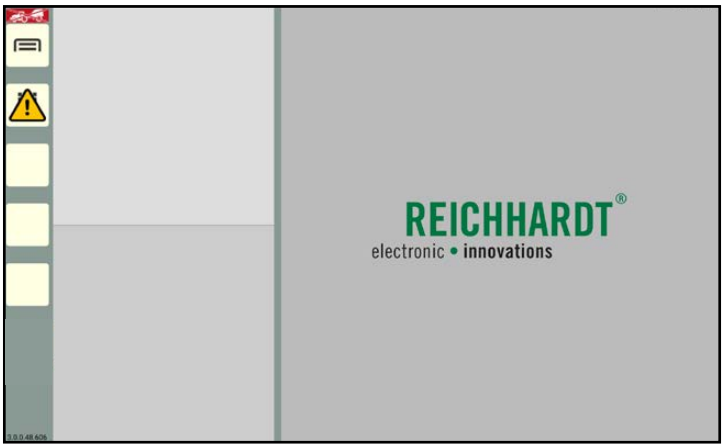


Fig. 42: Warning in left sidebar of SMART COMMAND

5 Operation and Function of SMART COMMAND

The user interface and operation of SMART COMMAND are explained in the following.

5.1 Touchscreen Gestures

The following touchscreen gestures are used in SMART COMMAND (see Fig. 43):

- Tap: Briefly tap the screen.
- Press and hold: Press and hold the object for approx. 2 seconds.
- Swipe: Touch the object and move the finger in one direction.
- Drag: Press and hold the object for approx. 2 seconds and drag it to the required position.
- Double tap: Tap the screen twice.
- Pinch (zoom out): Touch the screen with two fingers and bring them closer together.
- Spread (zoom in):
  Touch the screen with two fingers and move them apart.

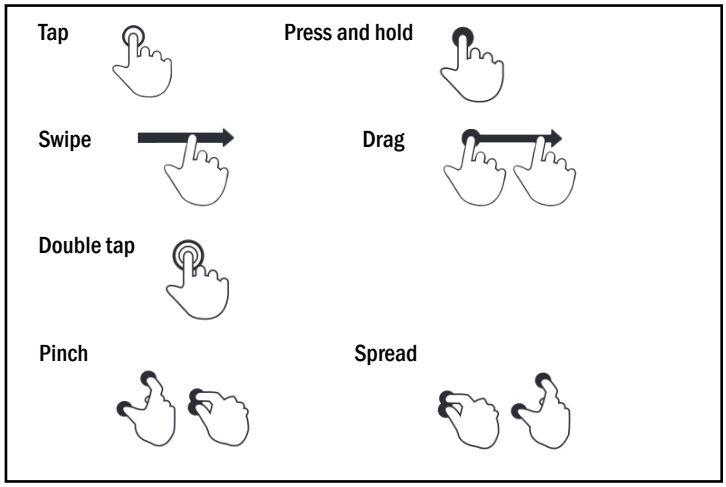


Fig. 43: Touchscreen gestures

5.2 User Interface of SMART COMMAND

The interface of SMART COMMAND is split into two subsections (see Fig. 44).

Ⓐ **Sidebar**
The sidebar is always displayed on the left edge of the user interface (see chapter 5.2.1).
It comprises buttons to call up the main menu, the application overview, and assignable buttons. It also displays the operation mode and version of SMART COMMAND.

Ⓑ The remaining area of the interface is designed to display SMART COMMAND contents and varies depending on the application.

- **Operating mode** – SMART COMMAND is always started in operating mode. This is where applications can be executed in different windows (see chapter 5.2.2).
- **Main menu** – You can implement settings and configurations via the main menu (see chapter 5.2.3).
- **Application overview** – Overview of all available SMART COMMAND applications and ISOBUS applications (if a SMART VT license is available) (see chapter 5.2.4).

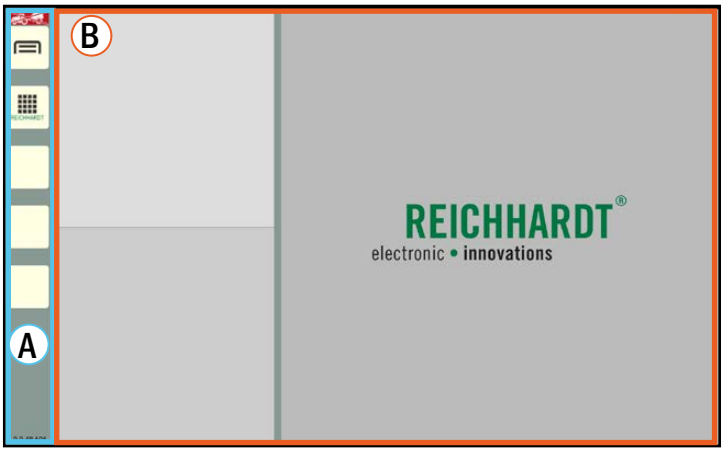


Fig. 44: User interface of SMART COMMAND in operating mode

5.2.1 Sidebar – Permanently Visible Buttons and Information

The sidebar is located on the left side of SMART COMMAND and is always visible (see Fig. 45).
It is also displayed when an application is operated in full screen mode (see chapter 5.5.6).

① The sidebar contains buttons via which menus, settings, and applications can be called up amongst other things (see chapter 5.2.1.1).

② It also provides information about the operation mode (see chapter 5.2.1.2).

③ It also displays the version that is being used (see chapter 5.2.1.3).

(If you are using a mobile end device with the SMART COMMAND app, the sidebar may be a different color based on the operation mode (see chapter 6.4.2.1).

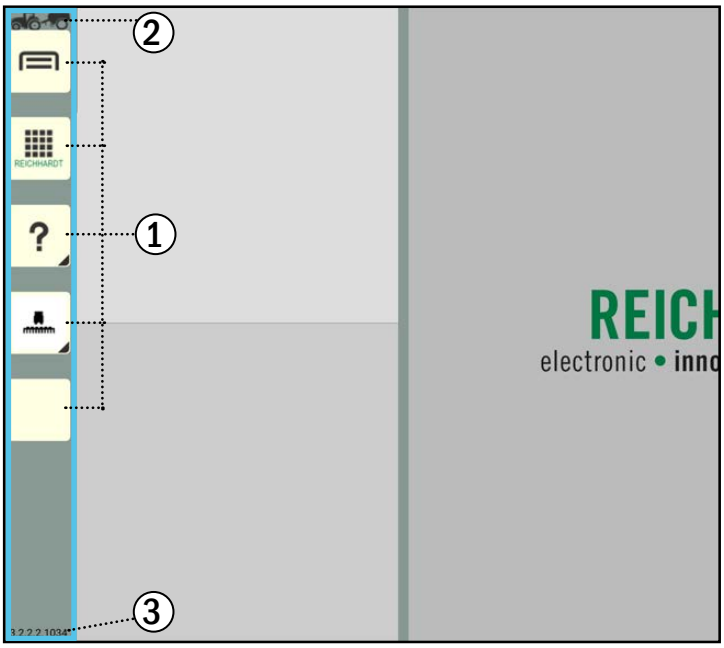


Fig. 45: Sidebar in SMART COMMAND

5.2.1.1 Overview of the Buttons

Show main menu/Hide main menu (show operating mode)

This button is used to show and hide the main menu.
When the main menu is hidden, the operating mode is displayed with the application windows.
The settings for SMART COMMAND and for the individual applications can be implemented in the main menu (see chapter 5.2.3).

Show application overview/Hide application overview (show operating mode)

This button is used to show and hide the application overview.
When the application overview is hidden, the operating mode is displayed with the application windows.
The application overview contains the SMART COMMAND and ISOBUS applications (see chapter 5.2.4).

In the event of unexpected system states, a flashing warning symbol is displayed on the button.
The associated warning can be called up and resolved via the SMART COMMAND "Exception handler" application. Please refer to chapter 12.1.

3 assignable buttons

The third to fifth buttons can be assigned freely. An application can be assigned to them to create a shortcut (see chapter 5.4).

Full screen mode/Exit full screen mode

This button is only displayed if an application is running in the main window of operating mode. By pressing this button, you can display this application in full screen mode (full screen incl. sidebar) (see chapter 5.5.8).
The button symbol changes in full screen mode. Tapping it will close full screen mode again.

5.2.1.2 Operation Mode Symbol

Different symbols that provide information about the selected operation mode and system availability are displayed in the top left corner of the sidebar in SMART COMMAND.

The operation mode is crucial for using SMART GUIDE (see chapter 8) and the configuration (see chapter 6.4).

The operation mode can be selected or determined automatically in the SMART COMMAND configuration. For more information on the operation mode refer to chapter 6.4.2.1.

Symbol meanings

Machine combination mode – SMART COMMAND connected to vehicle and machine combination ready for operation.
All of the SMART COMMAND components are connected correctly, the machine combination is selected and ready for operation. The SMART GUIDE and SMART COMMAND configuration can be used.

Machine combination mode – There are restrictions.
No machine combination selected, selected machine combination is not configured sufficiently, or SMART COMMAND has lost the connection to ISO FLEX (when using the SMART COMMAND app) or the vehicle CAN bus (when using the SMART COMMAND terminal).

Vehicle or implement is currently being configured.
The SMART GUIDE and SMART COMMAND configuration cannot be called up as long as the configuration is active. The configuration of the vehicle/implement is restricted if there is no connection to the ISO FLEX (if using the SMART COMMAND app) or the vehicle CAN bus (if using the SMART COMMAND terminal).

Office mode – Office activities without error messages (only available in SMART COMMAND app).
Error messages relating to missing connections to the ISO FLEX or vehicle CAN bus are disabled. Perfect for administrative work conducted from the office, including, for example, managing users, updating SMART COMMAND, or importing/exporting Smart Farming data.

Show user and machine combination screen via operation mode symbol

Pressing and holding the operation mode symbol will call up the user and machine combination screen (see Fig. 46).

The screen is displayed for 10 seconds.

Tapping it will immediately hide the display.

To be able to use this function, there must be a connection to the ISO FLEX (if using the SMART COMMAND app) or the vehicle CAN bus (if using the SMART COMMAND terminal). The set machine combination can otherwise not be selected and displayed by SMART COMMAND.

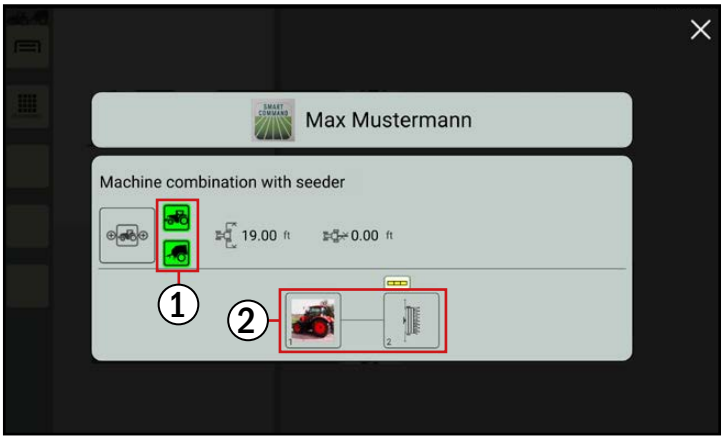


Fig. 46: Show the user and machine combination screen

5.2.1.3 Display of the SMART COMMAND Version

The version of SMART COMMAND being operated is displayed (see Fig. 47).

Fig. 47: SMART COMMAND version at the bottom of the sidebar

5.2.2 Operating Mode – Executing and Operating Applications

The operating mode is displayed after SMART COMMAND is started and when the main menu or application overview are hidden.

In operating mode, at least three windows are displayed in which applications can be executed (see Fig. 48 and Fig. 49). An explanation of the applications is provided in chapter 5.2.4. How to start and shut down applications is detailed in chapter 5.5.

Applications that were active in the windows the last time SMART COMMAND was shut down, are opened again.

(A) Small window

Any number of small windows (although at least two) can be arranged underneath one another in the left area to execute applications. Two small windows are displayed as standard.

> ***NOTICE***
>
> The full functional scope of applications that are executed in small windows may not be available.
>
> Functions, that are usually called up by swiping or by pressing and holding, are blocked in the small windows as applications in small windows can be dragged into other windows when pressed and held.
>
> The same applies to the swiping function as this is used to scroll through more than two small windows.

(B) Main window

A large window, the main window, is located on the right.
The full functional scope is available for an application that is executed in the main window.

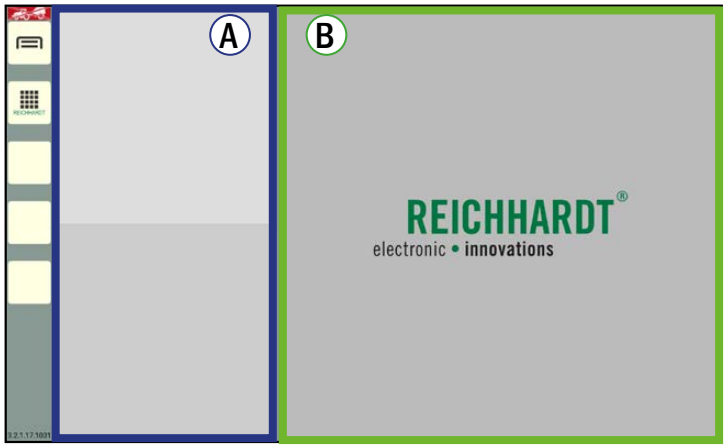


Fig. 48: Operating mode of SMART COMMAND

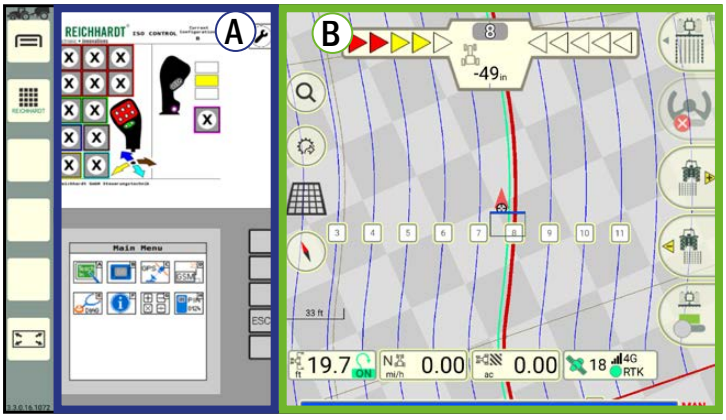


Fig. 49: Operating mode of SMART COMMAND with active applications

5.2.3 Main Menu – Implementing Settings and Configurations

Settings and configurations for SMART COMMAND can be implemented in the main menu.

Tap this button in the sidebar to show/hide the main menu.
The operating mode is displayed when the main menu is hidden.

5.2.3.1 Overview of Menu Contents

The main menu is split into two subsections (see Fig. 50):

Ⓐ **Menu tree**

When navigating the main menu, this is expanded towards the right on the left side of the screen across a maximum of three levels.

Menu items that are not selected are displayed in beige.
Selected menu items and higher level menu items are displayed in yellow.

Inactive menu item (beige)

Active menu item (yellow)

Ⓑ **Settings and configurations**

The settings and configurations that you can implement in the individual menu items are displayed on the right in a separate window.

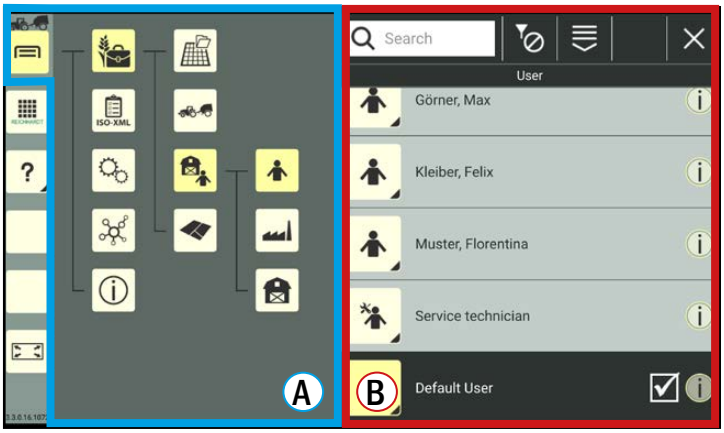


Fig. 50: User settings in the main menu

5.2.3.2 Menu Structure

The main menu is divided into a maximum of five menu items that have additional submenus on up to three levels - depending on the license (see Fig. 51 and Fig. 52). This is where you can implement the settings and configurations for SMART COMMAND and the individual applications.

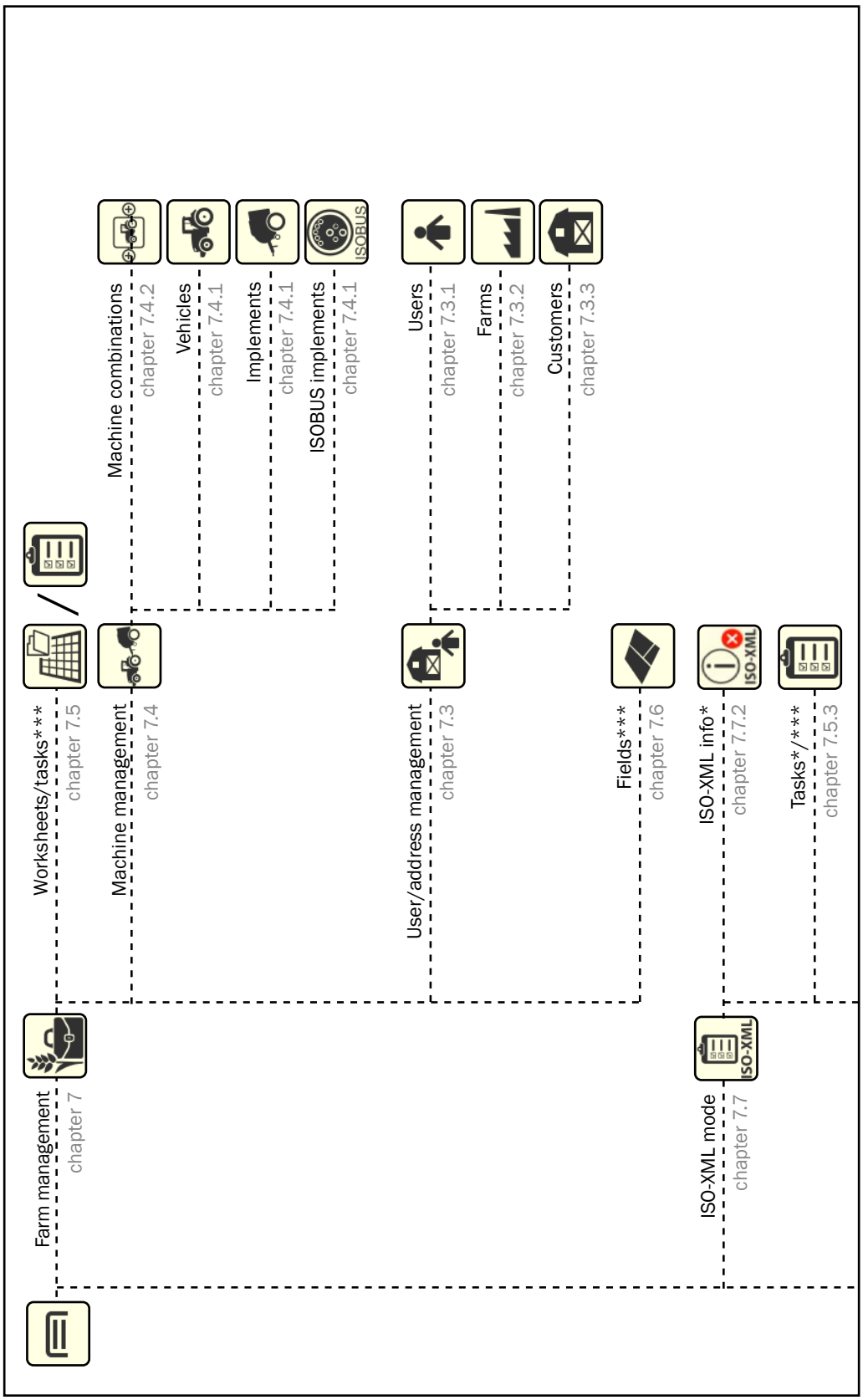


Fig. 51: Menu structure 1/2

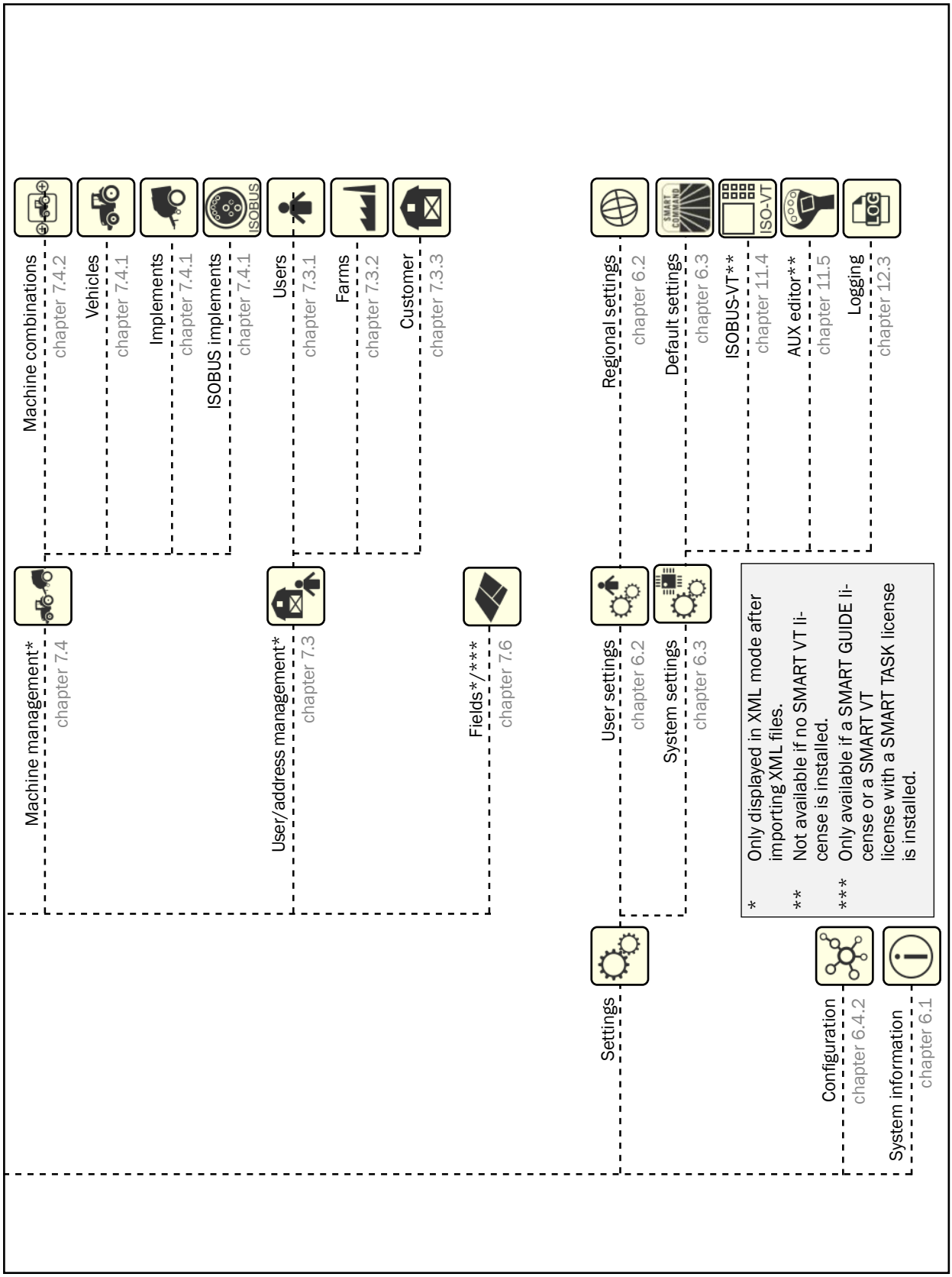


Fig. 52: Menu structure 2/2

5.2.4 Application Overview – List of All Available Applications

Tap this button in the sidebar to show/hide the application overview.
The operating mode is displayed automatically when the application overview is hidden.

The application overview can, in principle, be made up of two lines. These contain different applications (see Fig. 53 and Fig. 54):

- Upper line: SMART COMMAND applications
- Bottom line: ISOBUS applications

The display and operation of ISOBUS applications is only available if a SMART VT license is installed.

Five applications can be displayed simultaneously in each line. If there are more applications, you can scroll through them horizontally.

5.2.4.1 SMART COMMAND Applications

SMART COMMAND applications are displayed in the upper line (see Fig. 53).
These include:

Exception handler
(see chapter 12.1)

SMART GUIDE
(only if a SMART GUIDE license is installed; see chapter 8).

Help/context help
(see chapter 9)

Import/Export
(see chapter 10)

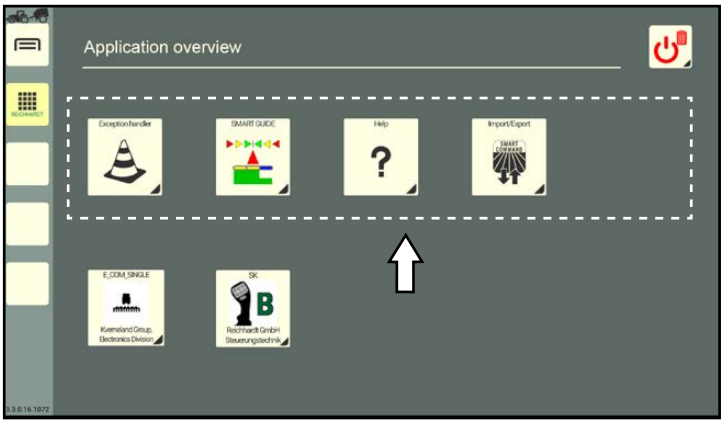


Fig. 53: SMART COMMAND applications

5.2.4.2 ISOBUS Applications (only with SMART VT License)

ISOBUS applications are displayed in the bottom line (if a SMART VT license is installed) (see Fig. 54).
The operating screens of ISOBUS devices can be displayed and the ISOBUS devices can be operated via these applications.

The following prerequisites must be met:

- ISOBUS devices are connected to the vehicle,
- a SMART VT and SMART TASK license are installed,
- the VT settings are set in such a way that the ISOBUS applications are loaded in SMART COMMAND.

More information about the use of ISOBUS applications is provided in chapter 11.

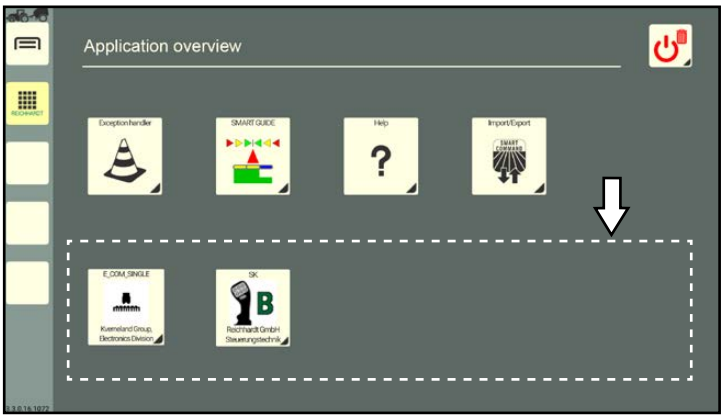


Fig. 54: ISOBUS applications (SMART VT)

5.2.4.3 Information about the Availability of Applications

If all of the applications are not available, this can be for one of the listed reasons.

5.2.4.3.1 Object Pool of an ISOBUS Device Being Loaded

If ISOBUS devices are connected for the first time the object pool (screen data) is initially loaded.

An object pool that has not finished loading can be recognized by the ISOBUS symbol with a progress bar (see Fig. 55 – 1).

A progress bar is also displayed on the menu item for the application overview in the sidebar (see Fig. 55 – 2).

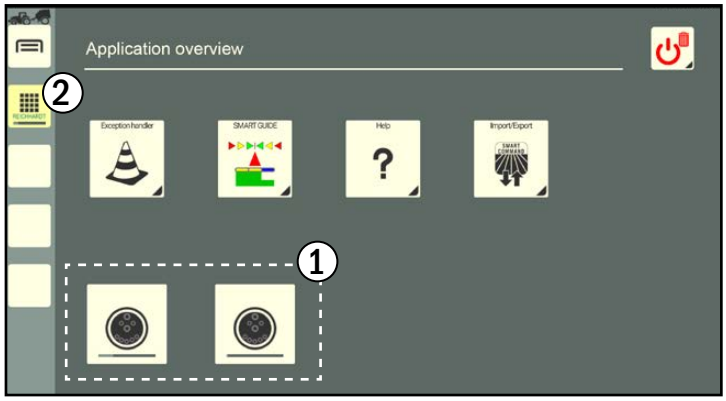


Fig. 55: Object pool being loaded

5.2.4.3.2 SMART VT License Not Recognized

If no ISO VT license is detected, the symbol illustrated in Fig. 56 is displayed.

This can be caused by one of the following:

- You do not have a SMART VT license.
- You are using the SMART COMMAND app with a mobile end device that is not connected to an ISO FLEX or is connected to the wrong ISO FLEX.

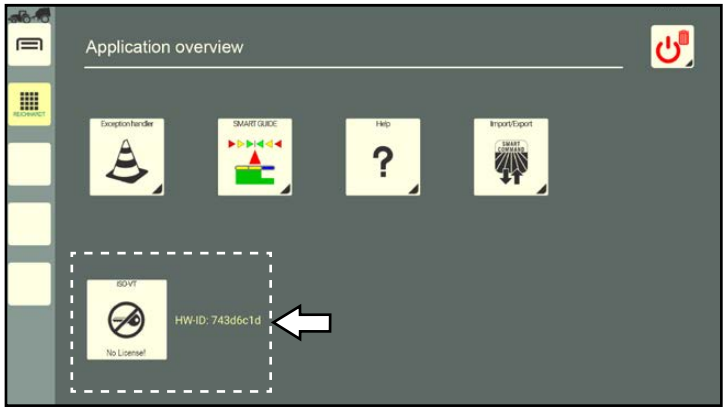


Fig. 56: ISO VT license not recognized

5.2.4.3.3 SMART GUIDE License Not Recognized

If no SMART GUIDE license is detected, the symbol illustrated in Fig. 57 is displayed.

This can be caused by one of the following:

- You do not have a SMART GUIDE license.
- You are using the SMART COMMAND app with a mobile end device that is not connected to an ISO FLEX or is connected to the wrong ISO FLEX.

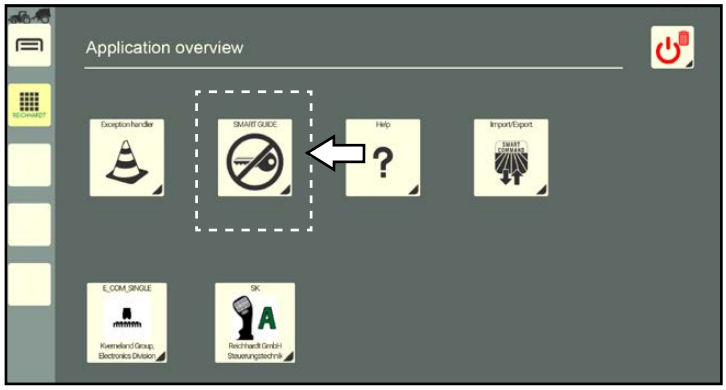


Fig. 57: SMART GUIDE license not recognized

5.2.4.4 Delete/Exit Button in the Application Overview

The Delete/Exit button in the application overview has several functions. You can use it to

- remove the assignment of a shortcut by dragging it on to this button (see chapter 5.4.3);
- terminate an application by dragging it on to this button (see chapter 5.5.8);
- dim the screen by tapping it and making a selection (see chapter 5.6);
- shut down SMART COMMAND by tapping it and making a selection (see chapter 5.7).

The Delete/Exit button is a long press button (see chapter 5.3).

Fig. 58: Delete/Exit button in the application overview

5.3 Long Press Buttons – Buttons with a Black Triangle

In SMART COMMAND there are various objects via which you can carry out actions or implement settings. These objects include buttons, symbols, slide bars, selection lists (drop-down menus), checkboxes, etc., that are generally intuitive to operate.

Some of the buttons have a small triangle in the bottom right corner. The function of these long press buttons is initiated by pressing and holding or dragging them (the gestures are explained in chapter 5.1).
Long press buttons often have a second function that is triggered by tapping it.

The following provides an overview of some examples.

Users within the user administration (see chapter 7.3.1) can

- be pressed and held (to edit users; see Fig. 59) or
- be tapped (to select a user; see Fig. 60).

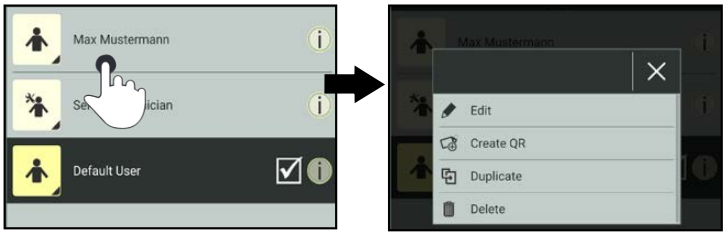


Fig. 59: Opening a user context menu by pressing and holding

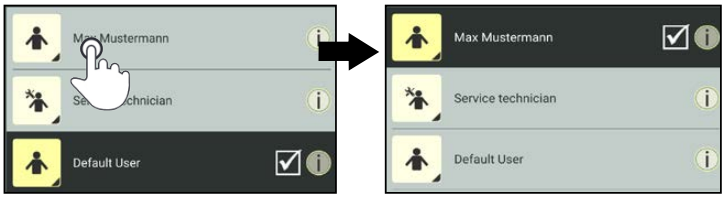


Fig. 60: Selecting a user by tapping

The applications in the application overview can

- be tapped (to execute an application in the main window of the operating mode; see chapter 5.5.1) or
- be dragged (to assign a shortcut to an application or to execute an application in any window; see chapter 5.4.1 or chapter 5.5.2).

Shortcuts (button to which an application is assigned) in the sidebar can

- be tapped (to execute an application in the main window of the operation mode; see chapter 5.5.1) or
- be dragged (to execute an application in any window of the operation mode; see chapter 5.5.2).

However, long press buttons must not be confused with selection lists that display a selection list when the small arrow is tapped (see Fig. 61).

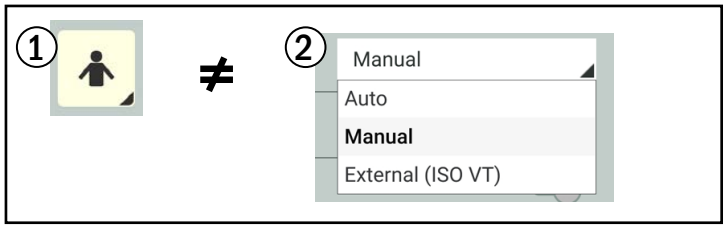


Fig. 61: Long press button and selection list

5.4 Shortcuts – Assignable Buttons in the Sidebar

You can assign applications to a maximum of three shortcuts on the sidebar.

5.4.1 Creating a Shortcut – Assigning an Application to a Button

Proceed as follows:

1. Open the application overview.
2. Press and hold the corresponding application in the application overview (see Fig. 62).

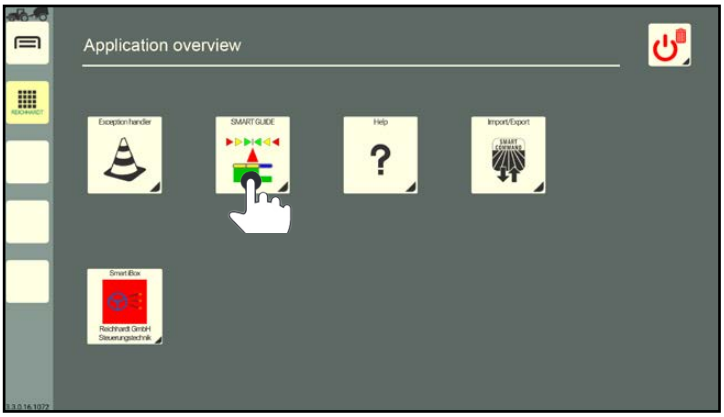


Fig. 62: Pressing and holding the application

3. Drag the application on to an assignable button on the sidebar (see Fig. 63).

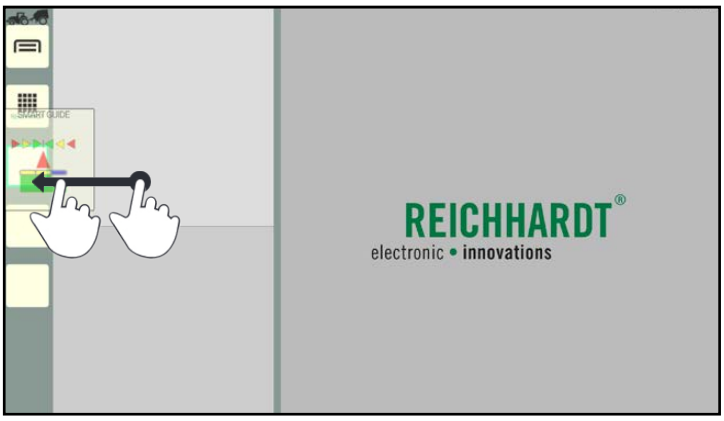


Fig. 63: Dragging the application to an assignable button and letting go

4. Let go (see Fig. 64).

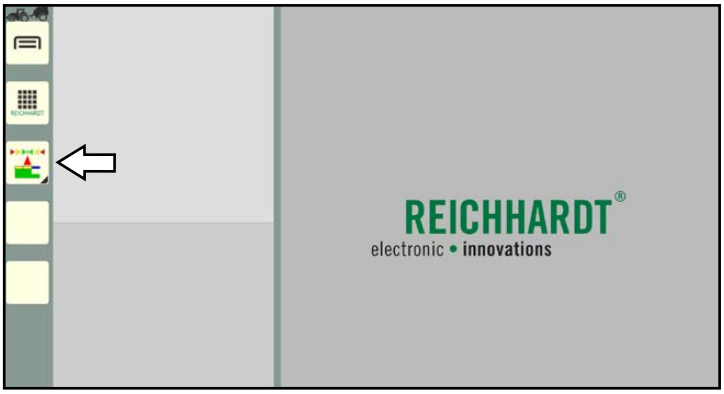


Fig. 64: Shortcut for SMART GUIDE in the sidebar

You can also create a shortcut by dragging a running application from a small window on to an assignable button (see Fig. 65 and chapter 5.5).

However, applications cannot be dragged from the main window on to an assignable button.

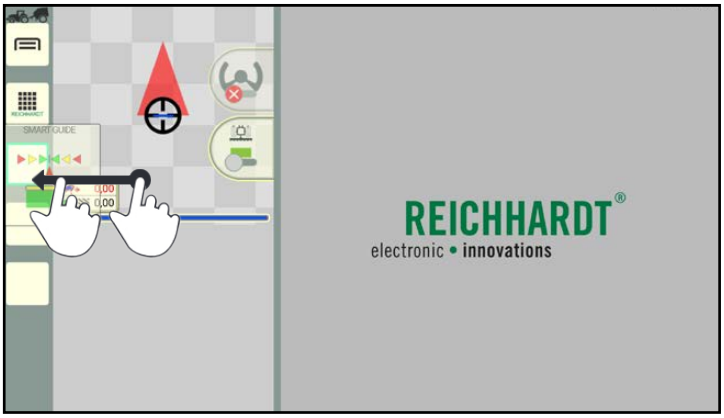


Fig. 65: Dragging an application from a small window to an assignable button and letting go

5.4.2 Moving a Shortcut

Press and hold the shortcut and drag the application to another assignable button (see Fig. 666).

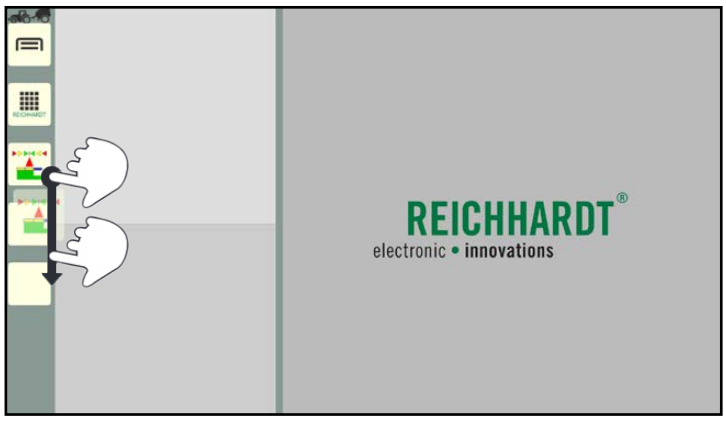


Fig. 66: Moving a shortcut

5.4.3 Deleting the Assignment of a Shortcut

1. Open the application overview.
2. Press and hold the Delete/Exit button (see Fig. 67).

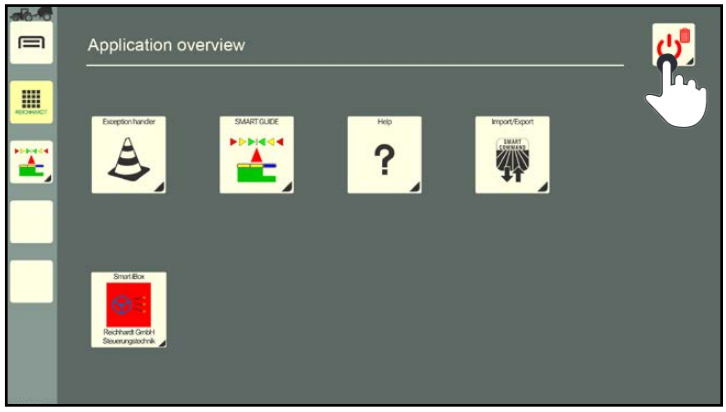


Fig. 67: Pressing and holding the Delete/Exit button

3. Drag the Delete/Exit button on to the shortcut for which you wish to remove the assignment (see Fig. 68).
4. Release the button.

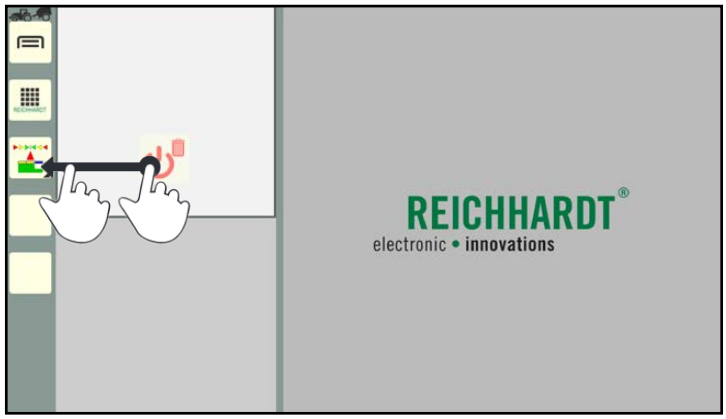


Fig. 68: Dragging the Delete/Exit button on to the shortcut

5.5 Executing Applications in Operating Mode Windows

SMART COMMAND and ISOBUS applications are executed in operating mode windows. There are ways in which an application can be executed. These are explained in the following.

5.5.1 Tapping the Application and Executing it in the Main Window

Tapping is the fastest and simplest way to display an application in the main window.

It is possible to tap an application via

- the application overview (see Fig. 69),
- a shortcut in the sidebar (see Fig. 70).

After tapping an application, the operating mode is displayed and the application is started in the main window (see Fig. 71).

Exception:
Help shortcut.
If this is tapped, the context help opens (see chapter 9.2).
Help can only be called up via the application in the application overview.

Observe the following rules for tapping applications:

- If the tapped application is already being executed in a small window, it will be executed in the main window after being tapped.

  If a different application is already active in the main window, then the applications will be swapped.
- If a different application is already active in the main window when the second one is tapped, the first application is automatically moved to a small window.

NOTICE

Applications that are automatically moved to a small window when a new application is tapped may not have access to the full scope of functions.
Functions that are usually called up by pressing and holding, for example, are blocked in the small windows, as applications in small windows can be dragged into other windows when pressed and held.

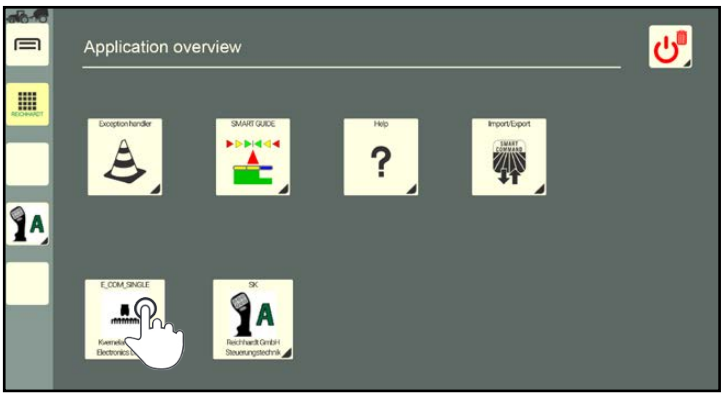


Fig. 69: Tapping the application in the application overview

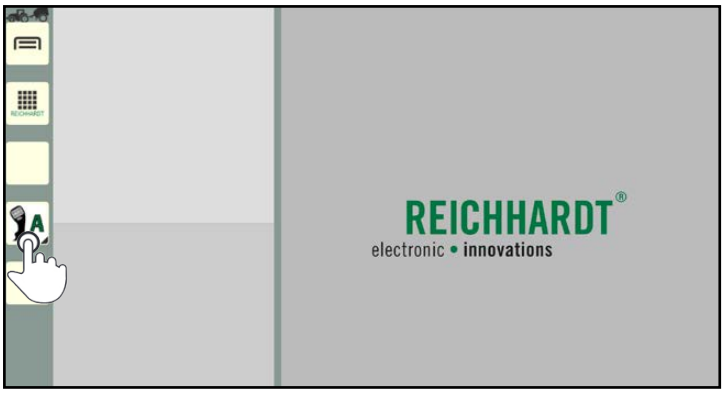


Fig. 70: Tapping a shortcut for an application in the sidebar

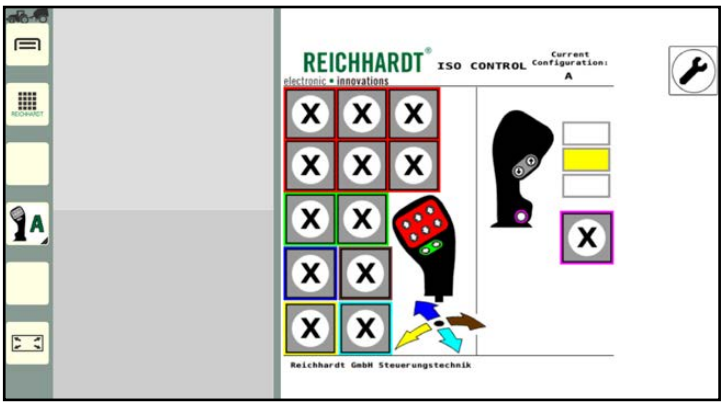


Fig. 71: Executing the application in the main window

5.5.2 Executing the Application in Any Window

To execute an application in any window of the operating mode, they must be dragged into the corresponding window.

It is possible to drag an application to any window

- from a shortcut on the sidebar (see chapter 5.5.2.1),
- from the application overview (see chapter 5.5.2.2) or
- from any small window (see chapter 5.5.2.3).

NOTICE

You cannot drag the application from the main window to the small window.

NOTICE

Applications that are executed in small windows may not have access to the full scope of functions of the application. Functions that are usually called up by pressing and holding, for example, are blocked in the small windows, as applications in small windows can be dragged into other windows when pressed and held.

A simplified version of SMART COMMAND applications is generally displayed in small windows. The full scope of functions for these applications can only be used in the main window.

Observe the following rules for dragging applications:

- If an application, that is dragged into a window, is already being executed in another window, it is terminated in the other window.
- If the selected application is dragged into a small window in which an application is already being executed, the previously executed application is terminated and replaced by the selected application.

NOTICE

If you drag an application in to a small window in which the SMART GUIDE application is being executed, it will be terminated. The guidance and automatic steering system are deactivated immediately.

5.5.2.1 Dragging a Shortcut from the Sidebar in to the Window

1. Drag the shortcut from the sidebar into any window (see Fig. 72).

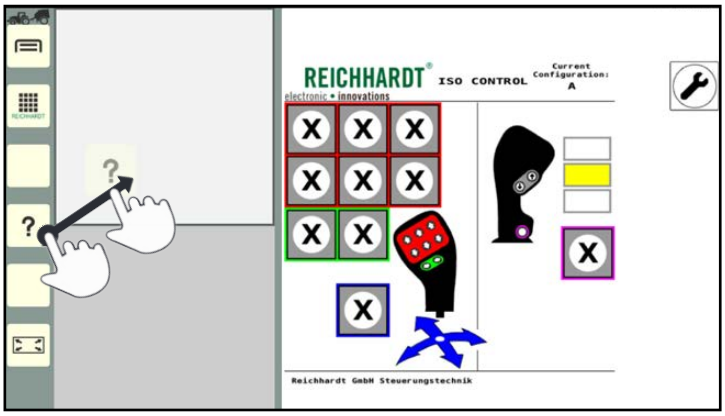


Fig. 72: Pressing and holding the application shortcut in the sidebar

2. Let go of the application above the required window (see Fig. 73).

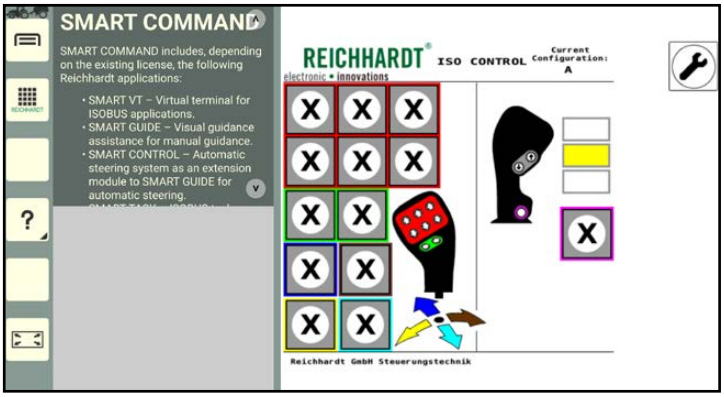


Fig. 73: Letting go of the application above the required window

5.5.2.2 Dragging the Application from the Application Overview into the Window

1. Press and hold the application symbol in the application overview (see Fig. 74).

   The operating mode is automatically displayed with the windows (see Fig. 75).

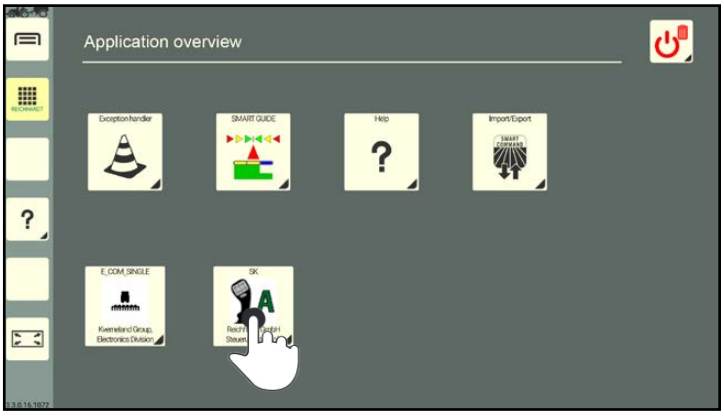


Fig. 74: Pressing and holding the application symbol in the application overview

2. Drag the application into any window (see Fig. 75).

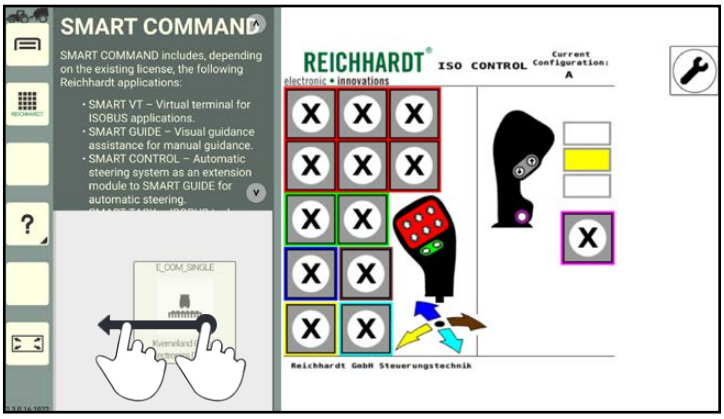


Fig. 75: Dragging the application into the required window

3. Let go of the application above the required window (see Fig. 76).

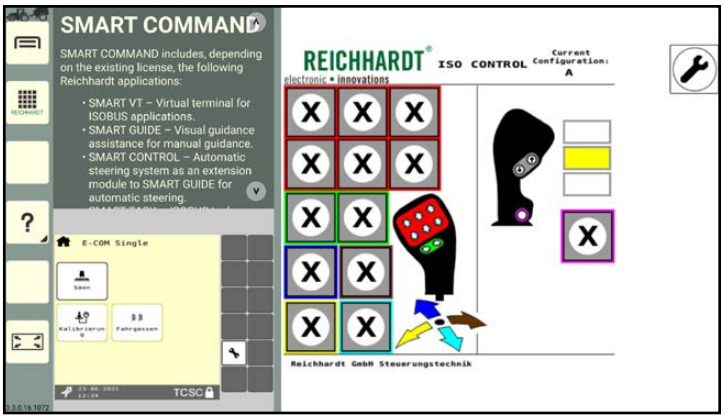


Fig. 76: Letting go of the application above the required window

5.5.2.3 Dragging the Application from a Small Window to Another Window

1. Press and hold the application in the small window until the application symbol appears (see Fig. 77).

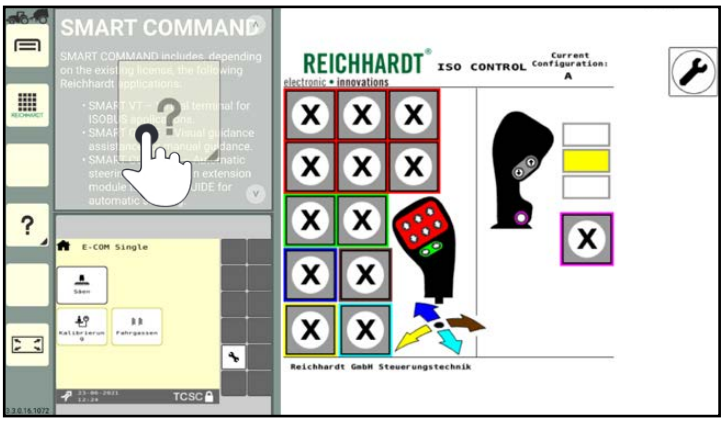


Fig. 77: Pressing and holding the application in the small window

2. Drag the application into any window (see Fig. 78).

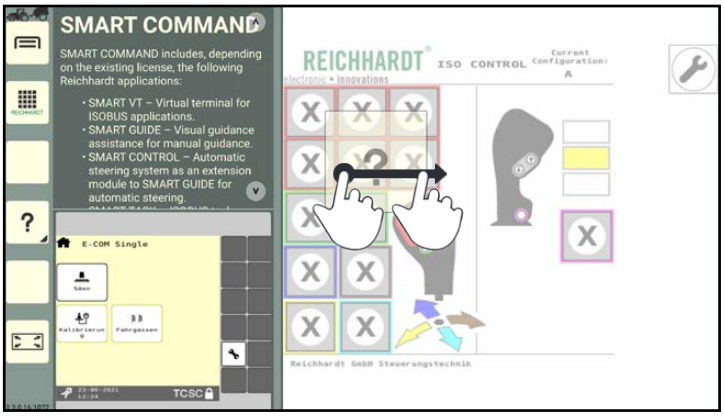


Fig. 78: Dragging the application into the required window

3. Let go of the application (see Fig. 79).

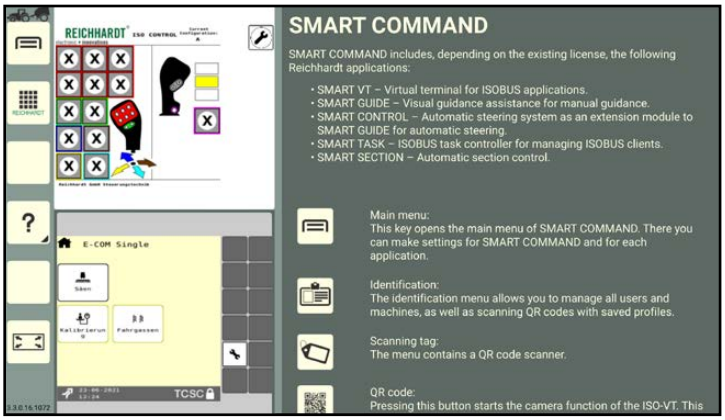


Fig. 79: Letting go of the application in the required window

5.5.3 Adding a Small Window in Operating Mode – Executing More than Three Applications

There are two small windows as standard. However, you can add as many small windows as you like. A prerequisite is that applications are already being executed in the two standard small windows.
The small windows are displayed underneath one another and you can scroll through them vertically.

To add a new small window with an application, proceed as follows:

1. Press and hold an application in the application overview or a shortcut on the sidebar (see Fig. 80).

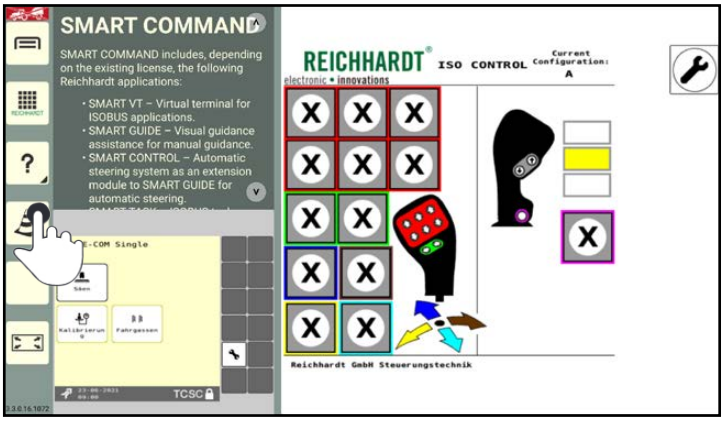


Fig. 80: Pressing and holding the application

2. Drag the application into the area of the small window.
3. Position the application above the first, underneath the last, or between any two small windows.
4. Wait until a small, empty window stands out (see Fig. 81).
5. Let go of the application above the empty window to position it.

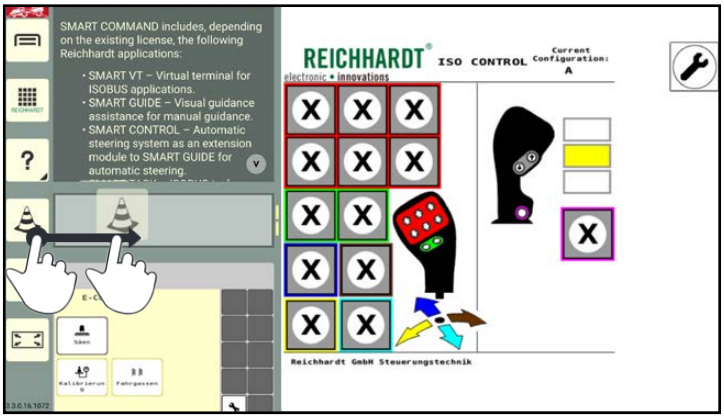


Fig. 81: Positioning the application in the small window

6. Swipe vertically to scroll through the window.

   A small yellow bar on the side of the small window indicates the number of available small windows (see Fig. 82).

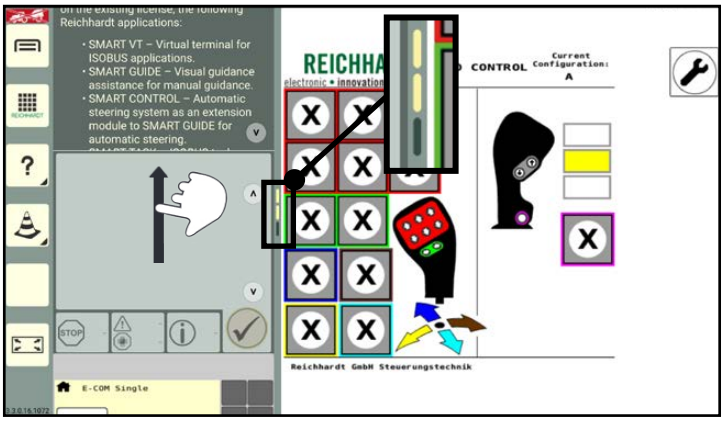


Fig. 82: Number of available windows/scrolling through the small window

5.5.4 Changing the Order of the Applications in the Small Windows

The order of the applications in the small windows can be changed:

1. Press and hold a fingers on a small window (see Fig. 83).

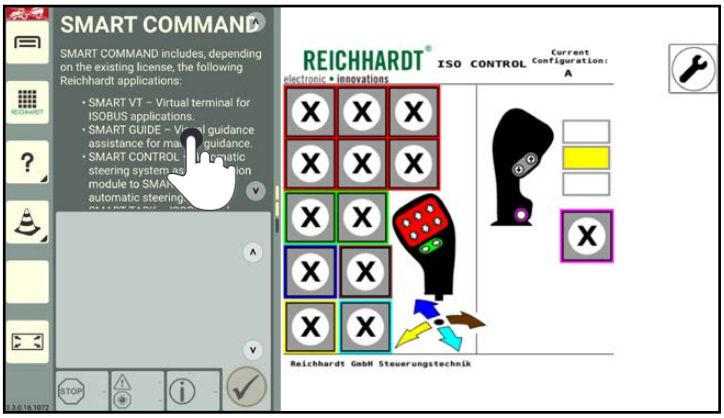


Fig. 83: Pressing and holding an application in the small window

2. Position the application above the first, underneath the last, or between any two small windows (see Fig. 84). In the same way as adding new small windows.

   If you let go of an application directly over another small window, then the application that is being executed in it will be terminated.

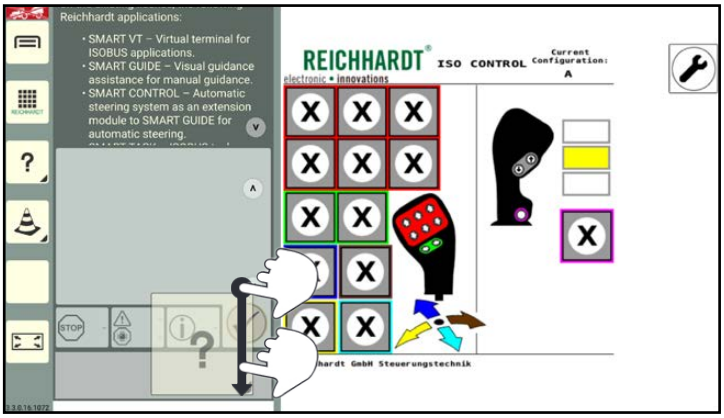


Fig. 84: Moving and positioning an application in a new small window

5.5.5 Operating an Application in a Small Window

The full scope of applications that are displayed in a small window may not be available.

The following provides some examples of this.
Read the relevant section for explanations for specific applications.

SMART COMMAND applications

Exception handler:

A small window displays how many warnings there are for a severity level (see Fig. 85).

Errors that have occurred can be acknowledged in sequence.

By tapping the arrow buttons you can scroll through the full description of the warning. Swiping is not possible.

The exception handler is described in chapter 12.1.

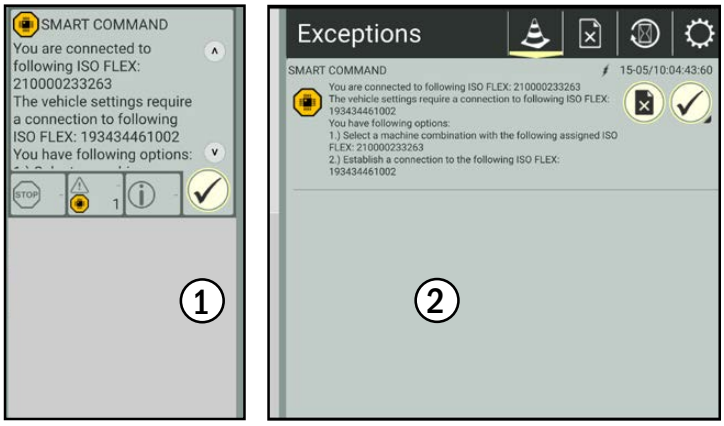
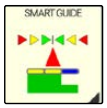


Fig. 85: Troubleshooting in the small window (1) and main window (2)



SMART GUIDE:

The machine combination in the field, direction of travel, speed, and area counter are displayed in a small window (see Fig. 86).

In addition, SMART GUIDE can be activated or deactivated and the area marking can be switched on/off.

The SMART GUIDE application is described in chapter 8.

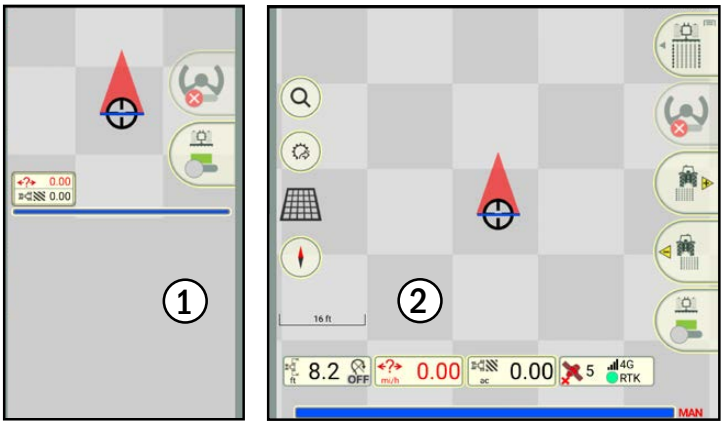


Fig. 86: SMART GUIDE in the small window (1) and main window (2)

Help:

The depiction of Help in a small window only differs slightly to that in a main window. Text and images are displayed in the same size but are closer together because of the reduced amount of space (see Fig. 87).

You can navigate the content by tapping the arrow buttons. Swiping is not possible.

Help is described in chapter 9.

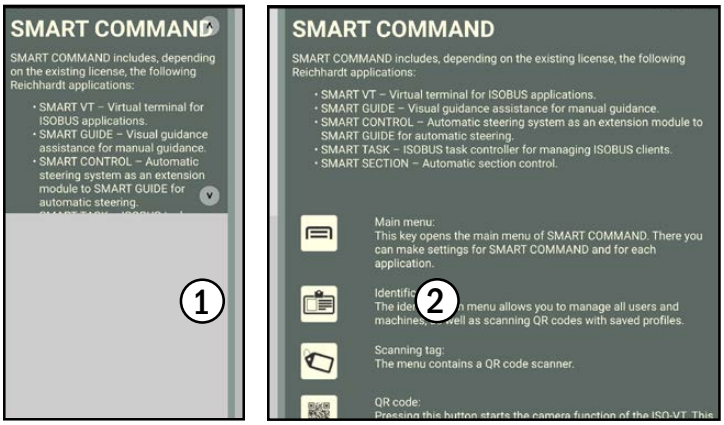


Fig. 87: Help in the small window (1) and main window (2)

Import/Export:

The “Import/Export” application cannot be used in the small window (see Fig. 88).
This application must be used in the main window.

The “Import/Export” application is described in chapter 10.

Fig. 88: “Import/Export” application in the small window (1) and main window (2)

ISOBUS applications

Example: ISO CONTROL

ISOBUS applications are displayed in the same way in a small window as in the main window.
However the size of the window doesmean that they are smaller.

Functions that are initiated by dragging, swiping, or pressing and holding in the operating screen of the ISOBUS device are not available in the small window.

The operation of ISOBUS applications with SMART VT is explained in chapter 11.

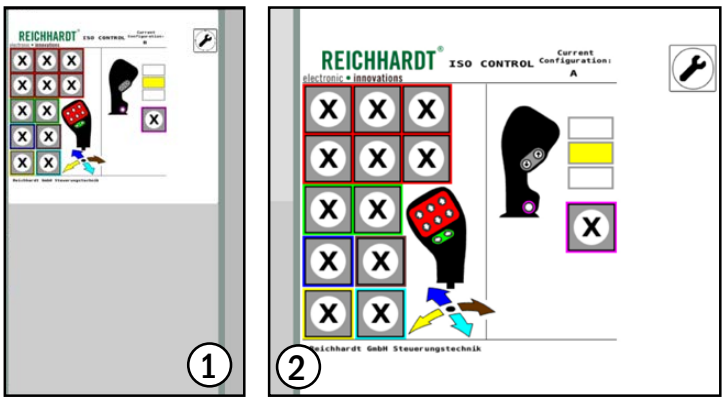


Fig. 89: ISOBUS application of the ISO CONTROL joystick in the small window (1) and main window (2)

5.5.6 Displaying the Application in Full Screen Mode in the Main Window

An application executed in the main window can be displayed in full screen mode. The small windows are hidden during this process. However, the hidden applications continue to be executed.

Activating full screen mode

As soon as an application is executed in the main window, the full screen mode button appears at the bottom of the sidebar.

Tap the full screen mode button to activate full screen mode (see Fig. 90).

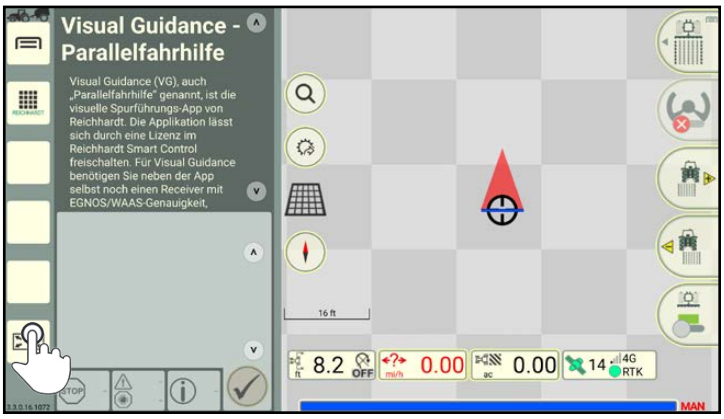


Fig. 90: Tapping full screen mode

Full screen mode is then activated and the full screen mode button changes (see Fig. 91).

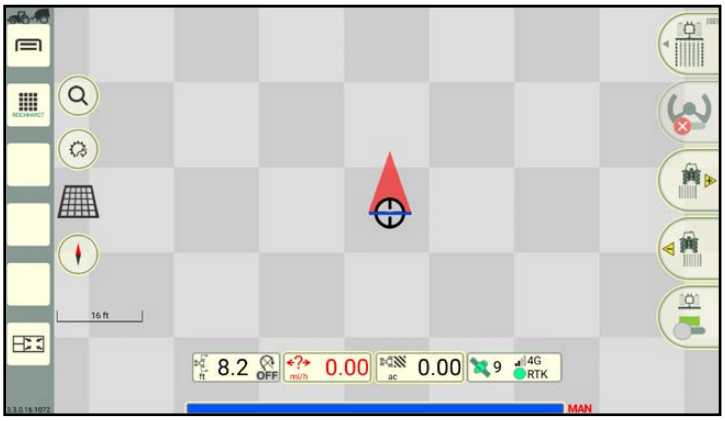


Fig. 91: Full screen mode activated

Exiting full screen mode

Tap the exit full screen mode button on the bottom left of the sidebar to exit full screen mode and to display the small windows again (see Fig. 91).

5.5.7 Paused Applications (SMART COMMAND App Only)

If the SMART COMMAND app is not connected to the ISO FLEX (Office mode or disconnected WLAN),

- the running ISOBUS applications are replaced with an ISOBUS connector symbol;
- the SMART GUIDE application is not available because the license and/or the position data are not available (see Fig. 92).

The applications are executed again once the app is connected to the ISO FLEX again.

Further information on checking the connection is provided in chapter 4.9.

Information on establishing a connection is provided in chapter 4.1.3.

Information on Office mode is provided in chapter 6.4.2.1.

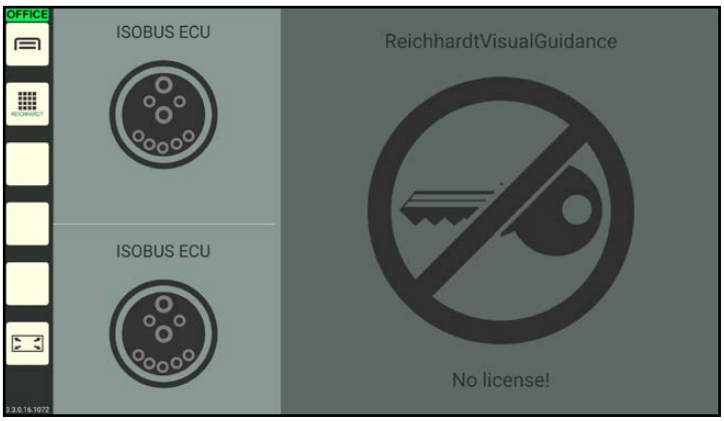


Fig. 92: ISOBUS applications in Office mode

5.5.8 Terminating an Application

1. Open the application overview.
2. Press and hold the Delete/Exit button (see Fig. 93).
3. Drag the Delete/Exit button on to the window in which the application is being executed and let it go (see Fig. 94).

The application will then be terminated.

If the Delete/Exit button is dragged on to the top application in a small window, the remaining applications will move up.

NOTICE

If the SMART GUIDE application is terminated during the automatic steering process, then automatic steering will stop immediately.

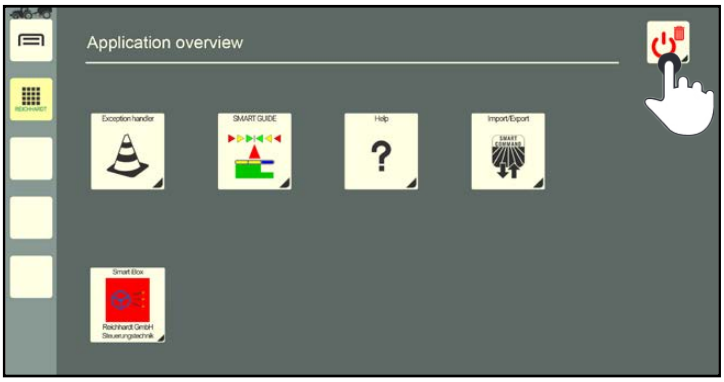


Fig. 93: Pressing and holding the Delete/Exit button

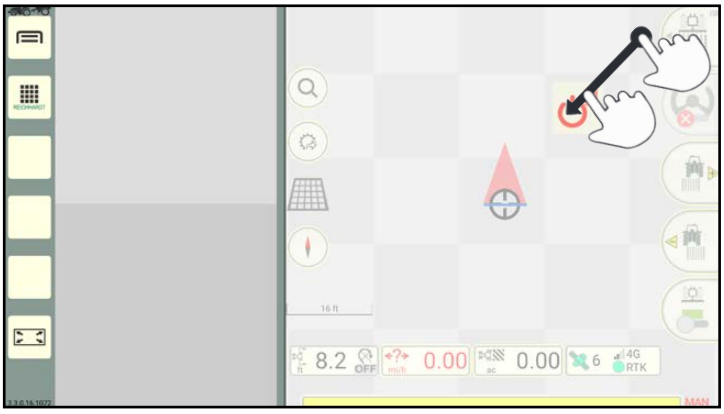


Fig. 94: Dragging the Delete/Exit button on to the application and terminating it

5.6 Using Standby Mode – Dimming the Screen

Activating standby mode

Standby mode is suitable to be used when driving at night between fields (especially on roads) as this will dim the screen and thus prevent you from being dazzled.

SMART COMMAND remains active in the background and can continue to be used afterwards.

⚠ CAUTION

Risk of injury!

Activating standby mode during automatic steering with SMART GUIDE is not recommended.

Deactivate automatic steering beforehand.

To switch on standby mode, proceed as follows:

1. Open the application overview.
2. Tap the Delete/Exit button (see Fig. 95).
3. Tap "Standby" (see Fig. 96).

If you tap "Leave On", the process will be cancelled and the screen will not be dimmed.

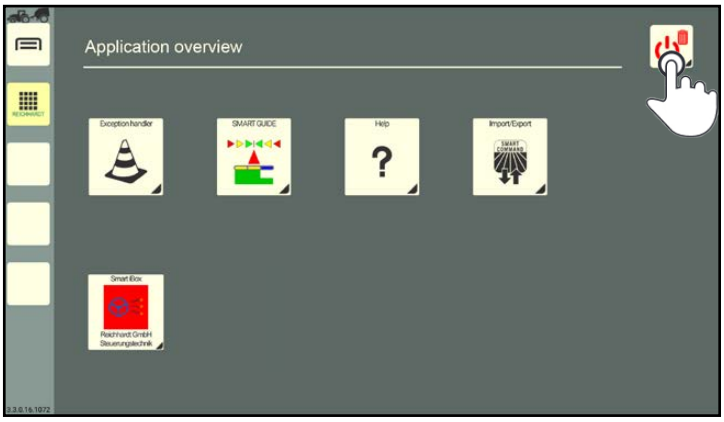


Fig. 95: Tapping the Delete/Exit button

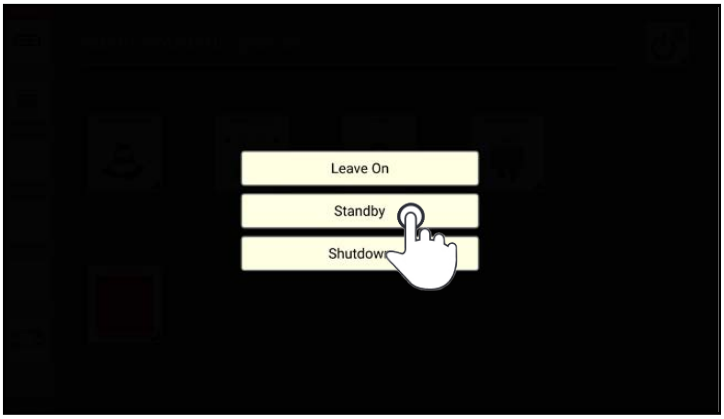


Fig. 96: Activating standby mode

Exiting standby mode – switching on the screen

Tap the deactivated screen to exit standby mode (see Fig. 97).

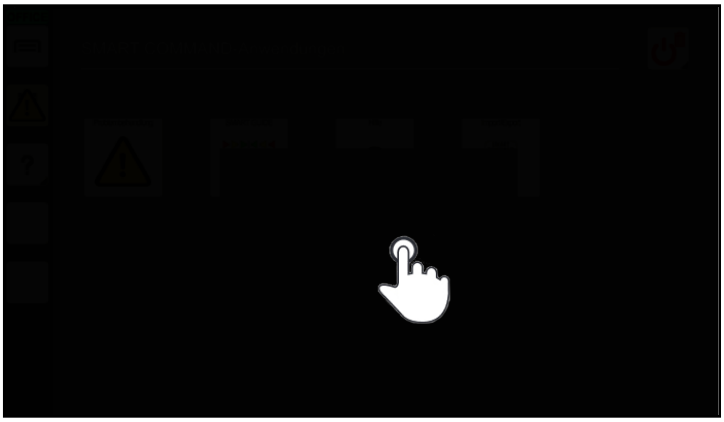


Fig. 97: Exiting standby mode/switching on the screen

5.7 Shutting down SMART COMMAND

To shut down SMART COMMAND proceed as follows:

1. Open the application overview.
2. Tap the Delete/Exit button (see Fig. 98).

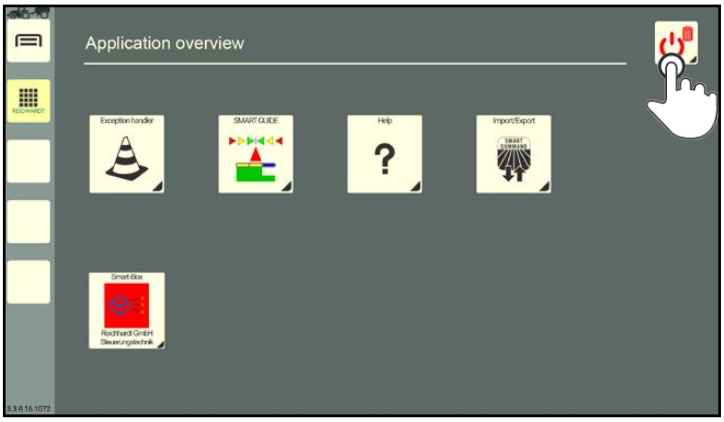


Fig. 98: Tapping the Delete/Exit button

3. Tap "Shutdown" (see Fig. 99).

Tap "Leave On" to cancel the process and continue working with SMART COMMAND.

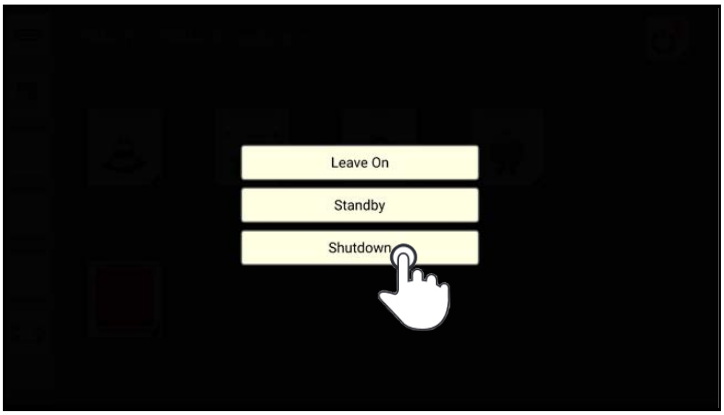


Fig. 99: Shutting down SMART COMMAND

If you turn off the ignition of the vehicle without shutting down SMART COMMAND, then the screen shown in Fig. 100 will be displayed.

If you do not select an action, SMART COMMAND is automatically shut down after 10 seconds.

Alternatively, you can leave SMART COMMAND switched on and leave it to shut down automatically following expiry of the follow-up time in the system settings (see chapter 6.3).

In addition, you can place SMART COMMAND in standby mode (see chapter 5.6) and let it shut down automatically upon expiry of the follow-up time.

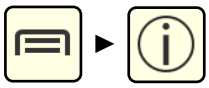
Fig. 100: Shutting down SMART COMMAND by switching off the ignition

6 Settings and Configurations in SMART COMMAND

This section describes the settings that are implemented via the main menu and associated configuration steps.

6.1 System Information

Open the system information about SMART COMMAND via the main menu (see Fig. 101):



The system information is split into two tabs:

About SMART COMMAND

Licenses

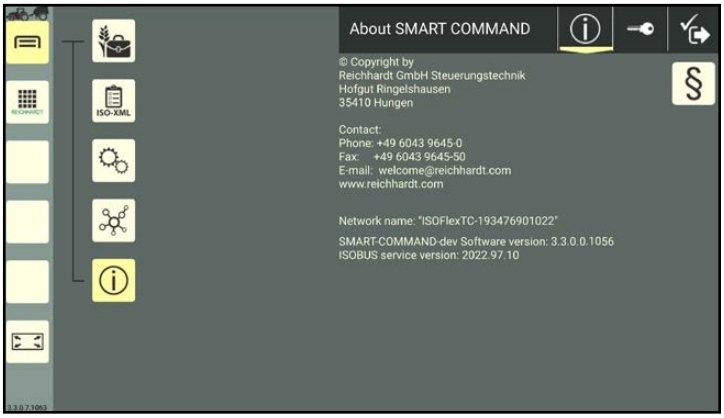


Fig. 101: Opening system information about SMART COMMAND

6.1.1 About SMART COMMAND – Manufacturer and Software Information

The "About SMART COMMAND" tab is displayed as standard when opening the system information (see Fig. 101).

The tab contains the following information about SMART COMMAND:

- Manufacturer's specifications
- Network name: ISO FLEX network designation
- SMART COMMAND version
- ISOBUS service version

A tab button is located in the top right corner of the information page.
Tap it to display legal notes relating to open source licenses (see Fig. 102).

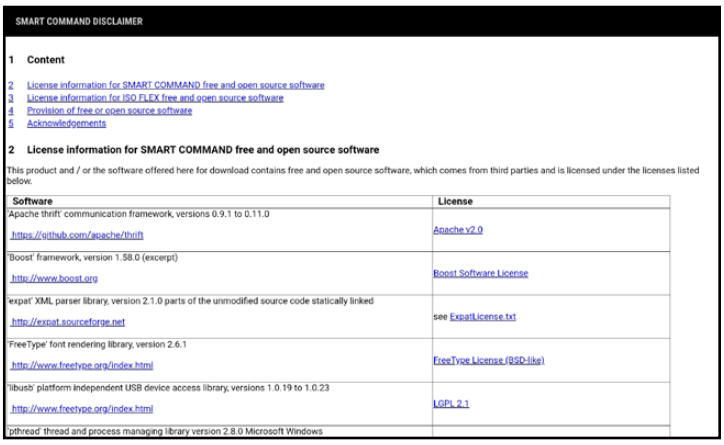


Fig. 102: Legal notes

6.1.2 Licenses – Overview of Existing SMART COMMAND Licenses

Tap the button with the key symbol to display the "Licenses" tab (see Fig. 103).

The tab contains the following information about SMART COMMAND:

- License source (only available for SMART COMMAND app)
- Licenses
- Hardware ID

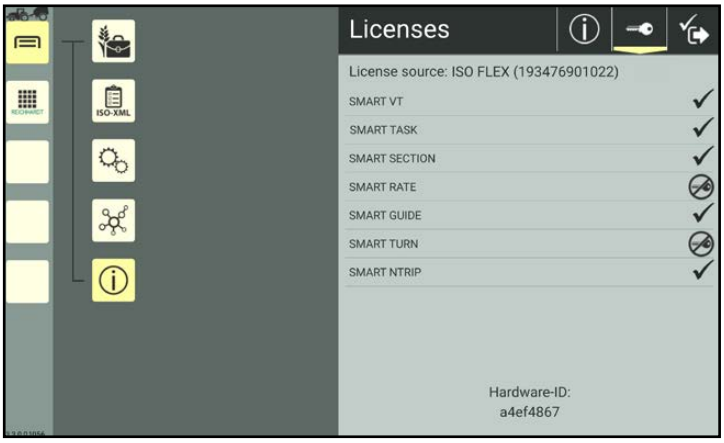


Fig. 103: SMART COMMAND licenses and hardware ID

License source:

The license source shows the identification of the ISO FLEX module that is being used.

Licenses:

All of the available licenses for SMART COMMAND are displayed on the page. Available and unavailable licenses are labelled differently.

Valid license available.

No valid license available.

NOTICE

When using the SMART COMMAND app, the license is managed via the ISO FLEX module.
If the app is not connected to ISO FLEX, some of the licenses will be displayed as unavailable even though they may have been purchased.

- SMART VT: Activation to use SMART COMMAND as an ISOBUS virtual terminal and to operate ISOBUS device screens.
- SMART TASK: Activation of the task Controller function of SMART COMMAND.
- SMART SECTION: Activation of automatic section control in the SMART GUIDE application.
- SMART RATE: Activation of variable spread rate control via SMART COMMAND.
- SMART GUIDE: Activation of guidance and automatic steering in the SMART GUIDE application.
- SMART TURN: Activation of automatic turning on the headland in the SMART GUIDE application.
- SMART NTRIP: Activation so that ISO FLEX can be used to receive RTK correction data. (Prerequisites: SIM card to receive mobile data and a subscription with an RTK correction data supplier.)

Information on activating new licenses is provided in chapter 6.6.

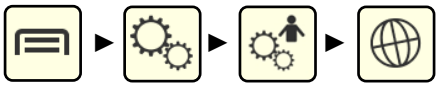
Hardware ID:

The hardware ID is displayed underneath the licenses.
It is required if you wish to request new licenses.

6.2 User-Specific Settings – Regional Settings

You can set the country-specific settings under "Regional Settings". These are saved for each user.
The relevant regional settings are used when changing the user.

Open the regional settings via the main menu (see Fig. 104 and Fig. 105):



Country presets:

By selecting a country under "Country presets" the standard settings for the relevant country are automatically set.

Language, Date/Time, Units, Decimal mark:

You can change the individual settings via the menu items "Language", "Date/Time", "Units", and "Decimal mark".

Open/close the settings by tapping the arrows.

NOTICE

If the changes are not applied in full, we recommend restarting SMART COMMAND.

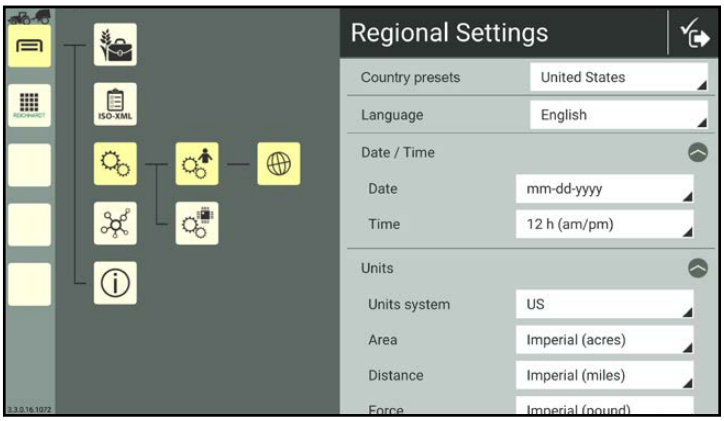


Fig. 104: Regional settings 1/2

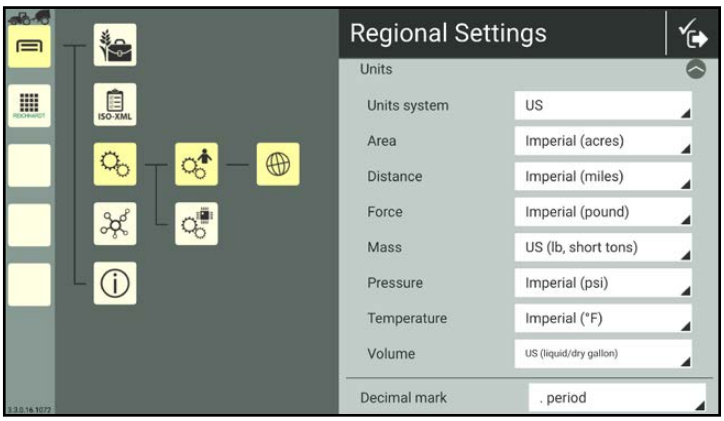


Fig. 105: Regional settings 2/2

6.3 System Settings

The general settings for SMART COMMAND can be set in the system settings.

Open the system settings via the main menu (see Fig. 106):

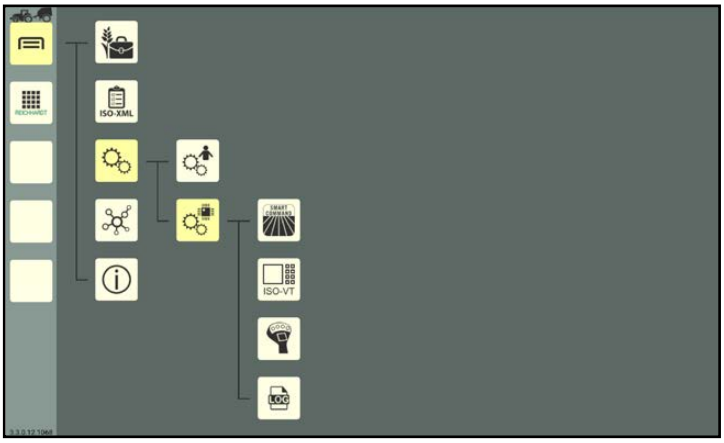


Fig. 106: Standard system settings - SMART COMMAND app

Overview of the setting options

The system settings include the following setting options:

Standard settings
Settings to shut down the system. When using the SMART COMMAND terminal, the date, time, and screen brightness can also be set. The standard settings are explained in the following.

ISOBUS VT settings
Settings for using SMART COMMAND as a virtual terminal. The ISOBUS VT settings are explained in chapter 11.4.

AUX editor
Assignment of functions to keys on AUX-N devices. The assignment of functions is explained in chapter 11.5.

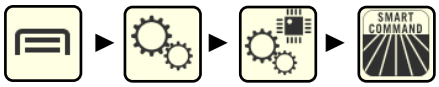
Logging
Error logging in SMART COMMAND. Logging is explained in chapter 12.3.

Standard settings

The standard settings include settings on shutting down the system.

When using the SMART COMMAND terminal, the date and time must also be set so that they are available for tasks and error logging, amongst other things.
When using the SMART COMMAND app this data is retrieved from the operating system of the mobile end device.

Open the standard settings via the system settings (see Fig. 107):



Open/close the settings by tapping the arrows.

Shutdown (system):

Power supply:

Select the type of power supply from the selection list:

- "Direct wiring" (vehicle without ISOBUS)
- "ISOBUS-InCab" (vehicle with ISOBUS)

Runtime when key switch off:

The follow-up time of the system once the vehicle ignition is switched off, is specified here.

Activate the checkbox to subsequently enter the required follow-up time. A follow-up time of at least 1 minute is recommended to ensure that storage processes are completed correctly.

If the checkbox is disabled, the system continues running without any restrictions. Please note that this can result in the vehicle battery being discharged.

Screen brightness, date and time (SMART COMMAND terminal only):

Additional settings for the screen brightness, date, and time can be implemented on the SMART COMMAND terminal (see Fig. 108).

The "auto. date/time" option can be selected if there is an internet connection for the terminal and the date and time can be retrieved from it.

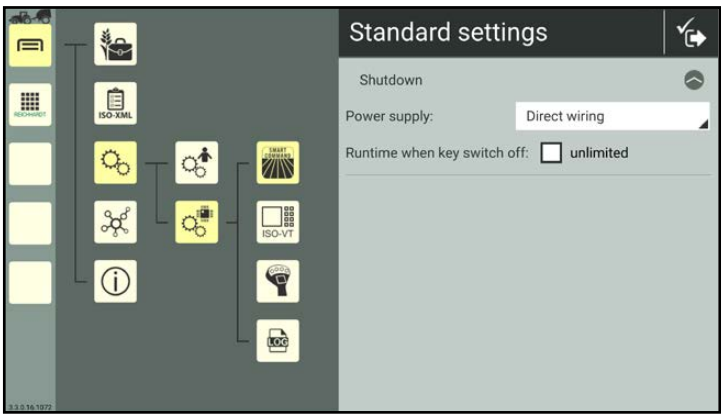


Fig. 107: Standard settings – SMART COMMAND app

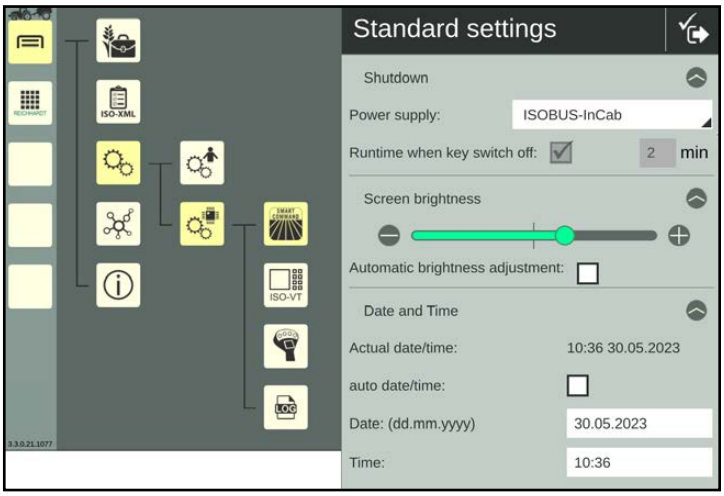


Fig. 108: Standard settings – SMART COMMAND terminal

6.4 Connections and Configurations

You can implement the connection settings and configurations for devices, and check the connections in the SMART COMMAND menu. These are explained in the following.

6.4.1 App-Specific Connection Settings

When using the SMART COMMAND app, the mobile end device (tablet), on which the app is operated, must be connected to the ISO FLEX module. Certain configurations are required for this.

6.4.1.1 Establishing a WLAN Connection Between the Tablet and ISO FLEX

The WLAN connection between the tablet, on which the SMART COMMAND app is running, and the ISO FLEX is a basic requirement for using SMART COMMAND on mobile end devices.

Establishing such a connection is explained as part of the commissioning process (see chapter 4.1.3).

6.4.1.2 Receiving Mobile Data During the WLAN Connection with ISO FLEX

If you would like to use mobile data on the tablet while you are connected to the ISO FLEX via WLAN, then you can use the modem function of the ISO FLEX module.
A SIM card and GSM antenna are required for this purpose.

These requirements are already met if you are using the ISO FLEX with RTK correction data.
How to insert the SIM card in the ISO FLEX is described in the "ISO FLEX Operating Instructions" (Reichhardt article no. 560765).

NOTICE
Using a tablet with a SIM card is not suitable as mobile end devices cannot execute a WLAN and a mobile data connection simultaneously. The same applies to a hotspot or tethering connection to a mobile end device with a SIM card.

6.4.2 SMART COMMAND Configuration

You can implement the following via the SMART COMMAND configuration

- set the operation mode of SMART COMMAND (see chapter 6.4.2.1),
- view existing devices and their connection status (see chapter 6.4.3 to chapter 6.4.7),
- call up device and software information (see chapter 6.4.3 to chapter 6.4.7),
- configure devices (see chapter 6.4.3 to chapter 6.4.6), and
- implement device updates (see chapter 6.5).

NOTICE

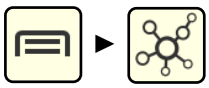
The SMART COMMAND configuration can only be displayed if a machine combination is selected (see chapter 7.4.2.5).

If no machine combination is selected, then the SMART COMMAND configuration is not displayed.

If the machine combination is not fully configured, it is possible that the connection overview is not displayed fully. A corresponding message is displayed in the system.

The office components are displayed if you use the SMART COMMAND app in Office mode (see chapter 6.4.2.1.2).

Open the SMART COMMAND configuration via the main menu (see Fig. 109):



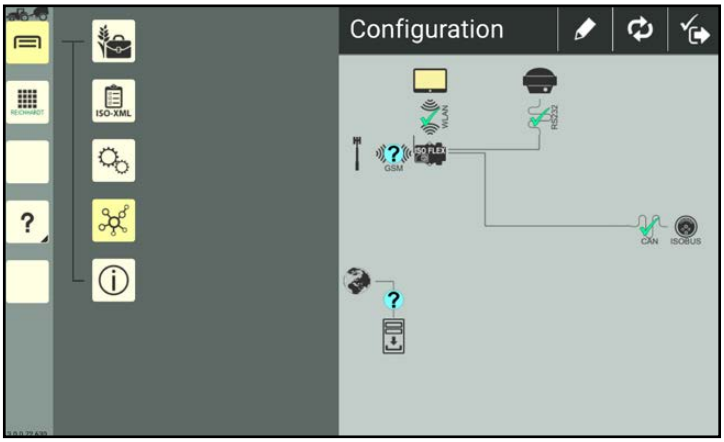


Fig. 109: SMART COMMAND configuration

6.4.2.1 Operation Mode in SMART COMMAND

The operation mode is displayed in the top left corner of the sidebar of SMART COMMAND (see Fig. 110 – 1 and Fig. 112).

Using the SMART COMMAND app

When using the SMART COMMAND app with a mobile end device, there are two different modes:

- Machine combination mode (for use on the vehicle)
- Office mode (for use in the office)

The following symbols can be displayed for the operation mode:

Machine combination mode – the full scope of SMART COMMAND can be used.

Machine combination mode – there are restrictions for using SMART COMMAND.

Vehicle or implement is currently being configured (regardless of the mode).

Office mode – office tasks without a connection to an ISO FLEX (only when using the SMART COMMAND app).

At the top of the configuration, tap the round double arrow (see Fig. 110 – 2) to set the operation mode.

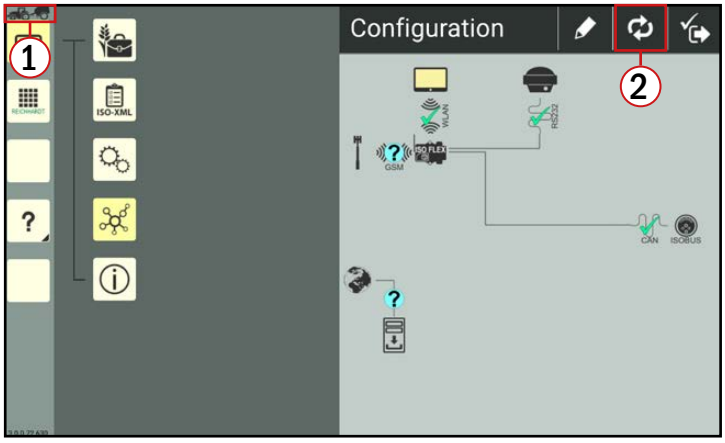


Fig. 110: SMART COMMAND configuration in SMART COMMAND app – Setting the operation mode

The following options are available in the subsequent menu that appears (see Fig. 111):

- Configuration via machine combination: machine combination mode (see chapter 6.4.2.1.1)
- Office setup: office mode (see chapter 6.4.2.1.2)
- Auto (see chapter 6.4.2.1.3)

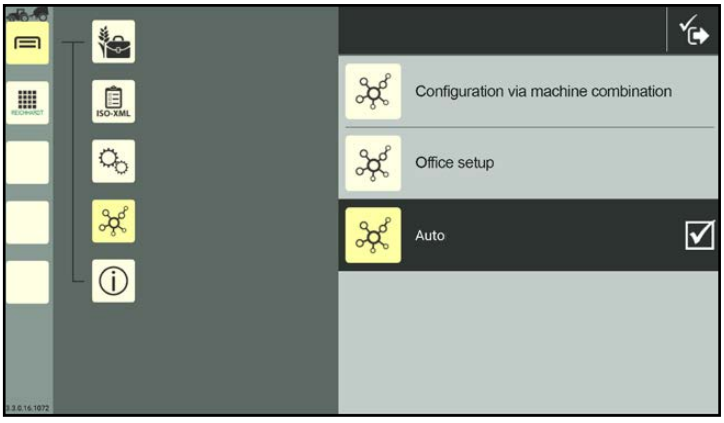


Fig. 111: Available operation modes

Using the SMART COMMAND terminal

In comparison to the SMART COMMAND app, the SMART COMMAND terminal only has one operation mode (see Fig. 112).

As the SMART COMMAND terminal cannot be operated without a vehicle connection, SMART COMMAND is automatically in machine combination mode (see chapter 6.4.2.1.1).

One of the first three symbols, that are also available in the SMART COMMAND app, can be displayed.

Office mode is not available on the SMART COMMAND terminal.

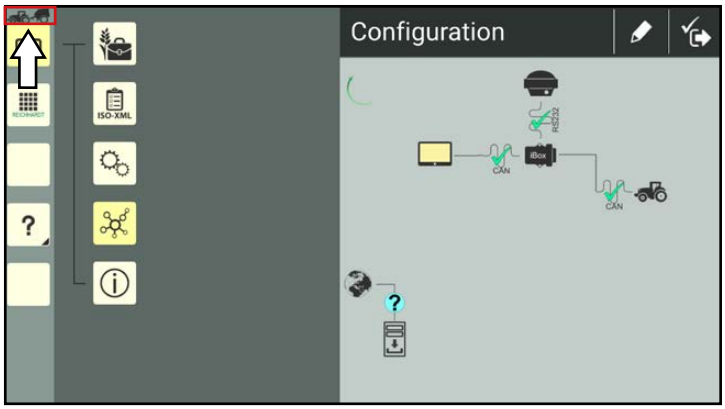


Fig. 112: SMART COMMAND configuration on SMART COMMAND terminal

6.4.2.1.1 "Configuration via Machine Combination" – Machine Combination Mode

If you select "Configuration via machine combination" operation mode when using the SMART COMMAND app or use the SMART COMMAND terminal, then SMART COMMAND will be used in machine combination mode.

This operation mode is designed for use in the vehicle if you want to use the full functionality of SMART COMMAND.

Depending on the status of the machine combination, one of the following symbols is displayed at the top of the sidebar:

SMART COMMAND connected to vehicle or ISO FLEX and machine combination ready for operation.

There are restrictions. No machine combination selected, selected machine combination is not configured sufficiently, or SMART COMMAND is not connected to the vehicle or ISO FLEX.

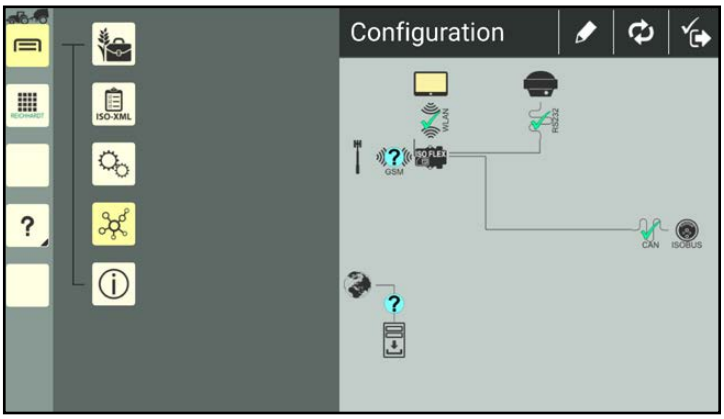


Fig. 113: SMART COMMAND configuration in SMART COMMAND app for a machine combination with SMART VT, SMART GUIDE, and GNSS

In machine combination mode, the configuration overview is specified by the topology settings of the vehicle in the selected machine combination. This includes, amongst other things, the SMART COMMAND options (SMART VT, SMART GUIDE, SMART CONTROL), as well as the GNSS and RTK options.
More information about the topology settings of a vehicle is provided in chapter 7.4.1.2.4.

How to select a machine combination is explained in chapter 7.4.2.5.

6.4.2.1.2 "Office Setup" – Office Mode (SMART COMMAND App Only)

If "Office Setup" operation mode is selected via the SMART COMMAND configuration, SMART COMMAND is used in Office mode.

Office mode is used if the SMART COMMAND app is not connected to the vehicle (and any associated components, such as the ISO FLEX and SMART iBox, if applicable) and you want to complete administrative work including, for example, managing users, updating SMART COMMAND, or importing/exporting smart farming data in the office or similar.

Settings that require a connection to the ISOBUS or ISO FLEX are not available. This includes the configuration of a vehicle, as well as the use of SMART GUIDE and SMART VT.

Office mode disables error messages relating to missing connections to SMART COMMAND components or the ISOBUS.

The creation of machine combinations is available on a limited basis. Virtual implements can be created without any problems.

Tasks can be created in Office mode but not activated.

In Office mode, the sidebar is dark gray and the Office symbol is displayed at the top of the sidebar (see Fig. 114):

OFFICE Office activities without error messages.

A connection to an internet hotspot is displayed in the configuration.

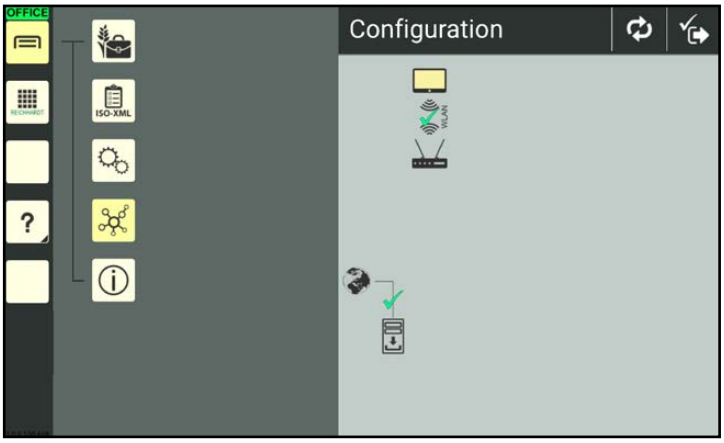


Fig. 114: SMART COMMAND configuration for Office mode

6.4.2.1.3 "Auto" (SMART COMMAND App Only)

If "Auto" operation mode is selected, the mode changes independently.

Machine combination mode: Connection to an ISO FLEX.
Office mode: Connection to an internet router.

If the WLAN is disconnected or the WLAN reception is deactivated, the last displayed mode remains active.

"Auto" operation mode is set at the factory and is recommended.

If the WLAN network of a router and the used ISO FLEX are both in the immediate vicinity this can result in an unplanned change of the operation mode.

6.4.2.2 Vehicle Processing via the SMART COMMAND Configuration (Pen Button)

A pen symbol is located at the top of the SMART COMMAND configuration (see Fig. 115).
(Exception: active Office mode when using the SMART COMMAND app; see chapter 6.4.2.1.2.)

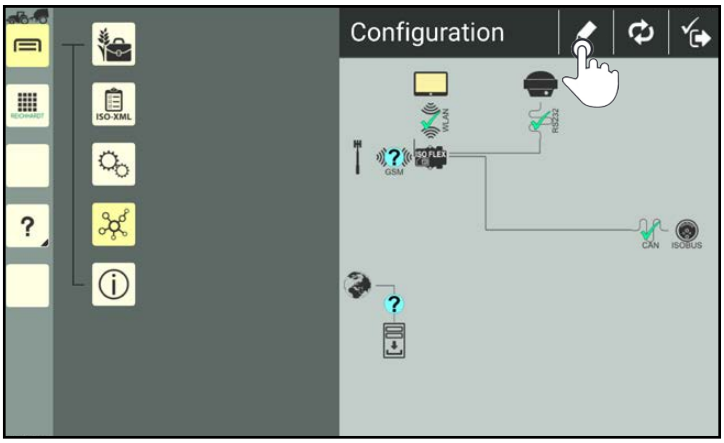


Fig. 115: Opening vehicle processing

If you tap the pen symbol, you can access the vehicle configuration of the vehicle that is in the selected machine combination (see Fig. 116).
Find out more about the vehicle configuration in chapter 7.4.1.2.4.

Save your settings via the symbol with the checkmark.
This will automatically take you back to the SMART COMMAND configuration.

Fig. 116: Vehicle configuration

6.4.2.3 Symbols in the SMART COMMAND Configuration

The symbols illustrated in the following are available in the SMART COMMAND configuration.

6.4.2.3.1 Symbols for Components/Devices

Symbols that are marked with an * in the following can be tapped so that the associated information is displayed and configurations or updates for these components can be implemented, if applicable.

SMART COMMAND*
Available information: Name, type (operating system), version of SMART COMMAND (see chapter 6.4.3.2). If an internet connection is available, a button can also be displayed in the device information via which you can download the latest version of SMART COMMAND (see chapter 6.5.1).

ISO FLEX*
On the one hand, the ISO FLEX module is a WLAN module that ensures that the SMART COMMAND app is connected to the ISOBUS of the vehicle. On the other hand, the ISO FLEX can be used in conjunction with the SMART COMMAND app and the SMART COMMAND terminal as a 4G modem to receive RTK correction data.

Using as a WLAN module and, if applicable a 4G/RTK modem with the SMART COMMAND app
Available information: Name, type, software version, and serial number of the ISO FLEX (see chapter 6.4.4.3).
Available buttons: ISO FLEX configuration menu (see chapter 6.4.4.4) and software update button (see chapter 6.5.3), if available.
Displayed in the configuration with a direct connection to SMART COMMAND.

Using as a 4G modem with the SMART COMMAND terminal
Available information: Name. Available button: ISO FLEX configuration menu.
Displayed in the configuration with a direct connection to a GNSS receiver.

You can call up further information and implement settings via the ISO FLEX configuration menu. This includes, amongst other things, reviewing the connection status, SIM card configuration, inputting supplier data to receive RTK correction data, managing licenses for SMART COMMAND, downloading these instructions and the "ISO FLEX Operating Instructions".

GNSS receiver (with serial RS232 interface)*
Available information: Name, type, software version, and serial number of the GNSS receiver (see chapter 6.4.5.2). The receiver can also be configured via the "Settings" tab (gearwheel symbol).

External RTK modem – RTK CLUE modem from Reichhardt or RTK modem from another manufacturer*
Available information: Name, type, and software version of an external modem (see chapter 6.4.6.2). You can also enter supplier data to receive RTK correction data and implement the SIM card configuration via the "Settings" tab (gearwheel symbol).

SMART iBox*
Available information: Name, type, software version, and serial number of the SMART iBox (see chapter 6.4.7.2).
If an update is available, a button is also displayed via which you can download the latest version (see chapter 6.5.4).

Update available
If software updates are available for a Reichhardt component (SMART COMMAND, ISO FLEX, or SMART iBox) this is indicated by the "NEW UPDATE" banner on the component in the SMART COMMAND configuration. Information on updates is provided in chapter 6.5.

Mobile service provider/provision of data
The radio antenna is a visual representation of a provider/receipt of a mobile data connection.

CAN connection to vehicle for SMART iBox
The symbol is a visual representation of a CAN interface in the vehicle to which the SMART iBox is connected.

ISOBUS connection
The symbol is a visual representation of an ISOBUS interface to the vehicle.

Update server
The symbol is a visual representation of the server that provides updates for SMART COMMAND.

Internet
The symbol is a visual representation of an internet connection.

Provider for RTK correction data
The symbol is a visual representation of the supplier of RTK correction data.

WLAN router
The symbol is a visual representation of a WLAN hotspot.

6.4.2.3.2 Symbols for the Connection Status

You can check the connection status of the individual components with the help of the symbols illustrated in the following:

Connection established.

An error occurred during the connection or the physical connection was successful but the device does not have the required data/configurations (e.g., GNSS receiver).

No connection.

Connection status is still being checked or cannot be checked.

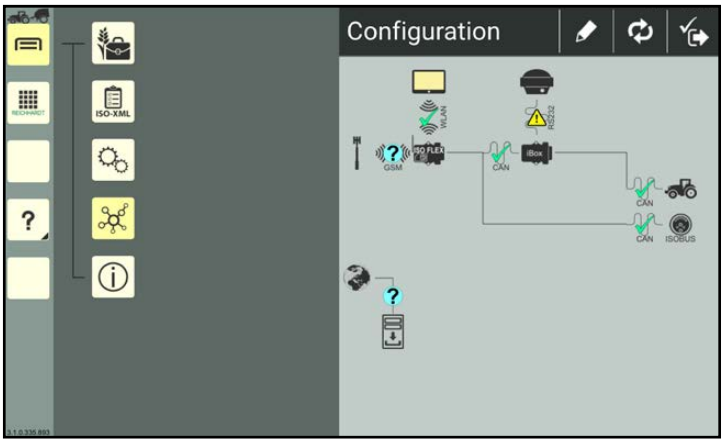


Fig. 117: Components and their connection status in the SMART COMMAND configuration

6.4.3 SMART COMMAND – Checking the Connection Status, Device Information, Updates

SMART COMMAND is represented by a screen symbol in the SMART COMMAND configuration. Regardless of whether SMART COMMAND is operated as an app on a mobile end device or using a SMART COMMAND terminal.

You can check via the SMART COMMAND configuration whether SMART COMMAND is connected correctly. You can also view device/software information and implement updates if using the SMART COMMAND app.

▶ Open the SMART COMMAND configuration via the main menu.
Wait at least 15 seconds until the configuration is completely updated.

NOTICE

If the SMART COMMAND configuration cannot be called up or the correct components are not displayed, this can be because

- the vehicle in the machine combination is not configured correctly/fully (red machine combination as operation mode symbol);
- SMART COMMAND is in Office mode (green OFFICE symbol as operation mode symbol).

6.4.3.1 Checking the Connection of SMART COMMAND to the Vehicle

SMART COMMAND app

✓ Ensure that a green checkmark is displayed between the screen symbol and ISO FLEX (see Fig. 118).

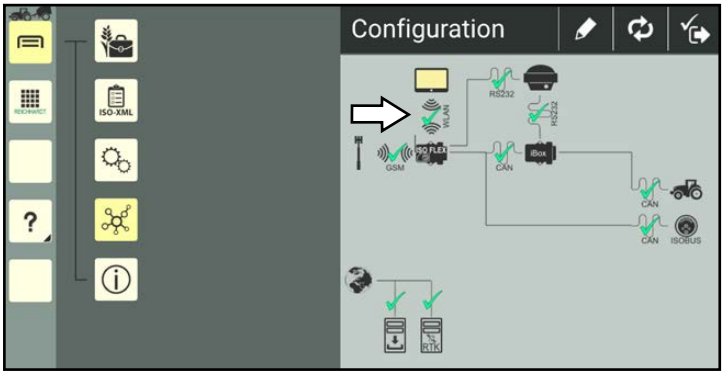


Fig. 118: Checking the connection of the SMART COMMAND app in the SMART COMMAND configuration

SMART COMMAND terminal

✓ Ensure that a green checkmark is displayed between the screen symbol and the other SMART COMMAND components (see Fig. 119).

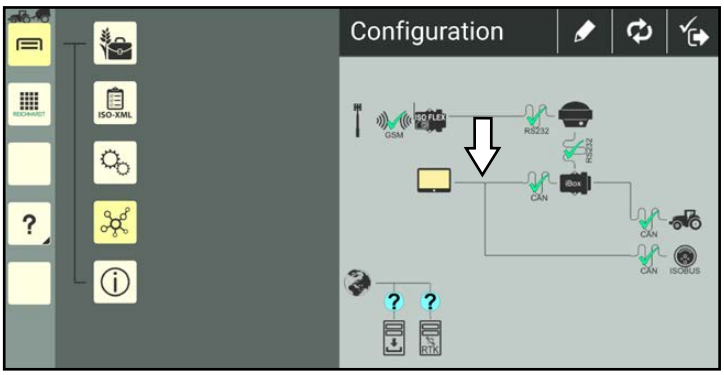


Fig. 119: Checking the connection of the SMART COMMAND terminal in the SMART COMMAND configuration

6.4.3.2 Calling up Device/Software Information of SMART COMMAND

Tap the screen symbol (see Fig. 120).

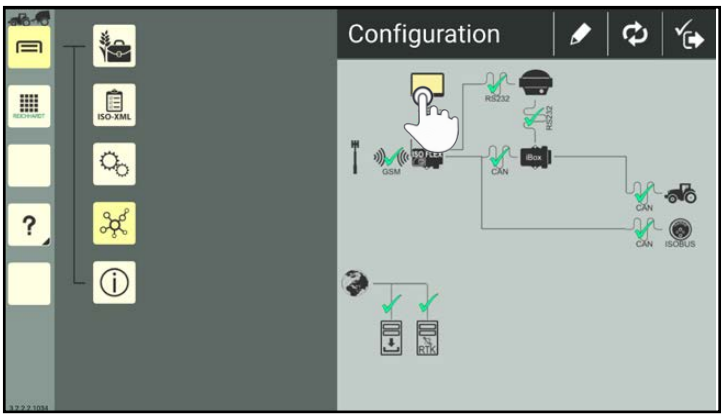


Fig. 120: Tapping the screen symbol in the SMART COMMAND configuration

The device/software information of SMART COMMAND is then displayed (see Fig. 121).

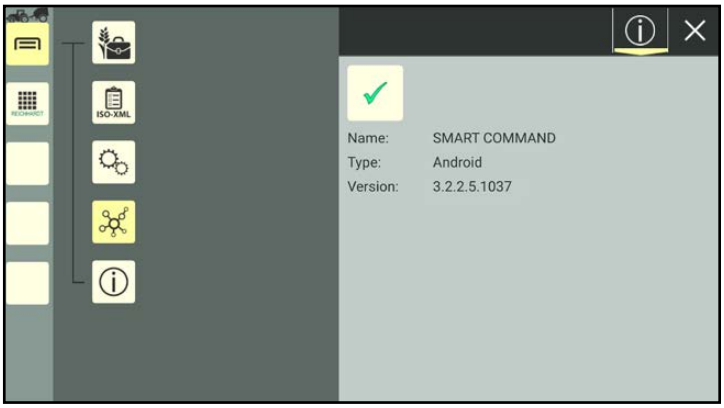


Fig. 121: Device/software information of SMART COMMAND

Update information in the SMART COMMAND app

If the SMART COMMAND app was or is connected to the internet and a new update has been found, an additional button is displayed in the device/software information that will take you to the website with the download. The number of the version available on the website is displayed above the button (see Fig. 122).

An internet connection is required for the download.

More information on updating the SMART COMMAND app is provided in chapter 6.5.1.

How to update the SMART COMMAND terminal is described in chapter 6.5.2.

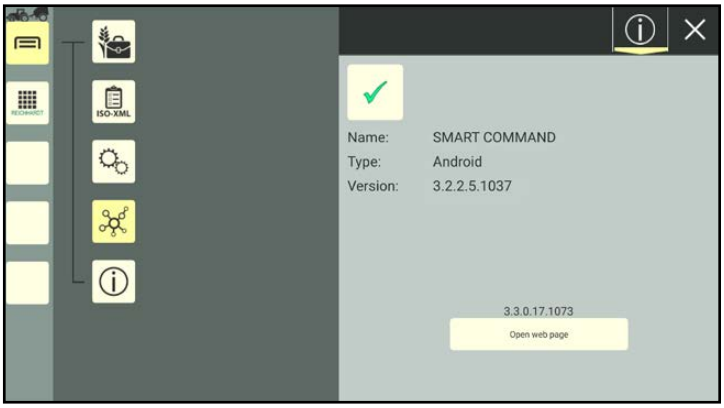


Fig. 122: Device/software information of available update for the SMART COMMAND app

6.4.4 ISO FLEX Module – Checking the Connection Status, Device Information, Configuration

On the one hand, the ISO FLEX module is a WLAN module that ensures that the SMART COMMAND app is connected to the ISOBUS of the vehicle.
On the other hand, the ISO FLEX can be used in conjunction with the SMART COMMAND app and the SMART COMMAND terminal as a 4G/RTK modem.

You can check the connection status of the ISO FLEX module and call up the associated device information via the SMART COMMAND configuration.

You can also implement settings relating to the receipt of mobile data or RTK correction data via the ISO FLEX configuration menu.
When using the SMART COMMAND terminal, you will also require a mobile end device (e.g., smartphone) as the ISO FLEX configuration menu can only be called up via a WLAN connection that is currently not available on the terminal.

▶ Open the SMART COMMAND configuration via the main menu.
Wait at least 15 seconds until the configuration is completely updated.

NOTICE

If the SMART COMMAND configuration cannot be called up or the correct components are not displayed, this can be because

- the vehicle in the machine combination is not configured correctly/fully (red machine combination as operation mode symbol);
- SMART COMMAND is in Office mode (green OFFICE symbol as operation mode symbol).

6.4.4.1 Checking the WLAN Connection to ISO FLEX (SMART COMMAND app only)

When using the SMART COMMAND app with a mobile end device, ensure that a green checkmark is displayed next to the connection between SMART COMMAND and ISO FLEX.

A successful WLAN connection is a prerequisite for configuring the ISO FLEX and full use of SMART COMMAND in a vehicle.

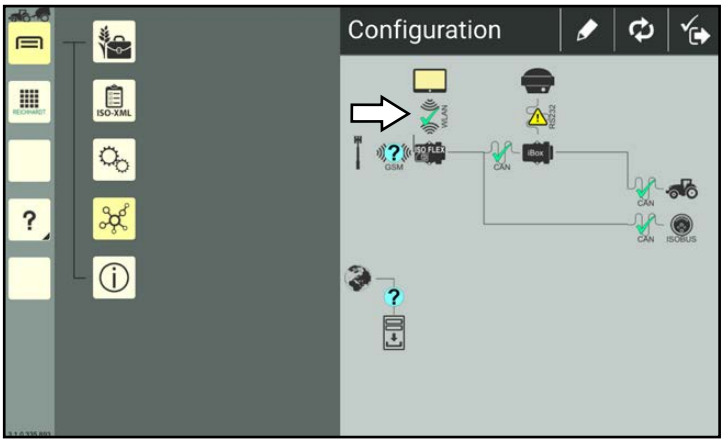


Fig. 123: Checking the connection between the SMART COMMAND app and ISO FLEX in the SMART COMMAND configuration

6.4.4.2 Checking the Availability of RTK Correction Data

If you are using the SMART COMMAND app with a mobile end device, it is very likely that you will use the ISO FLEX modem function to receive RTK correction data.
An ISO FLEX symbol, that has a WLAN connection to SMART COMMAND, a wireless connection to a mobile service provider, and a physical connection to the GNSS receiver and other components, if applicable, is displayed in the SMART COMMAND configuration (see Fig. 124).

If you are using the SMART COMMAND terminal, the ISO FLEX symbol in the SMART COMMAND configuration symbolizes the RTK modem. A wireless connection to a mobile service provider and a physical connection to the GNSS receiver are displayed (see Fig. 125).

If a different RTK modem or a modem from another manufacturer (external RTK modem) is being used to receive RTK data, then a different modem symbol is displayed in the SMART COMMAND configuration (see chapter 6.4.2.3.1). More information on the display and configuration of external RTK modems is provided in chapter 6.4.6.

To check whether RTK correction data is being received via the ISO FLEX, the lateral connection of the GNSS receiver to the ISO FLEX must be confirmed with a green checkmark (see Fig. 124 and Fig. 125).

To enable the receipt of data, the following must be implemented beforehand:

- GSM and Ntrip data must be entered once via the ISO FLEX configuration menu (see chapter 6.4.4.4),
- the receiver must be configured, if applicable (see chapter 6.4.5.2).

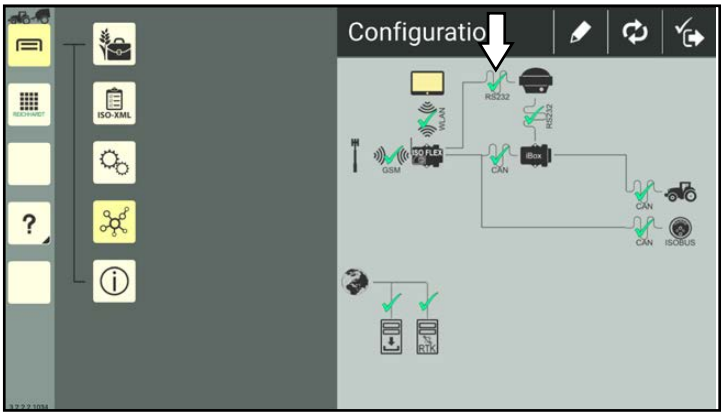


Fig. 124: Configuration with SMART CONTROL and RTK correction in SMART COMMAND app

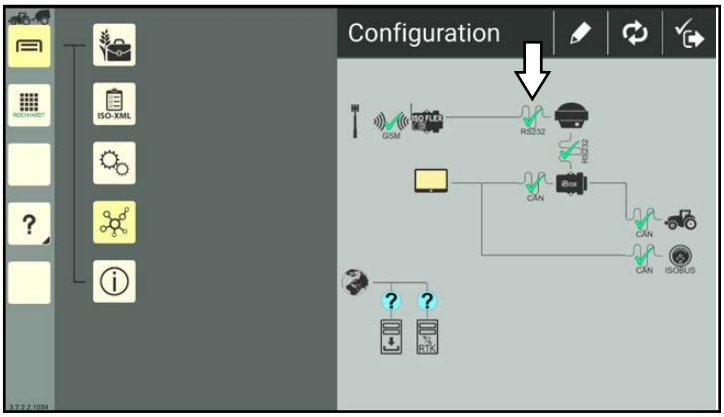


Fig. 125: Configuration with SMART CONTROL and RTK correction on SMART COMMAND terminal

6.4.4.3 Displaying ISO FLEX Device Information

In the SMART COMMAND configuration, tap the ISO FLEX symbol to display the device information (see Fig. 126).

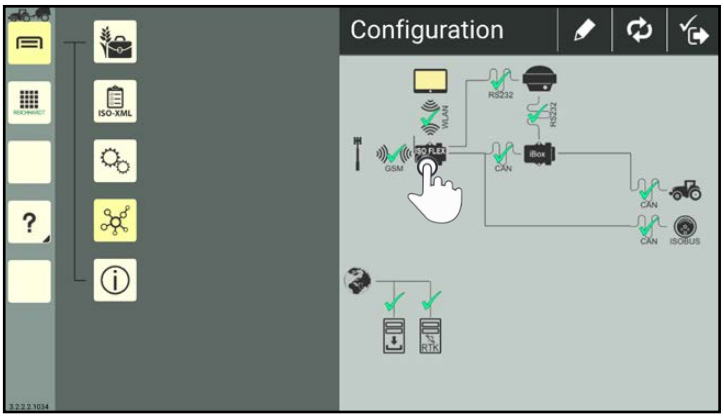


Fig. 126: Tapping ISO FLEX in the SMART COMMAND configuration

If the ISO FLEX is used in conjunction with the SMART COMMAND app, then characteristic data to identify the ISO FLEX and firmware version are displayed in the device information (see Fig. 127).

If the ISO FLEX is used as an RTK modem in conjunction with the SMART COMMAND terminal, then only the device name will be displayed.

In addition to the mentioned specifications, the device information includes a button via which you can access the ISO FLEX configuration menu (see chapter 6.4.4.4).
There you can view extended information about the ISO FLEX connection status, as well as the settings for the supplier of mobile data and RTK correction data.

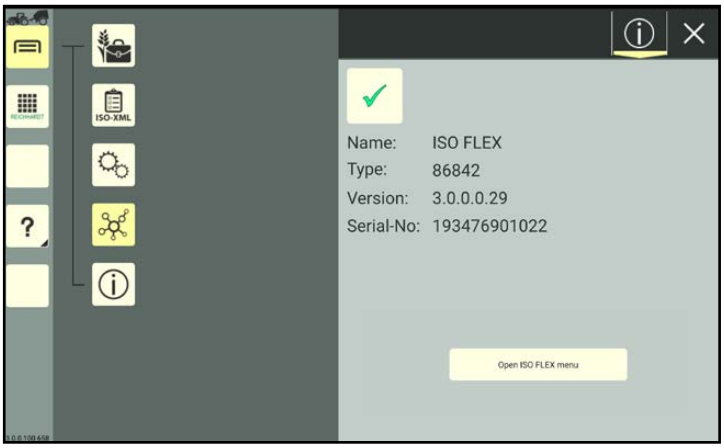


Fig. 127: ISO FLEX device information (WLAN module and, if applicable, 4G/RTK modem with SMART COMMAND app)

When using the SMART COMMAND app, an additional button may be displayed if an update is available for the ISO FLEX as a WLAN module (see Fig. 128).

More information on updating the ISO FLEX is provided in chapter 6.5.

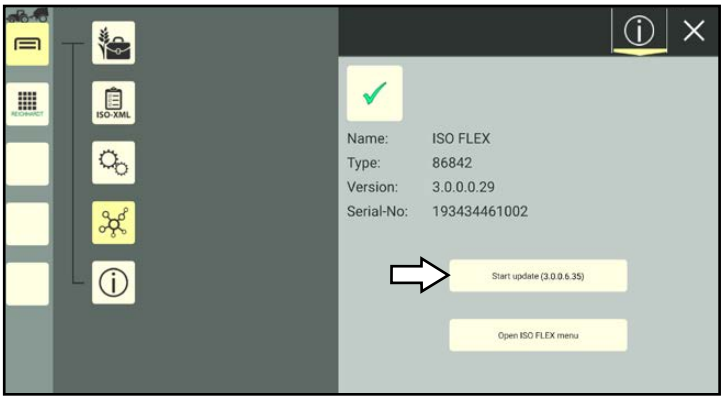


Fig. 128: Update button in ISO FLEX device information

6.4.4.4 ISO FLEX Configuration Menu (Connection Status, GSM & Ntrip Settings)

NOTICE

You will need a mobile end device to be able to access the ISO FLEX configuration menu as the menu can only be called up via a WLAN connection. No WLAN connection is currently available for the SMART COMMAND terminal.

Accessing the configuration menu and the settings it contains, are described in the "ISO FLEX Operating Instructions" (Reichhardt article no. 560765).

You can, amongst other things, implement the following via the ISO FLEX configuration menu (see Fig. 129)

- Check the connection status ("Status"),
- Enter details about the mobile service provider ("GSM"),
- Enter details about the RTK correction data supplier/basic station ("Ntrip"),
- Download the SMART COMMAND app and instructions ("Files"),
- Establish an agrirouter connection ("agrigouter"), and
- Update licenses ("Licenses").

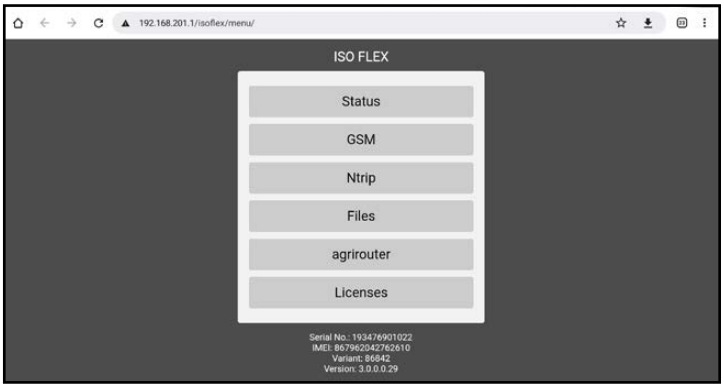


Fig. 129: ISO FLEX configuration menu

Connection status of the RTK correction data

Whether RTK correction data is being received, can be checked under "NTRIP" in the "Status" menu item of the configuration menu. In this menu, the connection status to the correction data supplier ("Status") must be set to "Authorized" and the GGA reception ("GGA") must be verified with a green checkmark (see Fig. 130).

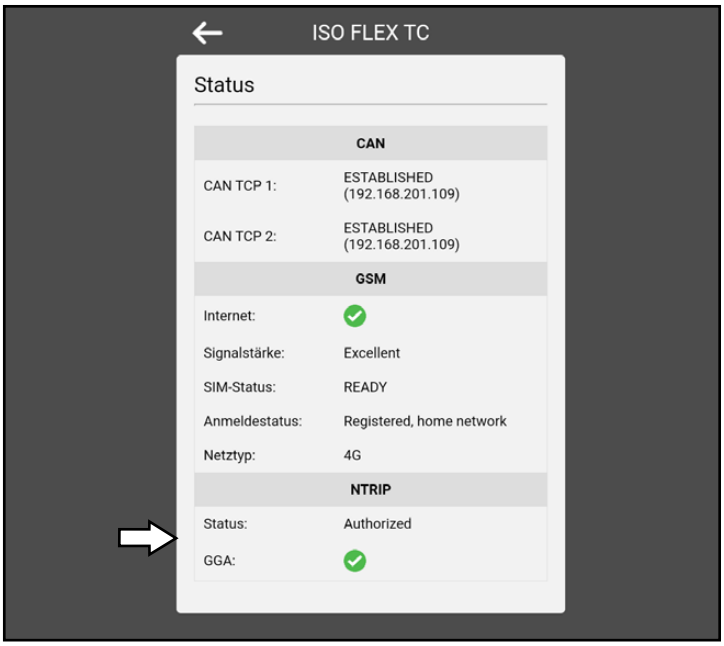


Fig. 130: Checking receipt of RTK correction data

6.4.5 GNSS Receiver – Checking the Connection Status (RS232 Input), Device Information, Configuration

You can check the connection status of a GNSS receiver via the SMART COMMAND configuration.

If you are using the automatic steering system SMART CONTROL and the vehicle is configured accordingly in the machine management of SMART COMMAND (see chapter 7.4.1.2.4), you can also display device information and configure the GNSS receiver via the SMART COMMAND configuration.

Ensure that the receiver is connected correctly.
If you have only just connected the receiver, you must wait approx. 5 minutes before you can configure it.

Open the SMART COMMAND configuration via the main menu.
Wait at least 15 seconds until the configuration is completely updated.

NOTICE

If the SMART COMMAND configuration cannot be called up or the correct components are not displayed, this can be because

- the vehicle in the machine combination is not configured correctly/fully (red machine combination as operation mode symbol);
- SMART COMMAND is in Office mode (green OFFICE symbol as operation mode symbol).

6.4.5.1 Checking the Availability of GNSS Data

To check whether GNSS data is being received, the connection down to the GNSS receiver must be confirmed with a green checkmark (see Fig. 131). Only then will the GNSS data be received by the receiver.

You may also be able to check the receipt of GNSS data via the status LED of the GNSS receiver (see chapter 3.2.6.2 and chapter 3.2.7.2).

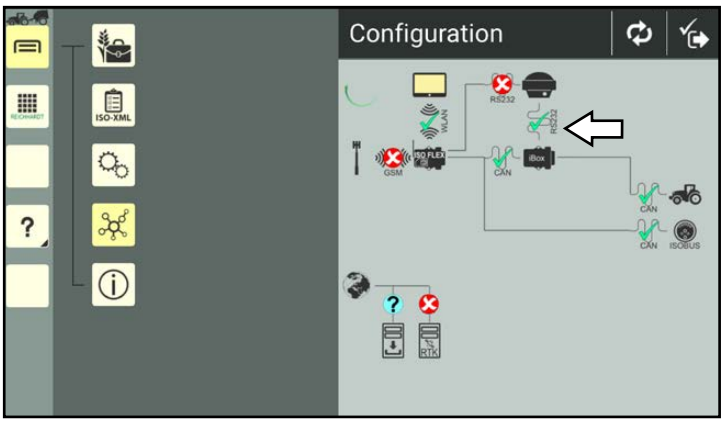


Fig. 131: Checking receipt of GNSS data in the SMART COMMAND configuration

6.4.5.2 Displaying Device Information and Configuring the GNSS Receiver (SMART CONTROL Only)

Ensure that a green checkmark or yellow exclamation point is displayed in the SMART COMMAND configuration when connecting the GNSS receiver to the SMART iBox.
Only then can you access the receiver and configure it.

Tap the symbol for the GNSS receiver (see Fig. 132).

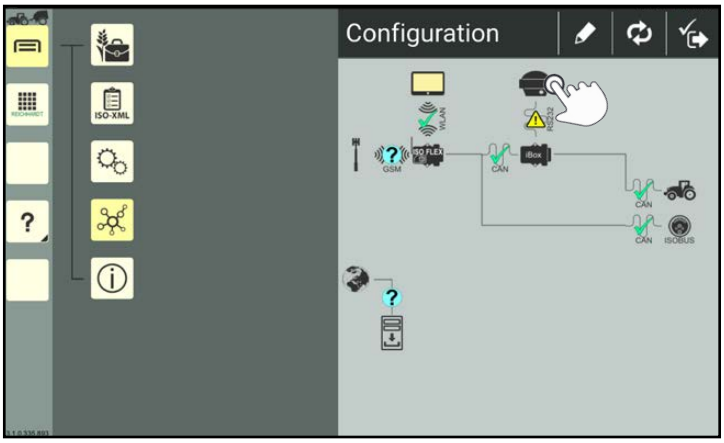


Fig. 132: Tapping the receiver in the SMART COMMAND configuration

Then tap "Connect" to connect to the GNSS receiver (see Fig. 133).

A corresponding message is displayed if there is no connection or no connection can be established.
In this case, check all of the connections to the receiver.

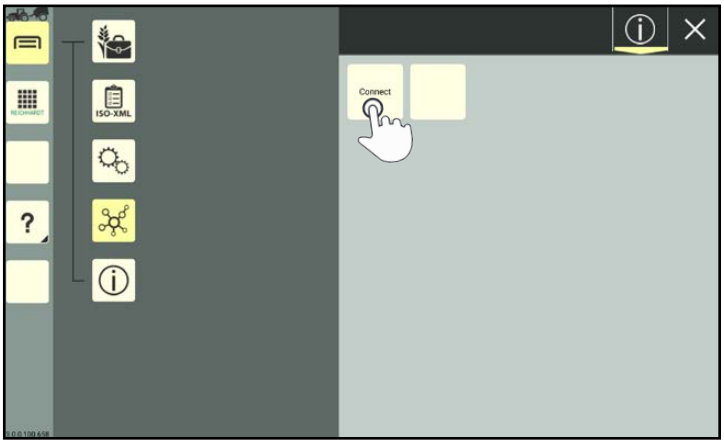


Fig. 133: Connecting to the receiver

The device information of the GNSS receiver is displayed following a successful connection (see Fig. 134).

At the top of the bar, tap the tab with the gearwheel symbol to open the receiver configuration.

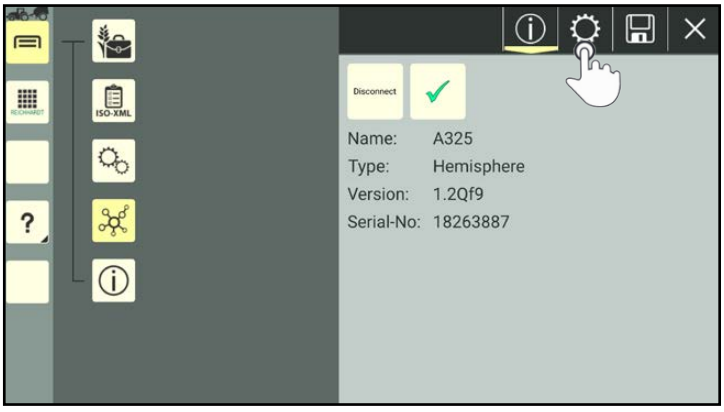


Fig. 134: Displaying the device information – receiver connected

6.4.5.2.1 Configuration Settings for Reichhardt Receiver

Configure ports "COM1" and "COM2" in sequence.

COM1: Receiver port for implements or communication with the RTK modem.
COM2: Communication of the receiver to SMART COMMAND.

The following settings must be implemented for both of the ports:

Baud rate: The baud rate of the receiver (COM2) or the RTK modem (COM1) must be specified. The Baud rate is the transmission rate between SMART COMMAND and the receiver.
Update rate: The update rate is used to set the frequency at which all of the messages are transmitted.
PRN: Enter the satellite from which the correction signal (DGPS) should be obtained. For Europe set "123 – EGNOS" or "136 – EGNOS". For North America set "138 – EGNOS".
NMEA messages: Specify the message formats via which the receiver should transmit its data.

Reichhardt receivers are usually pre-configured. However, the pre-configuration should be checked.

Configuration of "COM1" (with RTK CLUE modem)

On Reichhardt receivers, the "COM1" port must be configured as follows if an RTK modem/ISO FLEX is connected (see Fig. 135):

Port: COM1
Baud rate: 19200
Update rate: 1 Hz
PRN: 123 – EGNOS
NMEA messages: "GGA" enabled

Specifications for other modems or implements are provided in the data sheet for the relevant device.

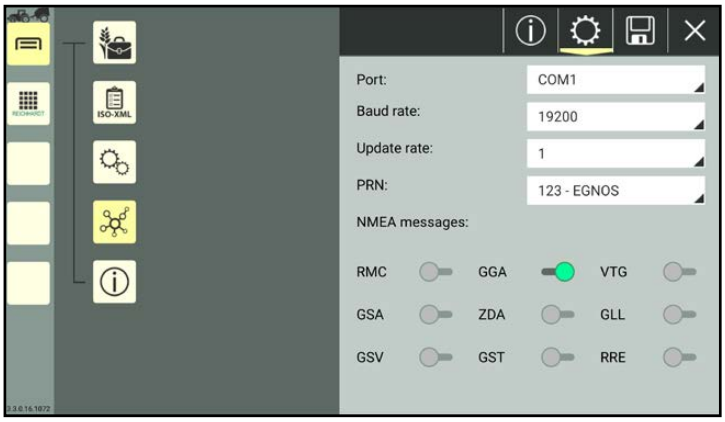


Fig. 135: Receiver configuration – COM1

Configuration of "COM2"

On Reichhardt receivers, the "COM2" port must be configured as follows (see Fig. 136):

Port: COM2
Update rate: 10 Hz
PRN: 123 – EGNOS
NMEA messages: "RMC", "GGA" enabled

The baud rate to communicate with the SMART iBox is permanently set to 38400 baud and cannot be changed.

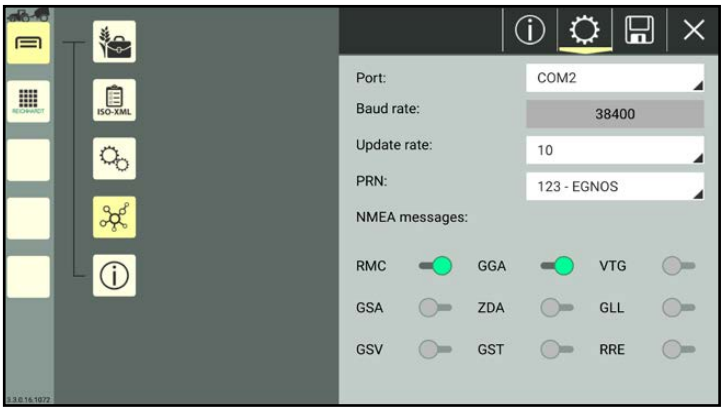


Fig. 136: Receiver configuration – COM2

6.4.5.2.2 Configuration Settings for GNSS Receivers from Other Manufacturers

When using a third party receiver, please implement the following settings directly on the receiver (via the corresponding software):

- GGA at 10 Hz
- RMC at 10 Hz
- Baud rate: 38400

6.4.6 External RTK Modem – Checking the Connection Status, Device Information, Configuration

You can check the connection status of an RTK modem from Reichhardt (not an ISO FLEX module) or an RTK modem from another manufacturer via the SMART COMMAND configuration. (Using the ISO FLEX module as an RTK modem is detailed in chapter 6.4.4.)

If necessary, the device information can also be displayed and the RTK modem can be configured.
The prerequisite for this is the same as for a Reichhardt receiver – that the automatic steering system SMART CONTROL is used with a corresponding vehicle configuration.
The configuration of RTK modems from other manufacturers can be limited in this regard. In this case, information on configuring the RTK modem is provided in the instructions for the relevant device.

Ensure that the external RTK modem is connected correctly and that it contains a valid SIM card. If you have only just connected the RTK modem, you must wait approx. 5 minutes before you can configure it.

Open the SMART COMMAND configuration via the main menu.
Wait at least 15 seconds until the configuration is completely updated.

NOTICE

If the SMART COMMAND configuration cannot be called up or the correct components are not displayed, this can be because

- the vehicle in the machine combination is not configured correctly/fully (red machine combination as operation mode symbol);
- SMART COMMAND is in Office mode (green OFFICE symbol as operation mode symbol).

6.4.6.1 Checking Receipt of RTK Correction Data

Check whether a green checkmark is displayed for the following connections (see Fig. 137):

- from the GNSS receiver to the RTK modem,
- from the RTK modem to the mobile service provider (radio antenna),
- from the RTK server to the internet.

Only then will the modem receive RTK correction data.

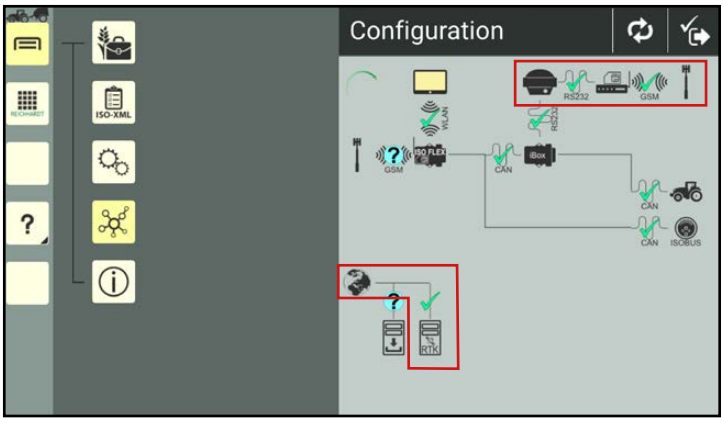


Fig. 137: Checking receipt of RTK correction data in the SMART COMMAND configuration

6.4.6.2 Displaying Device Information and Configuring the RTK Modem (SMART CONTROL Only)

Ensure that a green checkmark or yellow exclamation point is displayed in the SMART COMMAND configuration when connecting the GNSS receiver to the RTK modem.
Only then can you access the RTK modem and configure it.

Tap the modem symbol in the SMART COMMAND configuration (see Fig. 138).

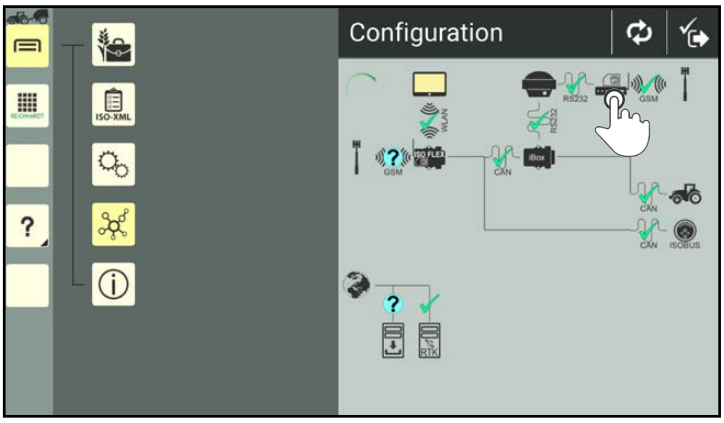


Fig. 138: Tapping the RTK modem in the SMART COMMAND configuration

Then tap "Connect" to connect to the RTK modem (see Fig. 139).

A corresponding message is displayed if there is no connection or no connection can be established. In this case, check all of the connections to the RTK modem and GSM antenna.

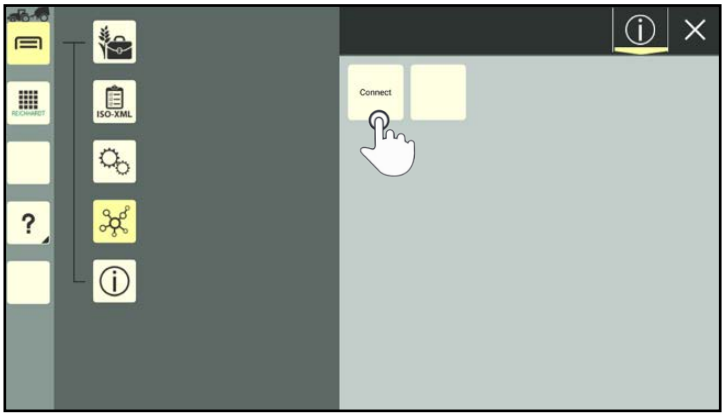


Fig. 139: Connecting to the RTK modem

The device information of the RTK modem is displayed following a successful connection (see Fig. 140).

At the top of the bar, tap the gearwheel symbol to open the RTK modem configuration.

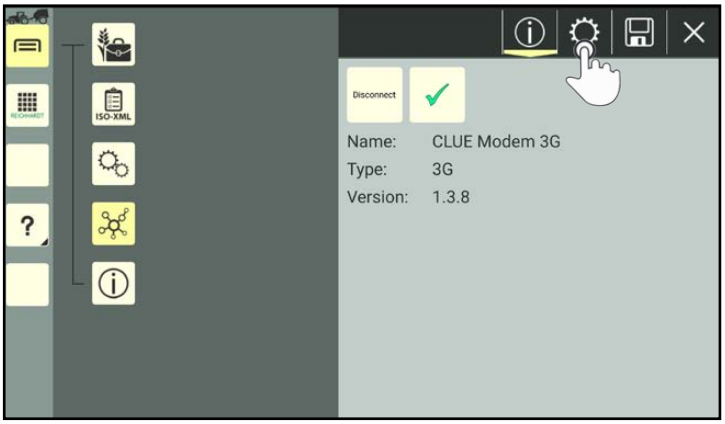


Fig. 140: Displaying the device information – RTK modem connected

6.4.6.2.1 Ntrip Settings (Details About the RTK Correction Data Supplier/Basic Station)

Enter the data for the RTK correction service in the Ntrip settings (see Fig. 141).

If you are using RTK CLUE from Reichhardt, enter the following:

- Host: IP "5.9.114.59" or "rtk-clue.net"
- Port: 2101
- Password: Assigned password.
- User: Assigned user designation.
- Mountpoint: Transmitted designation of the station.

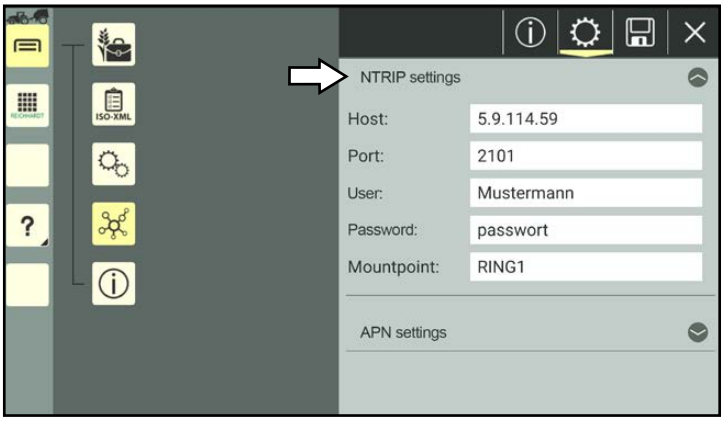


Fig. 141: Modem configuration – Ntrip settings

6.4.6.2.2 APN Settings (Details About the Mobile Service Provider)

Enter the access data of the mobile service provider in the APN settings (see Fig. 142).

You can request the APN data from the mobile service provider. They may also be detailed on the provider's homepage.

Fig. 142: Modem configuration – APN settings

6.4.7 SMART iBox – Connection Status and Device Information (SMART CONTROL Only)

If you are using the automatic steering system SMART CONTROL, then a SMART iBox is installed in the vehicle.

The SMART iBox contains basic system information for using the automatic steering system and is required for the configuration of GNSS receivers and external RTK modems.

Open the SMART COMMAND configuration via the main menu.
Wait at least 15 seconds until the configuration is completely updated.

NOTICE

If the SMART COMMAND configuration cannot be called up or the correct components are not displayed, this can be because

- the vehicle in the machine combination is not configured correctly/fully (red machine combination as operation mode symbol);
- SMART COMMAND is in Office mode (green OFFICE symbol as operation mode symbol).

6.4.7.1 Checking the Connection to SMART iBox

Ensure that a green checkmark is displayed between the SMART iBox and the ISO FLEX (when using the SMART COMMAND app) or the SMART COMMAND terminal (see Fig. 143).
Only then can you access the device information of the SMART iBox and the perfect function of SMART CONTROL can be guaranteed.

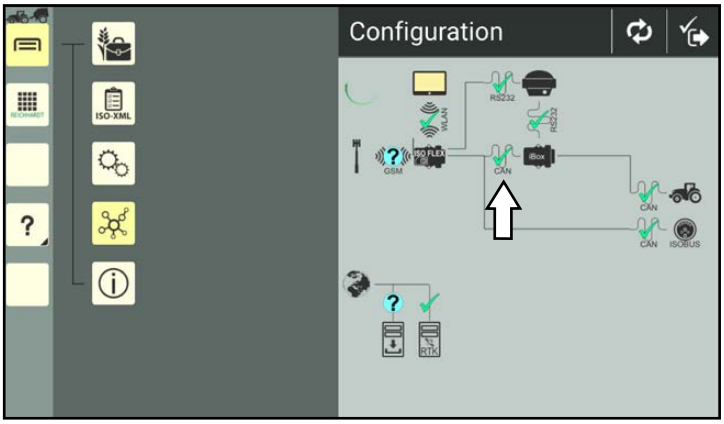


Fig. 143: Checking the connection to the SMART iBox in the SMART COMMAND configuration

6.4.7.2 Calling Up the Device Information of the SMART iBox

When the SMART iBox is connected successfully, you can tap the SMART iBox symbol in the SMART COMMAND configuration (see Fig. 144).

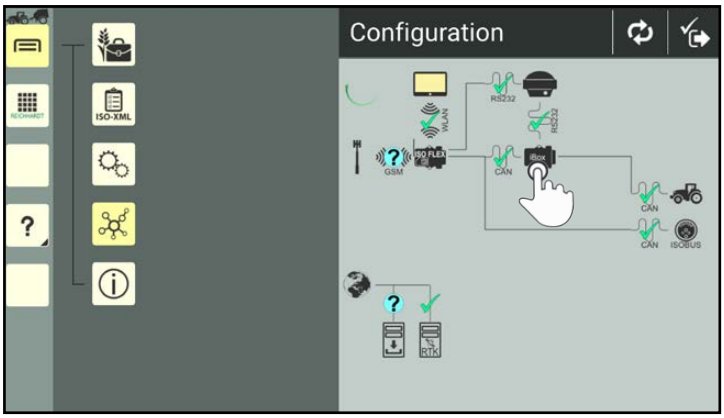


Fig. 144: Tapping SMART iBox in the SMART COMMAND configuration

The device information of the SMART iBox is then displayed (see Fig. 145).

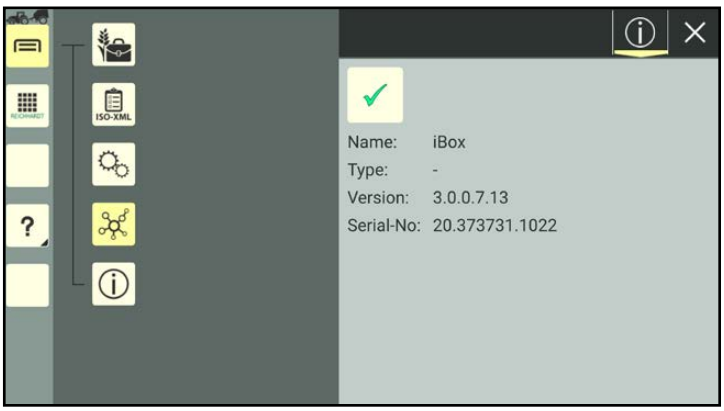


Fig. 145: Device information of the SMART iBox – SMART iBox connected

6.5 Updates

Updating the software of SMART COMMAND, incl. the used components, is explained in the following.

6.5.1 Updating the SMART COMMAND App

If SMART COMMAND is connected to the internet (e.g., ISO FLEX with SIM card or router in Office mode), SMART COMMAND will search for updates.

If a newer version of SMART COMMAND is available it will be displayed on the SMART COMMAND symbol in the SMART COMMAND configuration (see Fig. 146).

If the internet connection is disconnected again, the update notice on the SMART COMMAND symbol is no longer visible.

Tap the SMART COMMAND symbol, to call up the device/software information of SMART COMMAND (see Fig. 147).

Once SMART COMMAND has detected that an update is available, the button "Open web page" is displayed at the bottom of the device/software information (see Fig. 147 – 1). The number of the available version is displayed above the button in the device/software information (see Fig. 147 – 2).

Tapping the button will open the update page of SMART COMMAND in an internet browser (e.g., Chrome or Firefox) (if there is an existing internet connection) (see Fig. 148).
You can also open the update page at any time directly in the browser at the following address:

updates.reichhardt.com

Downloading and installing SMART COMMAND have already been described as part of the commissioning process. Proceed as follows:

- Download the software as per chapter 4.1.1.
- Shut down SMART COMMAND (see chapter 5.7).
- Install the downloaded update as per chapter 4.1.2.
- Ensure that the tablet is connected to the ISO FLEX via WLAN (see chapter 4.1.3).
- Start SMART COMMAND as per chapter 4.2.

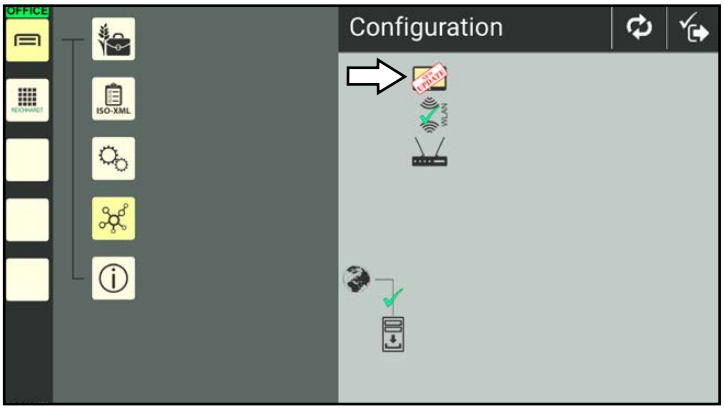


Fig. 146: Information about SMART COMMAND update in the SMART COMMAND configuration

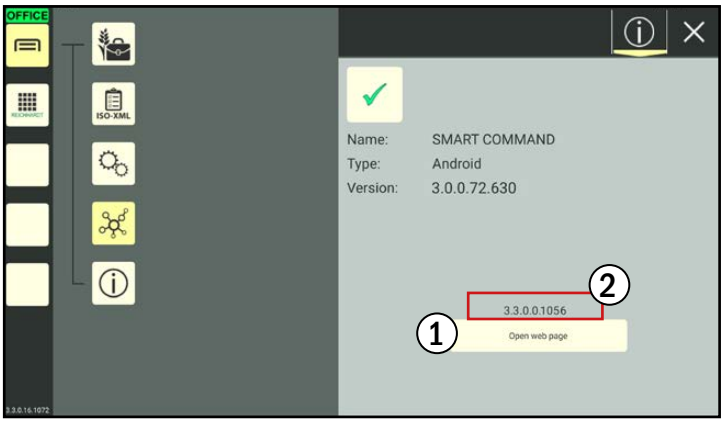


Fig. 147: Update information for SMART COMMAND in the device/software information of SMART COMMAND

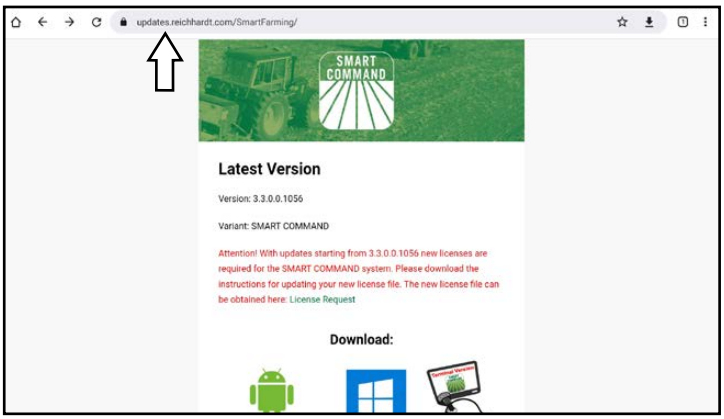


Fig. 148: updates.reichhardt.com

6.5.2 Updating the SMART COMMAND Terminal

The SMART COMMAND terminal can be updated via the USB-C connection on the rear of the terminal (see Fig. 149).

You should ideally use a dual USB-C to USB stick for this purpose.

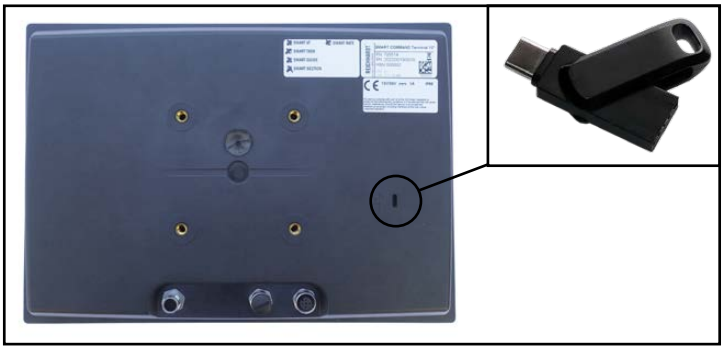


Fig. 149: Rear of the terminal with USB interface

Proceed as follows for the update:

1. Open the Reichhardt update page in an internet browser on the PC or tablet (see Fig. 150):

   updates.reichhardt.com.

   The SMART COMMAND app and terminal version are available on the update page.
2. Download the terminal version of SMART COMMAND.

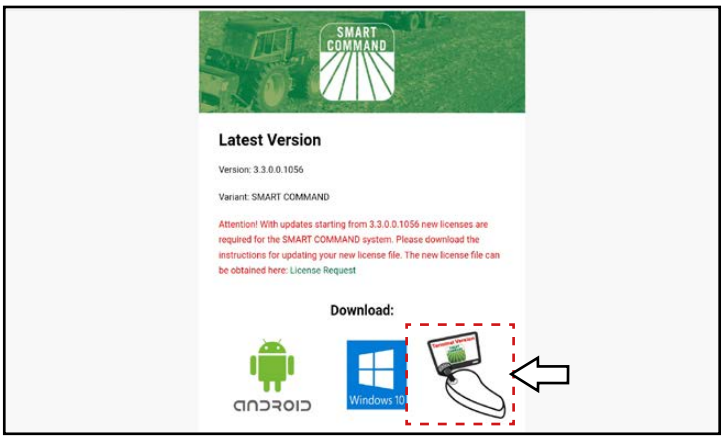


Fig. 150: Terminal update at updates.reichhardt.com

3. Create a folder called "UPDATE" on the USB stick.
4. Save the downloaded file in the "UPDATE" folder (see Fig. 151).
5. Insert the USB stick in the USB-C connection of the terminal.
6. Restart the terminal (switch the ignition off and on again).
7. The new version of SMART COMMAND is installed automatically.

   You can check the version number in the bottom of left of the screen (see chapter 5.2.1.3), in the system information (see chapter 6.1.1), or via the device/software information in the SMART COMMAND configuration (see chapter 6.4.3.2).

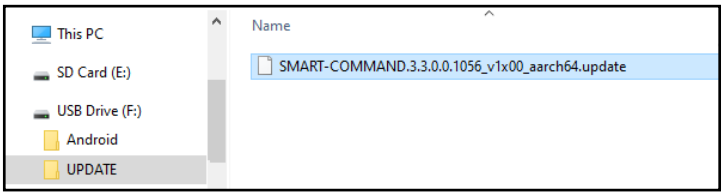


Fig. 151: Update folder with update file on USB stick

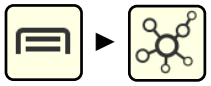
6.5.3 Updating ISO FLEX Firmware (SMART COMMAND App Only)

An update for the ISO FLEX may be available after updating the SMART COMMAND app.

NOTICE

Updates are only available for the ISO FLEX as a WLAN module (used with the SMART COMMAND app) and not as an RTK modem.

An available update is displayed on the ISO FLEX symbol in the SMART COMMAND configuration (see Fig. 152).
The update can be installed regardless of the internet connection.



Open the SMART COMMAND configuration via the main menu.

Tap the ISO FLEX symbol to call up the device information of the ISO FLEX.

The button "Start update (number of available *software version*)" is displayed in the ISO FLEX device information (see Fig. 153).
Tap the button to install the update immediately.

NOTICE

Do not disconnect the power supply to the ISO FLEX or the WLAN connection between SMART COMMAND and ISO FLEX during the installation.

Then acknowledge the notice about the update process that is displayed (see Fig. 154).
SMART COMMAND will then be shut down.

Then proceed as follows:

- Restart ISO FLEX by briefly interrupting the power supply (ISO FLEX LED off).
- Ensure that the tablet is connected to the ISO FLEX via WLAN.
- Restart SMART COMMAND.

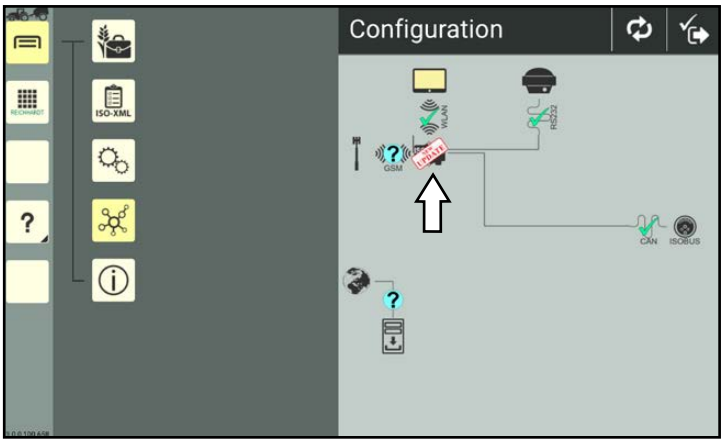


Fig. 152: Update information for ISO FLEX in the SMART COMMAND configuration

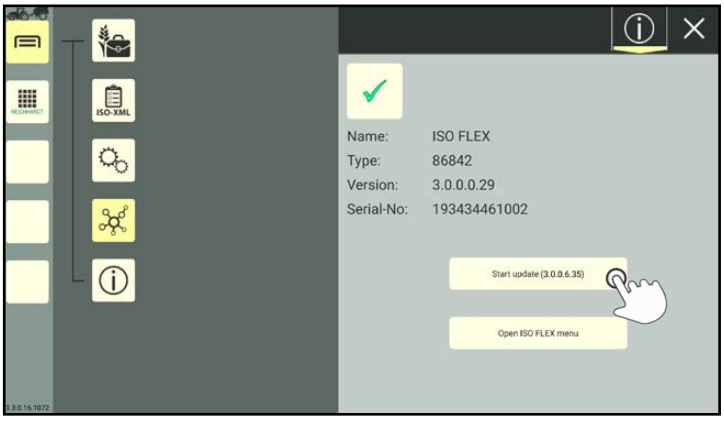


Fig. 153: Update information for ISO FLEX in the device information

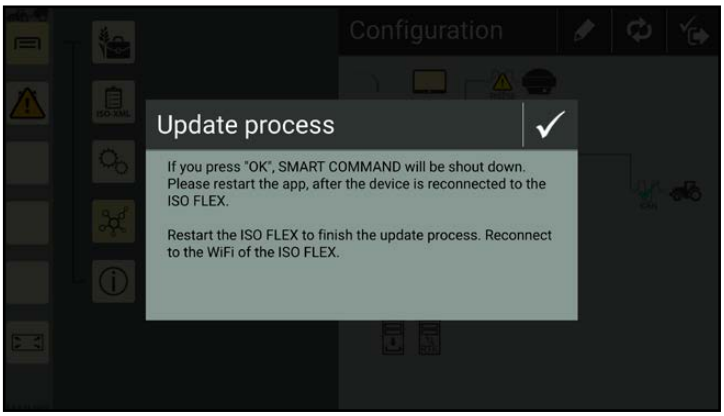
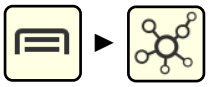


Fig. 154: Following and acknowledging the update instruction

6.5.4 Updating the SMART iBox Software

After updating SMART COMMAND, an update for SMART iBox may be available.

An available update is displayed in the SMART COMMAND configuration (see Fig. 155).
The update can be installed regardless of the internet connection.



Open the SMART COMMAND configuration via the main menu.

Tap the SMART iBox symbol to call up its device information.

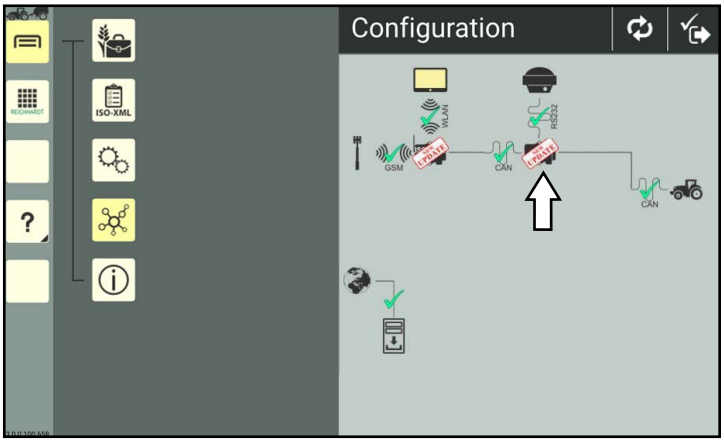


Fig. 155: Update information for SMART iBox (and ISO FLEX) in the SMART COMMAND configuration

The button "Start update (number of available *software version*)" is displayed in the device information (see Fig. 156).
Tap the button to install the update immediately.

NOTICE

Do not disconnect the power supply to SMART COMMAND or SMART COMMAND components during the installation.

Do not connect or disconnect any ISOBUS devices during the update.

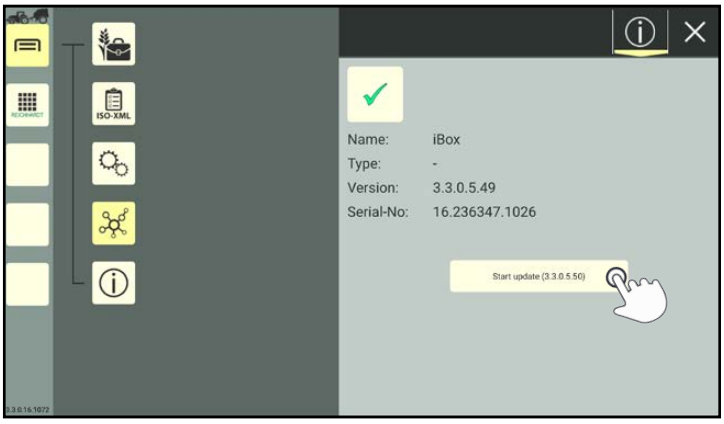


Fig. 156: Update information for SMART iBox in the device information

Then acknowledge the notice about the update process that is displayed (see Fig. 157).

The SMART iBox then restarts.
It can take up to 5 minutes for all of the SMART COMMAND functions to be available again.

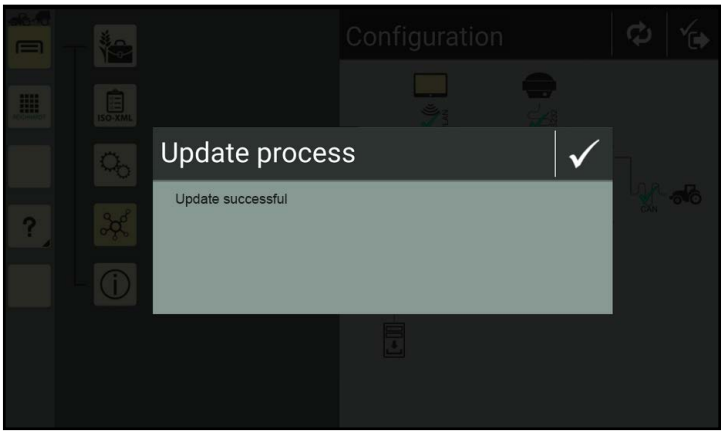
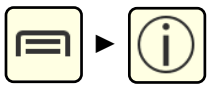


Fig. 157: Acknowledging the update instruction

6.6 Activating SMART COMMAND Licenses

Activating licenses in the SMART COMMAND app and on the SMART COMMAND terminal is explained in the following.



You can see which licenses are currently active in the system information in the main menu (see Fig. 158).

More information about the license overview is provided in chapter 6.1.2.

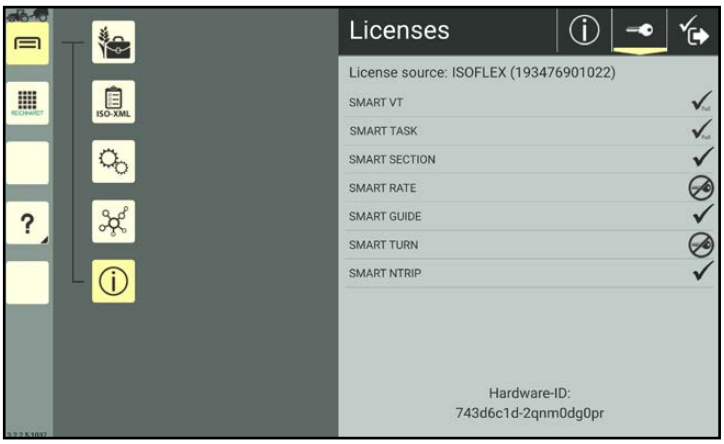


Fig. 158: SMART COMMAND licenses and hardware ID

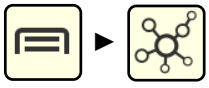
6.6.1 Activating Licenses in the SMART COMMAND App

When using the SMART COMMAND app, the SMART COMMAND licenses are stored on the ISO FLEX.

New licenses are managed and activated via the ISO FLEX configuration menu.

To activate a license, proceed as follows:

1. Request the license from your dealer/Reichhardt. To do so, you will need the hardware ID and serial number of the ISO FLEX.
   - The hardware ID can be called up via the SMART COMMAND system information (see Fig. 158).
   - The ISO FLEX serial number is located on the sticker directly on the ISO FLEX.
2. Unpack the .zip file.
3. Save the unpacked XML file on to the tablet that is connected to the ISO FLEX via WLAN.
4. Open the SMART COMMAND configuration via the main menu:



5. Tap the ISO FLEX symbol in the SMART COMMAND configuration (see Fig. 159).

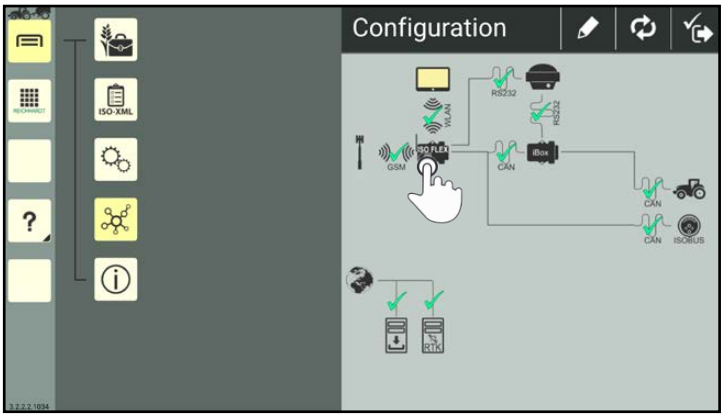


Fig. 159: Tapping ISO FLEX in the SMART COMMAND configuration

6. The ISO FLEX device information is then displayed (see Fig. 160).

   In the ISO FLEX device information, tap the button "Open ISO FLEX menu".

   Alternatively, you can also open the ISO FLEX configuration menu via an internet browser (e.g., Chrome, Firefox).
   To do so, enter the following address (IP) in the address bar:

   192.168.201.1

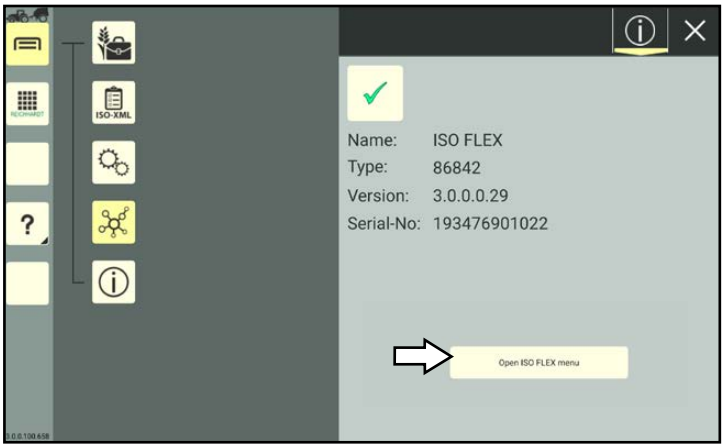


Fig. 160: ISO FLEX device information

7. Tap the "Licenses" menu item on the start page of the configuration menu (see Fig. 161).

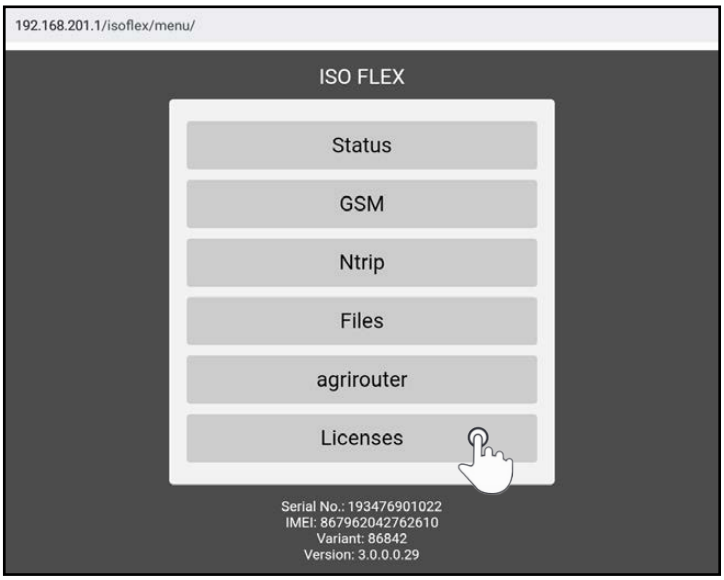


Fig. 161: "Licenses" menu item in ISO FLEX configuration menu

8. The status of all of the available SMART COMMAND licenses is displayed in the "Licenses" sub-menu (see Fig. 162).

   Basic licenses, that are part of regular licenses, are also listed.

   - License available/activated
   - No license available/activated or an error has occurred.

   Tap the import button in the Licenses menu of ISO FLEX (see Fig. 162).

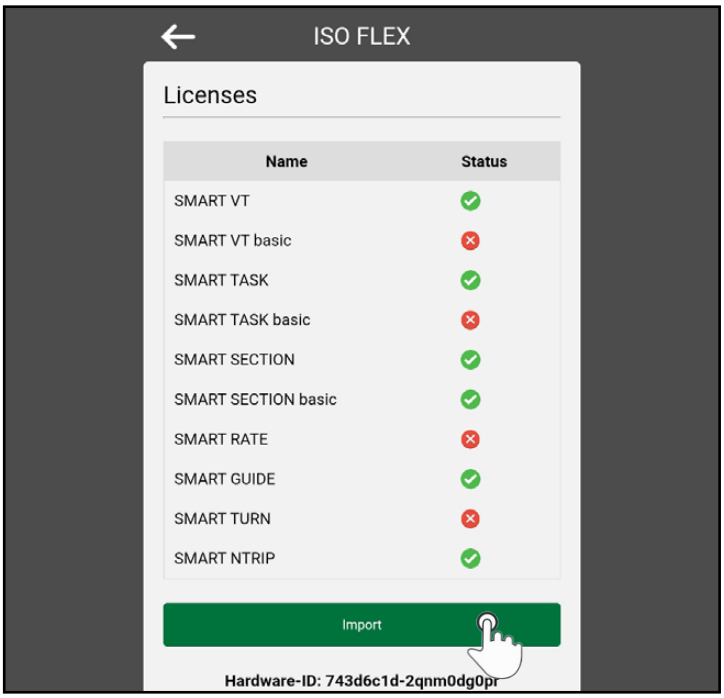


Fig. 162: Licenses menu

9. Select the file on the tablet (see Fig. 163).

   The license is installed automatically.

10. Restart ISO FLEX (by briefly interrupting the power supply).

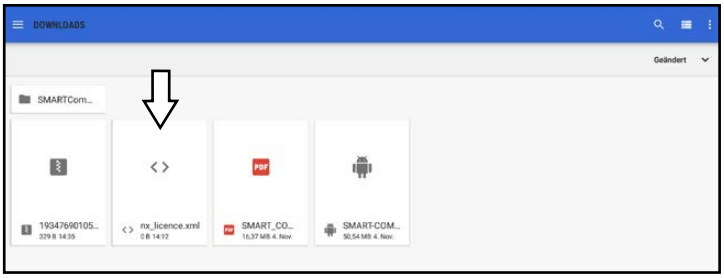


Fig. 163: Importing the license

11. Open the license overview in the system information and check whether the licenses are recognized in SMART COMMAND (see Fig. 158).

6.6.2 Activating Licenses on the SMART COMMAND Terminal

When using the SMART COMMAND terminal, the SMART COMMAND licenses are stored on the terminal.

Licenses can be stored and activated on the terminal via the USB-C connection on the rear of the SMART COMMAND terminal (see Fig. 164).

You should ideally have a dual USB-C to USB stick for this purpose.

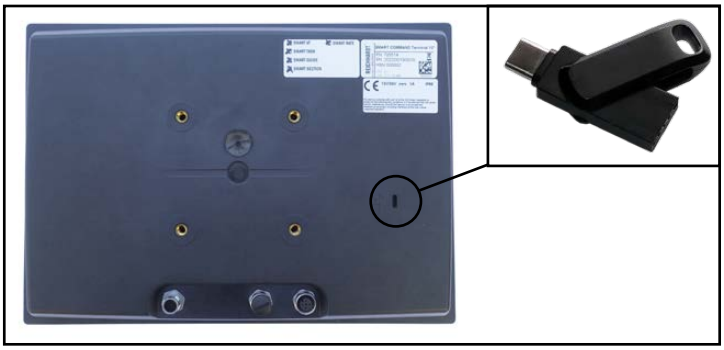


Fig. 164: Rear of the terminal with USB interface

Proceed as follows for the activation:

1. Request the license from your dealer/Reichhardt. To do so, you will need the hardware ID and HSN of the SMART COMMAND terminal.
   - The hardware ID can be called up via the SMART COMMAND system information (see Fig. 158).
   - The HSN is on the label on the rear of the SMART COMMAND terminal (see Fig. 164).
2. Unpack the received .zip file.
3. Connect the USB stick to the PC/tablet on which the license is located.
4. Store the XML file on the USB stick.
5. Insert the USB stick in the USB-C connection of the terminal.
6. Open the SMART COMMAND "Import/Export" application (see Fig. 165).

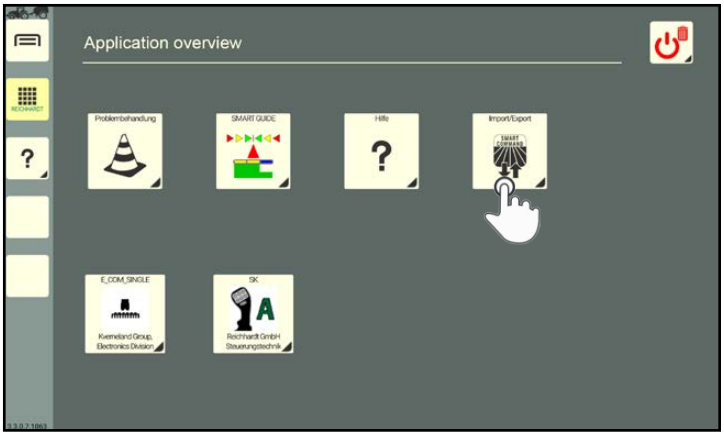


Fig. 165: Opening the “Import/Export” application

7. Import the license file using the “Import/ Export” application. (The function of the application is described in chapter 10.)
   - In the application, tap the import button and select the source (see Fig. 166).

Fig. 166: Tapping the import options

   - Use the button with the double arrow to select the directory that contains the license file (see Fig. 167 – 1).
   - Select "License" as the importable object (button with key; see Fig. 167 – 2).

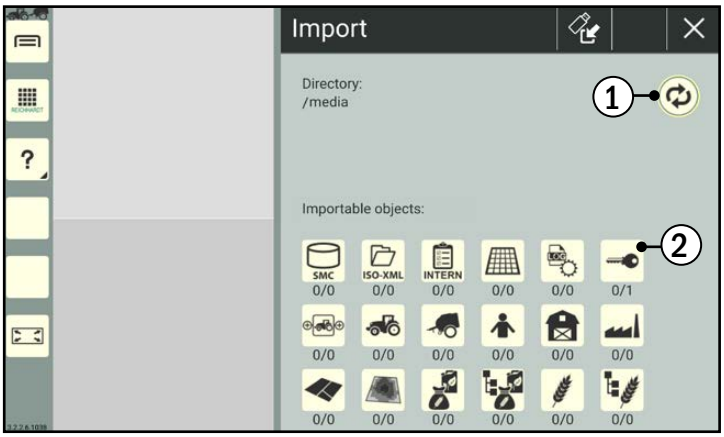


Fig. 167: Selecting the directory and importing the license

   - Select the license file (1) and confirm the import with the checkmark (2) (see Fig. 168).
   - Then confirm the import by tapping the import button with the green checkmark:

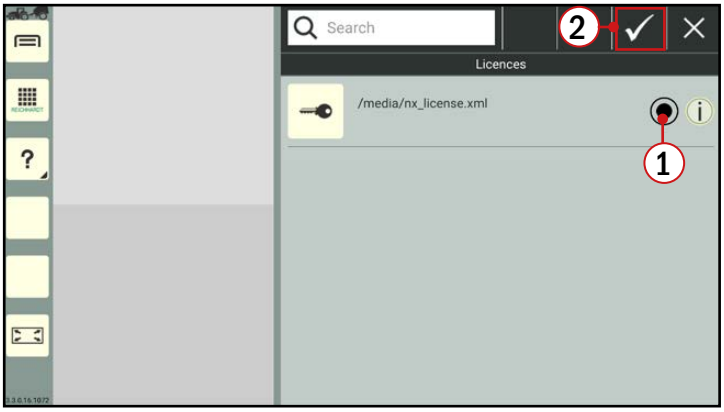


Fig. 168: Selecting and confirming the license file

8. Restart the terminal (switch the ignition off and on again).
9. Open the license overview in the system information and check whether the licenses are recognized in SMART COMMAND (see Fig. 158).

7 Farm Management in SMART COMMAND

Farm management data (tasks, machines, users, fields, etc.) can be saved, edited, and used in SMART COMMAND in both the internal operation and task management menus (in short the “Farm management menu”), and in ISO-XML mode.

- The farm management menu is the internal SMART COMMAND system for managing farm management data.
- In ISO-XML mode you can work with data from the Farm Management Information Systems (FMIS).

The following provides a brief explanation of the two management options, the basic structure, and processing options (see chapter 7.1).

The management of farm management data in SMART COMMAND is then detailed based on the farm management menu (see chapter 7.2 to chapter 7.6).

The function of ISO-XML mode, as well as the import/export function are described in chapter 7.7.

7.1 Introduction – Farm Management Menu Versus ISO-XML Mode (FMIS Data)

Farm management menu

The farm management menu is opened via the main menu (see Fig. 169):

Via the farm management menu, the following menus can be opened in which farm management-related data can be created and used in SMART COMMAND:

Worksheets/tasks
Create, edit, delete, activate, pause, and complete worksheets and tasks.*
(menu symbol changes depending on whether worksheets or tasks should currently be displayed).

Machine management
Create, edit, delete, and select machine combinations, vehicles, and implements.**

User/address management
Create, edit, delete, and select users, farms, and customers.***

Fields
Create, edit, and delete fields.*

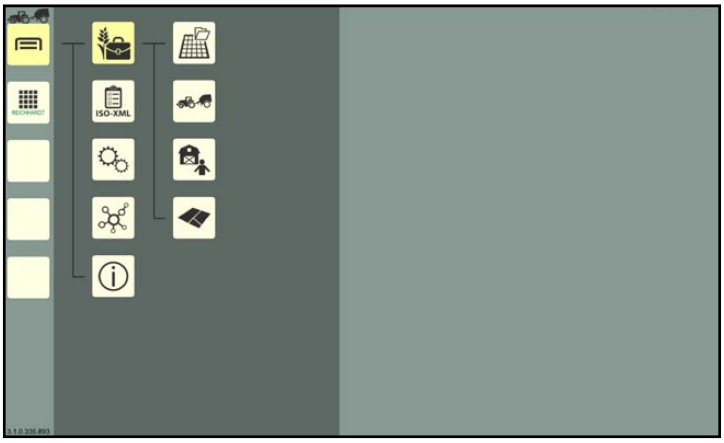


Fig. 169: Sub-items of the farm management menu

* Worksheets or tasks, as well as fields are only relevant when using the "SMART GUIDE" application.
Worksheets and tasks created in the farm management menu are not suitable for exporting into a FMIS.

** The creation and selection of a machine combination (including the vehicle and implement, if applicable) is required to be able to call up the SMART COMMAND configuration and work in SMART GUIDE. You can view the connection status and device information, and implement device updates via the SMART COMMAND configuration (see chapter 6.4.2).
Machines (machine combinations, vehicles, and implements) created in the farm management menu are not suitable for exporting into a FMIS.

*** The creation of users is sensible if several people work with the tablet or the version of SMART COMMAND installed on it. User-specific settings, such as the language, can thus be saved separately for each user.
The creation of farms and customers is designed for the task documentation.

ISO-XML mode

In addition to the manual creation of farm management data via the farm management menu, there is an option to import data from a FMIS using ISO-XML mode.
This data can be used and edited further in the farm management menu, and then exported again to be used in a FMIS (see Fig. 170 and Fig. 171).

ISO-XML mode is a self-contained farm management tool, that is delimited from the SMART COMMAND farm management menu. However, the machine combinations and machines from the farm management menu are used.

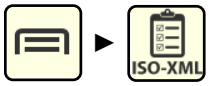
The machine management of the internal farm management menu is accessed when using ISO-XML mode. All of the machine combinations/vehicles/implements in the internal farm management menu are thus displayed.
You can also add new machine combinations/vehicles/implements or edit existing ones. These are available in the internal farm management menu and in ISO-XML mode.
However, it is not possible to export the machine combinations/vehicles/implements into a FMIS.

Users, farms, customers, and fields created in the farm management menu can be imported in ISO-XML mode and can then be exported for further use in a FMIS.
The same applies to exporting data from ISO-XML mode into the farm management menu.

NOTICE

If you have a FMIS and want to use it to prepare the data or process it further, then XML mode is preferable to the farm management menu.

ISO-XML mode is opened via the main menu:



ISO-XML mode is inactive by default (see Fig. 170).

It can only be activated following the import of an ISO-XML file.
An XML file is imported using the "Import/ Export" application in SMART COMMAND; see chapter 10.3.2.
Please also observe the information at the start of chapter 10.3.

Fig. 170: ISO-XML mode inactive

In the active state, the following menus can be opened in which farm management-related data can be created, edited, and used (see Fig. 171):

ISO-XML tasks
Create, edit, delete, activate, pause, and complete tasks.*

Machine management
Create, edit, delete, and select machine combinations, vehicles, and implements.**

User/address management
Create, edit, delete, and select users, farms, and customers.***

Fields
Create, edit, and delete fields.*

More information on XML mode is available in chapter 7.7.

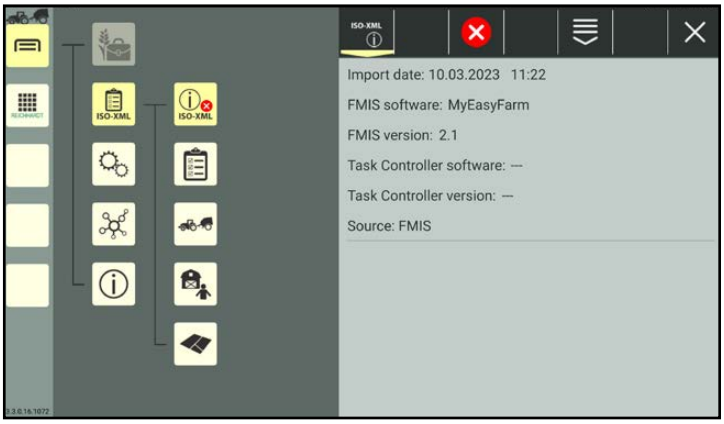


Fig. 171: ISO-XML mode active

* Tasks and fields are only relevant when using the "SMART GUIDE" application.
Tasks created in ISO-XML mode are not suitable for exporting into the farm management menu.

** The creation and selection of a machine combination (including the vehicle and implement, if applicable) is required to be able to call up the SMART COMMAND configuration and work in SMART GUIDE.
You can view the connection status and device information, and implement device updates via the SMART COMMAND configuration (see chapter 6.4.2).
Machines (machine combinations, vehicles, and implements) created in ISO-XML mode are not suitable for exporting into a FMIS.

*** The creation of users is sensible if several people work with the tablet or the version of SMART COMMAND installed on it. User-specific settings, such as the language, can thus be saved separately for each user.
The creation of farms and customers is designed for the task documentation.

7.2 Structure and Processing Options of the Menus in the Farm Management Menu/ISO-XML Mode

The submenus of the machine and user management, as well as the menus for worksheets/tasks and fields have a similar design.

The menus contain the following elements (see Fig. 172):

(1) a list of existing entries/elements and

(2) a black top bar with processing options.

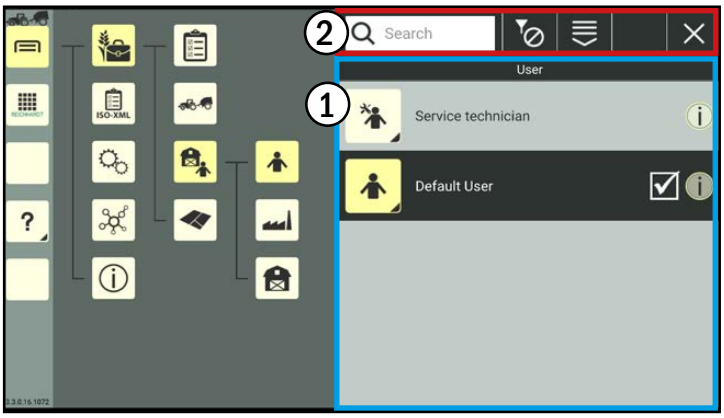


Fig. 172: Example of the menu structure – User

7.2.1 Processing Options for Individual List Entries

Lists show rows of all of the individual entries for an object category (e.g., users, vehicles, etc.) (see Fig. 172).
Filters and search functions can also be selected in some lists to limit the entries that are displayed (see chapter 7.2.2).
There are different processing options based on the selected object.
However, generally the lists of different objects are similar.

7.2.1.1 Tapping and Selecting a List Entry

In SMART COMMAND there are several objects that must be tapped and selected in the lists so that they are set as an active entry in this object category.

There must always be an active user in SMART COMMAND. The default user will be active if you have not selected a user.

A machine combination must be selected to use the SMART COMMAND configuration and SMART GUIDE application.

/ In addition, a task or worksheet must be selected or active to use SMART GUIDE.

Tap the corresponding list entry in the list of the relevant menu to select it (see Fig. 173).

An active list entry has a dark background and is marked with a checkmark.

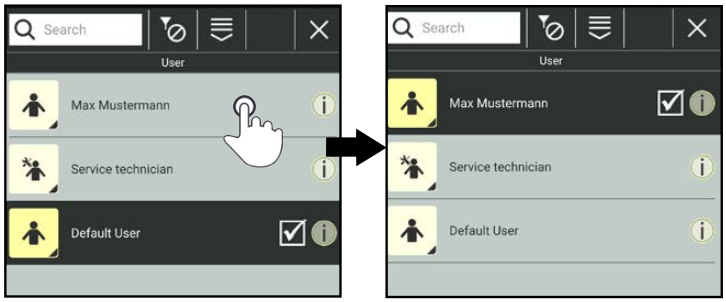


Fig. 173: Tapping a list entry to select it

7.2.1.2 Pressing and Holding the List Entry and Calling up Processing Options

List entries in all menus of the farm management menu can be pressed and held. This calls up the processing options for the selected list entry (see Fig. 174).

NOTICE

As long as a list entry is being edited, you cannot select another menu item in the sidebar or main menu of SMART COMMAND.

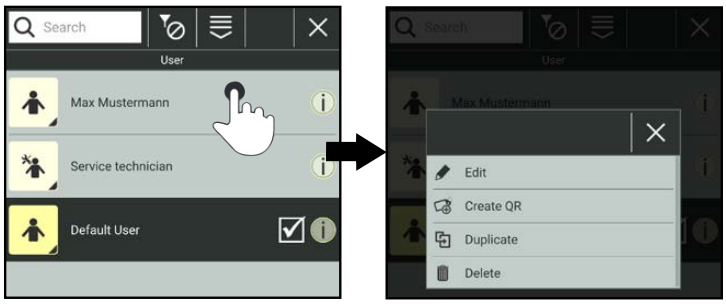


Fig. 174: Pressing and holding the list entry and calling up processing options

The processing options vary depending on the menu. However, the following options are often available:

- Edit: Open and edit the properties/specifications of a selected entry.
  Further processing options are available in the farm management menu. These are explained in the corresponding sections.
  Not available for the default user and service technicians (in the "User" menu).
- Create QR: Create and save QR code for the selected entry.
  Not available for worksheets and fields.
  By scanning the QR code, you can create an associated list entry in SMART COMMAND, if available.
  Users and machine combinations in the user list/list of machine combinations can also be selected and activated. This is suitable for the quick selection of lots of created users/machine combinations.
- Duplicate: Creates a copy of the selected entry.
  Not available for worksheets and tasks.
- Delete: Deletes the selected entry.
  Not available for the default user, service technician, default worksheet, default machine combination, and a selected/active list entry (user, machine combination, worksheet, task).

7.2.1.3 Information on List Entries

Important information about this entry is displayed by pressing the info button on the right of the list entry.

This enables you to quickly check whether it is the entry you are looking for, without having to call up the processing options and all of the tasks (see Fig. 175).

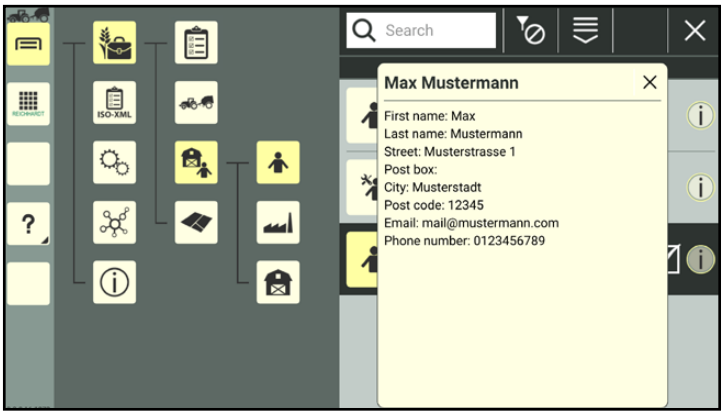
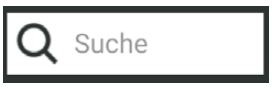


Fig. 175: Information about a user is displayed

7.2.2 Processing Options via the Top Bar in Lists

The top bar above the list entries contains the following elements/buttons:



Search function
Enter letters/digits that the list entries contains.

Filter function*
The filter symbol displays the filter that is currently set. Tapping it opens a selection of filter options. Select the required filter option by tapping it.

Processing options
Tap the symbol to show/hide the processing options. The following options are available:

Add new list entry

Edit** (Edit properties/specifications for selected list entry.)

Scan QR*** (Select or create existing list entry by scanning a QR code.)

Create QR*** (Create and save a QR code for a subsequently selected list entry.)

Import**** (Import an entry from the internal farm management menu into ISO-XML mode.)

Export**** (Export an entry from ISO-XML mode into the internal farm management menu.)

Duplicate (Create copy of a subsequently selected list entry.)

Delete (Deletes all of the subsequently selected list entries.)

Switching button***
- Worksheets are displayed. Tapping it will display the tasks.
- Tasks are displayed. Tapping it will display the worksheets.

Selected processing option
Confirm and execute action for selected processing option following selection of the list entry/entries (from top left to bottom right):
- edit,
- create QR,
- import,
- export,
- duplicate,
- delete.

Close list/menu and cancel processing option
Closes the open list and cancels the processing option. It can also be used to exit a submenu.

* Not available for machine combinations, farms, customers, and fields.
** Not available for the default user and service technicians (in the "User" menu).
*** Not available for worksheets and fields. Only select for machine combinations and user.
**** Only available in ISO-XML mode for users, farms, customers, and fields.
***** Only available in the farm management menu in the "Worksheets/tasks" menu item.

The processing options in the top bar provide the same options a pressing and holding an individual list entry:

- edit,
- duplicate,
- create a QR code, if applicable,
- delete individual list entries.

You also have the following options:

- create new list entry,
- scan the QR code, if applicable,
- delete several list entries simultaneously.

Select a processing option.

Tap to select one or more list entries to which the processing options should be applied.

- Select an entry (see Fig. 177):
  - edit,
  - scan the QR code,
  - create a QR code,
  - duplicate.
- Multi-selections are possible (see Fig. 178):
  - delete

NOTICE

The "Delete" processing option cannot be applied to the default user, service technician, default worksheet, default machine combination, or an active/selected list entry.

The default user and service technician also cannot be edited.

After selecting at least one list entry, the selected option is displayed as a button with a green checkmark in the top bar (see Fig. 177 and Fig. 178).
Execute the processing option by tapping the button.

The selected processing option may need to be confirmed again following a prompt.

Fig. 176: Processing options in the top bar of the "User" menu

Fig. 177: Editing a list entry

Fig. 178: Deleting several list entries simultaneously

7.3 User/Address Management

Open the user/address management via the main menu (see Fig. 179):

The following menu items are available via the user/address management:

Users

Add, edit, delete, and select SMART COMMAND users (see chapter 7.3.1).

Farms

Add, edit, and delete farms for task management (see chapter 7.3.2).

Customers

Add, edit, and delete customers for task management (see chapter 7.3.3).

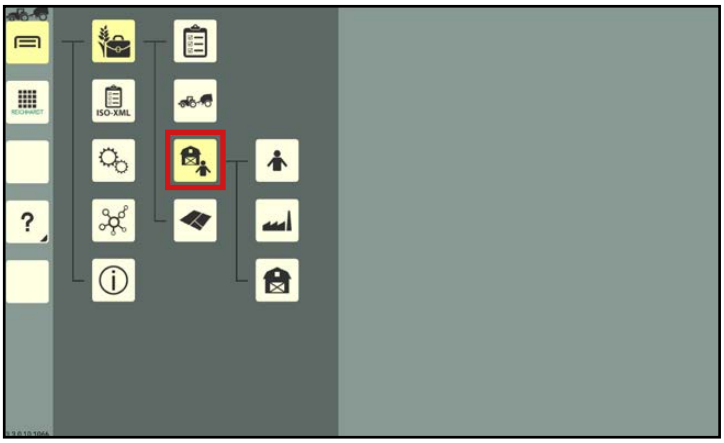


Fig. 179: User/address management in the main menu

7.3.1 Users

In SMART COMMAND you can add different users for which user-specific settings are saved.
When switching users, the user-specific settings thus do not have to be implemented again.

The following user-specific settings are saved in SMART COMMAND:

- regional system settings (language, units, etc.),
- context help ON/OFF.

Open the user via the main menu (see Fig. 180):

During commissioning there is a service technician and a default user (see Fig. 180). These cannot be deleted or edited.

Service technician
For Customer Service employees to access extended system settings; password-protected.

Default user
Access for users of SMART COMMAND; not password-protected.

The selected/active user is marked with a dark color and has a checkmark.

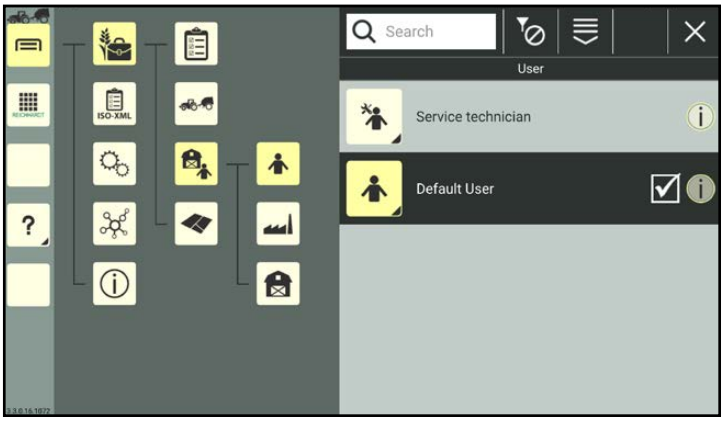


Fig. 180: User list

7.3.1.1 Creating Users

There are three ways to create users:

- by duplicating an existing user,
- by adding a new one, or
- by scanning a QR code.

When duplicating a user, all of the settings of the duplicated user are copied.
Service technicians cannot be duplicated.
When scanning a QR code, all of the user properties except for the user's photograph are applied.

7.3.1.1.1 Adding Users

Open the processing options for users via the top bar of the user list.
Tap the plus symbol (see Fig. 181).

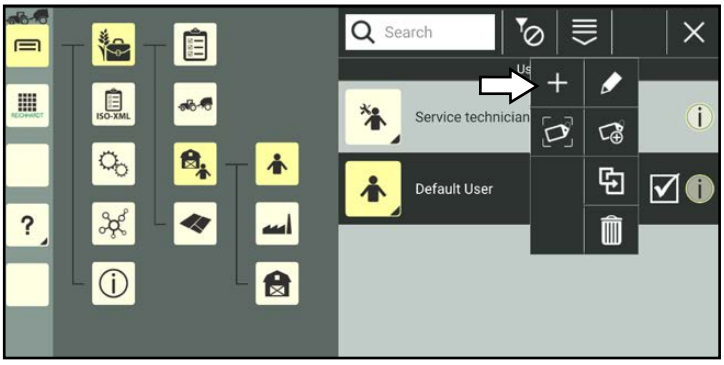


Fig. 181: Adding new users

The user properties of the newly created user are then opened (see Fig. 182).

NOTICE

As long as the user properties are open, you cannot select another menu item in the sidebar or main menu.

Edit the user, if required.
Editing the user properties is described in chapter 7.3.1.2.

Save the user via the symbol with the checkmark.
If you save the user without editing, the user designation is created automatically as detailed in the following: "User" + consecutive number of the user.

The creation process cannot be cancelled.
If the user was created by mistake, you will have to delete the user again (see chapter 7.3.1.5).

You will automatically return to the user list in which the created user is listed (see Fig. 183).

Fig. 182: User properties

Fig. 183: New user in user list

7.3.1.1.2 Duplicating Users

You can also create a user by duplicating an existing user.

In the user list, press and hold the user you wish to duplicate, to call up the processing options for this user (see Fig. 184).

Fig. 184: Pressing and holding the user

Tap "Duplicate" (see Fig. 185).

If the user you want to duplicate is password-protected, you will have to enter the user password to duplicate it.
(The user password can be created and changed via the user properties; see chapter 7.3.1.2).

Alternatively, you can also open the option via the processing options in the top bar of the user list and then select the corresponding user (see chapter 7.2.2).

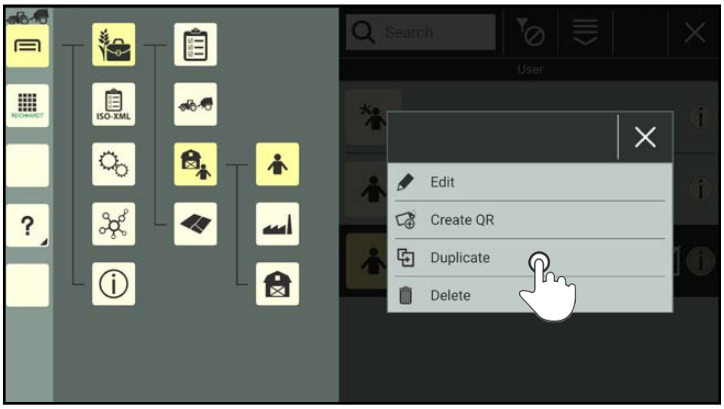


Fig. 185: Duplicating users

You can then access the user properties of the newly created user (see Fig. 186).

NOTICE

As long as the user properties are open, you cannot select another menu item in the sidebar or main menu.

When duplicating a user, the original user properties are adopted. The ending "Copy1" is added to the user designation.

Edit the user, if required.
Editing the user properties is described in chapter 7.3.1.2.

Save the user via the button with the checkmark.
You will automatically return to the user list in which the new user is listed.

Fig. 186: User duplicated

7.3.1.1.3 Adding a User by Scanning a QR Code

NOTICE

A camera is required to use this function. The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal).

You can activate an existing user or create a new one by scanning a previously created QR code (see chapter 7.3.1.2.2). A specific user photograph is not created when creating a user by scanning a QR code.

Open the processing options in the top bar of the user list.
Tap the symbol to scan a QR code (see Fig. 187).

Fig. 187: Selecting "Scan QR"

Scan the QR code (see Fig. 188).

Tap the checkmark to create the scanned user.

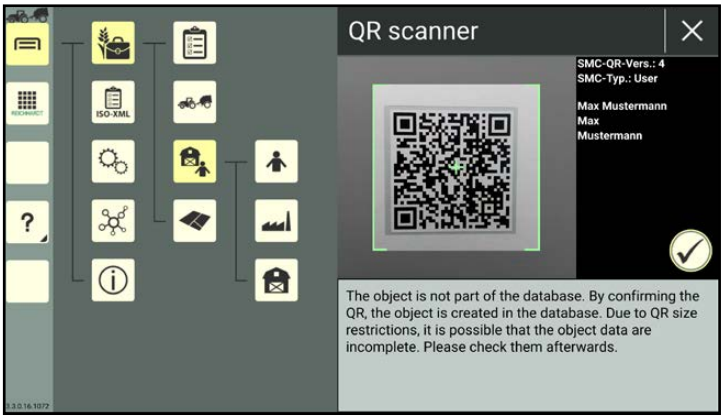


Fig. 188: Scanning the QR code

The user is then listed in the user list (see Fig. 189).

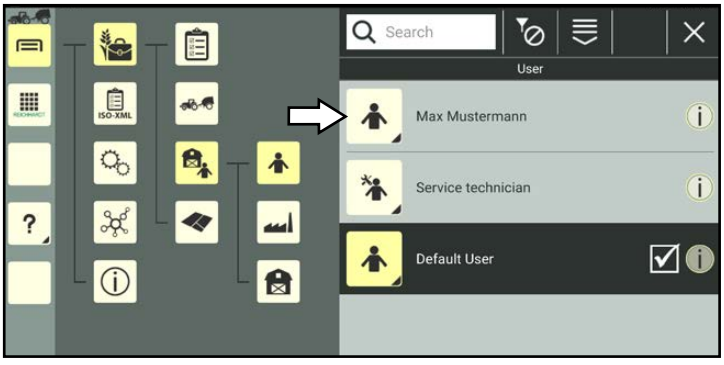


Fig. 189: New user in user list

7.3.1.2 Calling Up, Displaying, and Editing the User Properties

Calling up user properties

In the user list, press and hold the user you wish to edit, to call up the processing options for this user (see Fig. 190).

(The user does not have to be selected/active to be able to edit it.)

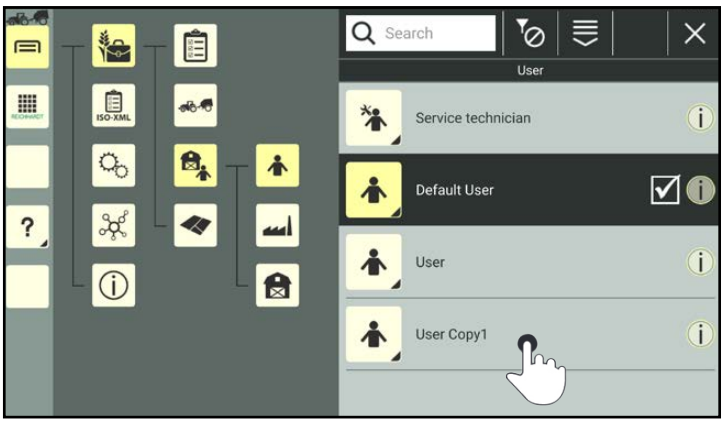


Fig. 190: Pressing and holding the user

Tap "Edit" (see Fig. 191).

NOTICE

The default user and service technician cannot be edited.

NOTICE

If the user is password-protected, you will have to enter the user password to edit it.

If you forget your password, please contact Reichhardt Customer Service.

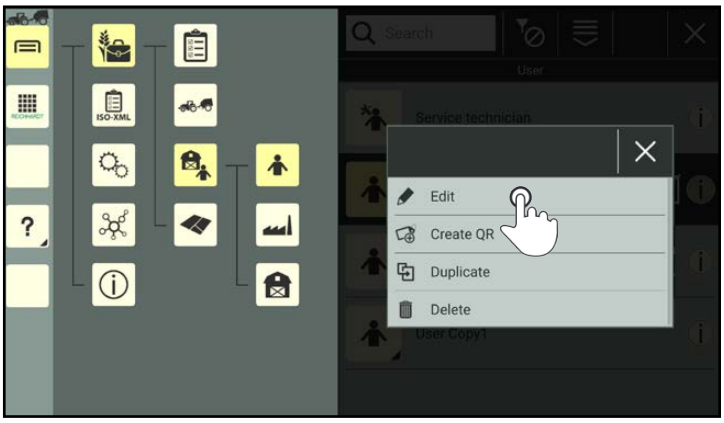


Fig. 191: Editing users

Alternatively, you can also open the option via the processing options in the top bar of the user list and then select the corresponding user (see chapter 7.2.2).

Displaying and editing the user properties

In the user properties (see Fig. 192) you have the following options:

- User settings (User identification and user data, and password, if applicable; see chapter 7.3.1.2.1)
- Entry-specific processing options
  - Create a QR code (see chapter 7.3.1.2.2)
  - Delete the properties of a user (see chapter 7.3.1.2.3)
- Save the user properties and return to user list.

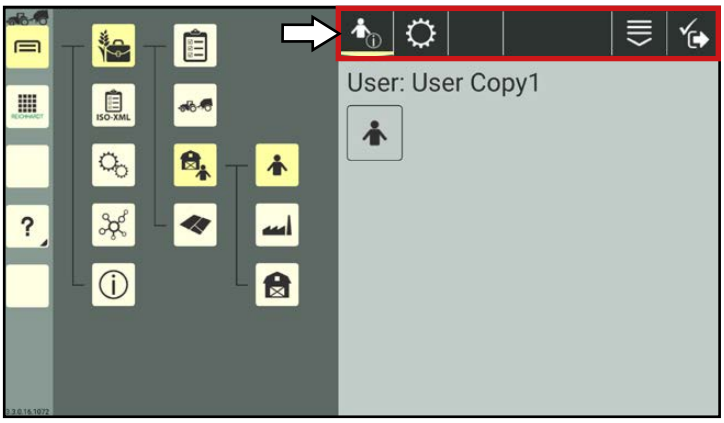


Fig. 192: User properties – options

NOTICE

As long as the user properties are open, you cannot select another menu item in the sidebar or main menu.

7.3.1.2.1 User Identification – Editing the User Data, Password, and User Photograph

Within the user identification, you can save details about the user, specify a password for the user, and add a user photograph, if applicable.

Open the user identification via the settings (gearwheel) in the user properties (see Fig. 193).
This where you can change the user data.

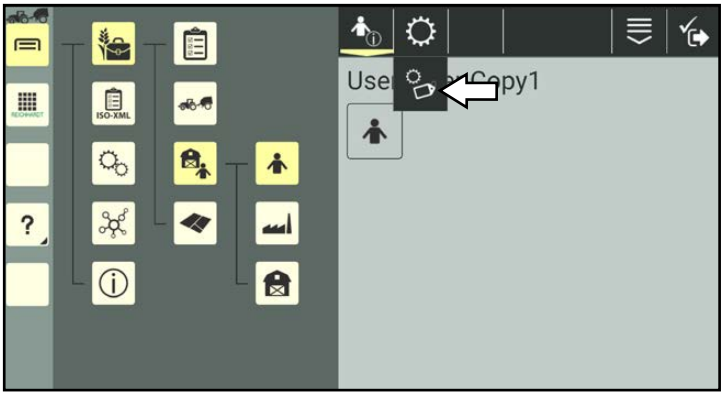


Fig. 193: Calling up the identification

Editing the User Designation, Name, Password, and Address Data

Tap the arrows to open and close the individual categories and enter the required data in the text fields (see Fig. 194).

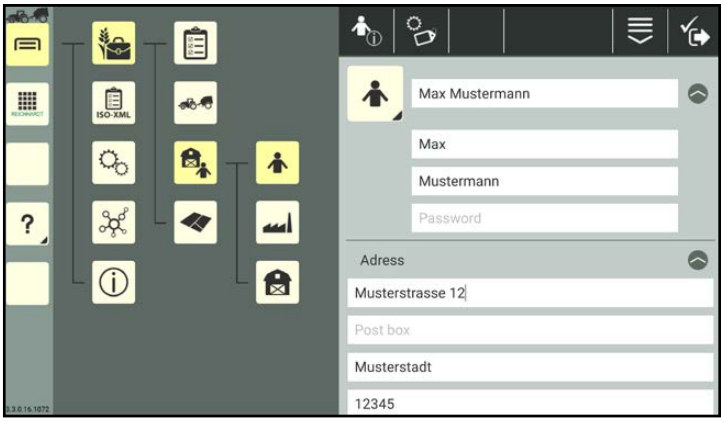


Fig. 194: Editing user data (1/2)

Using a password:

If you add a password for a user, the password must then be entered for the following actions:

- select/activate the user
- edit the user
- duplicate the user
- delete the user

Simply overwrite the old password to create a new password.

Delete the content of the password field to remove password protection.

Editing the e-mail and phone number

In the e-mail und phone categories, you can add/remove entries using the plus and minus signs (see Fig. 195).

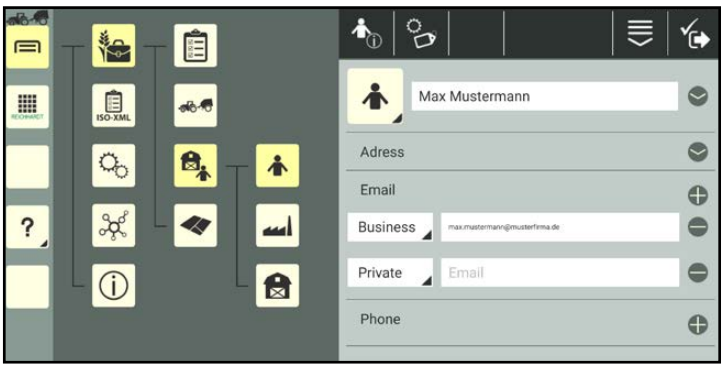


Fig. 195: Editing user data (2/2)

Taking/editing a user photograph

You have the option to assign users with specific user photographs that are taken using the camera on the device on which SMART COMMAND is being operated.

NOTICE

The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal). You can skip this section.

In the identification tap the user photograph.
You can then select a photograph (see Fig. 196).

You can select an existing photograph or take a new photograph.

NOTICE

Saved photographs are available and can be selected for all of the users.

Fig. 196: Selecting/creating a user photograph

Taking a photograph

Tap the camera symbol to start camera mode (see Fig. 197).

Select which camera to use:

Main camera

Front camera

Tap one of the following buttons to take a photograph.

Shutter button

Self-timer with 3 second delay.

Press the shutter button again to discard a photograph and take another one.

Confirm the photograph with the checkmark and exit camera mode.

If you exit camera mode via the X, the photograph will be discarded.

Fig. 197: Camera activated

Selecting a photograph:

Tap an image in the selection of photographs to select it as the user photograph (see Fig. 198).

Press the disk symbol to save the photograph in the user profile.

You will then go back to the identification.

If you wish to remove the image again and use the original user symbol, deselect the photograph in the image selection.
The selected photograph is highlighted with a yellow frame.

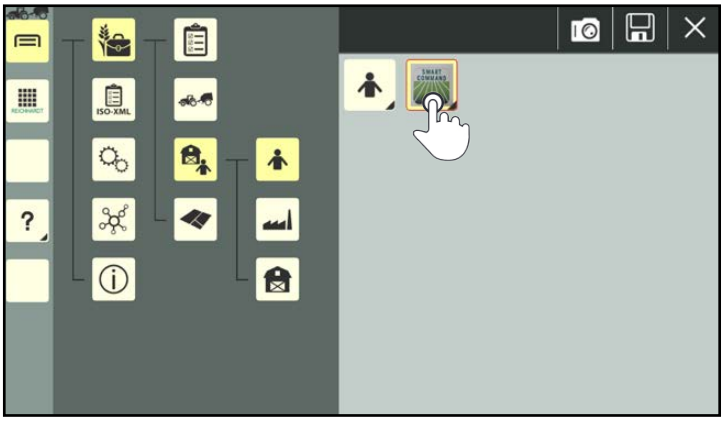


Fig. 198: Selecting a user photograph

Removing an image from the photograph selection:

If you would like to remove an image from the photograph selection, press and hold it and then tap "Delete" (see Fig. 199).

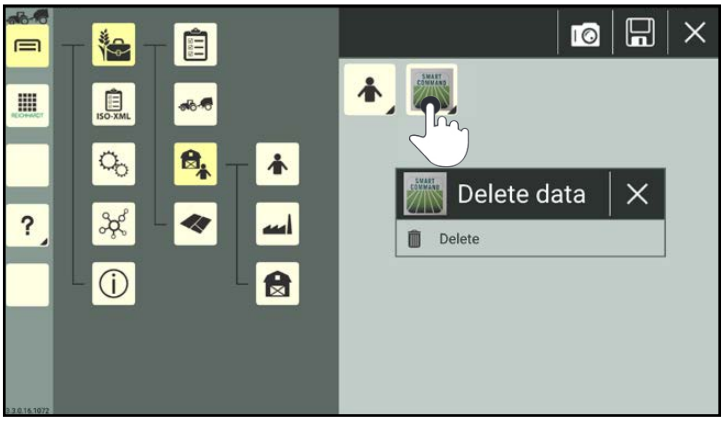


Fig. 199: Removing the photograph from the selection

Saving and closing user properties

Save the changes via the symbol with the checkmark.
You will automatically return to the user list.

7.3.1.2.2 Creating a QR Code for a User

You can use a QR code you select/activate a user from the user list. This is suitable for the quick selection of lots of created users.
In addition, you can add a user who is not available by scanning a QR code.
However, to do so you must first create a QR code for this user.

To be able to scan a QR code, the device on which SMART COMMAND is being operated must have a camera. Creating a QR code for a device without a camera does not make any sense.

In the user properties, call up the entry-specific processing options and tap the button to create a QR code (see Fig. 200).

Alternatively, you can also open the option via the processing options in the top bar of the user list and then select the corresponding user (see chapter 7.2.2).

Fig. 200: Creating a QR code

A PDF file containing the QR code is generated.

Select where you wish to send or save the PDF file (see Fig. 201).

NOTICE

If the user designation or password have been changed since the QR code was created, then the QR code becomes invalid.

The X symbol will initially take you back to the user properties.
Tapping it again will take you back to the user list.

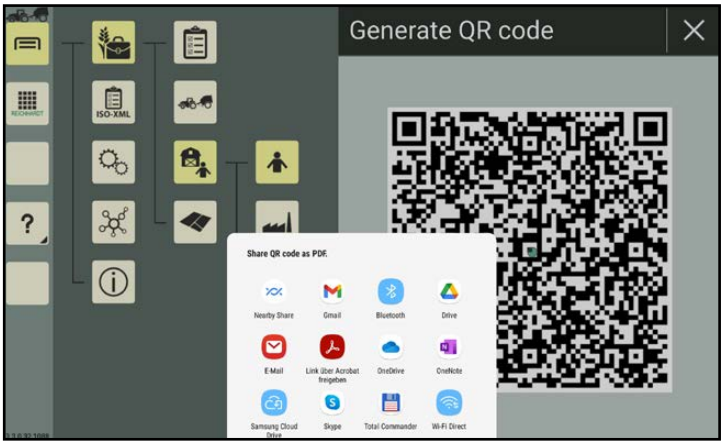


Fig. 201: Saving/sending the QR code

7.3.1.2.3 Deleting the Properties of a User

You have the option of deleting all of the user data, with the exception of the designation, from a created user. This is explained below.
(How to delete a user from the user list is explained in chapter 7.3.1.5.)

In the user properties, call up the entry-specific processing options and tap the eraser symbol (see Fig. 202).

Fig. 202: Deleting user properties

Confirm the prompt with the checkmark to delete all of the data saved in the identification of the selected user, including the user photograph and password (see Fig. 203).

Fig. 203: Confirming the deletion prompt

Save the changes via the symbol with the checkmark.
You will automatically return to the user list.

7.3.1.3 Selecting/Activating Users

There must always be an active user in SMART COMMAND.
The default user will be active if no user has been created and selected.

The selected user is marked with a dark color and has a checkmark (see Fig. 204).

Selecting or activating a user will call up the user-specific settings.
These include

- regional system settings (language, units, etc.),
- context help ON/OFF.

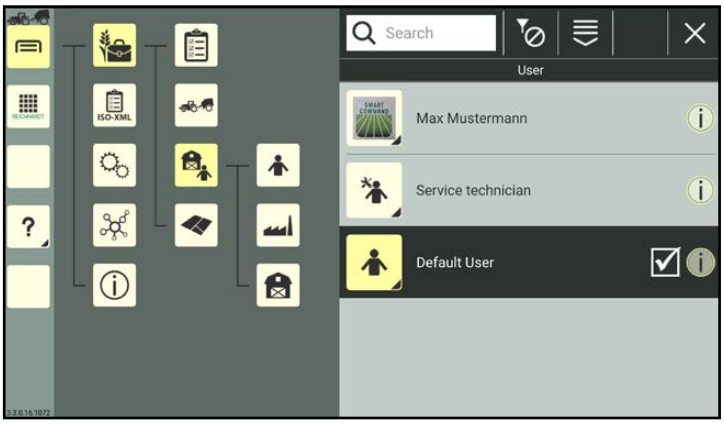


Fig. 204: User lists with active default user

After restarting SMART COMMAND, the last selected user is always active.

Following every restart and every time the user is changed, the user and machine combination screen is displayed to indicate the selected user and selected machine combination (if applicable (see Fig. 205).

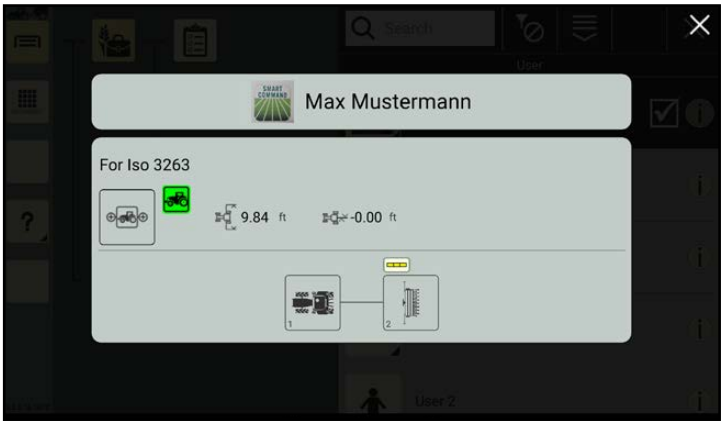


Fig. 205: User and machine combination screen

There are two ways to select a user:

1. by tapping in the user list, or
2. by scanning a QR code.

These two selection options are explained in the following.

7.3.1.3.1 Tapping to Select a User

Select a user by tapping in the user list (see Fig. 206).

(If the user is password-protected, you will have to enter the password to be able to select it.)

The user is then activated.

The user and machine combination screen is displayed (see Fig. 205).

Tap any point on the screen to hide the user and machine combination screen and display the user list.

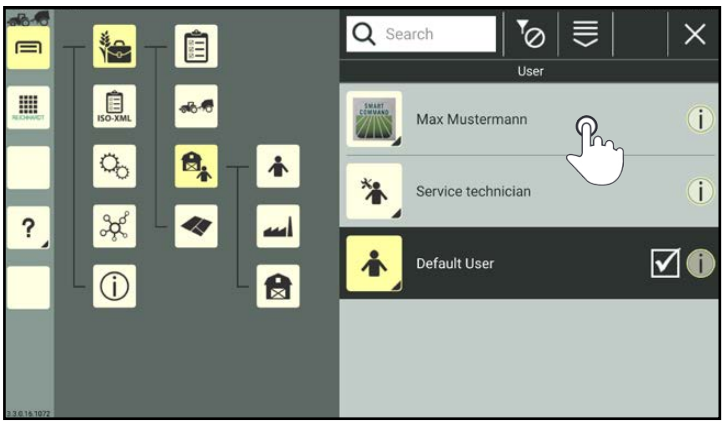


Fig. 206: Tapping a user in the user list

The selected user is then highlighted in the user list (see Fig. 207).

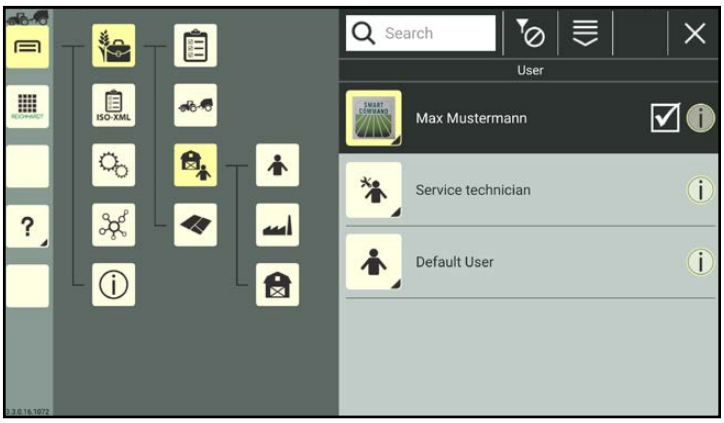


Fig. 207: User selected

7.3.1.3.2 Selecting a User by Scanning a QR Code

NOTICE

A camera is required to use this function. The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal).

You must create a QR code beforehand to be able to select a user by scanning a QR code.
Please refer to chapter 7.3.1.2.2.

NOTICE

If the user designation or password have been changed since the QR code was created, then the QR code is invalid.

Open the processing options for users in the user list.

Tap the symbol to scan a QR code (see Fig. 208).

Fig. 208: Selecting "Scan QR"

The QR scanner will then open.

Scan the QR code.

If the QR code is recognized, the user properties are displayed in the field next to the scanner (see Fig. 209).

If the user does not yet exist in the user list, you will have the option to create the user (see chapter 7.3.1.1.3).

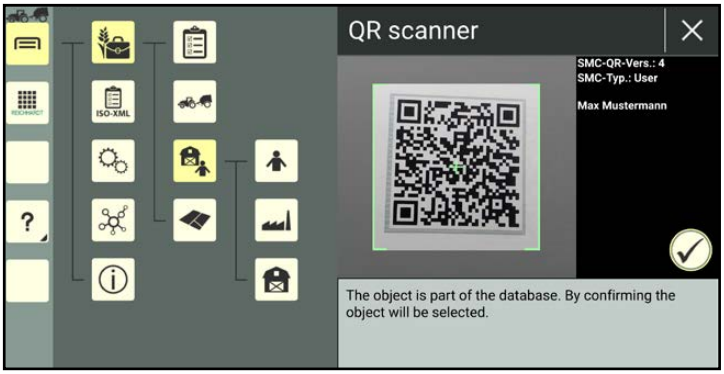


Fig. 209: Scanning the QR code

Tap the checkmark to select the scanned user.

The user is then active (see Fig. 210).

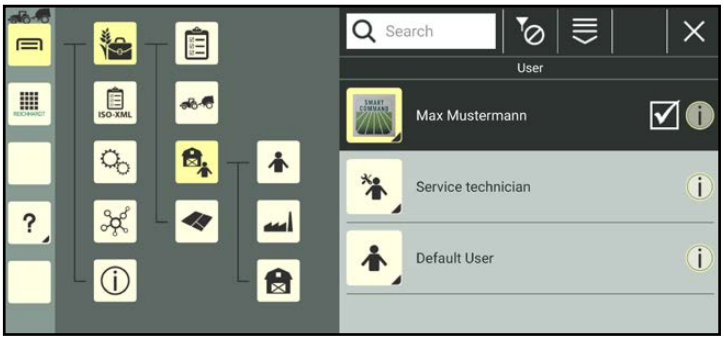


Fig. 210: User selected

7.3.1.4 Sorting Functions in the User List

You can use the search function and filter to reduce the number of users displayed in the user list, enabling you to find and select certain users more quickly. Both functions can be used in combination.

7.3.1.4.1 Searching for Users

You can use the search function to limit the number of users that are displayed or complete a specific search.

Enter the search term in the search field at the top of the user list.
Only the corresponding users are displayed (see Fig. 211).

The search term does not have to be at the start of the designation.
Lower and upper case are also not relevant.

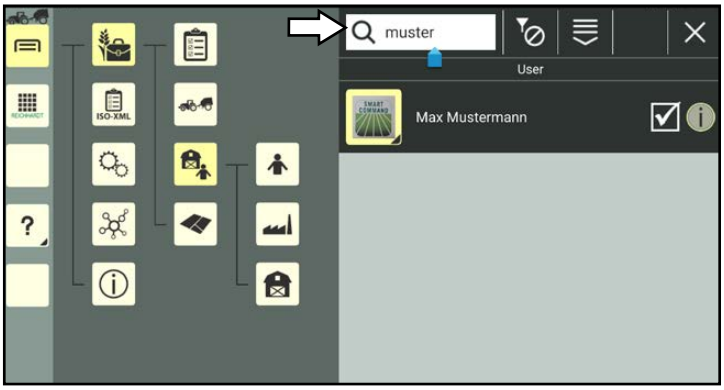


Fig. 211: Searching for users

7.3.1.4.2 Filtering Users

You can use the filter functions to set that only users or service technicians are displayed in the overview.

Tap the filter symbol at the top of the user list and select the corresponding symbol (see Fig. 212 and Fig. 213).

No filter activated

Only display users

Only display service technicians

Fig. 212: Selecting a filter

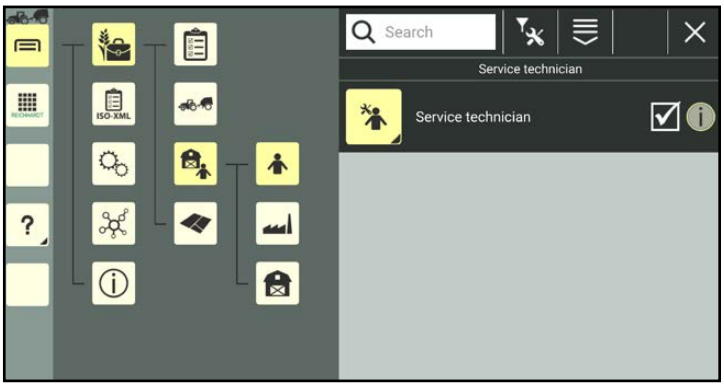


Fig. 213: "Service technician" filter active

7.3.1.5 Deleting Users

NOTICE

The default user, default service technician, and the selected/active user cannot be deleted.

In the user list, press and hold the user you wish to delete, to call up the processing options for this user (see Fig. 214).

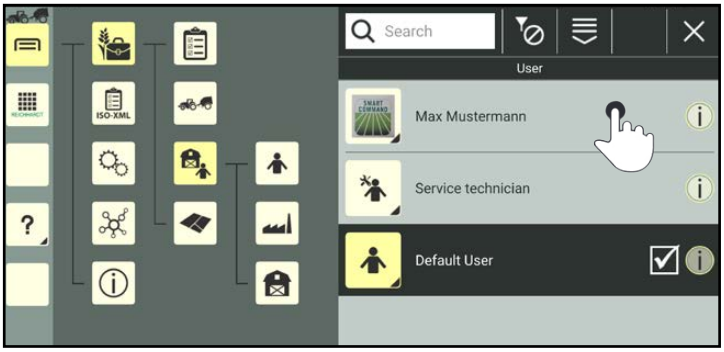


Fig. 214: Pressing and holding the user

Tap "Delete" (see Fig. 215).

If the user is password-protected, you must enter the user password to delete it.

Deleting several users simultaneously:

Open the processing options in the top bar of the user list and tap the trash can symbol. Then select the corresponding users (see chapter 7.2.2).

The deletion process must then also be confirmed by tapping the trash can symbol with the green checkmark.

Then confirm the prompt with the checkmark to delete the user(s) from the user list (see Fig. 216).

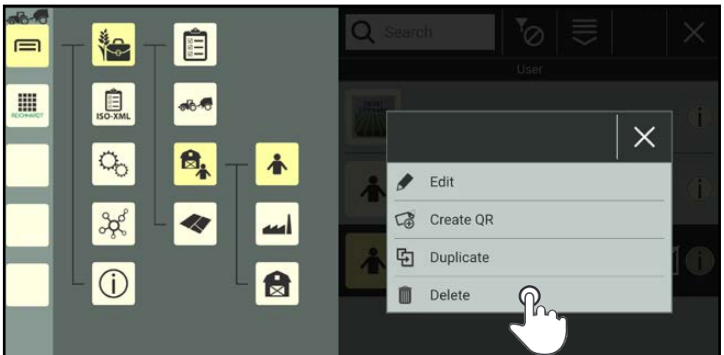


Fig. 215: Deleting users

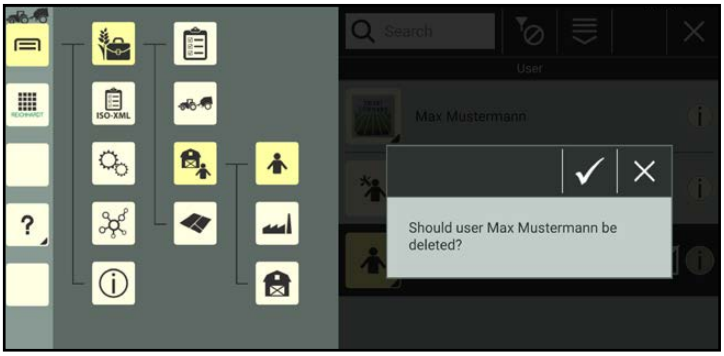


Fig. 216: Confirming the deletion prompt

7.3.2 Farms

Open the farms via the main menu (see Fig. 217):

Farms are managed in a similar way to users.

The adding, editing, deleting, and searching processes are practically identical. These procedures will thus not be explained again at this point.

Please refer to the corresponding user section for this information (see chapter 7.3.1):

- Create (see chapter 7.3.1.1)
  - Add (see chapter 7.3.1.1.1)
  - Duplicate (see chapter 7.3.1.1.2)
  - Use QR code (see chapter 7.3.1.1.3)
- Edit (see chapter 7.3.1.2)
  - Identification – Edit data (see chapter 7.3.1.2.1)
  - Create QR code (see chapter 7.3.1.2.2)
  - Delete properties (see chapter 7.3.1.2.3)
- Search list (see chapter 7.3.1.4.1)
- Delete (see chapter 7.3.1.5)

However, as the operating data is only created for the documentation and task management, there are a few differences to the users:

- Farms are not selected/activated.
- There is no filter for farms to limit what is displayed in the list.
- No passwords can be created for farms.

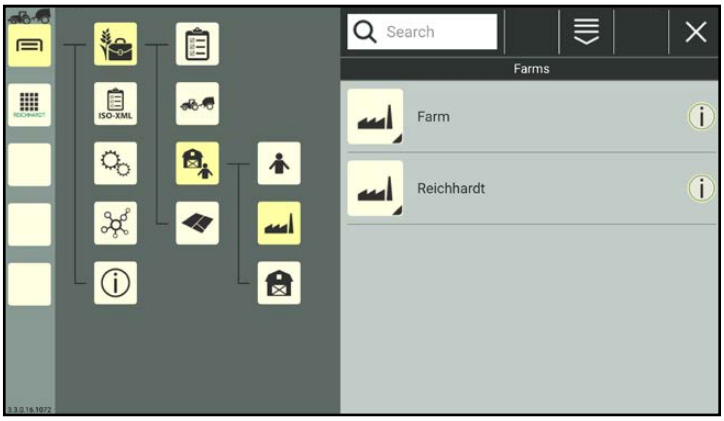


Fig. 217: List of farms

7.3.3 Customers

Open the customers via the main menu (see Fig. 218):

Customers are managed in a similar way to users.

The adding, editing, deleting, and searching processes are practically identical. These procedures will thus not be explained again at this point.

Please refer to the corresponding user section for this information (see chapter 7.3.1):

- Create (see chapter 7.3.1.1)
  - Add (see chapter 7.3.1.1.1)
  - Duplicate (see chapter 7.3.1.1.2)
  - Use QR code (see chapter 7.3.1.1.3)
- Edit (see chapter 7.3.1.2)
  - Identification – Edit data (see chapter 7.3.1.2.1)
  - Create a QR code (see chapter 7.3.1.2.2)
  - Delete properties (see chapter 7.3.1.2.3)
- Search list (see chapter 7.3.1.4.1)
- Delete (see chapter 7.3.1.5)

However, as customers are only created for the documentation and task management, there are a few differences to the users:

- Customers are not selected/activated.
- There is no filter for customers to limit what is displayed in the list.
- No passwords can be created for customers.

Fig. 218: Customer list

7.4 Machine Management

You can add and configure vehicles and implements, and generate machine combinations in the machine management.

NOTICE

Adding and managing vehicles, implements, and machine combinations are absolutely crucial for using the SMART GUIDE application. To be able to use SMART GUIDE, a machine combination and at least one vehicle must be available and selected (active) (see chapter 7.4.1.1, chapter 7.4.2.1, chapter 7.4.2.2.3, and chapter 7.4.2.5).

The vehicle incorporated in the machine combination must be linked via the vehicle configuration to the SMART COMMAND components (ISO FLEX, SMART iBox) that may be installed in the vehicle (see chapter 7.4.1.2.4).

The same prerequisites must be met if you want to open the SMART COMMAND configuration in machine combination mode (see chapter 6.4.2).

If you are only using SMART VT (operating ISOBUS screens), then adding and selecting a machine combination and the associated steps are only required to use the SMART COMMAND configuration.

Open the machine management via the main menu (see Fig. 219):

The following menu items are available via the machine management:

Machine combinations
Add, edit, delete, and select machine combinations (see chapter 7.4.2).

Vehicles
Add, edit/configure, and delete vehicles (without TECU); display, configure, and delete automatically detected vehicles (with TECU) (see chapter 7.4.1).

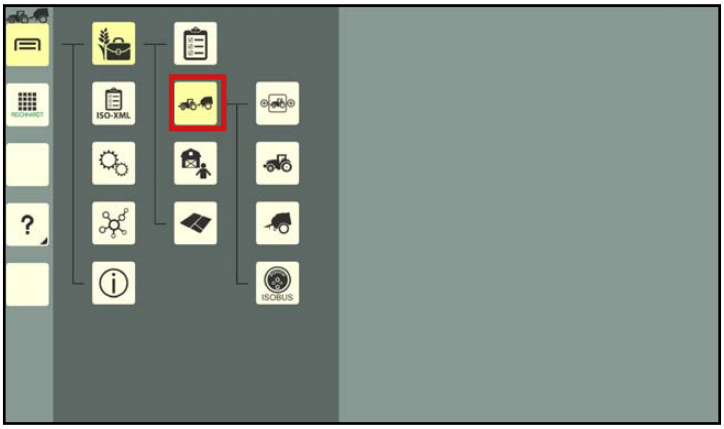


Fig. 219: Machine management in the main menu

Implements
Add, edit, and delete non-ISOBUS-capable implements; display and delete ISOBUS implements (see chapter 7.4.1).

ISOBUS devices – vehicles with TECU and ISOBUS implements
Display, configure, and delete automatically detected vehicles (with TECU) and ISOBUS implements (see chapter 7.4.1).

NOTICE

You can either add vehicles and implements directly when creating a machine combination or create them beforehand and then integrate them in a machine combination. To make it easier to understand, the procedure of creating them separately and then combining them will be explained in the following.

NOTICE

Creating and editing vehicles and implements is practically identical. The term "machine" will thus be used in the following to explain these steps citing vehicles as an example.
Any different approaches or behavior will be described explicitly.

7.4.1 Machines – Vehicles and Implements

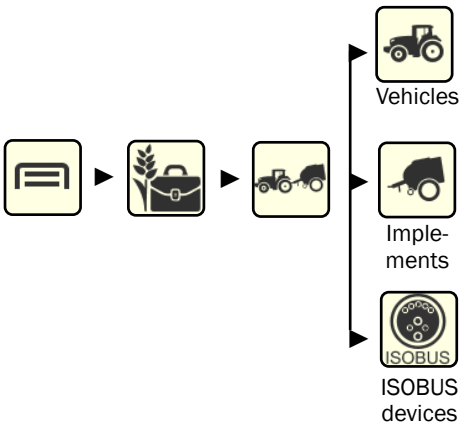
The management of vehicles and implements is explained in the following. Adding and managing machine combinations is described in chapter 7.4.2.

NOTICE

SMART COMMAND must be connected to a vehicle to add vehicles and ISOBUS implements.

Non-ISOBUS-capable implements can be added without a machine connection.

Open the relevant machine list via the main menu (see Fig. 220):



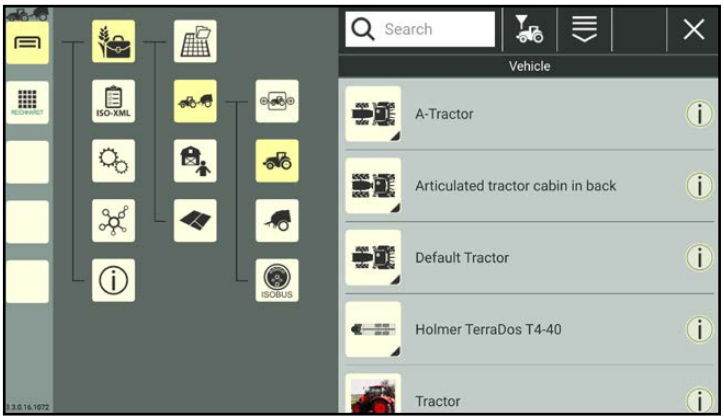


Fig. 220: Vehicle list

7.4.1.1 Creating Machines

Vehicles (without TECU) and non-ISOBUS-capable implements can be created by adding a new one, duplicating an existing machine, or scanning a QR code.
When duplicating a machine, all of the settings of the duplicated machine are copied.
When scanning a QR code not all of the machine properties are created. They must be added manually.

NOTICE

Vehicles with TECU and ISOBUS implements are added automatically when connected and cannot be created or duplicated manually.

NOTICE

You can use the filter options in top bar of the relevant list to determine which machine types you want to display (see chapter 7.3.1.4.2).

NOTICE

A default tractor is available during commissioning. This tractor can be edited but not deleted.

7.4.1.1.1 Adding a Machine

NOTICE

Vehicles with TECU and ISOBUS implements are added automatically when connected. They do not need to be created.

They will continue to be displayed in the machine list even if the connection to the ISOBUS is interrupted. The connection status is indicated by a symbol on the machine icon (see chapter 7.4.1.3).

Open the processing options for machines via the top bar of the relevant list.

Tap the plus symbol (see Fig. 221).

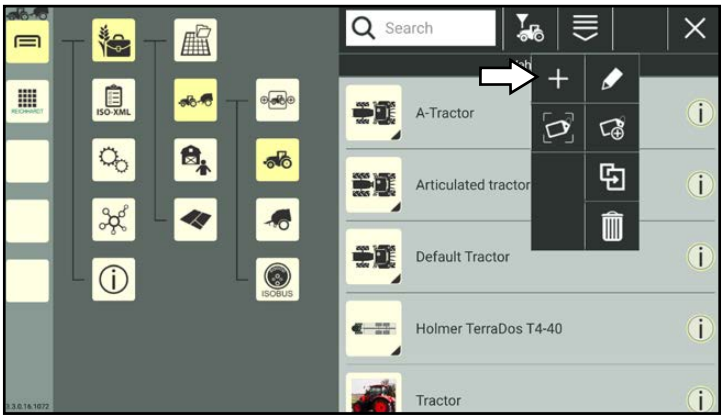


Fig. 221: Adding a new machine

A menu will then open via which you can add vehicles (without TECU) and non-ISOBUS-capable implements (see Fig. 222).

Open/close the individual categories by tapping the arrows. Tap the required machine to select it.

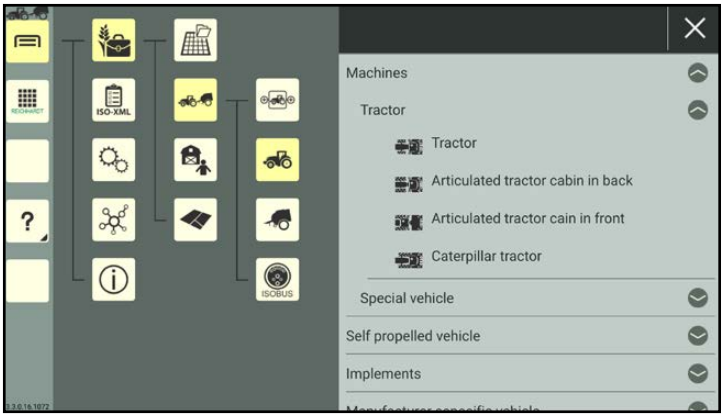


Fig. 222: Selecting a machine

The machine properties then open (see Fig. 223).

NOTICE

As long as the machine properties are open, you cannot select another menu item in the sidebar or main menu.

Edit the machine, if required.
Editing the machine properties is described in chapter 7.4.1.2.

Save the machine via the button with the checkmark.

If you save the machine without editing it further, a designation that contains the machine type is created automatically.

A consecutive number is added if the designation already exists.

The creation process cannot be cancelled.
If the machine was created by mistake, you will have to delete the machine again (see chapter 7.4.1.6).

After saving, you will automatically return to the machine list in which the created machine is listed (see Fig. 224).

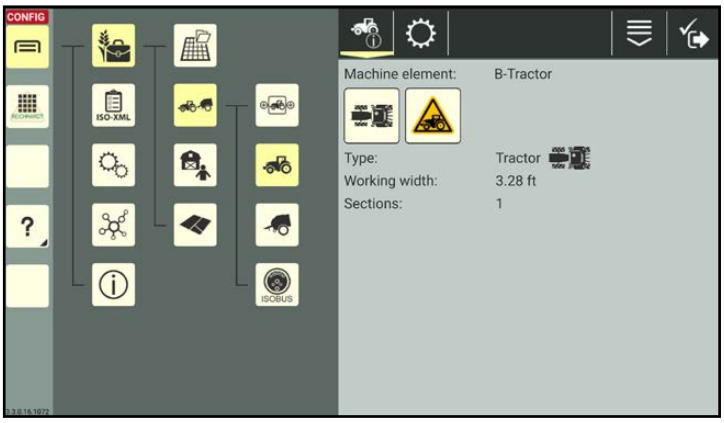


Fig. 223: Machine properties

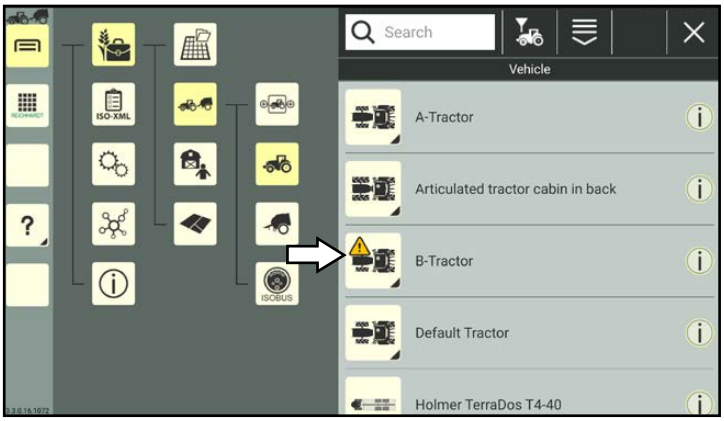


Fig. 224: New machine in machine list

7.4.1.1.2 Duplicating a Machine

You can also create a machine by duplicating an existing machine.

NOTICE

Automatically detected vehicles with TECU and ISOBUS implements cannot be duplicated.

In the machine list, press and hold the machine you wish to duplicate, to call up the processing options for this machine (see Fig. 225).

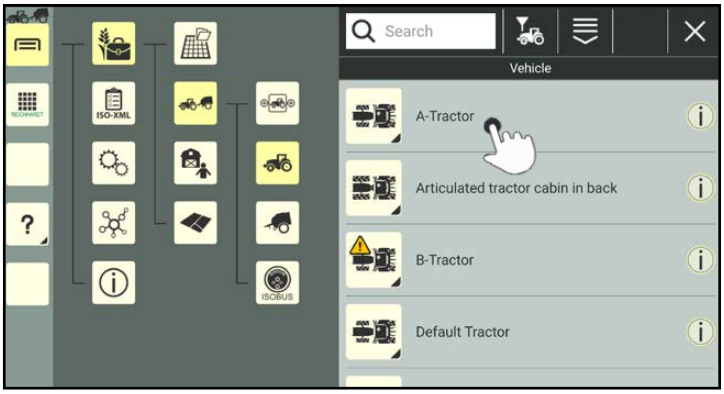


Fig. 225: Pressing and holding the machine

Tap "Duplicate" (see Fig. 226).

Alternatively, you can also open the option via the processing options in the machine list and then select the corresponding machine (see chapter 7.2.2).

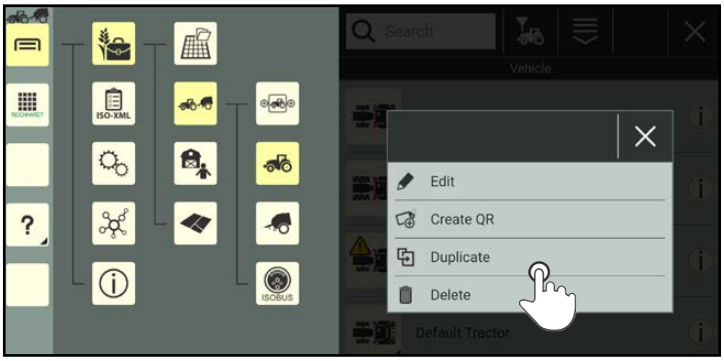


Fig. 226: Duplicating a machine

You can then access the machine properties of the newly created machine (see Fig. 227).

NOTICE

As long as the machine properties are open, you cannot select another menu item in the sidebar or main menu.

When duplicating a machine, the original machine properties are adopted.
The ending "Copy1" is added to the machine designation.

Edit the machine, if required.
Editing the machine properties is described in chapter 7.4.1.2.

Save the machine via the button with the checkmark.
You will automatically return to the machine list in which the new machine is listed.

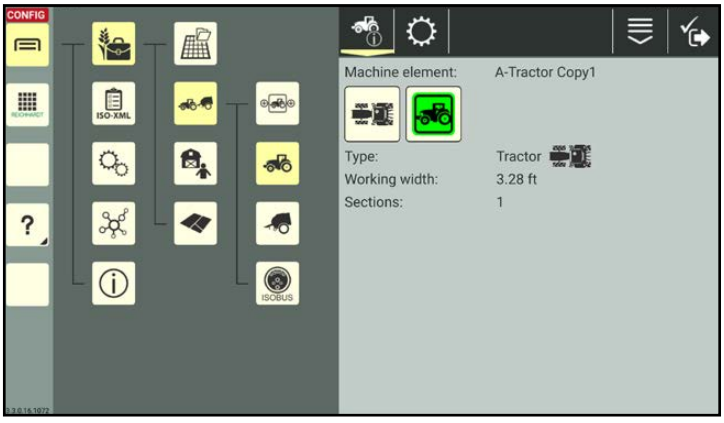


Fig. 227: Machine duplicated

7.4.1.1.3 Adding a Machine by Scanning a QR Code

You can create a new machine by scanning a previously created QR code (see chapter 7.4.1.2.8).

NOTICE

A camera is required to use this function. The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal).

NOTICE

When creating a machine by scanning a QR code not all of the data of the scanned machine is transferred. The identification data (with the exception of an assigned image), geometry, GNSS settings, and section control are added. Details about the vehicle configuration are not transferred and must be added manually.

Open the processing options for the machine list.

Tap the symbol to scan a QR code (see Fig. 228).

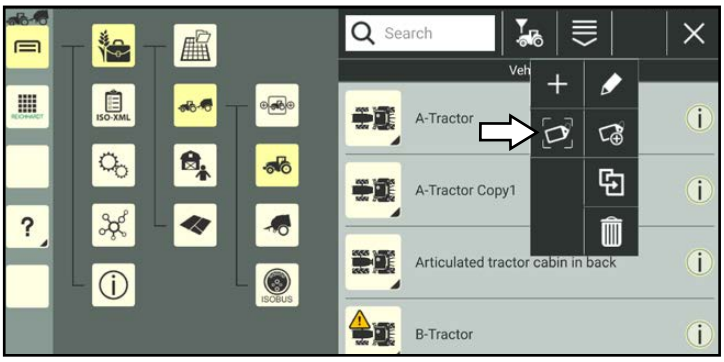


Fig. 228: Selecting "Scan QR"

Scan the QR code (see Fig. 229).

Tap the checkmark to create the scanned machine.

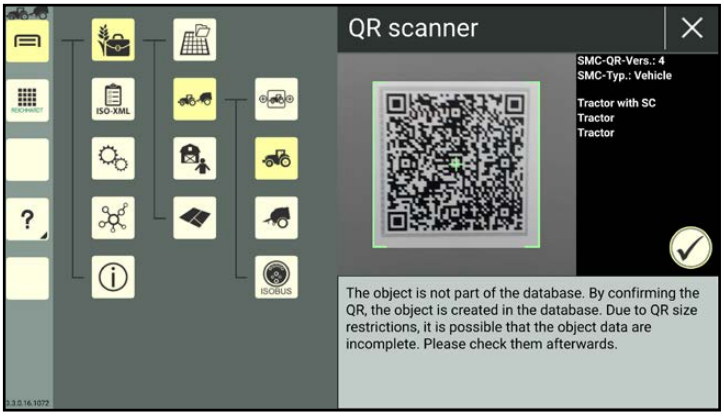


Fig. 229: Scanning the QR code

The machine is then listed in the machine list (see Fig. 230).

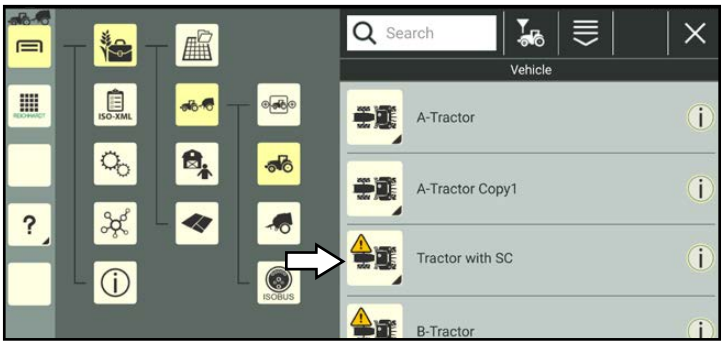


Fig. 230: New machine in machine list

7.4.1.2 Calling Up, Displaying, and Editing the Machine Properties

NOTICE

All of the machine can be edited or configured.
The processing options for vehicles with TECU and ISOBUS implements are restricted as some of the properties and settings are detected automatically and cannot be changed. This, for example, includes the geometry of an ISOBUS implement.

Calling up the machine properties

In the machine list, press and hold the machine you wish to edit, to call up the processing options for this machine (see Fig. 231).

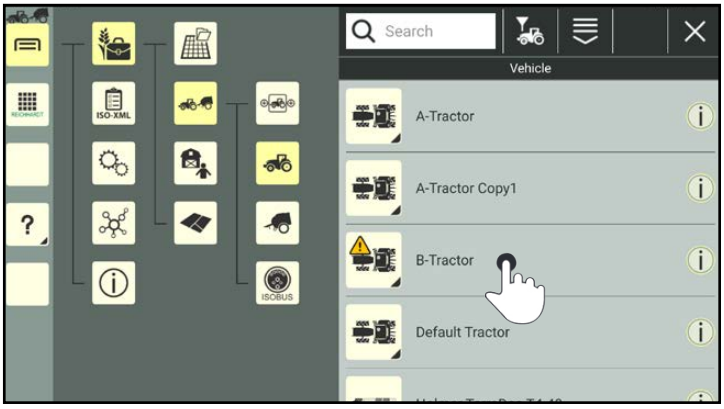


Fig. 231: Pressing and holding the machine

Tap "Edit" (see Fig. 232).

Alternatively, you can also open the option via the processing options in the top bar of the machine list and then select the corresponding machine (see chapter 7.2.2).

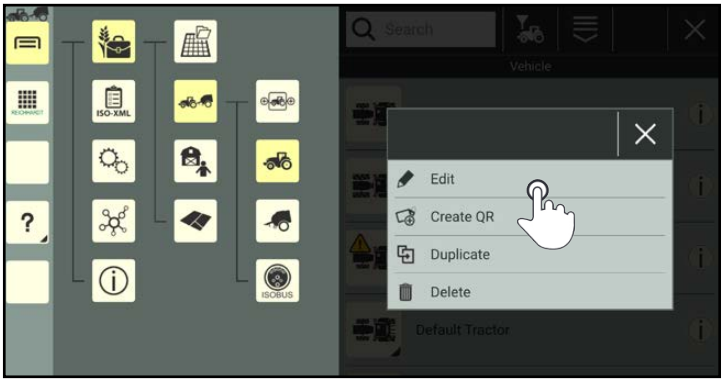


Fig. 232: Editing a machine

Displaying and editing the machine properties

The following options are available in the machine properties of the vehicle (see Fig. 233) or implement:

Machine settings (see chapter 7.4.1.2.2)

Entry-specific processing options

Create a QR code (see chapter 7.4.1.2.8)

Delete machine properties (see chapter 7.4.1.2.9)

Save and exit the machine properties.
You will then return to the machine list.

NOTICE

As long as the machine properties are open, you cannot select another menu item in the sidebar or main menu.

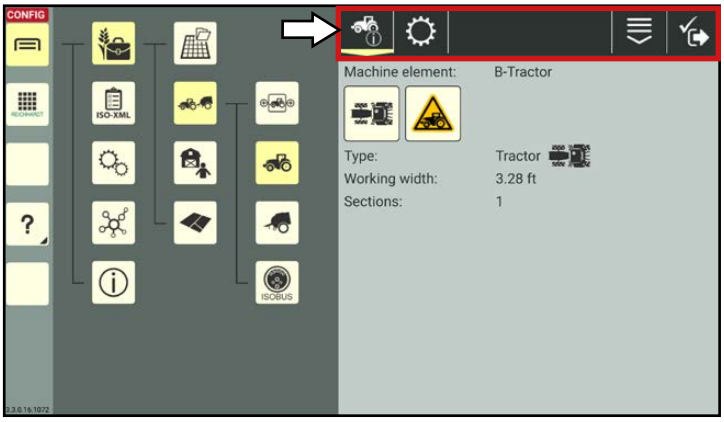


Fig. 233: Vehicle properties (vehicle) – options

The following information is displayed in the machine properties (see Fig. 234):

Ⓐ Machine element (designation)

Ⓑ Machine image and connection status symbol.

The machine image shows the machine type.
The image can be replaced with a photograph in the machine identification (see chapter 7.4.1.2.3).

The symbol to the right of the machine image provides information about the connection status of the machine (see chapter 7.4.1.2.1).

Ⓒ Machine type

Ⓓ Geometry and section data that can be set in the settings.

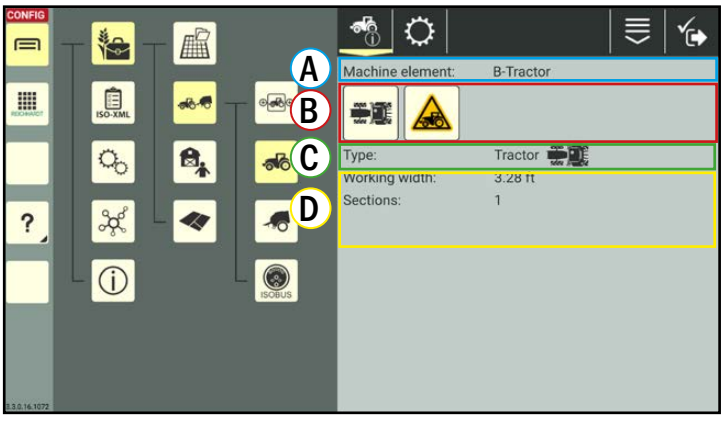


Fig. 234: Machine properties (vehicle)

7.4.1.2.1 Connection Status Symbol

The symbol to the right of the machine image provides information about the connection status of the machine.

Vehicles without TECU		
On vehicles without TECU, the symbol provides information about the connection to the SMART COMMAND components (ISO FLEX and SMART iBox, if applicable) that are saved via the vehicle configuration (see chapter 7.4.1.2.4).		
ISO FLEX (with SMART COMMAND app) and SMART iBox, if applicable, are connected correctly.	ISO FLEX (with SMART COMMAND app) and SMART iBox, if applicable, are not yet connected (correctly).	SMART COMMAND is not connected to the ISOBUS.
Vehicles with TECU		
On vehicles with TECU, the symbol provides information about whether the following connections are correct: • Vehicle TECU and ISOBUS; • On vehicles with SMART COMMAND components (ISO FLEX and SMART iBox, if applicable) that are saved via the vehicle configuration (see chapter 7.4.1.2.4).		
ISO FLEX (with SMART COMMAND app) and SMART iBox, if applicable, are connected correctly.	ISO FLEX (with SMART COMMAND app) and SMART iBox, if applicable, are not yet connected (correctly) or the vehicle TECU is not connected to the ISOBUS.	SMART COMMAND is not connected to the ISOBUS.
ISOBUS implements		
On ISOBUS implements, the symbol provides information about whether the implement is connected to the ISOBUS and SMART COMMAND.		
ISOBUS implement is connected.	ISOBUS implement was already connected but is currently not connected.	SMART COMMAND is not connected to the ISOBUS.
Non-ISOBUS-capable implements		
No connection status is available on non-ISOBUS-capable implements. The white symbol is always displayed.		

7.4.1.2.2 Overview of Settings for Vehicles and Implements

You can edit the machine data and settings via the settings (gearwheel) in the top bar of the machine properties.

Settings for vehicles

The following settings can be implemented for vehicles (see Fig. 235):

Identification
Add/edit the vehicle designation, vehicle data, machine type, and machine image (see chapter 7.4.1.2.3).

Vehicle configuration
Settings for and connections to SMART COMMAND components (see chapter 7.4.1.2.4).

Geometry
Add/edit the dimensions and turning radius of the vehicle (see chapter 7.4.1.2.5).

GNSS settings
Receiver position and offset, as well as the settings of RTK warnings (see chapter 7.4.1.2.6).

Section control settings (self-propelled units only)
Section control settings (see chapter 7.4.1.2.7).

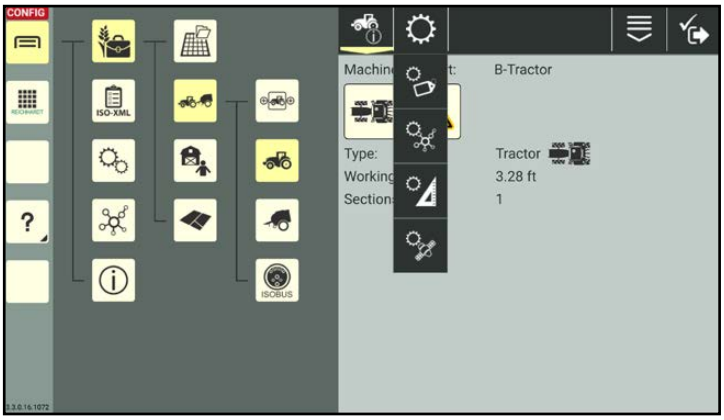


Fig. 235: Settings for vehicles without TECU

NOTICE

The geometry, GNSS settings, and section control settings are only relevant when using SMART GUIDE, SMART CONTROL, and SMART SECTION.

If you are only using SMART VT, you do not necessarily need to implement these settings.

NOTICE

The vehicle configuration must always be implemented beforehand as the vehicle configuration can initiate the preconfiguration of the vehicle geometry and GNSS settings.

Settings for implements

The following settings must be implemented for implements (see Fig. 236):

Identification
Add/edit the device designation, device data, device type, and machine image (see chapter 7.4.1.2.3).

Geometry
Add/edit the dimensions of the implement (see chapter 7.4.1.2.5).

Section control settings
Section control settings (see chapter 7.4.1.2.7).

NOTICE

The geometry and section control settings are only relevant when using SMART GUIDE, SMART CONTROL, and SMART SECTION.

If you are only using SMART VT, you do not necessarily need to implement these settings.

NOTICE

No settings need to be implemented for ISOBUS implements. These are generally adopted.

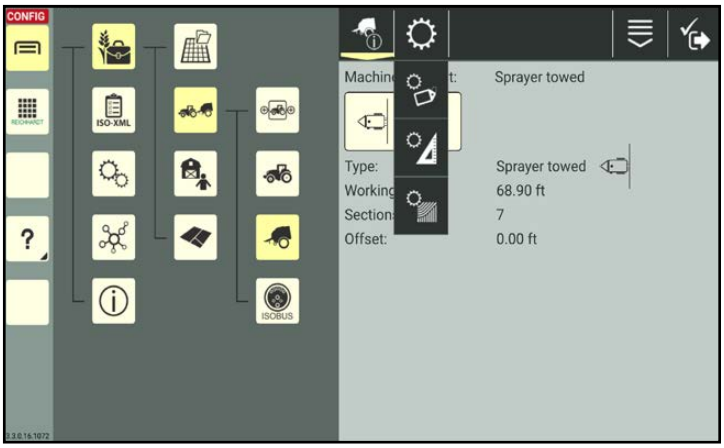


Fig. 236: Settings for implements

Sequence of the subsequent description of the settings for vehicles and implements

The settings for vehicles and implements are described as follows in the subsequent subsections:

- Machine identification (vehicles and implements); see chapter 7.4.1.2.3.
- Vehicle configuration (vehicles); see chapter 7.4.1.2.4.
- Machine geometry (vehicles and implements); see chapter 7.4.1.2.5.
- GNSS settings (vehicles); see chapter 7.4.1.2.6.
- Section control settings (self-propelled units and implements); see chapter 7.4.1.2.7.

7.4.1.2.3 Machine Identification – Editing the Machine Type and Machine Image

Open the identification via the settings (gearwheel) in the machine properties.

You can implement/change the following vehicle specifications via the identification (see Fig. 237):

- machine type,
- machine image,
- designation,
- manufacturer,
- license plate (vehicles only).

Fig. 237: Identification

Changing the machine type

In the identification, tap the button with the two arrows to select the required machine type from the displayed list (see Fig. 238).

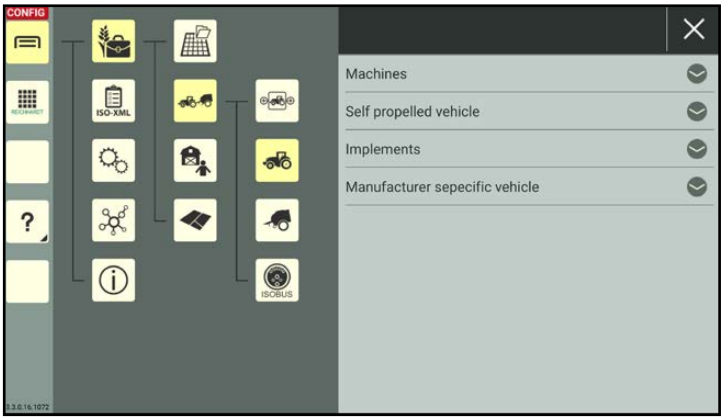


Fig. 238: Changing the machine type

NOTICE

Please note that:

Previously set machine properties will be overwritten.

The machine designation is not changed automatically.

NOTICE

The machine type may not be recognized correctly by ISOBUS devices.

You can then change the machine type manually.

Please monitor the machine carefully after implementing any changes as the effects are not known.

Taking/editing a machine image

You have the option to assign vehicles and implements with specific machine images that are taken using the camera on the device on which SMART COMMAND is being operated.

NOTICE

The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal). You can skip this section.

In the identification tap the machine image.
You can then select a photograph (see Fig. 239).

You can select an existing photograph or take a new photograph.

NOTICE

Saved photographs are available and can be selected for all of the machines (vehicles and implements).

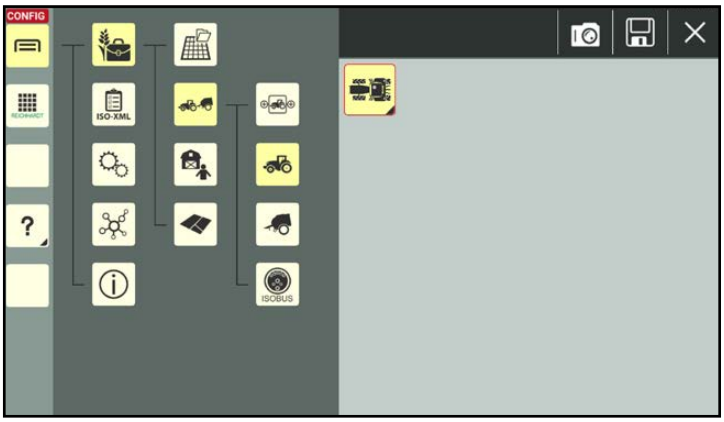


Fig. 239: Selecting/taking a machine image

Taking a photograph

Tap the camera symbol to start camera mode (see Fig. 239).

Select which camera to use:

Main camera

Front camera

Tap one of the following buttons to take a photograph.

Shutter button

Self-timer with 3 second delay.

Press the shutter button again to discard a photograph and take another one.

Confirm the photograph with the checkmark and exit camera mode.

If you exit camera mode via the X, the photograph will be discarded.

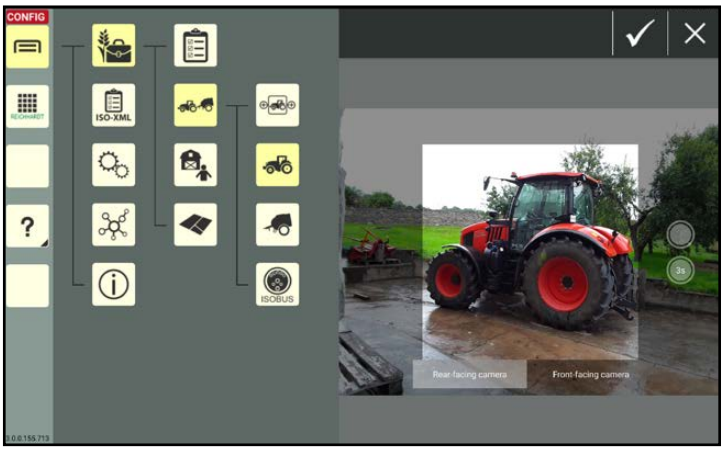


Fig. 240: Camera activated

Selecting a photograph:

Tap an image in the selection of photographs to select it as the machine image (see Fig. 241).

Press the disk symbol to save the photograph as the machine image.

You will then go back to the identification.

If you wish to remove the image again and use the original machine symbol, deselect the photograph in the image selection.
The selected photograph is highlighted with a yellow frame.

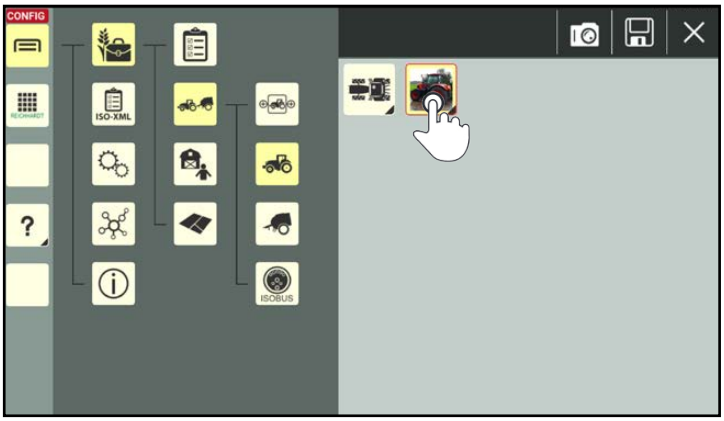


Fig. 241: Selecting a machine image

Deleting an image from the photograph selection:

If you would like to remove an image from the photograph selection, press and hold it and then tap "Delete" (see Fig. 242).

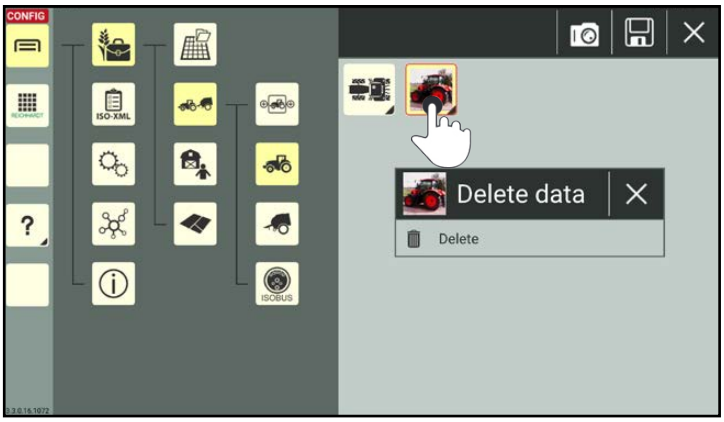


Fig. 242: Removing the image from the selection

7.4.1.2.4 Vehicle Configuration – Linking SMART COMMAND Components

In the vehicle configuration, you must specify which SMART COMMAND product and which components will be used in the vehicle.

NOTICE

The vehicle configuration must be completed for all of the vehicles.

The vehicle configuration must always be implemented beforehand as it can initiate the preconfiguration of the vehicle geometry and GNSS settings.

Open the vehicle configuration via the settings (gearwheel) in the vehicle properties.

The following settings can be available in the vehicle configuration (see Fig. 243):

- **Topology:**

  Specify which SMART COMMAND product will be used with which components.
- **ISO FLEX:**

  (only available when using the SMART COMMAND app).
  Link SMART COMMAND to the ISO FLEX installed in the vehicles.
- **SMART iBox:**

  If you have set that SMART CONTROL is being used in the "Topology" section, then the "SMART iBox" section will also be displayed. The SMART iBox installed in the vehicle is linked to the vehicles via the settings and the vehicle memory is selected.

Open/close the subitems by tapping the arrows.

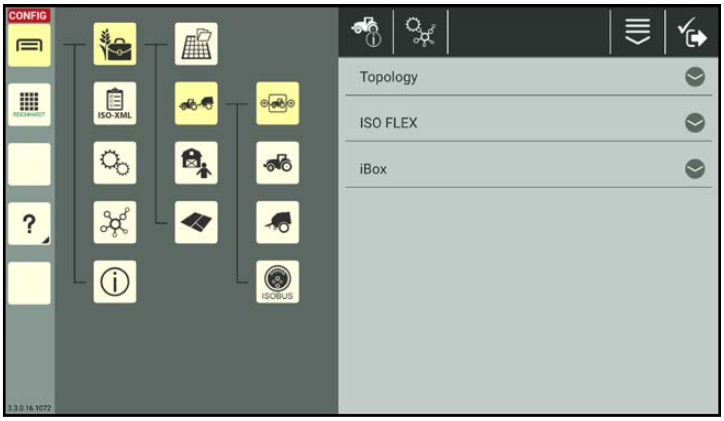


Fig. 243: Vehicle configuration

Topology – Assigning SMART COMMAND Components to the Vehicle

Activate the checkboxes for the products installed in the vehicle:

- SMART GUIDE (guidance)
- SMART CONTROL (automatic steering system)

  (SMART GUIDE must be activated to be able to select SMART CONTROL.)
- SMART VT (ISOBUS device screens)

The input points of the topology change depending on which product is selected (see Fig. 244 and Fig. 245).

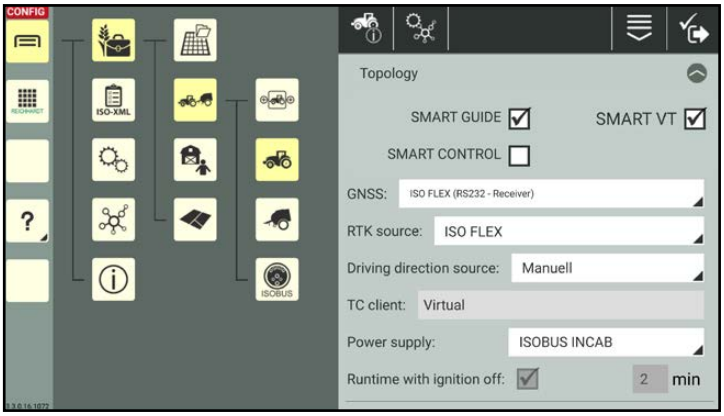


Fig. 244: Topology for SMART GUIDE and/or SMART VT

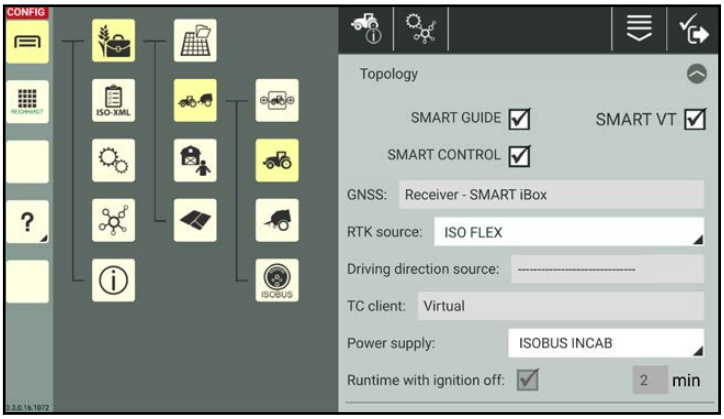


Fig. 245: Topology for SMART CONTROL

GNSS (SMART GUIDE and SMART CONTROL):

When using SMART GUIDE you may have to select a GNSS source.

- No GNSS: No GNSS data is used.
- ISO FLEX (RS232 receiver): Reichhardt receiver is used (NMEA 0183)
- ISO FLEX (CAN receiver): Receiver is connected via CAN bus, for example, John Deere StarFire receiver (NMEA 2000 or J1939)
- ISO FLEX (CAN – external): Position signal is on the CAN bus (NMEA 2000)
- Simulation: Driving simulation in SMART GUIDE for steering purposes

When using SMART CONTROL, this setting is implemented by the dealer or Reichhardt Customer Service via the SMART iBox.

GNSS source (SMART GUIDE and "GNSS: CAN"):

When selecting a receiver via CAN ("GNSS:"), you must also select the CAN participant that will act as the GNSS source (see Fig. 246).

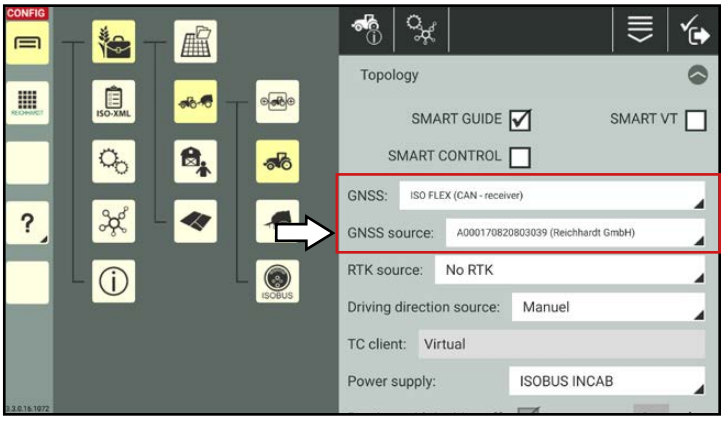


Fig. 246: GNSS source for CAN receiver

RTK source (SMART GUIDE and SMART CONTROL):

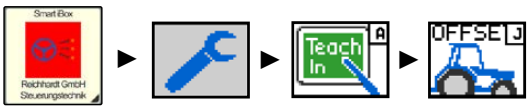
Specify whether and how the RTK correction data are retrieved.

- No RTK: No RTK correction data is used.
- External modem: RTK modem from another manufacturer.
- ISO FLEX: The ISO FLEX module (from Reichhardt) is used as an RTK modem.

Driving direction source (SMART GUIDE and SMART CONTROL):

Specify how the driving direction should be determined.

- Manual: The driving direction is specified in SMART GUIDE by tapping the corresponding button (see SMART GUIDE Operating Instructions).
- Semi-automatic: The driving direction is specified once in SMART GUIDE (see SMART GUIDE Operating Instructions) and is subsequently detected automatically via the receiver position.



When using SMART CONTROL, this setting is implemented by the dealer or Reichhardt Customer Service via the SMART iBox.

TC Client (SMART GUIDE and SMART CONTROL):

Specify the task controller client from which you want to use the geometries.
The task controller client is the participant who is registered in the worksheet or task management.

- virtual: SMART COMMAND TECU generates a virtual task controller client.
- alternatively, various connected devices (e.g., internal tractor ECU). No ISOBUS implement can be selected at this point.

Power supply:

At this point, you can change the details implemented in the system settings about the type of power supply (see chapter 6.3) for the selected vehicle.

- "Direct wiring" (vehicle without ISOBUS)
- "ISOBUS-InCab" (vehicle with ISOBUS)

Runtime when key switch off:

The details implemented in the system settings are displayed at this point (see chapter 6.3).

ISO FLEX – Linking ISO FLEX to the vehicle (SMART COMMAND app only)

NOTICE

This setting relates to using ISO FLEX as a WLAN module for the SMART COMMAND app, and not as an RTK modem.

⚠ WARNING

If SMART COMMAND (or the tablet) is connected via WLAN to an ISO FLEX that is installed in a different vehicle, this can, amongst other things, result in the remote control of ISOBUS implements and thus cause serious injuries.

Always ensure that SMART COMMAND is connected to the ISO FLEX that is installed in the vehicle.

To ensure that the SMART COMMAND app is connected via WLAN to the ISO FLEX that is installed in the vehicle, you must link the ISO FLEX to the vehicle.

If this step is not completed, the connection status cannot be retrieved. As a result

- the connection to downstream components cannot be checked and displayed,
- the implement cannot be activated and used for SMART GUIDE, and
- no warnings are issued that the tablet is connected to the ISO FLEX in the wrong vehicle.

ISO FLEX connected via WLAN to SMART COMMAND, but not linked to vehicle:

If SMART COMMAND is connected to an ISO FLEX via WLAN, this is indicated by an ISO FLEX symbol with a link symbol (see Fig. 247).

However, if the created vehicle has not yet been linked to an ISO FLEX, then no link is specified under the point "SSID – assigned ISO FLEX" (see Fig. 247).

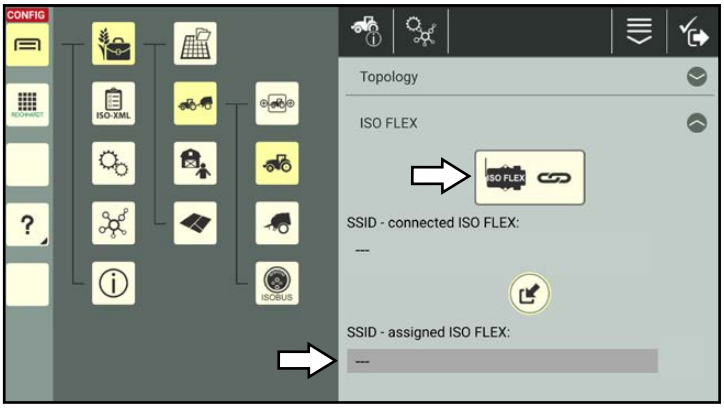


Fig. 247: Connected ISO FLEX not linked yet

Incorrect ISO FLEX linked:

If the vehicle was already linked to another ISO FLEX, you will be informed that the SSID of the connected and the linked ISO FLEX do not match (see Fig. 248).

NOTICE

Vehicles can only ever be linked to the ISO FLEX to which there is a WLAN connection (see chapter 4.1.3).

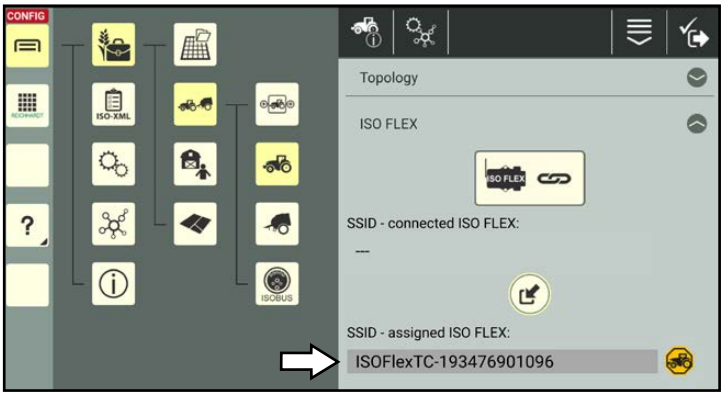


Fig. 248: SMART COMMAND linked to different ISO FLEX

SMART COMMAND not connected to an ISO FLEX via WLAN:

If SMART COMMAND is not connected to an ISO FLEX via WLAN, this is indicated by a warning sign and absence of a SSID (see Fig. 249).

Fig. 249: SMART COMMAND not connected to ISO FLEX

Vehicle linked to connected ISO FLEX:

Ensure that SMART COMMAND is connected via WLAN to the ISO FLEX located in the vehicle.
If there are several ISO FLEX modules in the vicinity, also check the SSID to ensure it is the right ISO FLEX.
The SSID is specified on the label of the ISO FLEX.

In the overview, tap the round button with the arrow to link the vehicle to the connected ISO FLEX (see Fig. 247).

Then confirm the prompt that is displayed (see Fig. 250).

The vehicle is then linked to the ISO FLEX (see Fig. 251).

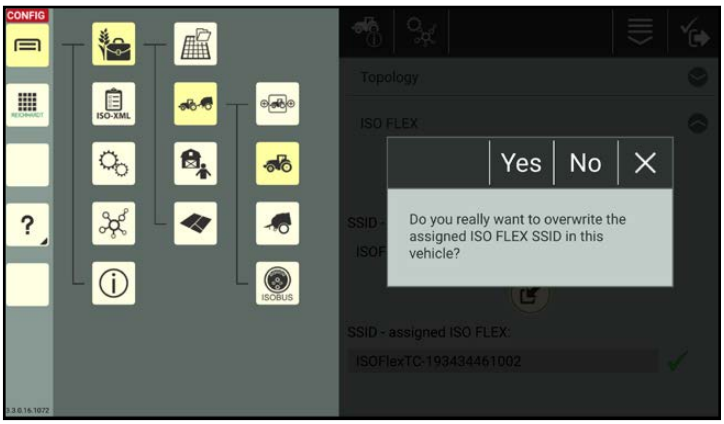


Fig. 250: Confirming the prompt

Fig. 251: Vehicle linked to ISO FLEX

SMART iBox – Linking SMART iBox to the vehicle (SMART CONTROL only)

If the checkbox for SMART CONTROL (and SMART GUIDE) is activated at the start in the topology, then the point "SMART iBox" will be included in the vehicle configuration (see Fig. 252).

To ensure that SMART COMMAND is connected to the SMART iBox that is installed in the vehicle, you must link the SMART iBox to the vehicle.

If not,

- data cannot be transferred correctly,
- the vehicle cannot be steered automatically.

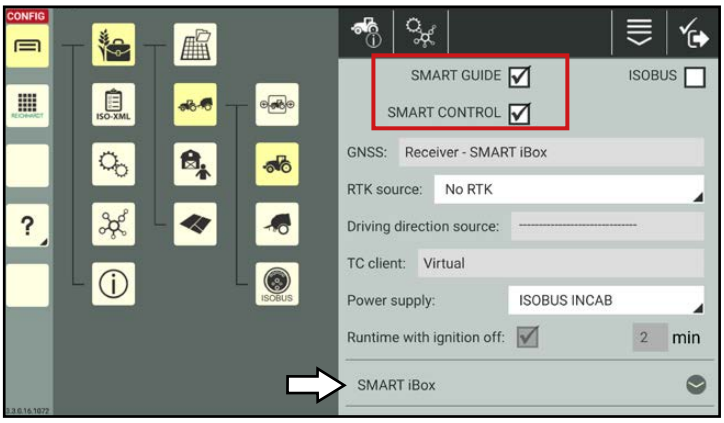


Fig. 252: Topology for SMART CONTROL

SMART iBox is connected to SMART COMMAND but not linked to the vehicle:

If a SMART iBox is installed in the vehicle that is detected by SMART COMMAND, this is indicated by a SMART iBox symbol with a link symbol (see Fig. 253).

If the vehicle added in SMART COMMAND has not yet been linked to a SMART iBox, then there is no link available yet (see Fig. 253).

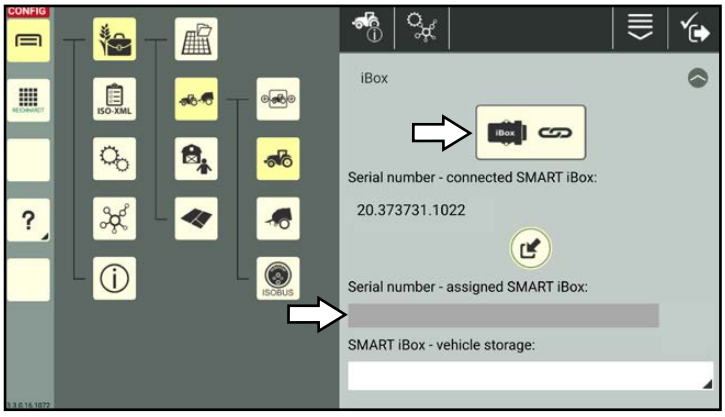


Fig. 253: Connected SMART iBox not linked yet

Incorrect SMART iBox linked:

If the vehicle was already linked to another SMART iBox, you will be informed that the serial number of the connected and linked SMART iBox do not match (see Fig. 254).

Fig. 254: SMART COMMAND linked to different SMART iBox

SMART COMMAND not connected to a SMART iBox:

If no SMART iBox is available, this is indicated by a warning sign and absence of a serial number (see Fig. 255).

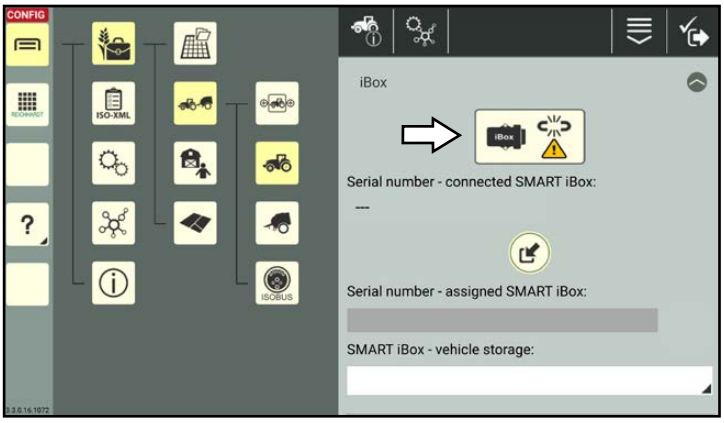


Fig. 255: SMART COMMAND not connected to SMART iBox:

Linking vehicle to connected SMART iBox:

If a SMART iBox, that is recognized by SMART COMMAND, is connected in the vehicle, you can link the two.

Tap the round button with the arrow to link the vehicle to the connected SMART iBox (see Fig. 253).

Then confirm the prompt that is displayed (see Fig. 256).

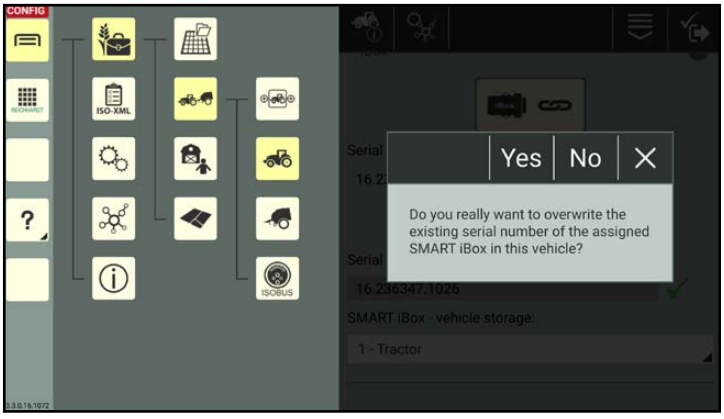


Fig. 256: Confirming the prompt

The vehicle is then linked to the SMART iBox (see Fig. 257).

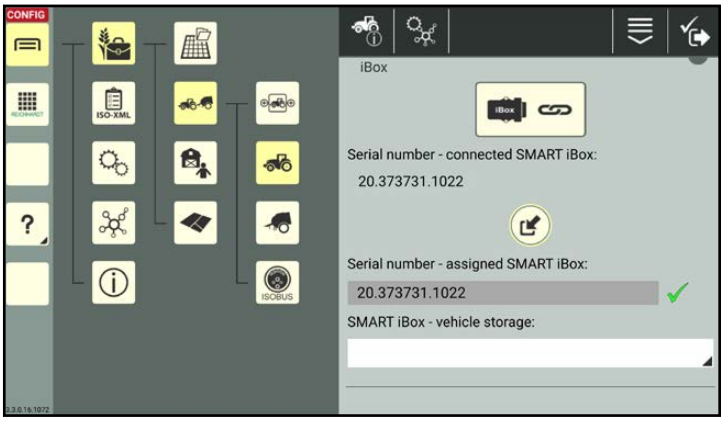


Fig. 257: SMART iBox linked

Selecting a vehicle from the vehicle memory:

During commissioning, the dealer or Reichhardt Customer Service create a vehicle memory with up to eight vehicles.

Select the relevant vehicles from the vehicle memory (see Fig. 258).

Once a vehicle is selected from the vehicle memory the presets, such as the geometry data, are set for this vehicle.

Fig. 258: Selecting a vehicle from the vehicle memory:

7.4.1.2.5 Machine Geometry – Dimensions of the Machine (SMART GUIDE/CONTROL)

NOTICE

These settings only apply when using the SMART GUIDE application.
If you only use SMART VT, you can skip this section.

Vehicle geometry

Open the vehicle geometry via the settings (gearwheel) in the vehicle properties.

You can specify the vehicle dimensions and distances in the vehicle geometry (see Fig. 259).

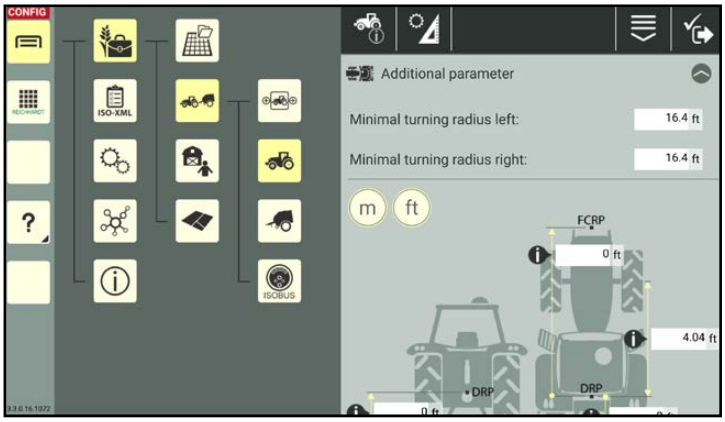


Fig. 259: Geometry settings with additional parameters

Setting the units:

Use the corresponding button to change the units, if applicable.

Setting the additional parameters:

Enter the left and right minimal turning radius.
Open/close the additional parameters by tapping the arrows.

Entering the vehicle dimensions:

On vehicles for which the geometry data is not detected automatically, you must enter the required dimensions in the text fields (see Fig. 260):

Tap in a text field.

Enter the value using the numeric keypad that is displayed.

Save the input via the button with the checkmark in the top bar.

The cross hairs indicate the prefix of the value in each direction based on the center of rotation (DRP).

DRP: Center of rotation of the vehicle

FCRP: Front coupling point

CRP: Rear coupling point

ERP: Application point (self-propelled units)

If a SMART iBox is connected and activated in the "SMART CONTROL" vehicle configuration, some of the values are specified by the selected vehicle memory.
These values are marked with the iBox symbol and the input is grayed out (see Fig. 261).

You can adjust the value by tapping in the text field, selecting "Manual" from the selection list, and then entering and confirming the value.

The current value of the SMART iBox is read out. If this value was previously overwritten, the new value is saved.

The dimensions and distances of vehicles with TECU are transmitted automatically and cannot be changed (see Fig. 267).

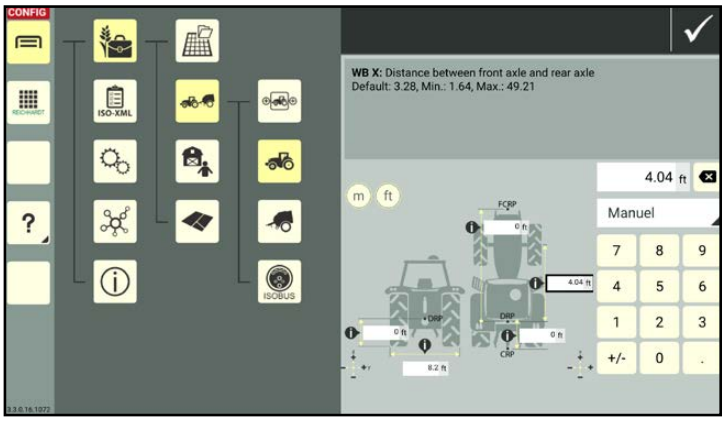


Fig. 260: Entering the value

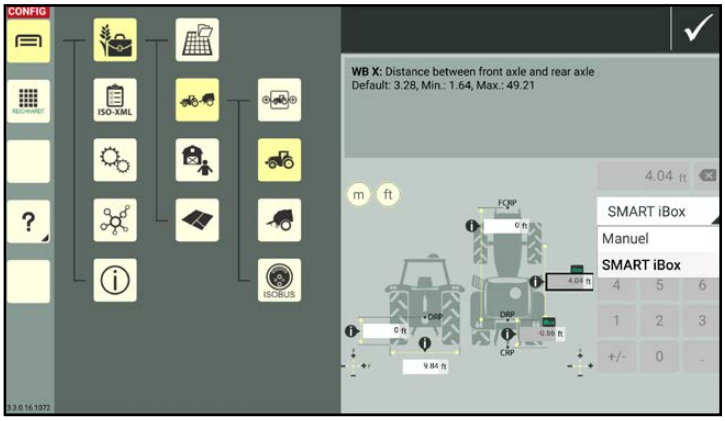


Fig. 261: Changing values specified by SMART iBox

The following values, amongst others, are required (see Fig. 262 and Fig. 263):

1. Height above the ground of the center of rotation of the vehicle.
2. Working width of the vehicle.
3. Distance from the center of the non-moving axis/center of rotation of the front coupling point.
4. Distance from the center of the front and rear axes.
5. Distance from the center of the non-moving axis/center of rotation of the rear coupling point.
6. On crawler and articulated tractors: Distance from the center of rotation to the center of the rear axis/rear chain drive.
7. Self-propelled units: Distance from the center of rotation to the application point.

Tapping the info symbol will display an explanation about the required value.

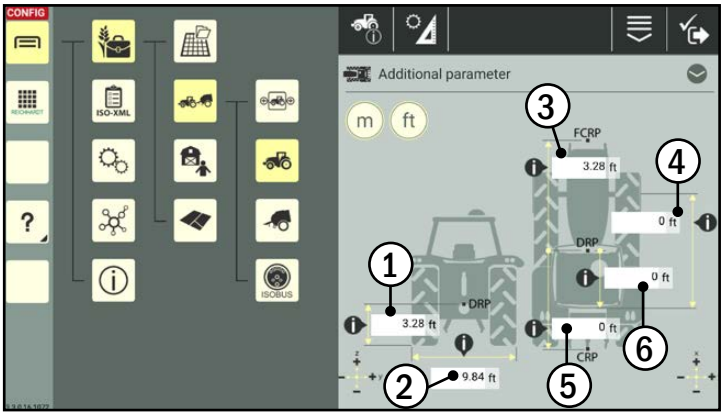


Fig. 262: Geometry settings of a crawler tractor

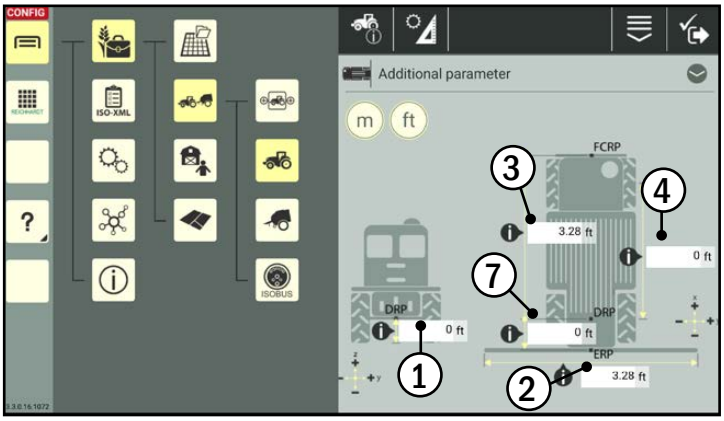


Fig. 263: Geometry settings of a self-propelled sprayer

Proceed as follows to determine the center of rotation of a crawler vehicle:

1. Park the vehicle on a dusty or gravel surface.
2. Steer to the left and right while the vehicle is at a standstill.

The center of rotation will now be marked out on the ground (see Fig. 264).

Fig. 264: Determining the center of rotation of the crawler vehicle

Geometry of implements

Open the geometry for implements via the settings (gearwheel) in the implements properties.

You can specify the dimensions and distances for the non-ISOBUS-capable implements in the implements geometry (see Fig. 265).

Setting the units:

Use the corresponding button to change the units, if applicable.

Entering the dimensions of implements:

Enter the required dimensions via the text fields (see Fig. 266):

Tap in the text field.

Enter the value using the numeric keypad that is displayed.

Save the input via the button with the checkmark in the top bar.

The cross hairs indicate the prefix of the value in each direction based on the center of rotation (DRP).

DRP: Center of rotation of the implement
FCRP: Front coupling point
ERP: Application point
ERPin: Start of the working area
ERPout: End of the working area

The dimensions and distances of ISOBUS implements are transmitted automatically by the implement and cannot be changed (see Fig. 267).

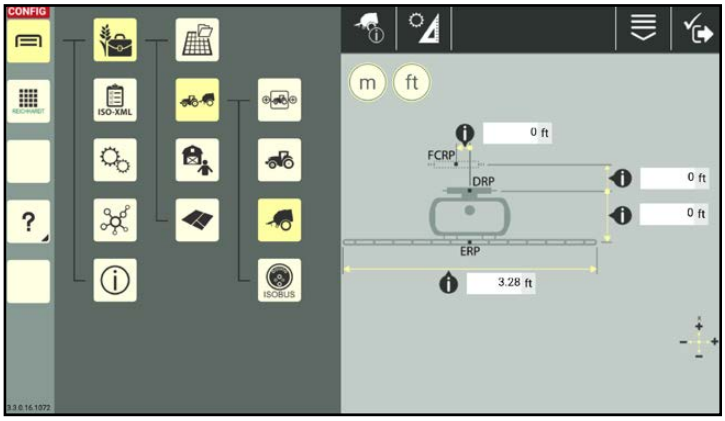


Fig. 265: Geometry settings (non-ISOBUS-capable implement)

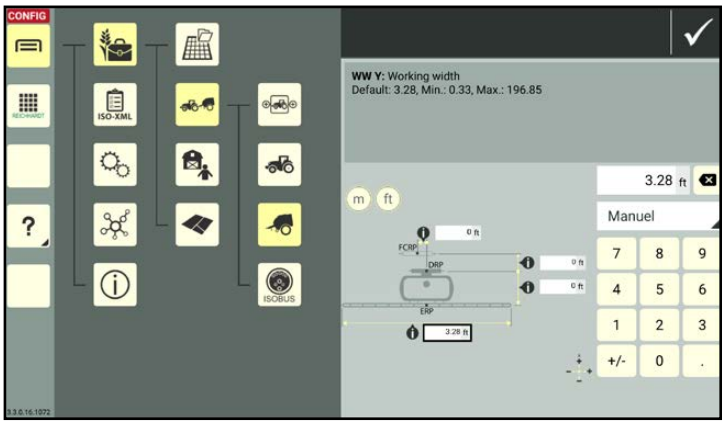


Fig. 266: Entering the value

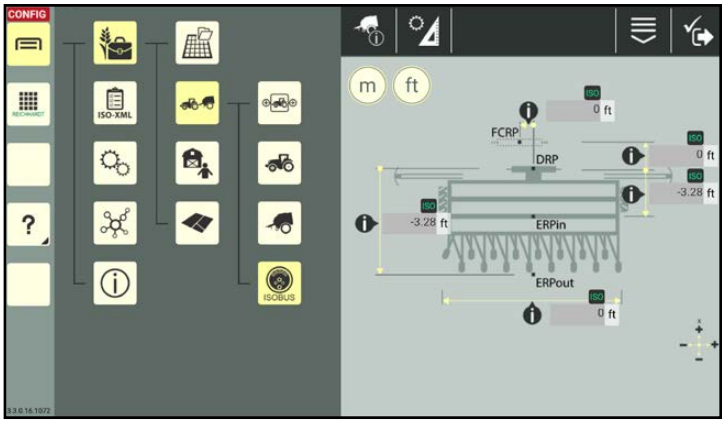


Fig. 267: ISOBUS implement with specified values

The following values may be required (see Fig. 268 and Fig. 269):

(1) Lateral offset of the coupling point of the implement.

(2) Distance from center of rotation of the front coupling point.

(3a) Distance from the center of rotation to the application point.

(3b) Distance from the center of rotation to the start of the working area.

(3c) Distance from the center of rotation to the end of the working area.

(4) Working width of the implement.

Tapping the info symbol will display an explanation about the required value.

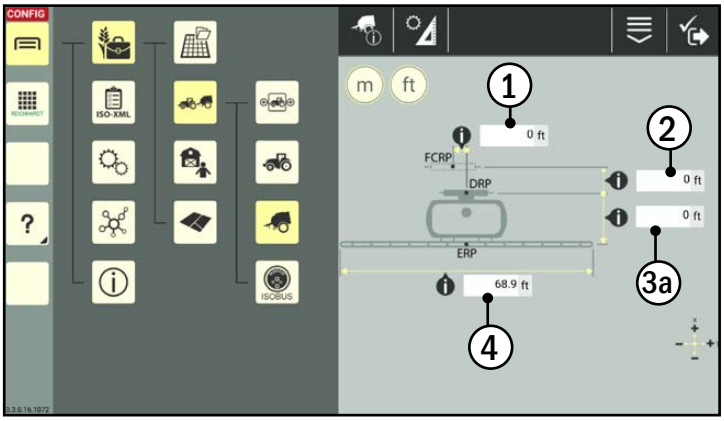


Fig. 268: Geometry settings of an attached sprayer

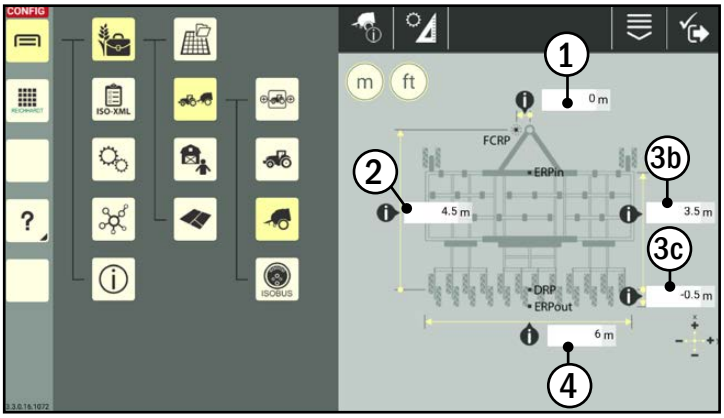


Fig. 269: Geometry settings of a towed field cultivator

7.4.1.2.6 GNSS Settings for Vehicles – Receiver Position and Offset (SMART GUIDE/ CONTROL Only)

NOTICE

These settings only apply when using the SMART GUIDE application.
If you only use SMART VT, you can skip this section.

Open the GNSS settings via the settings (gearwheel) in the vehicle properties.

Enter the receiver position and offset in the GNSS settings.

Setting the additional parameters:

Via the additional parameters, you can set whether you wish to receive notices about RTK disconnections/ signal changes in SMART GUIDE (see Fig. 270 and Fig. 271).
Open/close the additional parameters by tapping the arrows.

Activate the RTK warnings by moving the scroll bar (1).
Then set the warning level (2):

high: If the signal is weaker than RTK fix → RTK float, DGPS, GPS.

medium: If the signal is weaker than RTK float → DGPS, GPS.

low: If the signal is weaker than DGPS → GPS.

Setting the units:

Use the corresponding button to change the units, if applicable.

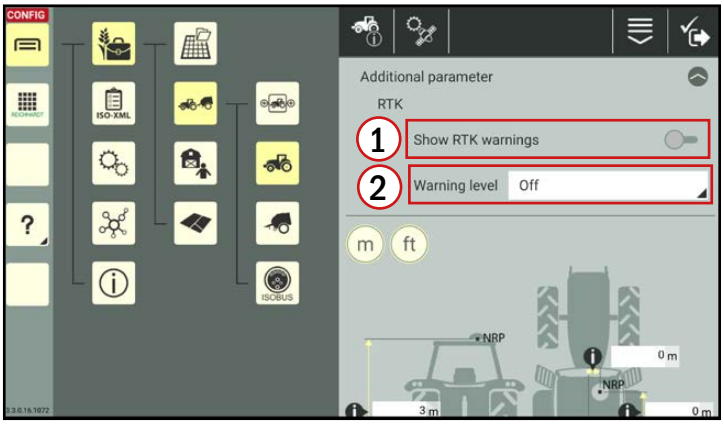


Fig. 270: GNSS settings with the additional parameters open

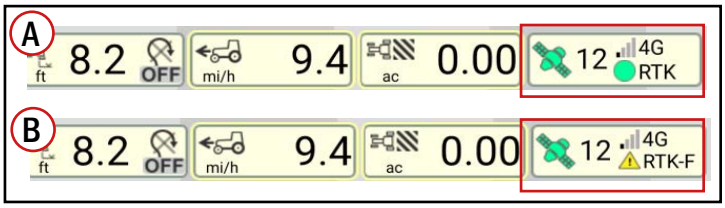


Fig. 271: Status display in SMART GUIDE including satellites and GNSS signal quality: Warning: RTK medium (A) and high (B)

Entering the receiver position and offset:

Enter the required values via the text fields (see Fig. 272):

Tap in the text field.

Enter the value using the numeric keypad that is displayed.

Save the input via the button with the checkmark in the top bar.

The cross hairs indicate the prefix of the value in each direction based on the center of rotation (DRP).

DRP: Centre of rotation of the vehicle (to determine the centre of rotation of a crawler vehicle, see chapter 7.4.1.2.5)

NRP: Position of GNSS receiver on the vehicle.

If a SMART iBox is connected and activated in the "SMART CONTROL" vehicle configuration, some of the values are specified by the selected vehicle memory.
These values are marked with the iBox symbol and the input is grayed out (see Fig. 273).

You can adjust the value by tapping in the text field, selecting "Manual" from the selection list, and then entering and confirming the value.

Some of the values for vehicles with TECU are transmitted automatically and thus cannot be changed. These values are grayed out and marked with an ISO symbol.

The following values are required (see Fig. 274):

1. Height above the ground of the GNSS receiver (receiver center).
2. Lateral offset of the receiver.
3. Offset to the front/rear from the center of rotation of the vehicle.

Tapping the info symbol will display an explanation about the required value.

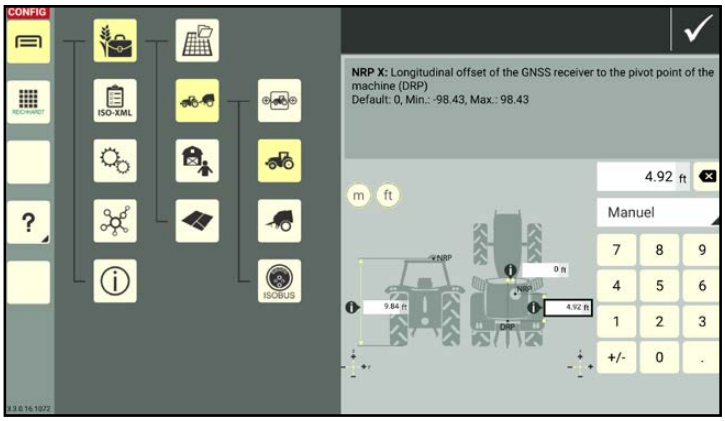


Fig. 272: Entering the value

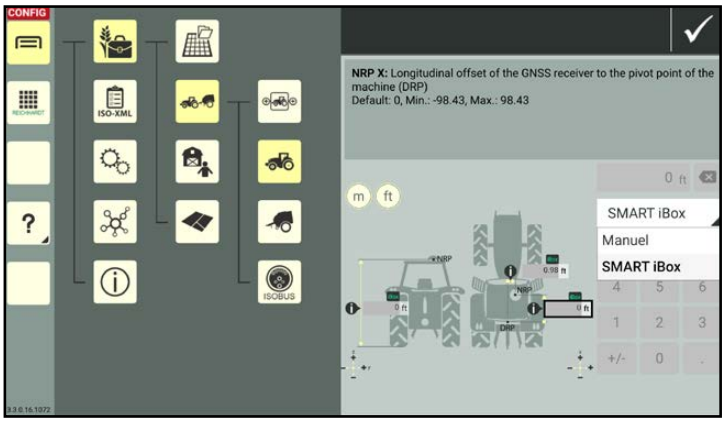


Fig. 273: Changing values specified by SMART iBox

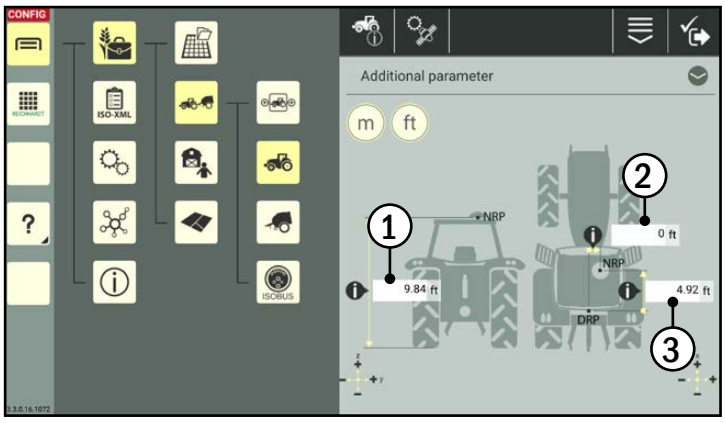


Fig. 274: GNSS settings of a tractor

7.4.1.2.7 Section Control settings – Section Control for Self-Propelled Units & Implements (SMART GUIDE/CONTROL Only)

NOTICE

These settings only apply when using the SMART GUIDE application.
If you only use SMART VT, you can skip this section.

Open the section control settings via the settings (gearwheel) in the implements properties.

In the section control settings, you can provide information about the activity of the machine and used sections (see Fig. 275 and Fig. 277).

NOTICE

The section control settings are set automatically for self-propelled units and ISOBUS implements (see Fig. 276). You can check them via the section control settings.

Activity:

From the list, select the work that the vehicle/ implement completes.

Boom uses product:

Activate the check box if the application point/ area spreads something (e.g., a sprayer). Deactivate the check box if it does not (e.g., field cultivator).

Control sections

The option has no effect on non-ISOBUS-capable machines. It is only provided to control section control-capable machines.

If the check box is activated, section control is activated automatically for section control-capable machines SMART GUIDE.

If the option is deactivated or if the machine does not have section control, section control is not activated automatically and no switching recommendation is provided in SMART GUIDE.

Fig. 275: Section control settings of a non-ISOBUS-capable implement

Fig. 276: Section control settings of a ISOBUS-capable implement

Distribute sections evenly:

If the option is activated, the sections are distributed evenly on the working width.
If the option is deactivated, the input fields for the length, width, offset Y, and offset X of the individual sections are displayed.
The values can be selected and edited.

Y offset: Left (-)/right (+) offset
X offset: Front (+)/rear (-) offset

Number of sections:

Specify the number of sections.

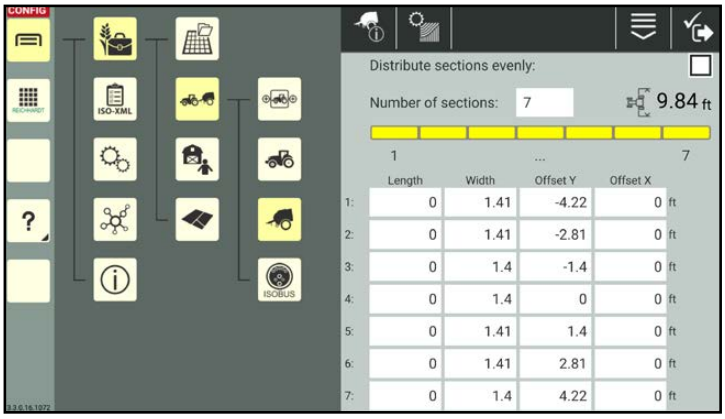


Fig. 277: "Distribute sections evenly" deactivated – add section data manually

7.4.1.2.8 Creating a QR Code for a Machine

You can use a QR code to add a machine to the machine list.
However, to do so you must first create a QR code for this machine.

To be able to scan a QR code, the device on which SMART COMMAND is being operated must have a camera. Creating a QR code for a device without a camera does not make any sense.

NOTICE

Not all of the machine properties are saved in a QR code.
The identification data (with the exception of an assigned image), geometry, GNSS settings, and section control are added.
Details about the vehicle configuration are not transferred and must be added manually.

In the machine properties, call up the entry-specific processing options and tap the button to create a QR code (see Fig. 278).

Alternatively, you can also open the option via the processing options in the top bar of the machine list and then select the corresponding machine (see chapter 7.2.2).

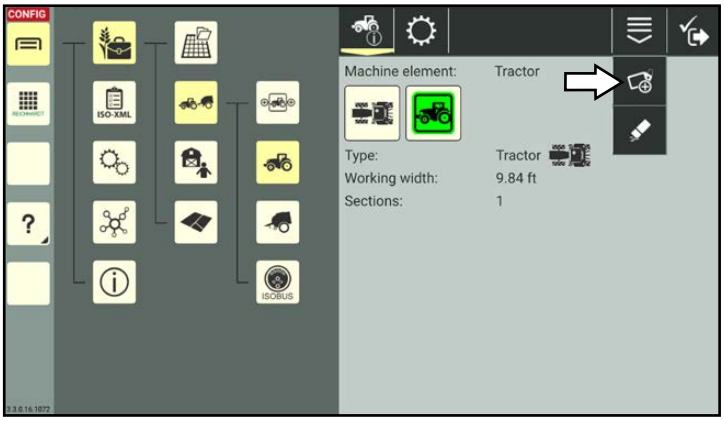


Fig. 278: Creating a QR code

A PDF file containing the QR code is generated.

Select where you wish to send or save the PDF file (see Fig. 279).

NOTICE

If the machine designation or password have been changed since the QR code was created, then the QR code becomes invalid.

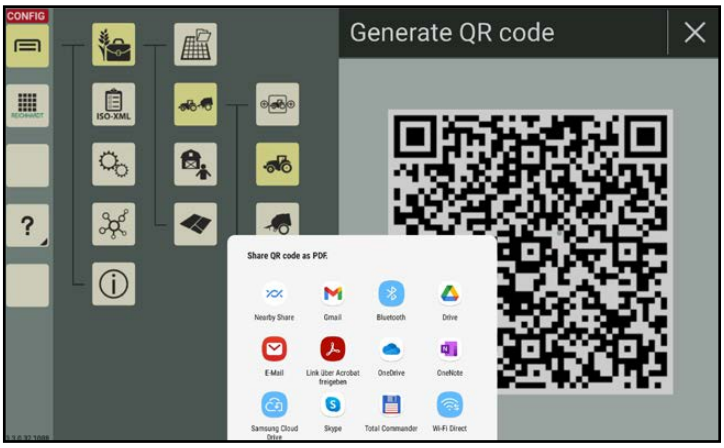


Fig. 279: Saving/sending the QR code

7.4.1.2.9 Deleting Machine Properties

You have the option of deleting all of the machine data and settings, with the exception of the designation, from a created machine. This is explained below.
(How to delete a machine from the machine list is explained in chapter 7.4.1.6.)

NOTICE

The machine data of vehicles with TECU or ISOBUS implements cannot be deleted.

In the machine properties, call up the entry-specific processing options and tap the eraser symbol (see Fig. 280).

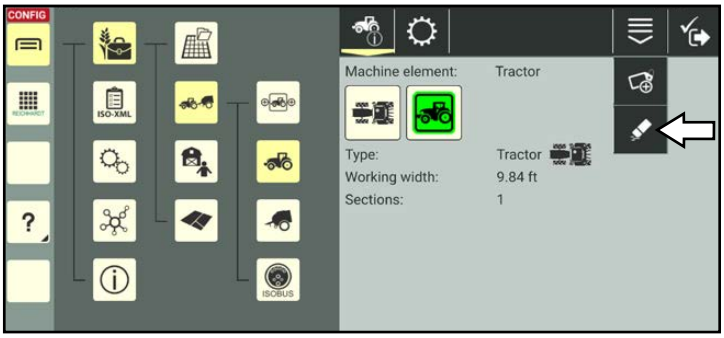


Fig. 280: Deleting machine properties

Confirm the prompt with the checkmark to delete all of the data and settings of the selected machine (see Fig. 281).
Only the machine designation will remain.

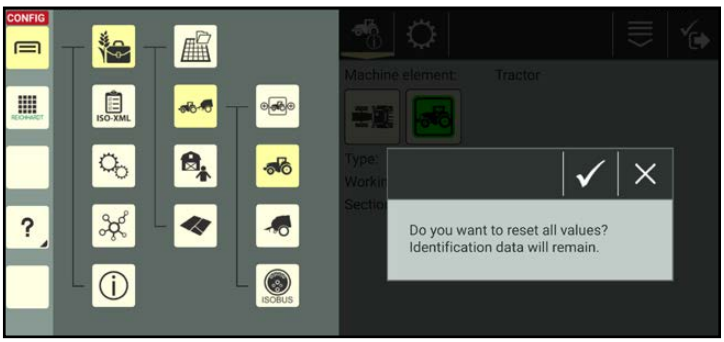


Fig. 281: Confirming the deletion prompt

7.4.1.3 Warnings on the Machine Screen in the Machine List

The warning on the machine screen is the same as the orange connection status symbol in the machine properties (see chapter 7.4.1.2.1).

The warning on the machine screen provides information about a connection error (see Fig. 282). This may be the case if

- the vehicle in the vehicle configuration is not connected to an ISO FLEX or is connected to a different ISO FLEX (with SMART COMMAND app) (see chapter 7.4.1.2.4),
- there is no connection to an ISO FLEX (with SMART COMMAND app),
- a SMART iBox is not available or linked correctly,
- a vehicle with TECU is known, because it has been connected previously, but the TECU is currently not available.

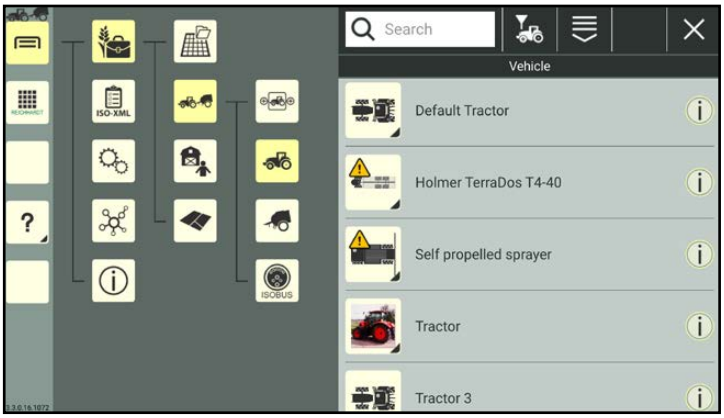


Fig. 282: Warnings and information button in vehicle list

If the warning is displayed on an ISOBUS implement, this means that although the ISOBUS implement is known, because it has been connected previously, it is currently not connected.

7.4.1.4 Calling up the Machine Information via the Info Button in the Machine List

Tapping the information button in the list entry opens an overview of the most important machine information.
This enables you to quickly check whether it is the machine you are looking for without having to select it (see Fig. 283).

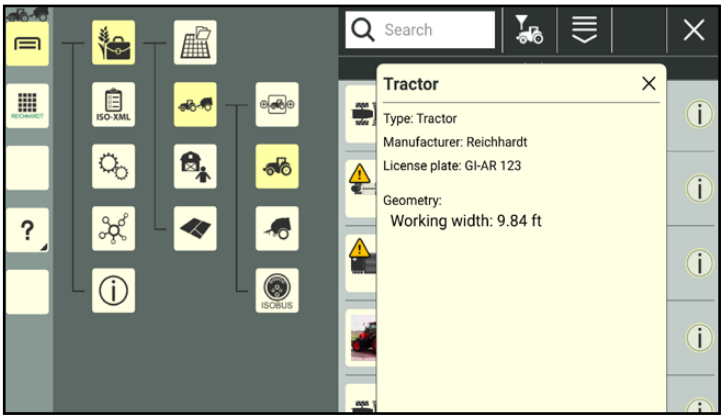


Fig. 283: Vehicle information

7.4.1.5 Sorting Functions in the Machine List

You can use the search function and filter to reduce the number of machines displayed in the machine list, enabling you to find and select certain machines more quickly. Both functions can be used in combination.

7.4.1.5.1 Searching for a Machine

You can use the search function to limit the number of vehicles and/or implements (depending on the filter) that are displayed or complete a specific search.

Enter the search term in the search field at the top of the list.
Only the corresponding machines are displayed (see Fig. 284).

The search term does not have to be at the start of the designation.
Lower and upper case are also not relevant.

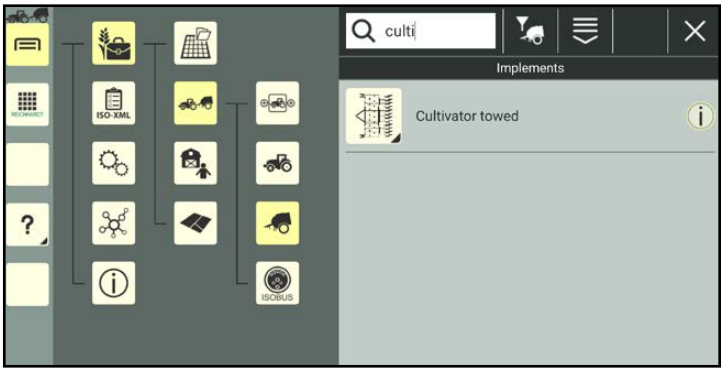


Fig. 284: Searching for a machine

7.4.1.5.2 Filtering Machines

You can use the filter functions to set which machines should be displayed in the overview.

Tap the filter symbol in the top bar of the list and select the corresponding symbol (see Fig. 285 and Fig. 286).

No filter activated – all of the machines

All of the vehicles

All of the implements

Only vehicles with TECU

Only ISOBUS implements

All of the ISOBUS devices

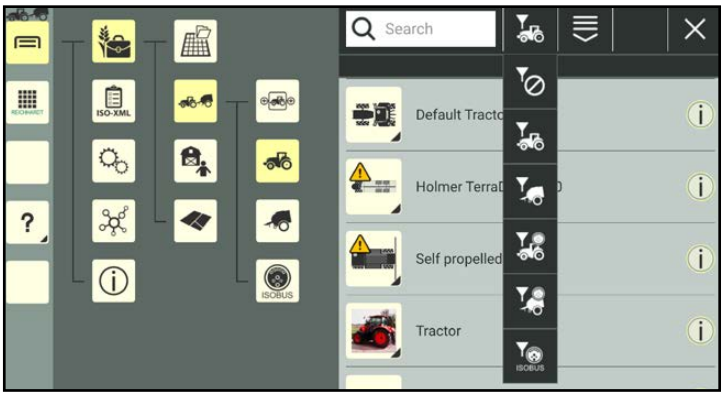


Fig. 285: Selecting a filter

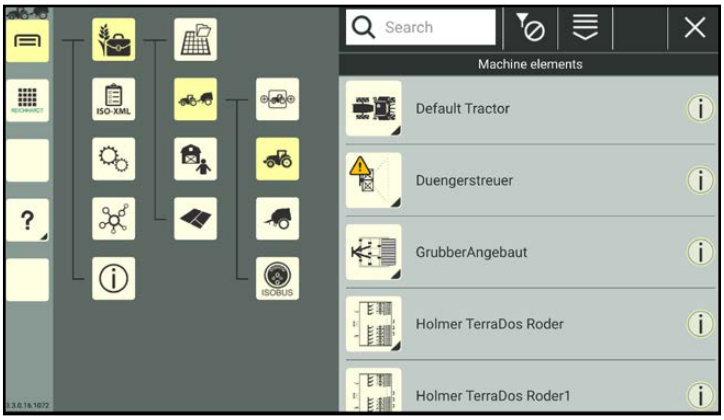


Fig. 286: No filter active – all of the machines are displayed

7.4.1.6 Deleting Machines

NOTICE

Machines that are incorporated in a machine combination cannot be deleted.
Remove the machine from the machine combination or delete the machine combination so that you can delete the machine.

The default tractor can also not be deleted.

In the machine list, press and hold the machine you wish to delete, to call up the processing options for this machine (see Fig. 287).

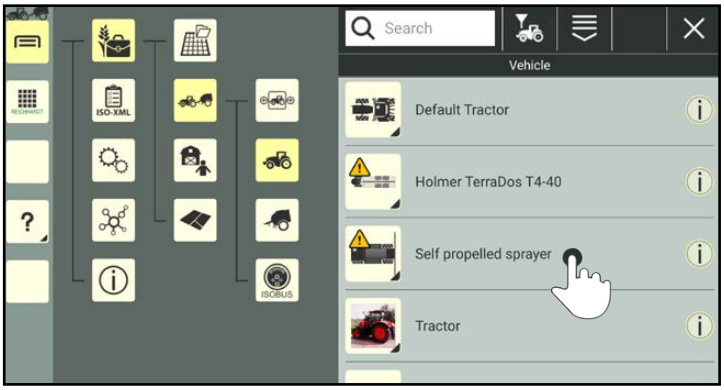


Fig. 287: Pressing and holding the machine

Tap "Delete" (see Fig. 288).

Deleting several machines simultaneously:

Open the processing options in the top bar of the machine list and tap the trash can symbol. Then select the corresponding machines (see chapter 7.2.2).

The deletion process must then also be confirmed by tapping the trash can symbol with the green checkmark.

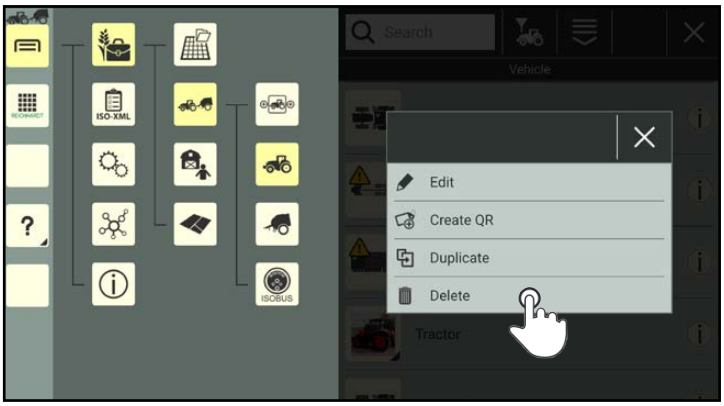


Fig. 288: Deleting a machine

Confirm the prompt with the checkmark to delete the machine(s) from the machine list (see Fig. 289).

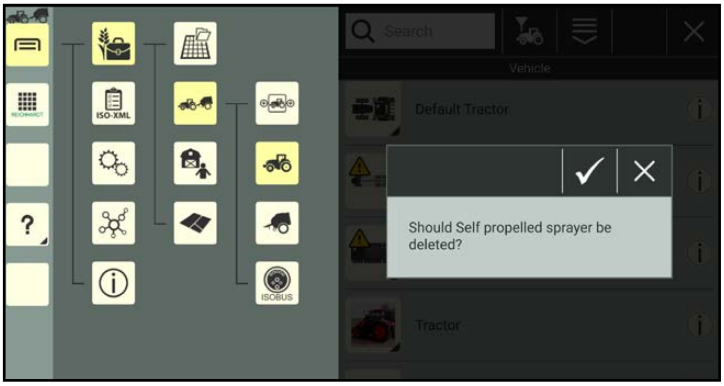


Fig. 289: Confirming the deletion prompt

7.4.2 Machine Combinations

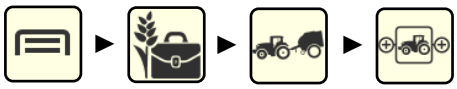
In SMART COMMAND you can create machine combinations with vehicles and implements, if required.
To be able call up the SMART COMMAND configuration and use SMART GUIDE, a machine combination and at least one vehicle must be available and selected (active).

NOTICE

Using the SMART COMMAND app:

The SMART COMMAND app does not necessarily need to be connected to an ISO FLEX to create machine combinations.
However, if you wish to add ISOBUS implements, that have not been connected to the system yet, a connection to an ISOBUS and thus an ISO FLEX is required.
In order to select a machine combination, a connection to an ISO FLEX and the SMART COMMAND components is also required.

Open the list of machine combinations via the main menu (see Fig. 290):



NOTICE

A default combination is available during commissioning.
This combination can be edited but not deleted.

The selected and active machine combination is marked with a dark color and has a checkmark (see Fig. 290).
The selected machine combination that is not active is highlighted in dark gray.
More information on active/selected machine combinations is provided in chapter 7.4.2.5.

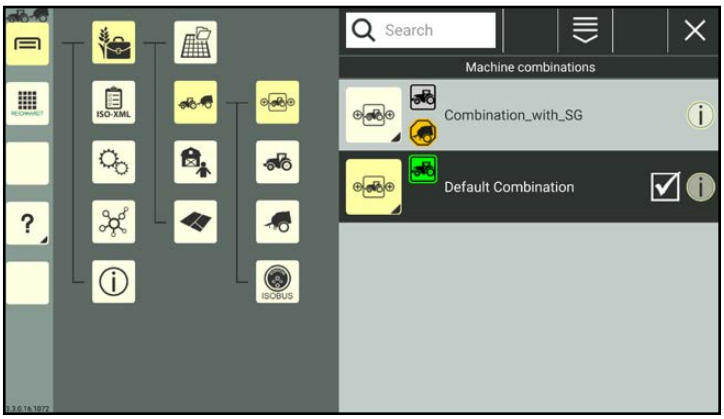


Fig. 290: List of machine combinations

7.4.2.1 Creating a Machine Combination

Machine combinations can be created by duplicating an existing machine combination, adding a new one, or scanning a QR code.
When duplicating a machine combination, all of the settings of the duplicated machine combination are copied.
When scanning a QR code not all of the machine combination properties are created. They must be added manually.

7.4.2.1.1 Adding a Machine Combination

Open the processing options for machine combinations via the top bar of the list of machine combinations. Tap the plus symbol (see Fig. 291).

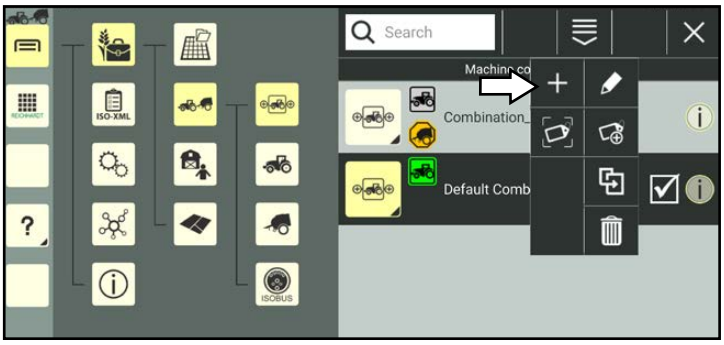


Fig. 291: Adding a new machine combination

The machine combination properties then open (see Fig. 292).

NOTICE

As long as the machine combination properties are open, you cannot select another menu item in the sidebar or main menu.

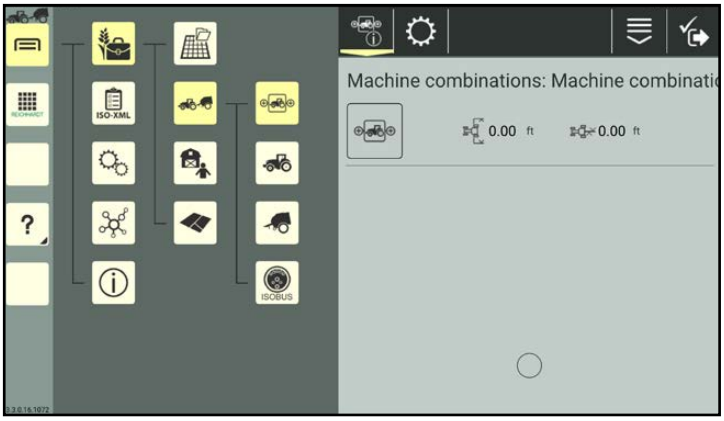


Fig. 292: Machine combination properties

Edit the machine combination, if required. Editing the machine combination properties is described in chapter 7.4.2.2.

Save the machine combination via the symbol with the checkmark.

If you save the machine combination without further editing, a designation is created automatically as detailed in the following:

"Combination" + consecutive number of the machine combination.

The creation process cannot be cancelled.
If the machine combination was created by mistake, you will have to delete it again (see chapter 7.4.2.7).

After saving, you will automatically return to the list of machine combinations in which the created machine combination is listed.

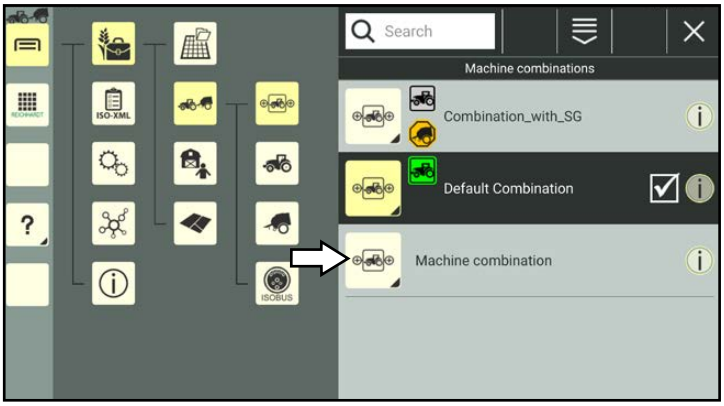


Fig. 293: Newly created machine combination in list of machine combinations

7.4.2.1.2 Duplicating a Machine Combination

You can also create a machine combination by duplicating an existing machine combination.

In the list of machine combinations, press and hold the machine combination you wish to duplicate, to call up the processing options for this machine combination (see Fig. 294).

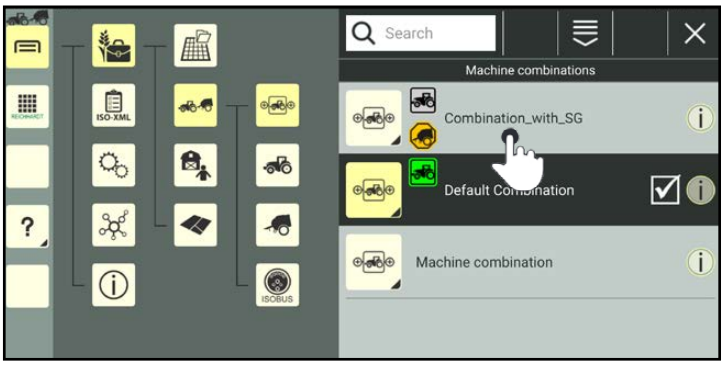


Fig. 294: Pressing and holding the machine combination

Tap "Duplicate" (see Fig. 295).

Alternatively, you can also open the option via the processing options in the top bar of the list of machine combinations and then select the corresponding machine combination (see chapter 7.2.2).

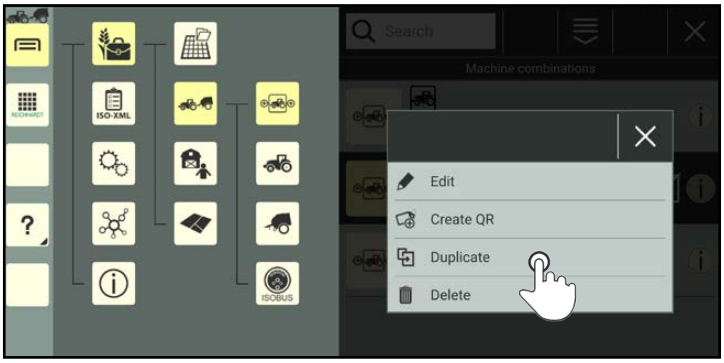


Fig. 295: Duplicating a machine combination

You can then access the machine combination properties of the new machine combination (see Fig. 296).

NOTICE

As long as the machine combination properties are open, you cannot select another menu item in the sidebar or main menu.

When duplicating a machine combination, the original machine combination properties are adopted.
The ending "Copy1" is added to the designation of the machine combination.

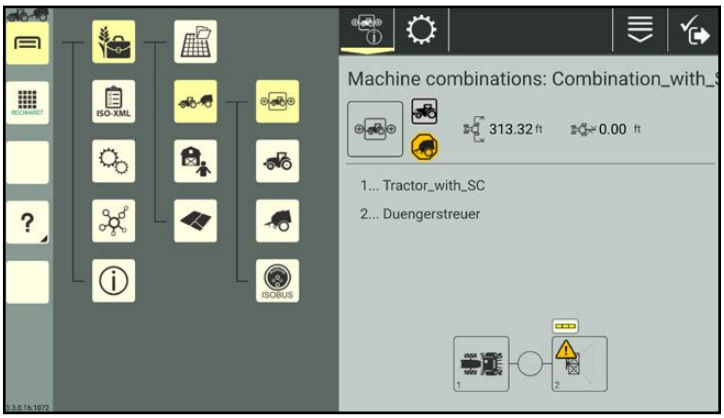


Fig. 296: Machine combination duplicated

Edit the machine combination, if required.
Editing the machine combination properties is described in chapter 7.4.2.2.

Save the machine combination via the symbol with the checkmark.
You will automatically return to the list of machine combinations in which the new machine combination is listed.

7.4.2.1.3 Adding a Machine Combination by Scanning a QR Code

You can activate an existing machine combination or create a new one by scanning a previously created QR code (see chapter 7.3.1.2.2).

NOTICE

A camera is required to use this function. The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal).

NOTICE

When creating a machine combination by scanning a QR code, only the identification settings (without the image) and machine combination configuration (if the integrated machines are available in the system) are transferred. All of the other settings must be added manually. This way of adding new ones is thus less suitable for machine combinations.

Open the processing options via the top bar of the list of machine combinations.

Tap the symbol to scan a QR code (see Fig. 297).

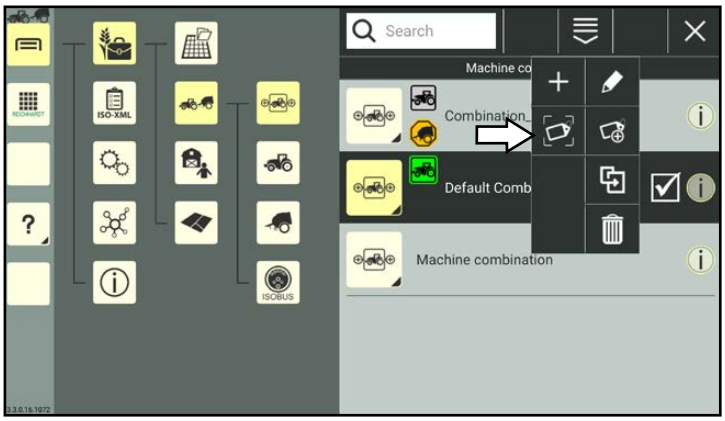


Fig. 297: Selecting "Scan QR"

Scan the QR code (see Fig. 298).

Tap the checkmark to create the scanned machine combination.

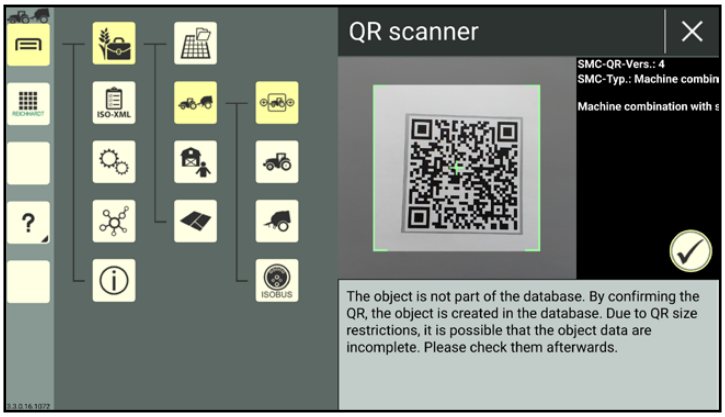


Fig. 298: Scanning the QR code

The machine combination is then listed in the list of machine combinations (see Fig. 299).

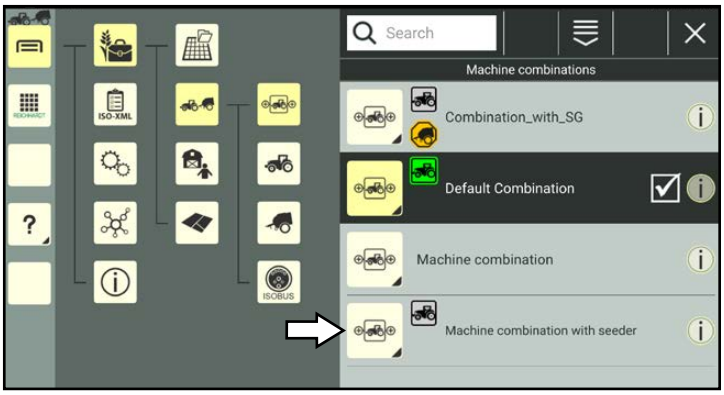


Fig. 299: Machine combination added

7.4.2.2 Calling Up, Displaying, and Editing the Machine Combination Properties

Calling up the machine combination properties

In the list of machine combinations, press and hold the machine combination you wish to edit, to call up the processing options for this machine combination (see Fig. 300).

(A machine combination does not have to be selected to be able to be edited.)

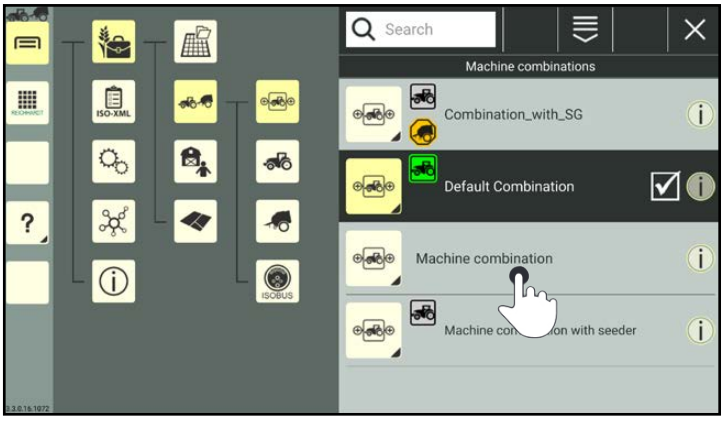


Fig. 300: Pressing and holding machine combination in list of machine combinations

Tap "Edit" (see Fig. 301).

Alternatively, you can also open the option via the processing options in the top bar of the list of machine combinations and then select the corresponding machine combination (see chapter 7.2.2).

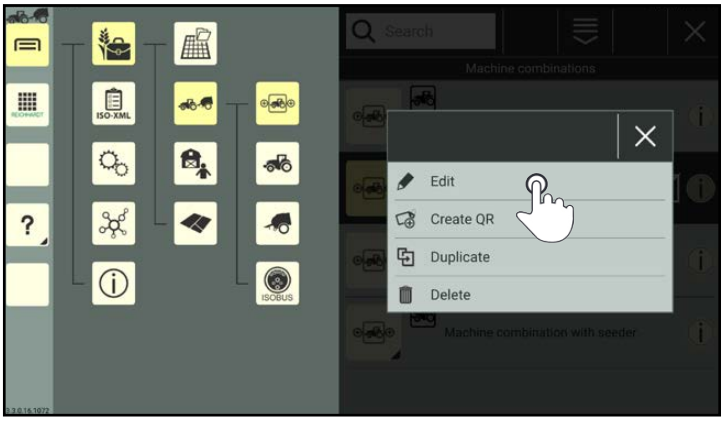


Fig. 301: Editing the machine combination

Displaying and editing the machine combination properties

In the machine combination properties (see Fig. 302) you have the following options:

- Machine combination settings (see chapter 7.4.2.2.1)
- Entry-specific processing options
  - Create a QR code (see chapter 7.4.2.2.7)
  - Delete the properties of a machine combination (see chapter 7.4.2.2.8)
- Save the machine combination properties and exit. You will then return to the list of machine combinations.

NOTICE

As long as the machine combination properties are open, you cannot select another menu item in the sidebar or main menu.

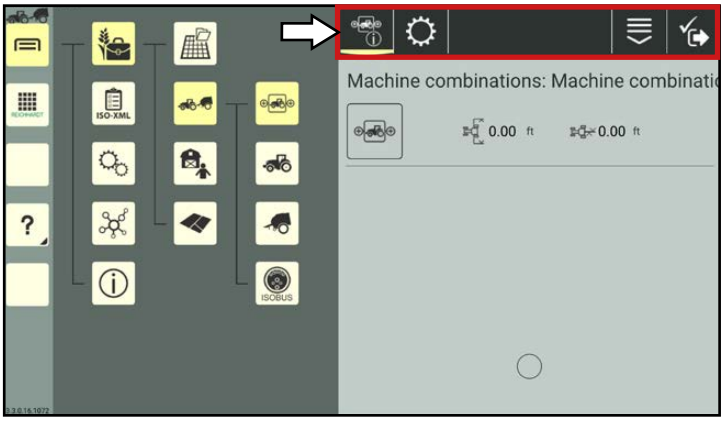


Fig. 302: Machine combination properties – options

The following information is displayed in the machine combination properties for machine combinations that have already been configured (see Fig. 303):

Ⓐ Machine combination designation

Ⓑ Machine combination image and connection status symbols.

Machine combination image. Can be replaced with a photograph (see chapter 7.4.2.2.2).

Further symbols are displayed to the right of the machine combination image. They also provide information about the connection status of vehicles and implements that are assigned to the machine combination.

The symbols are also shown for each machine combination in the list of machine combinations and are explained in chapter 7.4.2.3.

If no symbols are displayed, then no machines are assigned or there is a connection problem.

Ⓒ Working width of the machine combination and lateral offset of the coupling point of the implement.

Ⓓ Designation of the machines assigned via the machine combination configuration (see chapter 7.4.2.2.3).

Ⓔ Machine image of the machines and section display assigned via the machine combination configuration (see chapter 7.4.2.2.3). Warnings can be shown on the images of the machines. They provide information about the connection status of the machines (see chapter 7.4.1.3). By tapping the machine image, you can access the machine properties of the relevant machine (see chapter 7.4.1.2).

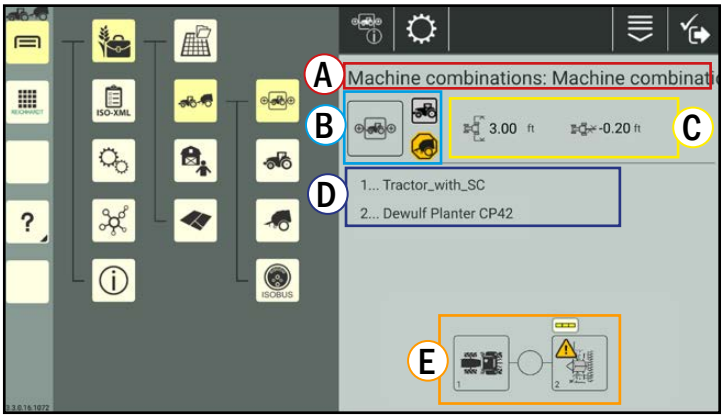


Fig. 303: Machine combination properties

7.4.2.2.1 Overview of the Machine Combination Settings

You can edit the machine combination data and settings via the settings (gearwheel) in the top bar of the machine combination properties.
The following settings are available for machine combinations (see Fig. 304):

Identification
Change the machine combination designation, comments, and machine combination image (see chapter 7.4.2.2.2).

Machine combination configuration
Assign and remove vehicles and implements (see chapter 7.4.2.2.3).

SMART TURN settings
Settings for the SMART TURN function (see chapter 7.4.2.2.4).
(Currently only available for HOLMER TerraDos.)

Working position sensor
Settings for the working position sensor (see chapter 7.4.2.2.5).

Section control settings
Settings for section control mode of the machine combination overlap settings of sections (see chapter 7.4.2.2.6).

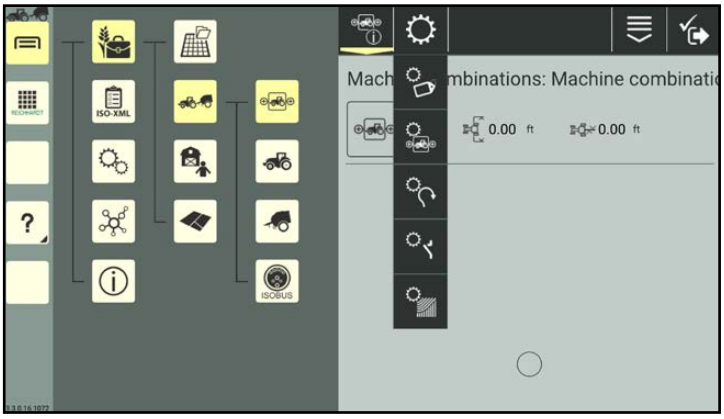


Fig. 304: Machine combination settings

7.4.2.2.2 Machine Combination Identification – General Specifications for the Machine Combination

Open the identification via the settings (gearwheel) in the machine combination properties.

You can implement/change the following machine combination specifications via the identification (see Fig. 305):

- machine combination image,
- machine combination designation, and
- comments.

Tap in the relevant text field to change the specifications.

If the device on which SMART COMMAND is being operated has a camera, you can replace the default machine combination image with a photograph.

How to take a photograph and how to assign or remove an image of a machine combination is detailed in the description of the machine identification (see chapter 7.4.1.2.3).
The procedure is the same.

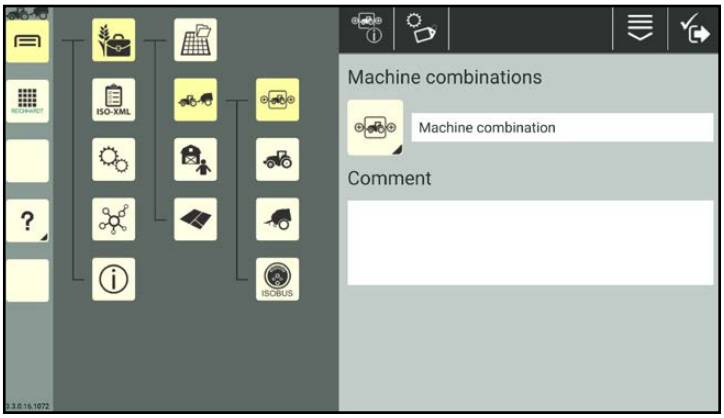


Fig. 305: Identification

7.4.2.2.3 Machine Combination Configuration – Assigning Vehicles and Implements to a Machine Combination

In the machine combination configuration, you can assign machine combination elements (vehicles and implements) to the machine combination.
In addition, you can specify which machine combination element should display the section widths (section display) in SMART GUIDE.

Open the machine combination configuration via the settings (gearwheel) in the machine combination properties (see Fig. 306).

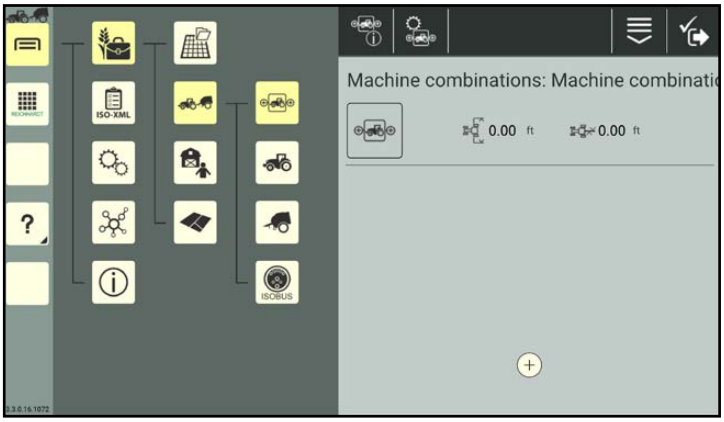


Fig. 306: Machine combination configuration

Adding a machine combination element

Tap the plus key at the bottom of the machine combination configuration (see Fig. 306).

The machine list is then displayed without a filter (all of the vehicles and implements) (see Fig. 307).

First of all select a vehicle (by tapping).

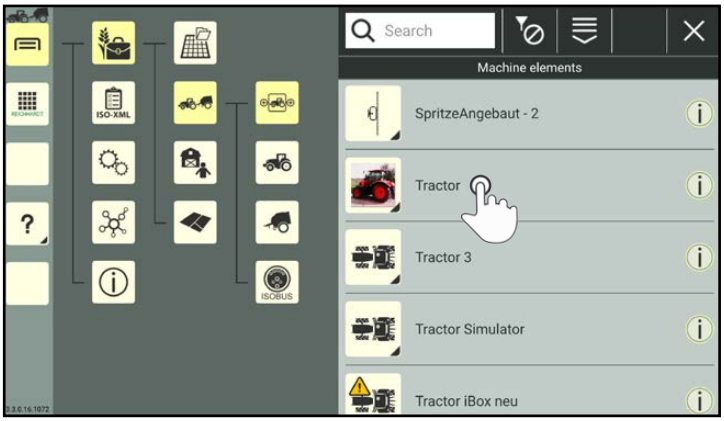


Fig. 307: Selecting a vehicle from the machine list

The vehicle is then listed in the machine combination configuration (see Fig. 308).

A plus key is displayed to the left and right of each added machine combination element.

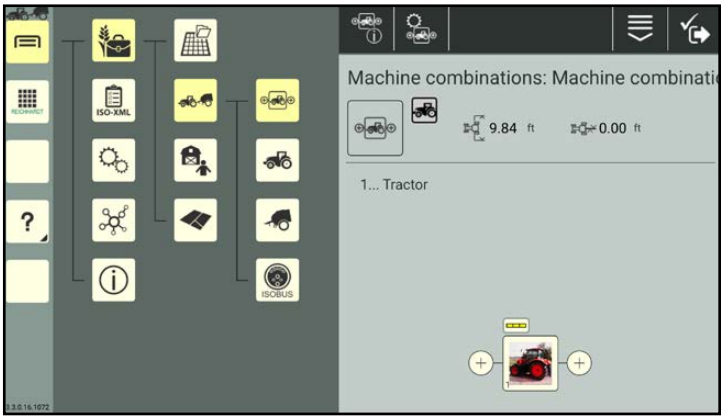


Fig. 308: Vehicle incorporated

Use the same method for adding vehicles to add one or more implements (see Fig. 309).

The position of the machine combination element in the machine combination is determined by selecting the corresponding plus key.

NOTICE

The position of a machine combination element cannot be changed.

To change the position of the machine combination element, you must delete the machine combination element and add it again.

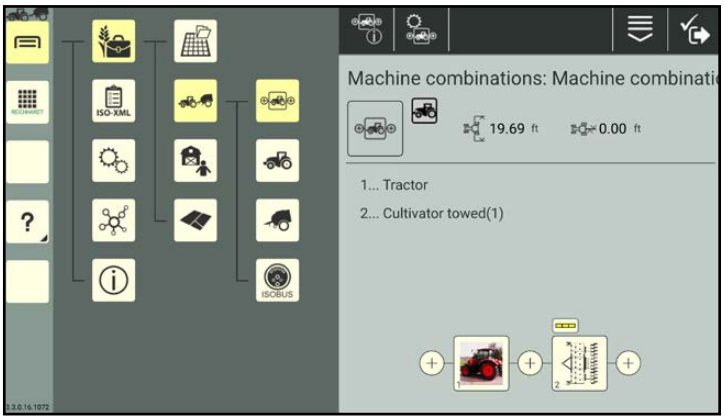
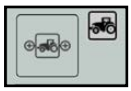


Fig. 309: Rear-mounted implement added



As soon as machine combination elements are assigned to the machine combination, symbols are displayed next to the machine combination image (and in the machine combination properties and list of machine combinations) within the machine combination configuration.
They provide information about the connection and configuration status of the machine combination elements.
The symbols and their colors are explained in chapter 7.4.2.3.

Creating and adding a machine combination element

You can also create machine combination elements while adding them to the machine combination.

To do so, proceed as follows:

Tap the plus key at the bottom of the machine combination configuration (see Fig. 310).

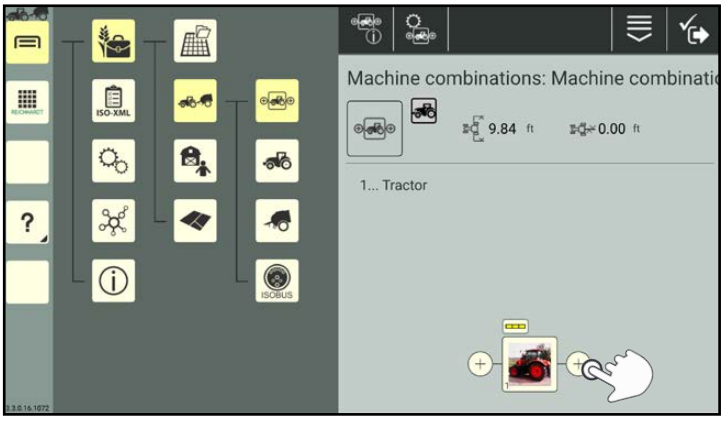


Fig. 310: Adding a machine combination element

Open the processing options in the top bar of the machine list. Tap the plus sign to then add a machine (see Fig. 311).

The procedure to add and edit a machine is detailed in chapter 7.4.1.1.1 and chapter 7.4.1.2.

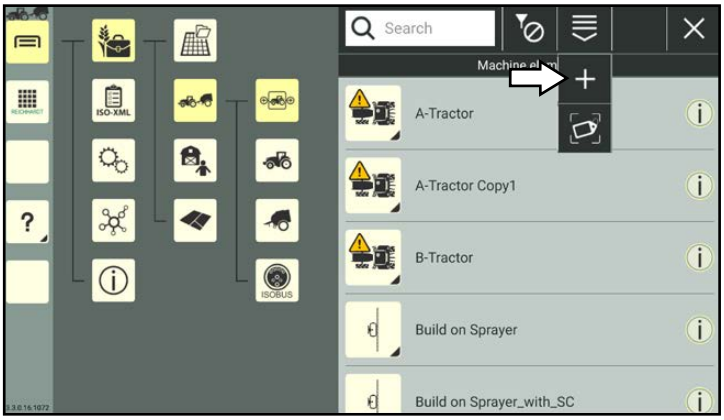


Fig. 311: Adding a machine

Changing a machine combination element

If you want to replace a machine combination element with another one, you can delete it and add a new one.

You can also directly replace the machine combination element with another one.

To do so, proceed as follows:

1. Tap the machine combination element in the machine combination configuration (see Fig. 312).

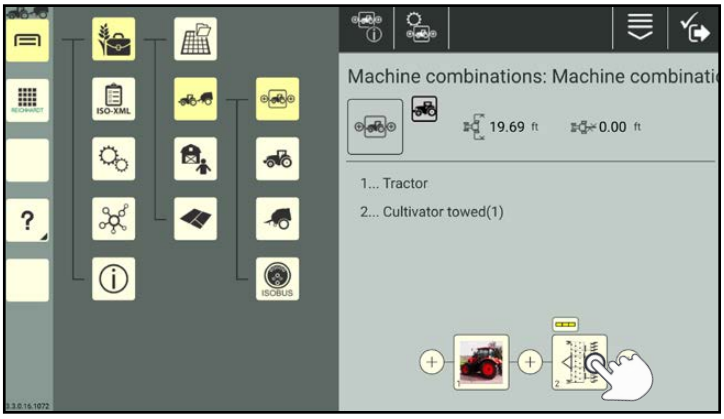


Fig. 312: Tapping the machine combination element to be replaced

2. Select "Change" (see Fig. 313).

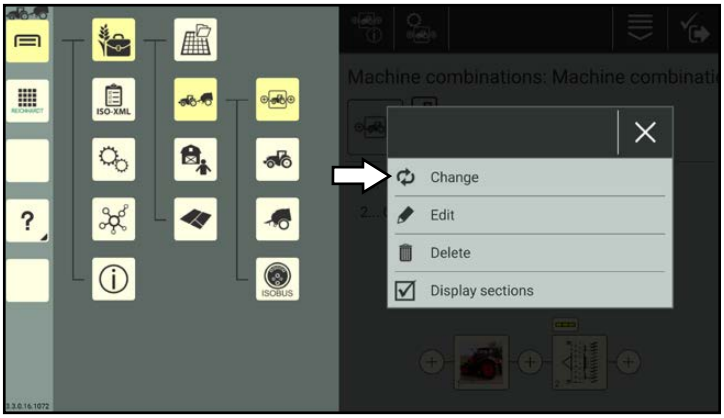


Fig. 313: Selecting "Change"

3. Tap to select the required machine combination element from the machine list that is displayed (see Fig. 314).

The new machine combination element is then displayed in the machine combination configuration (see Fig. 315).

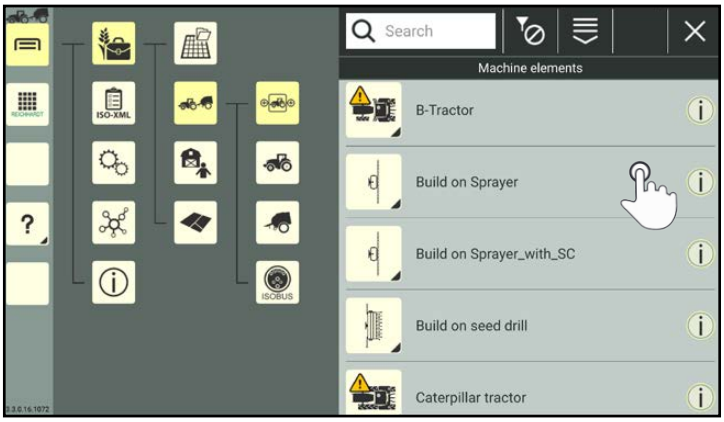


Fig. 314: Selecting a machine combination element

Editing a machine combination element

You can also edit the data and settings of the integrated machines in the machine combination configuration.

To do so, proceed as follows:

1. Tap the corresponding machine combination element in the machine combination configuration (see Fig. 315).
2. Select "Edit" (see Fig. 316).

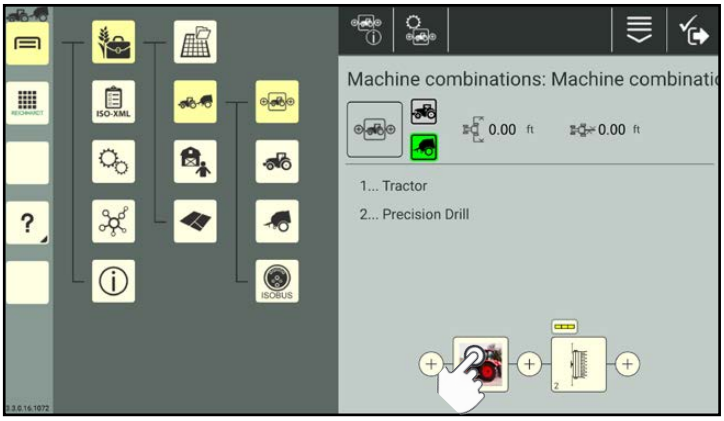


Fig. 315: Tapping the machine combination element

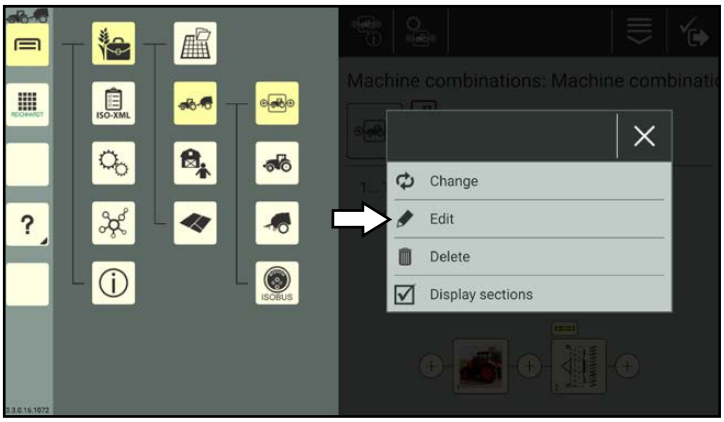


Fig. 316: Selecting "Edit"

You can then access the machine properties of the selected machine (see Fig. 317).

You can now edit the machine properties. Editing the machine properties is described in chapter 7.4.1.2.

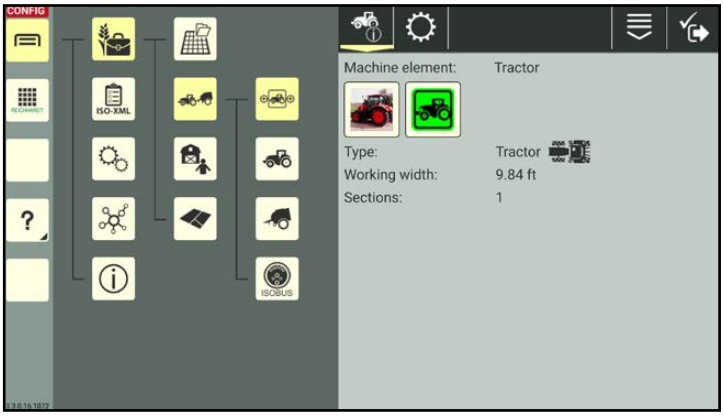


Fig. 317: Machine properties of the selected machine

Deleting a machine combination element

If you would like to delete a machine combination element from the machine combination, proceed as follows:

1. Tap the machine combination element in the machine combination configuration (see Fig. 318).
2. Select "Delete" (see Fig. 319).

The machine combination element is immediately deleted from the machine combination (see Fig. 320).

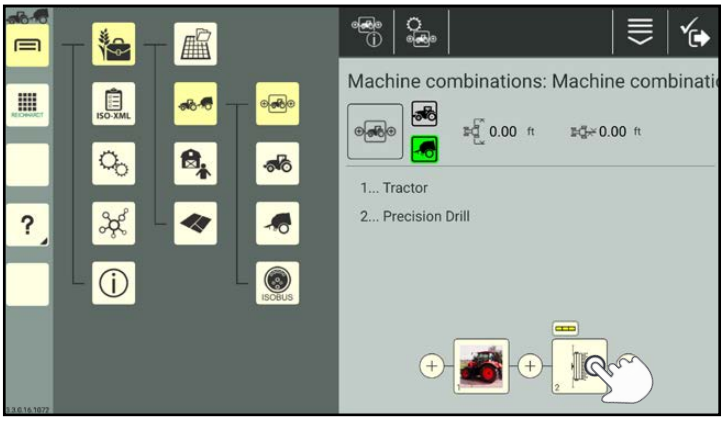


Fig. 318: Tapping the machine combination element to be deleted

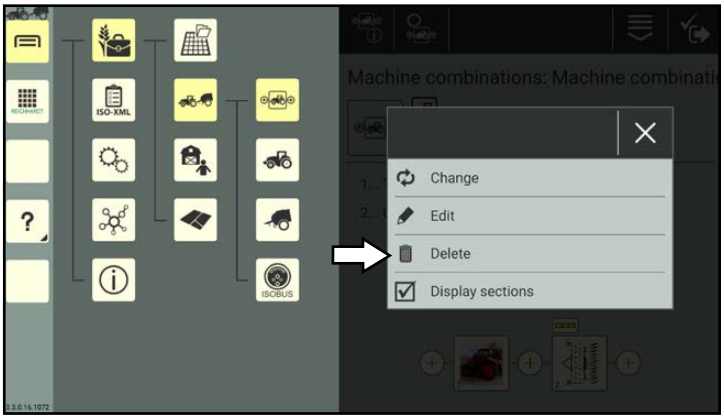


Fig. 319: Selecting "Delete"

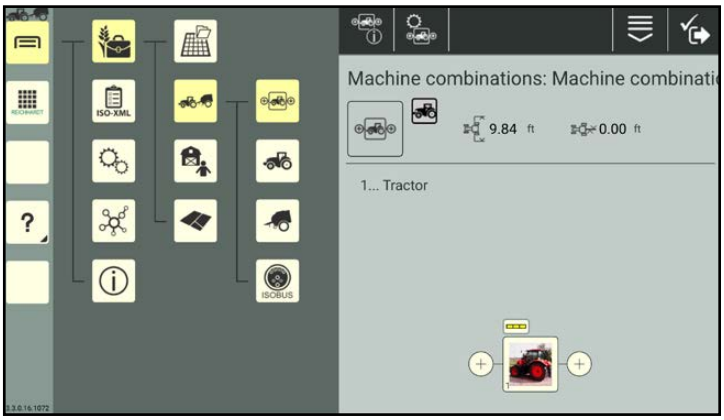


Fig. 320: Deleting the machine combination element

Selecting a machine combination element to display sections

In the machine combination configuration, you can specify which machine combination element should display the section widths in SMART GUIDE.

If you would like to select a different machine combination element, proceed as follows:

1. Tap the machine combination element in the machine combination configuration (see Fig. 321).
2. Tap "Display sections" so that the check box is activated (see Fig. 322).

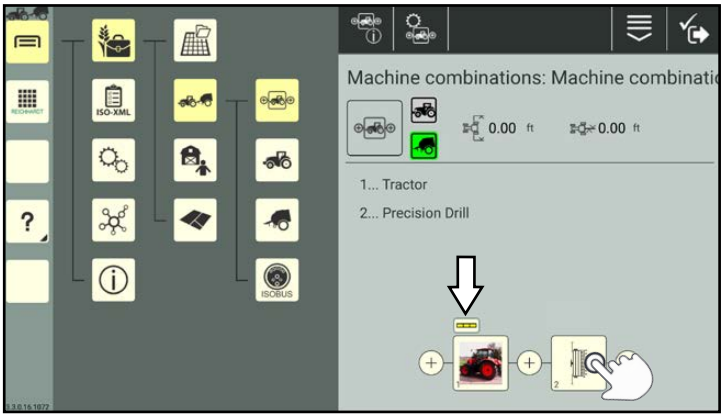


Fig. 321: Tapping the machine combination element to be deleted

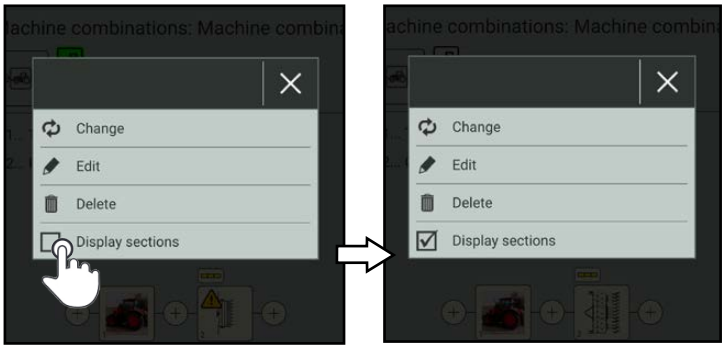


Fig. 322: Activating "Display sections"

The selected machine combination element will then specify the section widths (see Fig. 323).

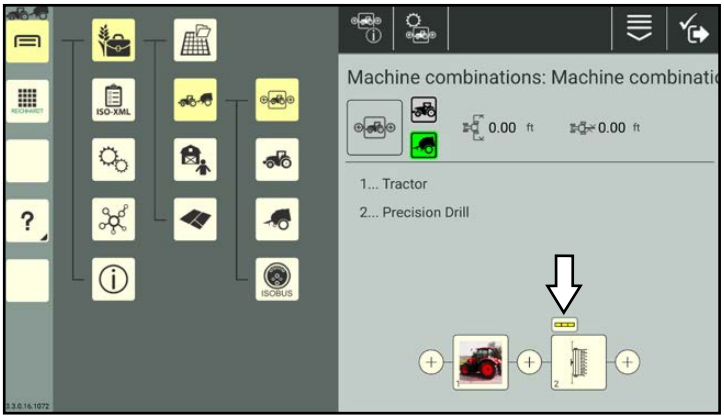
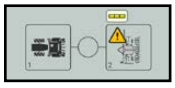


Fig. 323: Machine combination with changed machine combination element

Warnings on the machine combination elements



Warnings can be shown on the images of the machine combination elements. They provide information about the connection status of the machines (see chapter 7.4.1.3).

7.4.2.2.4 SMART TURN Settings – Configuration for Automatic Turning

The settings for automatic turning are implemented via the SMART TURN settings.

NOTICE

These settings only apply when using SMART TURN (in SMART GUIDE).
SMART TURN is currently only available for HOLMER TerraDos.

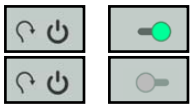
This setting is blocked if no SMART TURN license is available.

Open the SMART TURN settings via the settings (gearwheel) in the machine combination properties (see Fig. 324).

Open/close the individual subitems by tapping the arrows.

Switching SMART TURN ON/OFF:

Activate/deactivate the SMART TURN function by tapping the switch next to the power symbol.



SMART TURN activated

SMART TURN deactivated

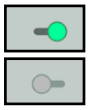
Offset setting for turn starting point and turn end point:

You can use the offset to set where the turning maneuver should start (starting point) and end (end point) in relation to the border of the headland.
You can change the values by moving the controllers or entering values in the text fields (see Fig. 325).

Audio signals:

Tap the switch to activate/deactivate audio signals for the following purposes (see Fig. 326):

- when starting to turn,
- at end of a turn, or
- as a prewarning.



Audio signal ON

Audio signal OFF

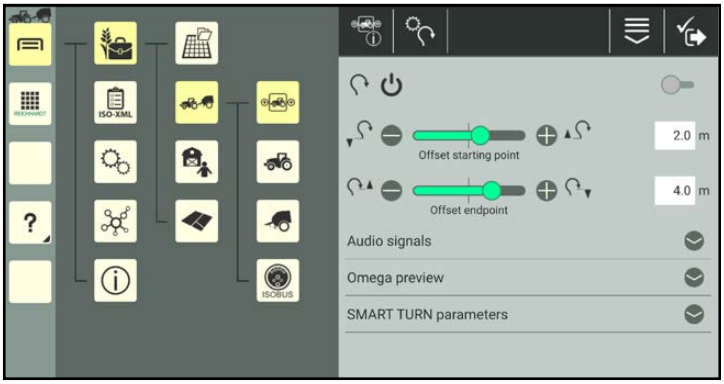


Fig. 324: SMART TURN settings

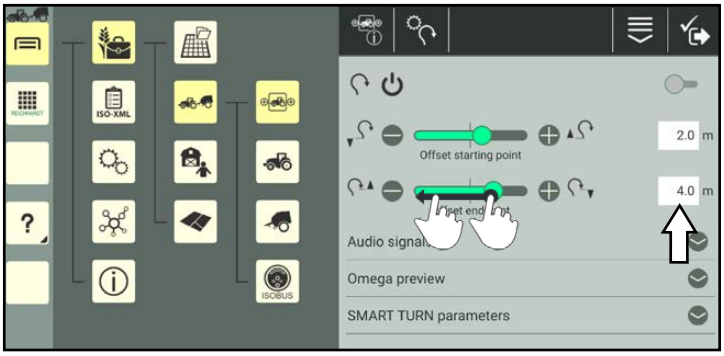


Fig. 325: Changing the offset value via the controller or text field

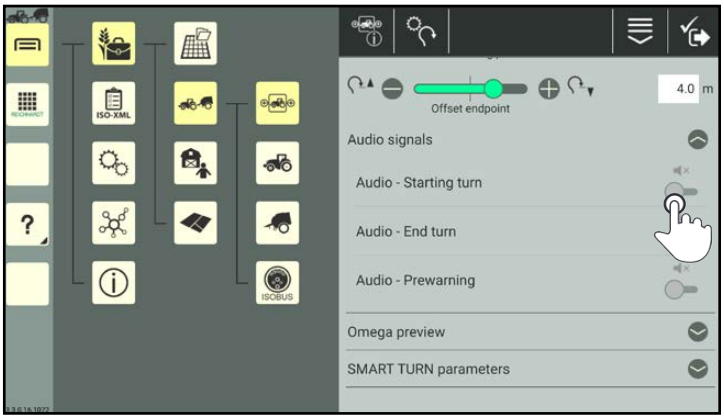


Fig. 326: Tapping the switches to activate them

Omega preview:

The Omega preview provides a detailed preview of the planned turning maneuver (see Fig. 327).

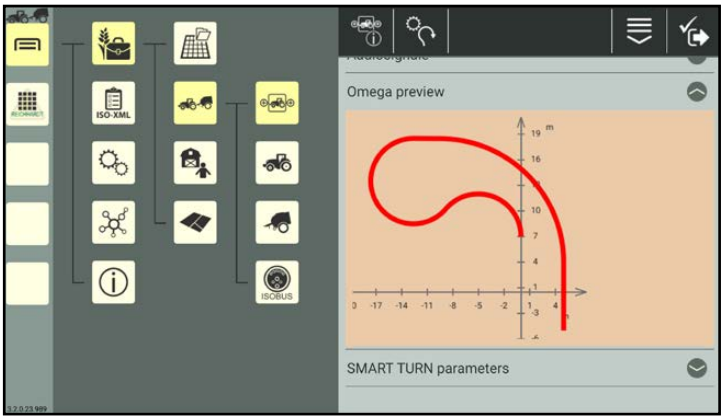


Fig. 327: Omega preview

SMART TURN parameters:

You can implement the following settings via the SMART TURN parameters:

Radius ratio

Turning maneuver extension

Initial track

Positional track

Turning maneuver calculation

Autom. hide confirmation dialog

Show confirmation dialog

You can change the values by either moving the slide controllers or manually entering values in the text fields (see Fig. 328).

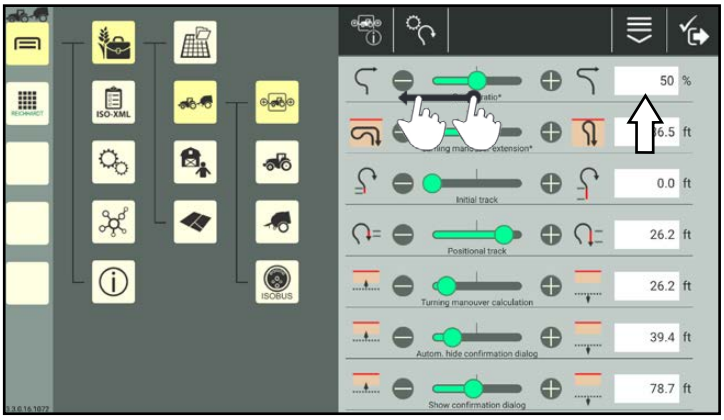


Fig. 328: Specifying the SMART TURN parameters by moving the controllers or entering them manually

7.4.2.2.5 Working Position Sensor Settings

Open the working position sensor settings via the machine combination settings (gearwheel) in the machine combination properties (see Fig. 329).

The working position sensor provides information about whether the powerlift of the vehicle is in a working or transport position.

Use the selection menu to select the source for the working position sensor.

NOTICE

If you are not sure whether the vehicle has a working position sensor or which Reichhardt components are installed in the vehicle and are connected, please contact your responsible dealer.

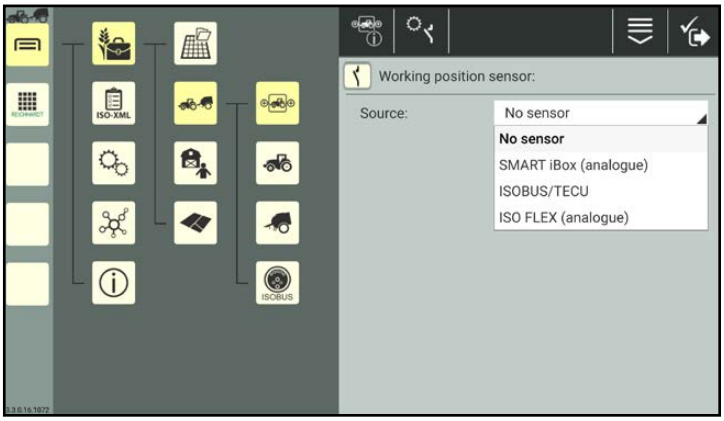


Fig. 329: Settings for the working position sensor

Possible sources for the working position sensor signal:

- **No sensor**
  Select this option if no working position sensor is installed or is being used on the vehicle. .
- **SMART iBox (analog)**
  Working position sensor installed by Reichhardt and connected to the SMART iBox.
- **ISOBUS/TECU**
  The vehicle has a working position sensor or is connected to an external TECU that provides the signal.
  Also select the CAN participant under "TECU:" (see Fig. 330).
- **ISO FLEX (analog)**
  The working position signal is imported via the ISO FLEX module.
  (Only available if using the SMART COMMAND app and corresponding adapter cable).

Via the "Invert position" point, you can set that an incorrectly detected working or transport position is recognized as the other.

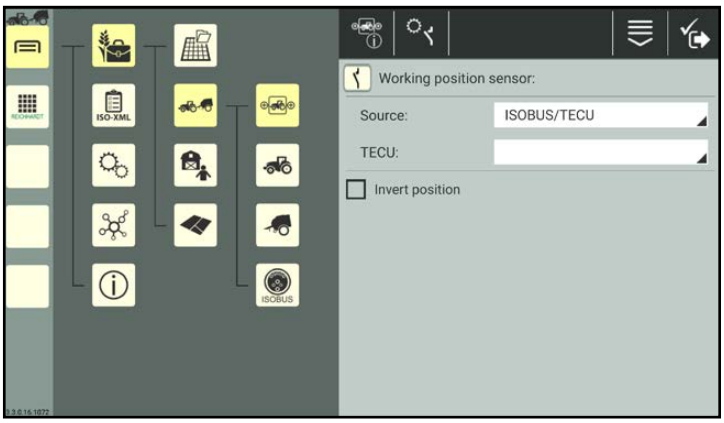


Fig. 330: Example of a "ISOBUS/TECU" working position sensor

7.4.2.2.6 Section Control Settings

The settings for switching the section widths are implemented via the section control settings.

Open the section control settings via the settings (gearwheel) in the machine combination properties (see Fig. 331).

Open/close the individual subitems by tapping the arrows.

Fig. 331: Section control settings (machine combination)

Overlapping:

The overlapping settings are designed to prevent the section widths from "fluttering".
The settings are designed to reduce imperfections/overlapping.

You can specify the following values by moving the slide controllers or manually entering values in the text fields (see Fig. 332):

- Overlapping degree – Boundary
- Overlapping degree – Area
- Overlapping tolerance – Boundary
- Overlapping tolerance – Area

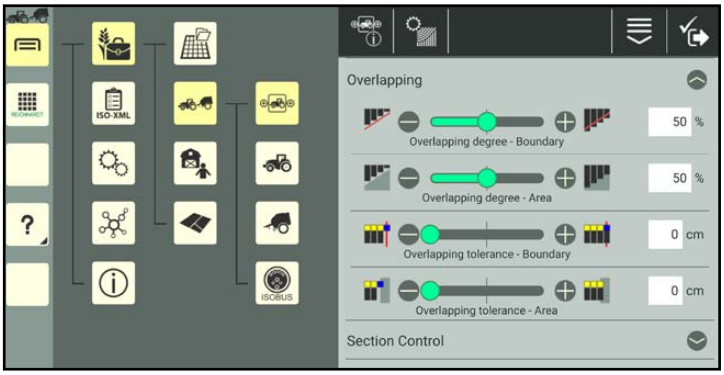


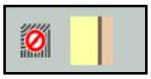
Fig. 332: Section control settings – overlapping settings

Section Control:

Select the relevant option for the section control (see Fig. 333):

- Auto = section control mode:
  Section widths are switched on/off automatically. Activate/deactivate the following options as required via the following switches:

Automatic deactivation when reversing.



Automatic deactivation in the headland (only if field border is active).

Automatic deactivation at field borders.

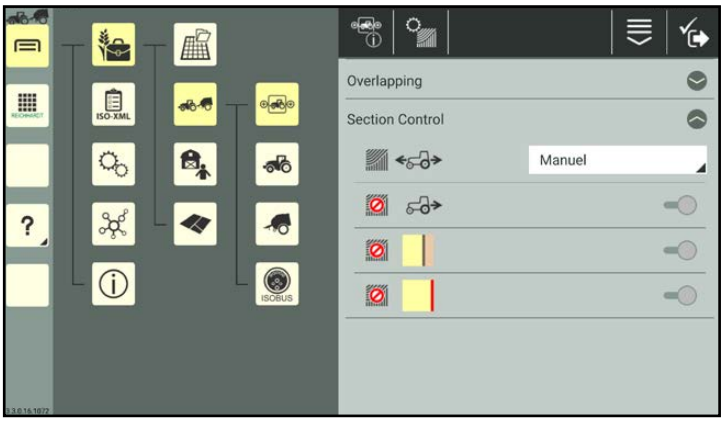


Fig. 333: Section control settings – section control

- Manual: Section widths are activated/deactivated manually in SMART GUIDE.
- External: Section widths are activated/deactivated via the ISOBUS operating screen of the ISOBUS implement and displayed in SMART GUIDE.

7.4.2.2.7 Creating a QR Code for a Machine Combination

You can use a QR code you select/activate a machine combination from the list of machine combinations. This is suitable for the quick selection of lots of created machine combinations.
You can also create a new machine combination by scanning a QR code. However, during this process, only the identification settings (without the image) and machine combination configuration (if the integrated machines are available in the system) are added.
However, to do so you must first create a QR code for this machine combination.

To be able to scan a QR code, the device on which SMART COMMAND is being operated must have a camera. Creating a QR code for a device without a camera does not make any sense.

In the machine combination properties, call up the entry-specific processing options.

Tap the button to create a QR code (see Fig. 334).

Alternatively, you can also open the option via the processing options in the top bar of the list of machine combinations and then select the corresponding machine combination (see chapter 7.2.2).

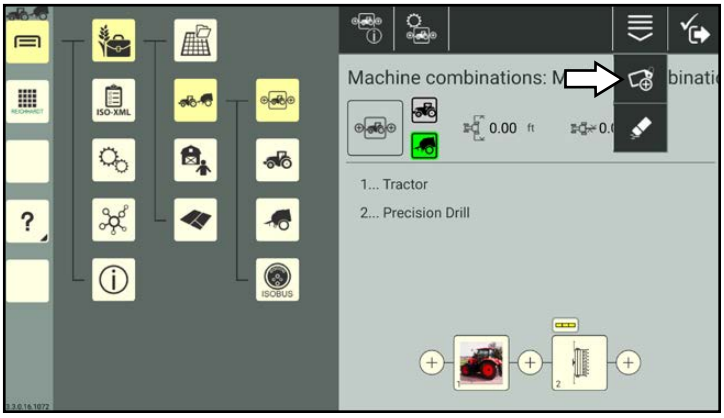


Fig. 334: Creating a QR code for a machine combination

A PDF file containing the QR code is generated.

Select where you wish to send or save the PDF file (see Fig. 335).

NOTICE

If changes have been made to the designation of the machine combination since the QR code was created, then the QR code becomes invalid.

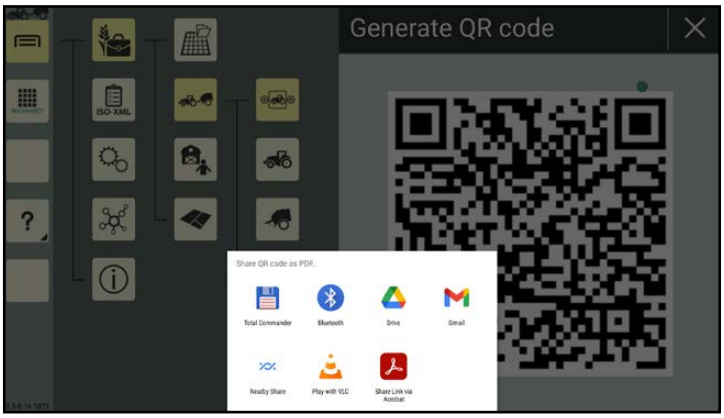


Fig. 335: Saving/sending the QR code

7.4.2.2.8 Deleting the Properties of a Machine Combination

You have the option of deleting all of the machine combination data and settings, with the exception of the designation, from a created machine combination. This is explained below.
(How to delete a machine combination from the list of machine combinations is explained in chapter 7.4.2.7.)

In the machine combination properties, call up the entry-specific processing options.
Tap the eraser symbol (see Fig. 336).

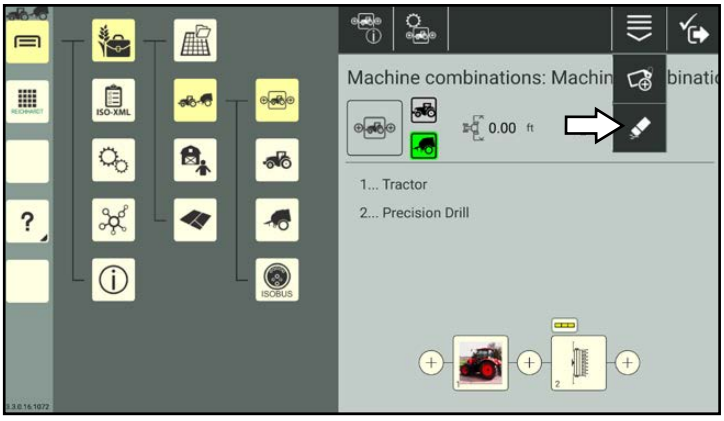


Fig. 336: Deleting machine combination properties

Confirm the prompt with the checkmark to delete the machine combination data (see Fig. 337).
The machine combination designation is retained.

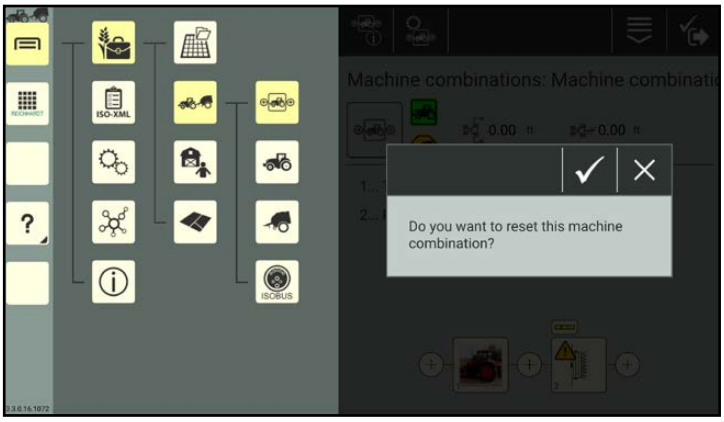


Fig. 337: Confirming the deletion prompt

7.4.2.3 Symbols Next to the Machine Combination Image in the List of Machine Combinations

Up to two symbols (vehicle and implements) can be displayed next to the machine combination image (see Fig. 338).
These are explained in the following.

The symbols for vehicles vary depending on whether a machine combination is active/selected (see chapter 7.4.2.5).

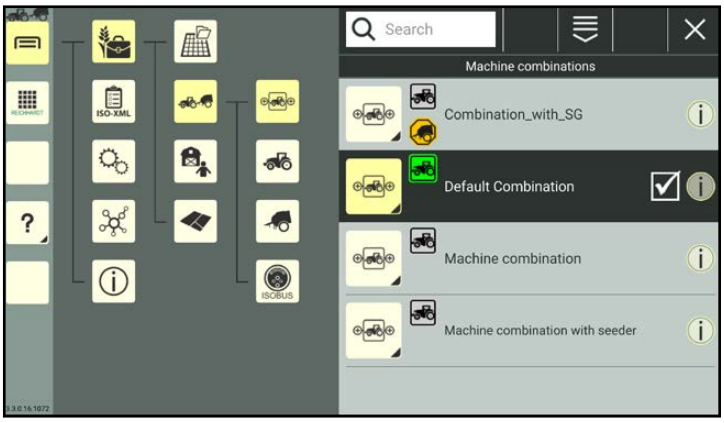


Fig. 338: List of machine combinations

	Machine combination active/selected	Machine combination not active/selected
Vehicle	All of the SMART COMMAND components (e.g.,. ISO FLEX and SMART iBox, if applicable) selected in the vehicle configuration are connected successfully.	All of the SMART COMMAND components (e.g., ISO FLEX and SMART iBox, if applicable) selected in the vehicle configuration are connected successfully.
	There is a connection/linking problem to one of the SMART COMMAND components that was selected in the vehicle configuration. On vehicles with TECU, the symbol can also indicate that the vehicle is integrated in the machine combination but is currently not connected.	If no symbol is displayed, there are several possible causes: • No vehicle selected or • there is a connection/linking problem to one of the SMART COMMAND components that was selected in the vehicle configuration.
	If no symbol is displayed, there are several possible causes: • No vehicle selected or • there is no connection to the ISO FLEX (in SMART COMMAND app).	
Implements	Connection status for all of the ISOBUS implements is successful.	
	Connection status of one of the ISOBUS implements is not successful. An ISOBUS implement is probably integrated in the machine combination but is not coupled.	
	If no symbol is displayed, there are several possible causes: • Only non-ISOBUS-capable implements selected, • no implement selected or • no connection to ISO FLEX.	

7.4.2.4 Calling up the Machine Combination Information via the Info Button in List of Machine Combinations

Tapping the information button in the list entry opens an overview of the most important information about the machine combination.
This enables you to quickly check which machines are assigned to the machine combination and the working width of the machine combination without having to open the machine combination properties (see Fig. 339).

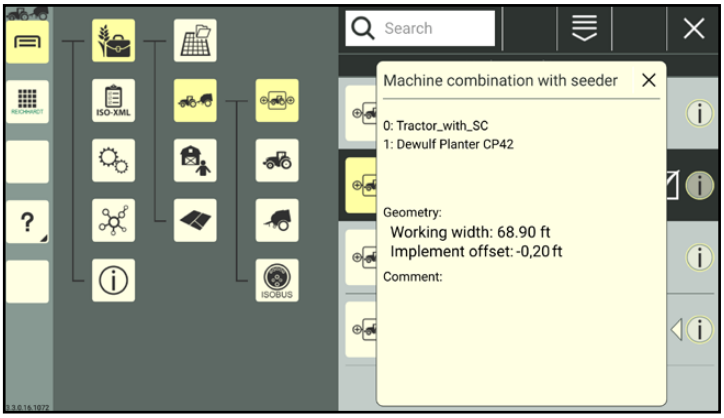


Fig. 339: Information in the list of machine combinations

7.4.2.5 Selecting/Activating a Machine Combination

You can only use the SMART COMMAND configuration and SMART GUIDE if a machine combination is selected and active.

The selected and active machine combination in the list of machine combinations is marked with a dark color and has a checkmark (see Fig. 340).

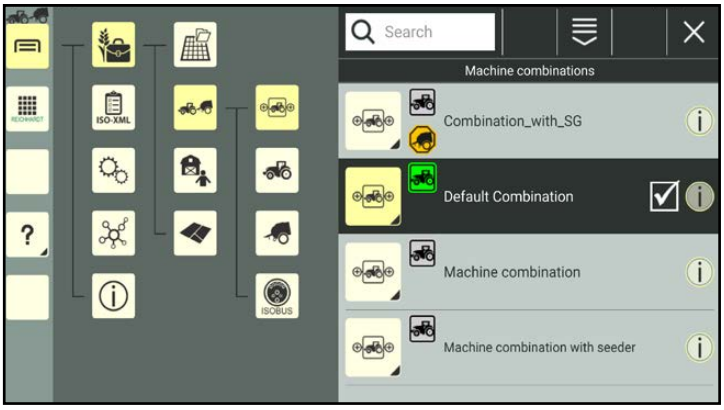


Fig. 340: List of machine combinations

The active machine combination is displayed when starting SMART COMMAND and when changing the user (see chapter 4.6).

If a machine combination is selected and configured correctly, a black machine combination is displayed at the top of the sidebar.

If the machine combination at the top of the sidebar is red and crossed out, either no machine combination is selected or the selected machine combination (and the vehicle it contains) is not configured sufficiently.

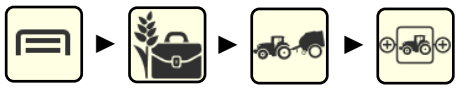
There are two ways to select a machine combination:

1. by tapping in the list of machine combinations, or
2. by scanning a QR code.

These two selection options are explained in the following.

7.4.2.5.1 Tapping to Select/Deselect a Machine Combination

Open the list of machine combinations:



Select a machine combination by tapping it (see Fig. 341).

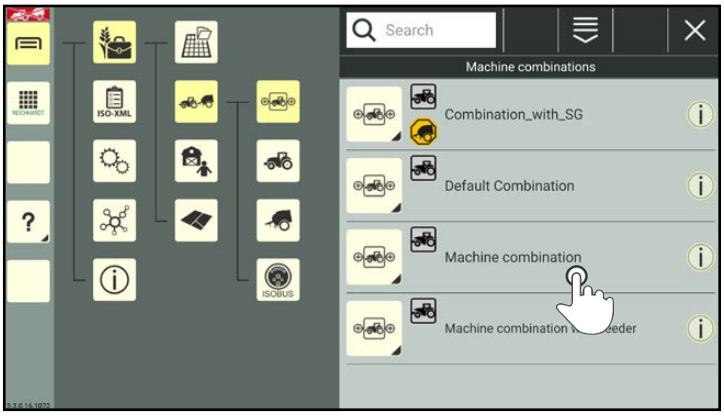


Fig. 341: Selecting a machine combination

The machine combination is now active (see Fig. 342).

If you tap it again it will be deselected and no machine combination will be active.

If you tap another machine combination while a machine combination is active, this one will be activated instead.

Fig. 342: Machine combination selected

7.4.2.5.2 Selecting a Machine Combination by Scanning a QR Code

NOTICE

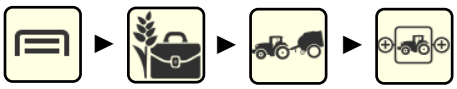
A camera is required to use this function. The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal).

You must first create a QR code to be able to select a machine combination by scanning a QR code.
Please refer to chapter 7.4.2.2.7.

NOTICE

If changes have been made to the designation of the machine combination since the QR code was created, then the QR code becomes invalid.

Open the list of machine combinations:



Open the processing options in the top bar of the list of machine combinations.

Tap the symbol to scan a QR code (see Fig. 343).

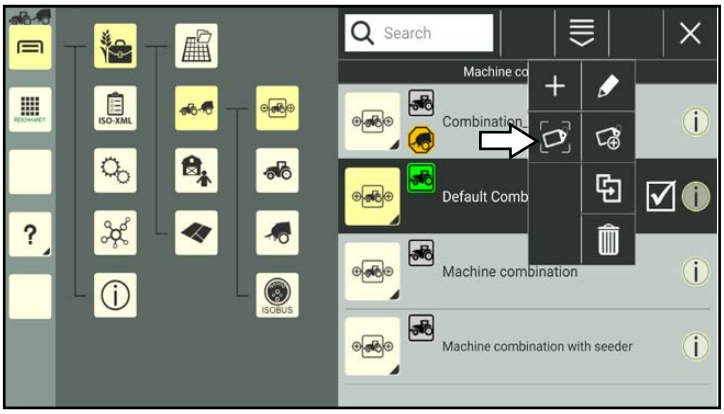


Fig. 343: Selecting "Scan QR"

The QR scanner will then open (see Fig. 344).

Scan the QR code.

If the QR code is recognized, the machine combination properties are displayed in the field next to the scanner.

If the machine combination does not yet exist in the list of machine combinations, you will have the option to create it (see chapter 7.3.1.1.3).

Tap the checkmark to create the scanned machine combination.

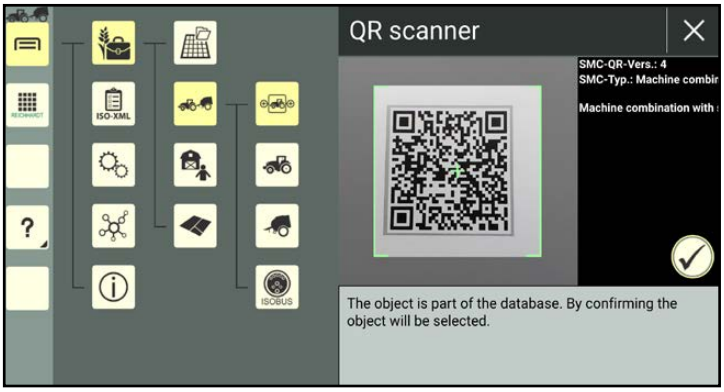


Fig. 344: Scanning the QR code

The machine combination is then selected (see Fig. 345).

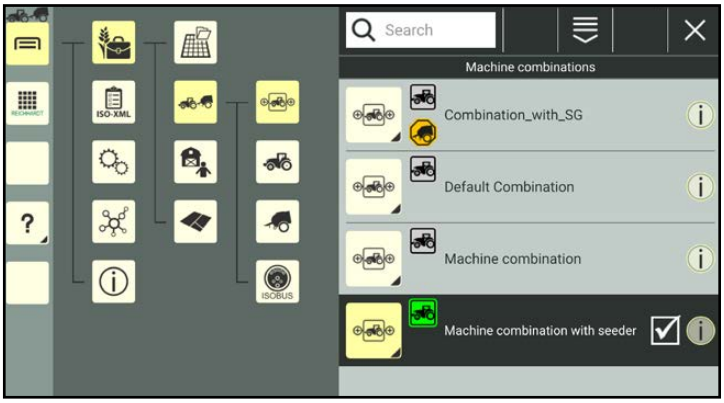


Fig. 345: Machine combination selected/active

7.4.2.5.3 Machine Combination Selected but Not Active

If no vehicle has been assigned to the machine combination yet or if there is a configuration problem with the vehicle, the machine combination is selected but is not active.

The machine combination is highlighted in dark gray in the list of machine combinations (see Fig. 346).

The machine combination cannot be used in SMART GUIDE and the SMART COMMAND configuration cannot be called up.

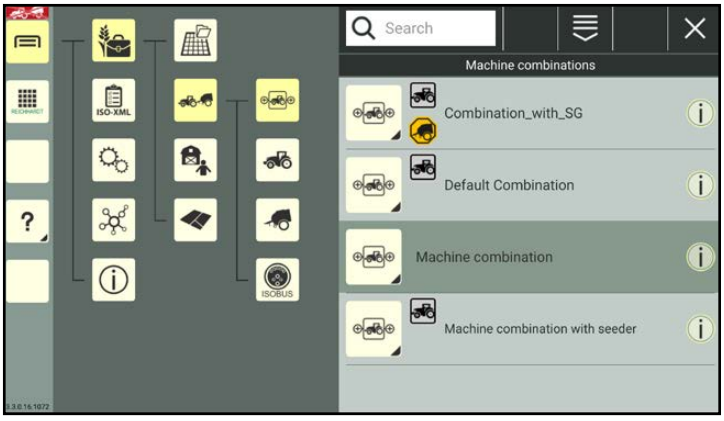


Fig. 346: Machine combination selected but not active

7.4.2.6 Search Function in the List of Machine Combinations

You can use the search function to search for specific machine combinations and limit the number of machine combinations displayed in the list of machine combinations.

Enter the search term in the search field at the top of the list of machine combinations. Only the corresponding machine combinations are displayed (see Fig. 347).

The search term does not have to be at the start of the designation.
Lower and upper case are also not relevant.

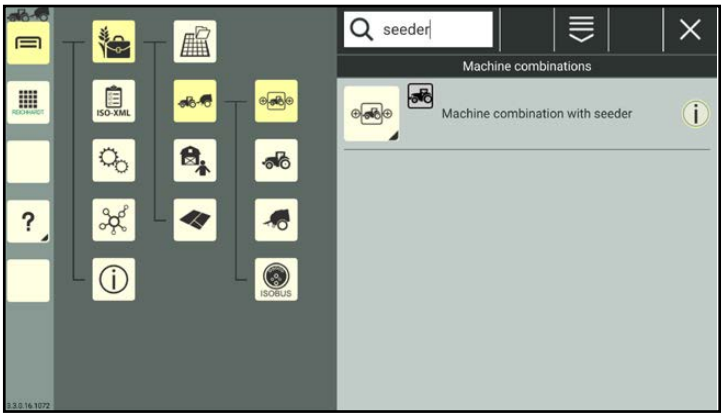


Fig. 347: Searching for a machine combination

7.4.2.7 Deleting Machine Combinations

NOTICE

The default combination and a selected machine combination cannot be deleted.

In the list of machine combinations, press and hold the machine combination you wish to delete, to call up the processing options for this machine combination (see Fig. 348).

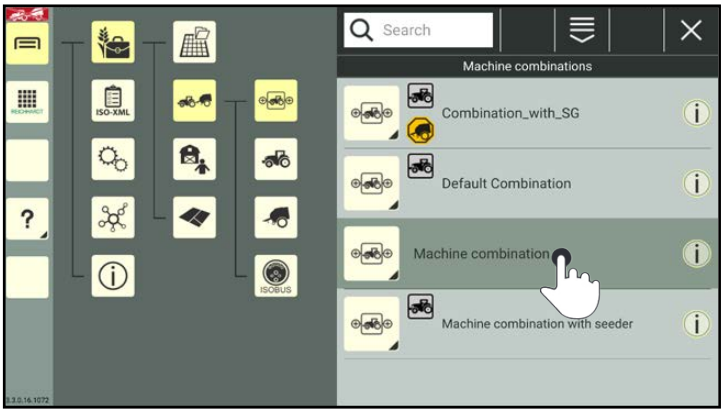


Fig. 348: Pressing and holding the machine combination

Tap "Delete" (see Fig. 349).

Deleting several machine combinations simultaneously:

Open the processing options in the top bar of the list of machine combinations and tap the trash can symbol. Then select the corresponding machine combinations (see chapter 7.2.2).

The deletion process must then also be confirmed by tapping the trash can symbol with the green checkmark.

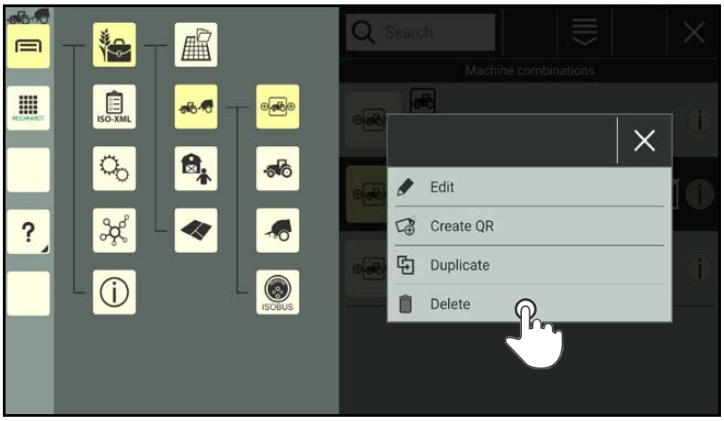


Fig. 349: Deleting a machine combination

Confirm the prompt with the checkmark to delete the machine combination(s) from the list of machine combinations (see Fig. 350).

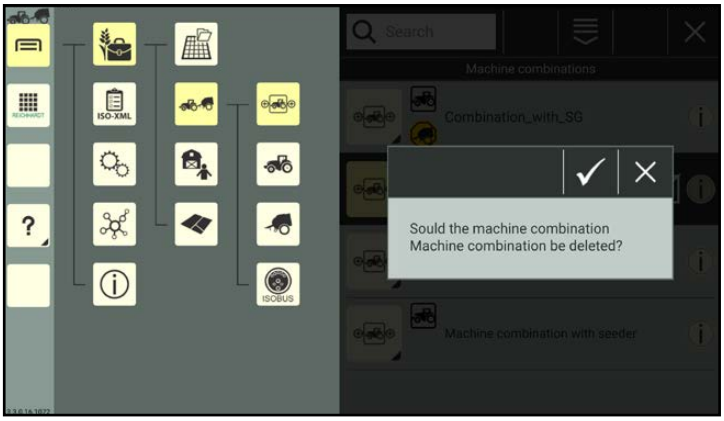


Fig. 350: Confirming the deletion prompt

7.5 Task Management – Creating and Managing Worksheets and Tasks

NOTICE

These settings only apply when using the SMART GUIDE application.
If you only use SMART VT, you can skip this section.

To use the SMART GUIDE application, a worksheet must be selected or a task must be active. SMART COMMAND provides two different working modes for this purpose:

- Worksheet mode
- Task mode

NOTICE

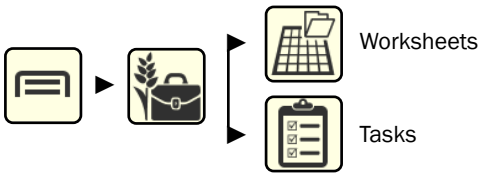
Worksheets are only available in the farm management menu and not in ISO-XML mode. Task mode is always active in ISO-XML mode.

Worksheet mode enables you to start the field work immediately without having to create tasks or other data. The field data is saved in the worksheet.

Task mode enables you to record and manage the field work in tasks. A separate field, that is linked to the corresponding task, is created for each task. Tasks can also linked to a farm, customer, user, machine combination.

(Using SMART GUIDE, it is possible to transfer field data from worksheet mode to task mode.)

If you are using the farm management menu, the task management is located right at the top (see Fig. 351).
The relevant symbol for the active working mode is displayed here:



More information on changing the mode is available in chapter 7.5.1.

If you are using ISO-XML mode, then task mode is always displayed (see Fig. 352):

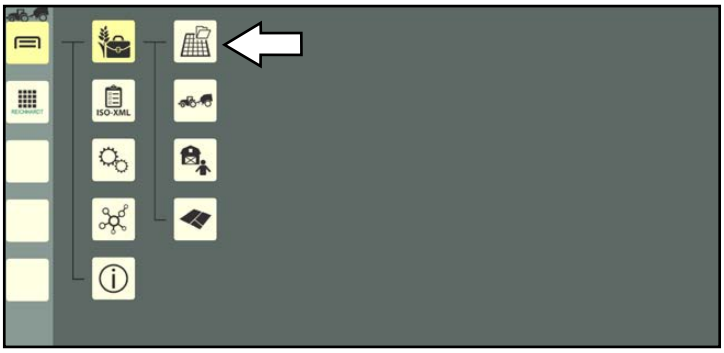


Fig. 351: Calling up task management in the farm management menu

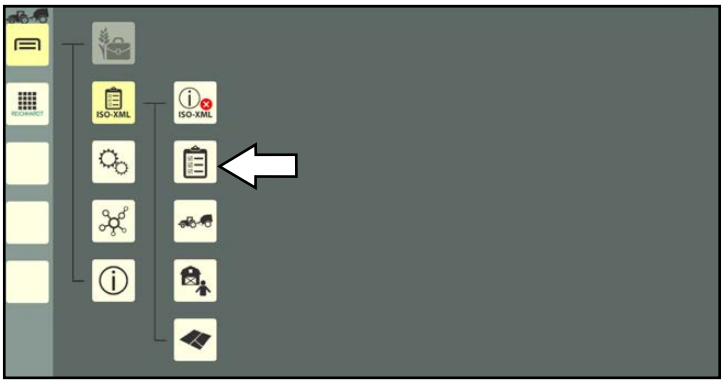


Fig. 352: Calling up tasks in ISO XML mode

7.5.1 Changing the Working Mode – Switching Between Worksheets and Tasks

NOTICE

The working mode can only be changed in the farm management menu. Worksheets and a switching button are not available in ISO-XML mode. Task mode is always active in ISO-XML mode.

To change the working mode, you must call up the currently active mode and tap the switching button in the top bar of the list (see Fig. 353):

Switching from worksheets to tasks.

Switching from tasks to worksheets.

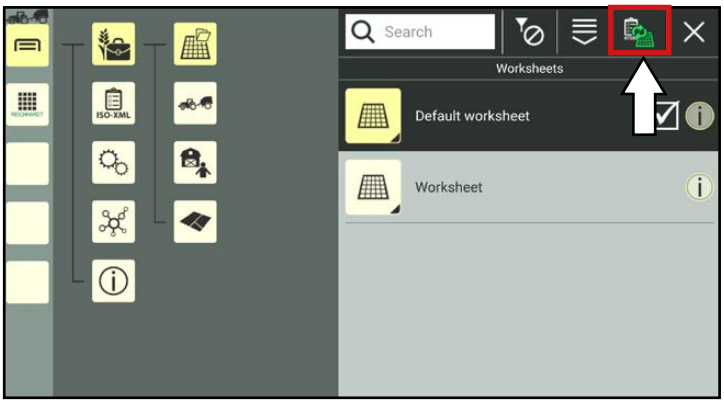


Fig. 353: Changing the mode

7.5.2 Worksheets

NOTICE

Worksheets are only available in the farm management menu and not in ISO-XML mode.

Field data such as the boundary lines, markings, reference tracks, and worked areas can be recorded and imported into a worksheet.

In contract to a task, that is linked to a separately created field (see "Fields" in chapter 7.6), a worksheet can contain data for several fields.

Open the list of worksheets via the main menu (see Fig. 354):

If tasks are currently active, select them and use the switching button to switch to the worksheets (see chapter 7.5.1).

A worksheet is selected as soon as worksheet mode is active.
It is marked with a dark color and has a checkmark.

A default worksheet is created and selected by default. This one cannot be deleted.

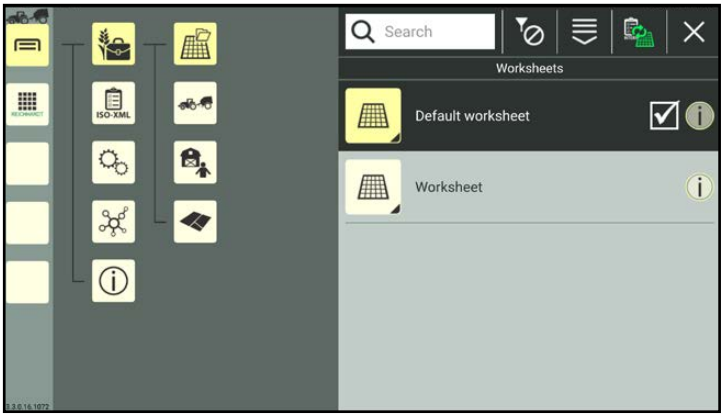


Fig. 354: List of worksheets

7.5.2.1 Creating a Worksheet

NOTICE

Worksheets can be created by duplicating an existing one or scanning a QR code.
(QR codes are generally not available for worksheets.)

Open the processing options for the worksheets via the top bar of the list of worksheets.
Tap the plus symbol (see Fig. 355).

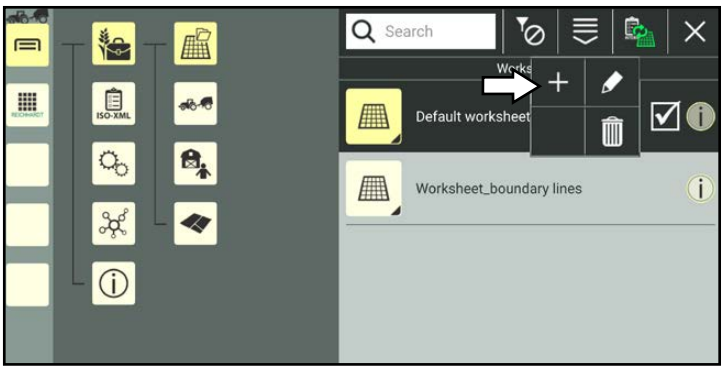


Fig. 355: Creating a new worksheet

The worksheet properties then open (see Fig. 356).

NOTICE

As long as the properties of a worksheet are open, you cannot select another menu item in the sidebar or main menu.

Edit the worksheet, if required. Editing the worksheet properties is described in chapter 7.5.2.2.

Save the worksheet via the symbol with the checkmark.

If you save the worksheet without further editing, a designation is created automatically as detailed in the following:

"Worksheet" + consecutive number of the worksheet.

The creation process cannot be cancelled.
If the worksheet was created by mistake, you will have to delete it again (see chapter 7.5.2.5).

You will automatically return to the list of worksheets in which the created worksheet is listed (see Fig. 357).

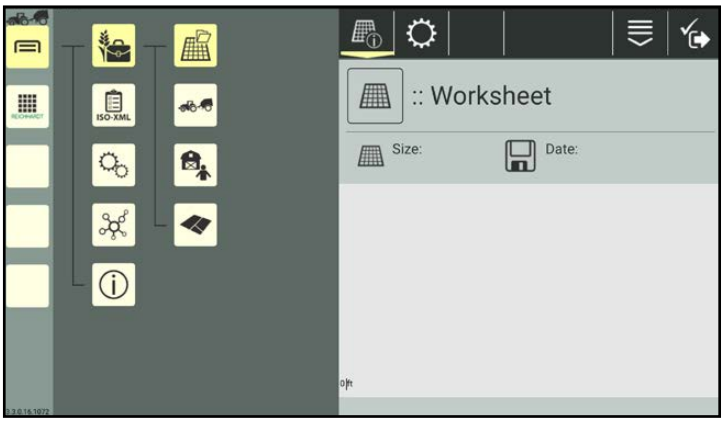


Fig. 356: Worksheet properties

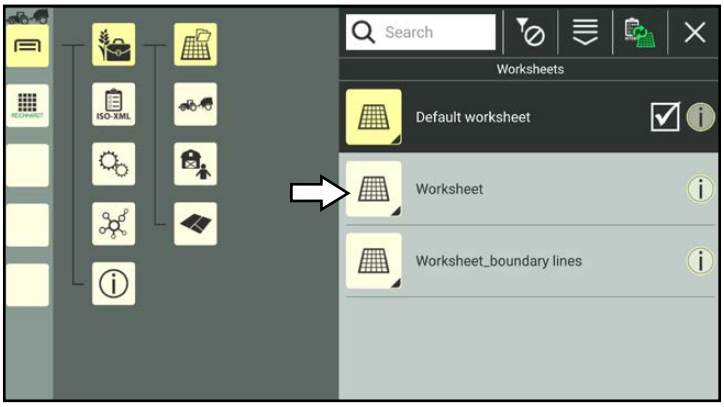


Fig. 357: New worksheet in list of worksheets

7.5.2.2 Calling Up, Displaying, and Editing the Worksheet Properties

Calling up the worksheet properties

In the list, press and hold the worksheet you wish to edit, to call up the processing options for this worksheet (see Fig. 358).

(The worksheet does not have to be selected to be able to edit it.)

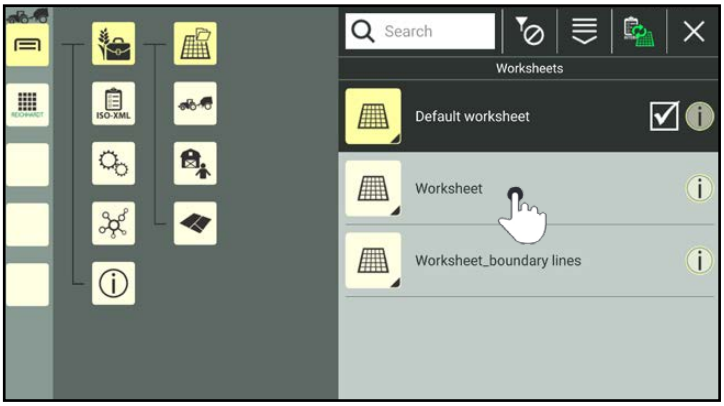


Fig. 358: Pressing and holding the worksheet

Tap "Edit" (see Fig. 359).

Alternatively, you can also open the processing options via the top bar of the list of worksheets and then select the corresponding worksheet (see chapter 7.2.2).

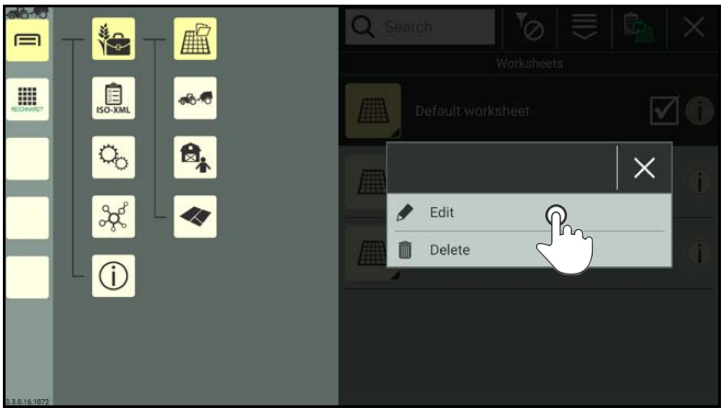


Fig. 359: Editing the worksheet

Displaying and editing the worksheet properties

In the worksheet properties (see Fig. 360) you have the following options:

Worksheet settings (worksheet identification) (see chapter 7.5.2.2.1)

Entry-specific processing options

Import Shape files (see chapter 7.5.2.2.2)

Delete the properties of a worksheet (see chapter 7.5.2.2.3)

Save the worksheet properties and exit.
You will then return to the list of worksheets.

NOTICE

As long as the worksheet properties are open, you cannot select another menu item in the sidebar or main menu.

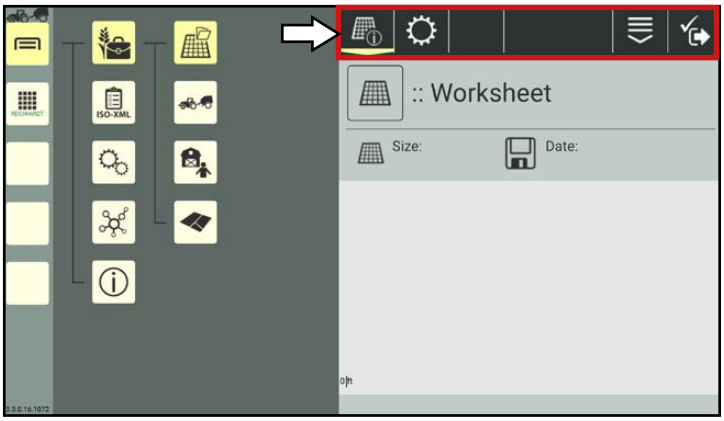


Fig. 360: Worksheet properties – options

If field information is already assigned in a worksheet, the following information is displayed in the worksheet properties (see Fig. 361):

Ⓐ Designation of the worksheet

Ⓑ Size of the required memory capacity and date of last saving process.

The dimensions of the worksheet are automatically determined by the field objects on the worksheet.
The size of the worksheet should ideally be no larger than 5x5 kilometres.

Ⓒ Graphic overview of the field data.
If the worksheet does not contain any field data yet, a light gray surface is displayed.

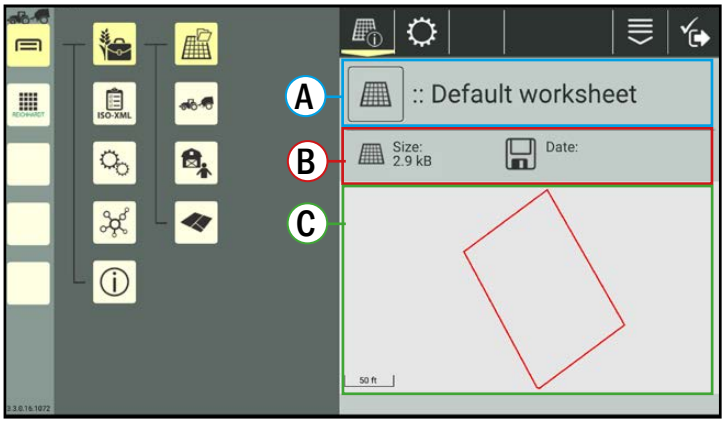
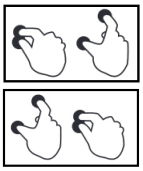


Fig. 361: Worksheet properties

Zooming in on field data:



Move your fingers apart to zoom in on the field data.
Bring your fingers closer together to zoom out of the field data (see Fig. 362).

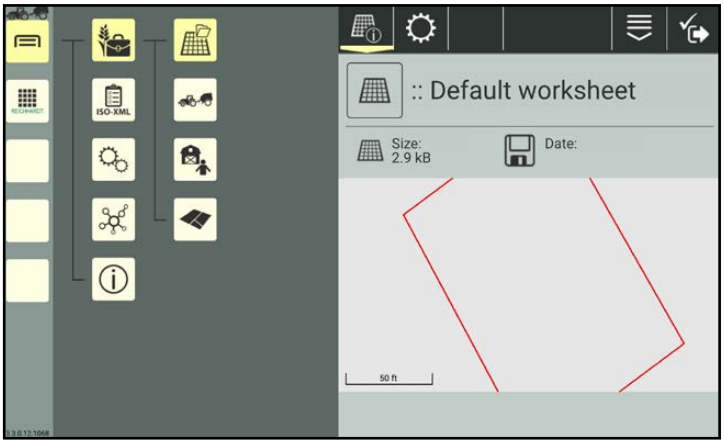
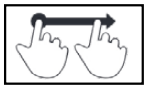


Fig. 362: Zooming in on field data

Moving field data:



Press and hold the display in the vicinity of the field data and move your finger to move the field data (see Fig. 363).

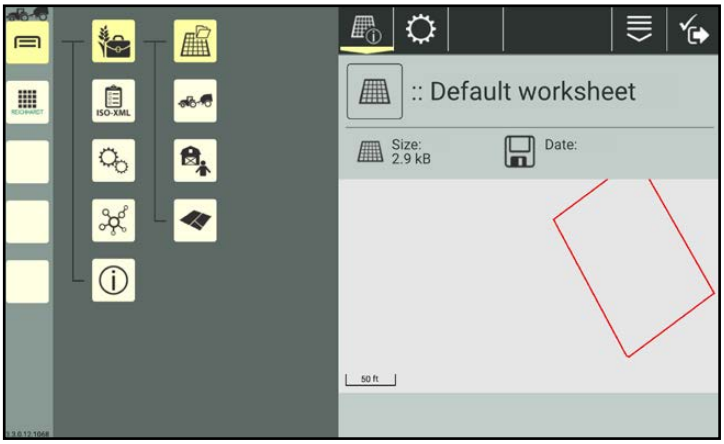


Fig. 363: Field data moved

Editing field data:

Once the worksheet has been selected (see chapter 7.5.2.3), you can edit the field data via the SMART GUIDE application (see Fig. 364).

Further information on editing field data in SMART GUIDE is provided in the SMART GUIDE Operating Instructions.

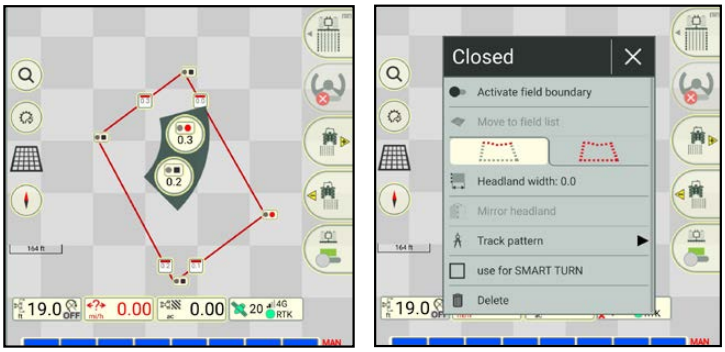


Fig. 364: Editing field data in SMART GUIDE

7.5.2.2.1 Worksheet Identification – Changing the Worksheet Designation

You can change the designation of the worksheet via the worksheet identification.

Open the worksheet via the settings (gearwheel) in the worksheet properties (see Fig. 365).

Fig. 365: Calling up the identification

Tap in the text field after the worksheet symbol and change the designation using the keyboard that is displayed (see Fig. 366).

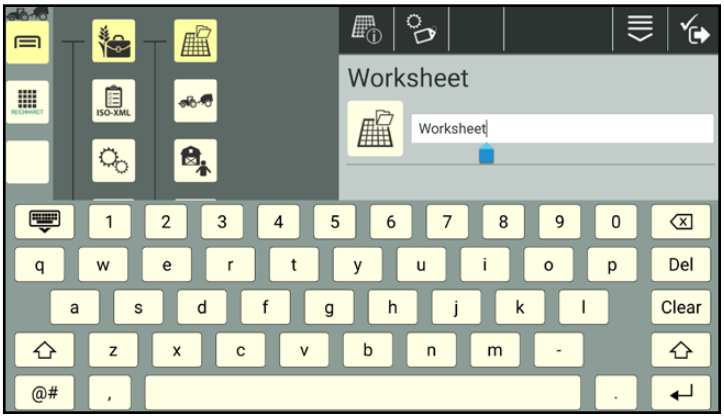


Fig. 366: Changing the designation

7.5.2.2.2 Importing Field Data (Shape Files) into a Worksheet

You have the option of importing field data into a worksheet using Shape files that contain the following information:

- reference tracks
- boundary lines

In the worksheet properties, call up the entry-specific processing options.

Tap the import button (see Fig. 367).

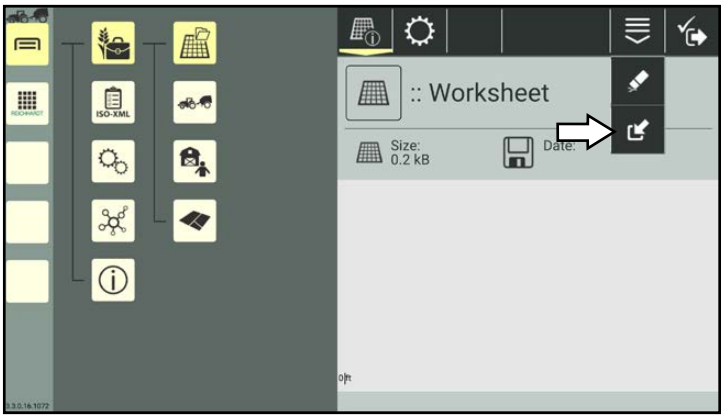


Fig. 367: Importing Shape files

A list of folders will then open (see Fig. 368).

Tap the folders to navigate to the required file.

Tap the folder symbol with the arrow to navigate up one level in the directory structure.

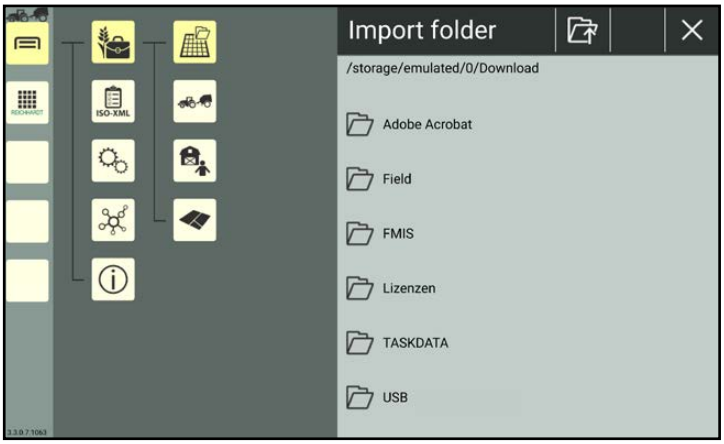


Fig. 368: Importing Shape files

Select the Shape file (*.shp) by tapping it.

Confirm the selection via the button with the checkmark that appears (see Fig. 369).

NOTICE

Only one Shape file can ever be imported during the import process. You will have to repeat the process if you wish to import several files.

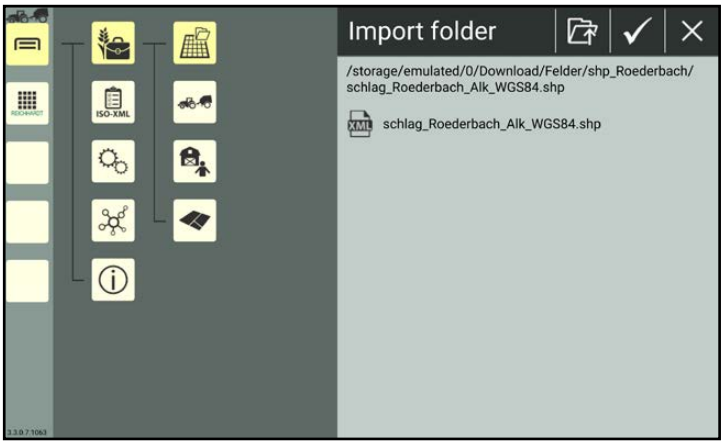


Fig. 369: Importing a Shape file

Then confirm the import of the file again via the checkmark on the prompt that is then displayed.

The imported field data is then displayed (see Fig. 370).

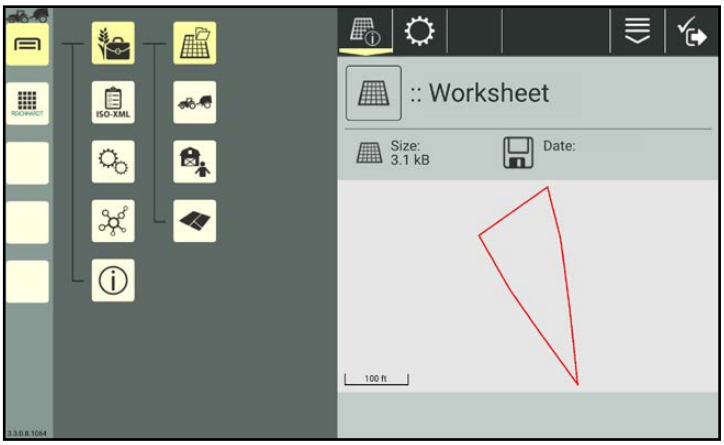


Fig. 370: Shape file imported

7.5.2.2.3 Deleting the Properties of a Worksheet

You have the option of deleting all of the data from a selected worksheet, with the exception of the designation. This is explained below.
(How to delete a worksheet from the list of worksheets is explained in chapter 7.5.2.5.)

In the worksheet properties, call up the entry-specific processing options.

Tap the eraser symbol (see Fig. 371).

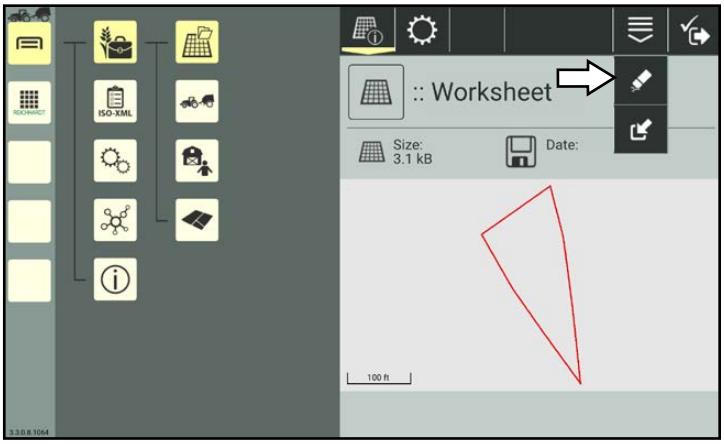


Fig. 371: Deleting worksheet properties

You will then be asked which data in worksheet should be deleted.

You can delete the field objects, worked areas, or both by selecting the boxes.

Confirm the prompt with the checkmark to delete the selected content (see Fig. 372).

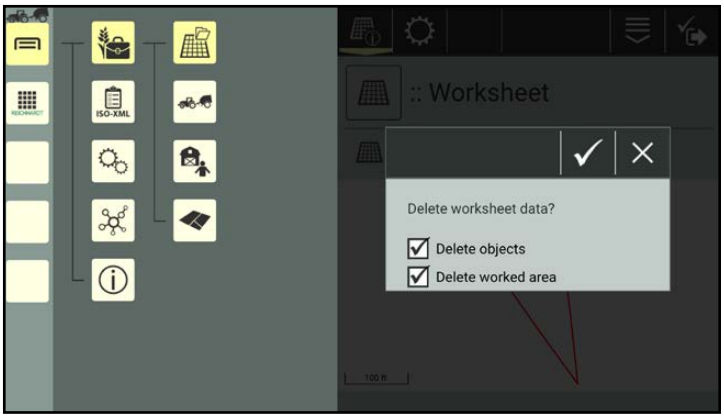


Fig. 372: Selecting the content to be deleted

7.5.2.3 Selecting a Worksheet

Open the list of worksheets via the main menu:

A worksheet is selected as soon as worksheet mode is active.
A default worksheet is created and selected by default, (see Fig. 373).
The default worksheet cannot be deleted.

The selected worksheet is marked with a dark color and has a checkmark.

If you have already created other worksheet, you can select these.

To do so, tap the required worksheet (see Fig. 373).

This worksheet is then selected (see Fig. 374).

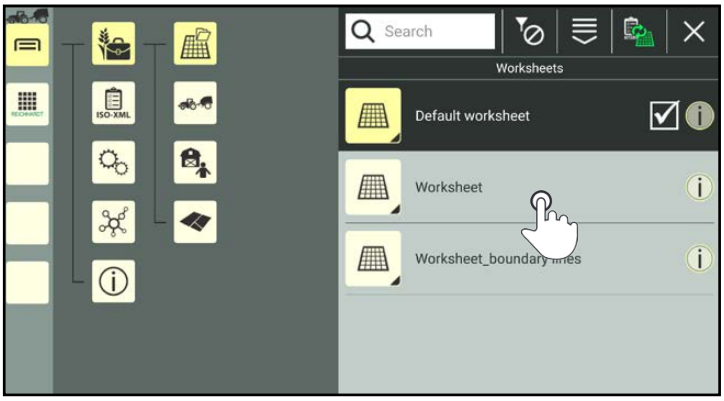


Fig. 373: Selecting a different worksheet

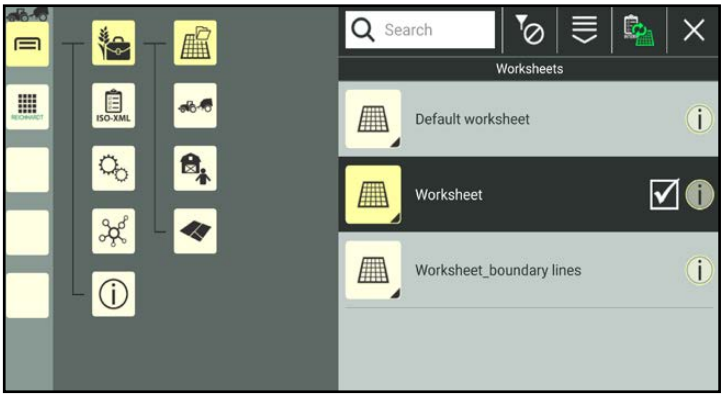


Fig. 374: Different worksheet selected

7.5.2.4 Sorting Functions in the Worksheet List

You can use the search and sorting function to reduce the number of worksheets displayed in the list of worksheets, enabling you to find and select certain worksheets more quickly. Both functions can be used in combination.

7.5.2.4.1 Searching for Worksheets

You can use the search function to search for specific worksheets and limit the number of worksheets displayed in the list of worksheets.

Enter the search term in the search field at the top of the list of worksheets.
Only the corresponding worksheets are displayed (see Fig. 375).

The search term does not have to be at the start of the designation.
Lower and upper case are also not relevant.

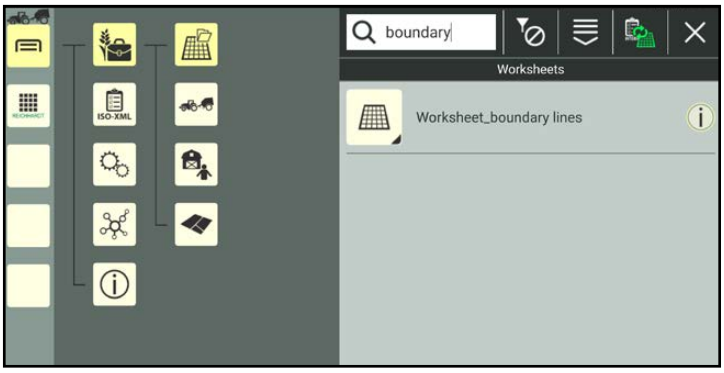


Fig. 375: Searching for worksheets

7.5.2.4.2 Sorting Worksheets

You can use the filter symbol in the top bar of the list of worksheets to call up the sorting function for worksheets.

The following sorting functions are available (see Fig. 376):

- Name ascending
- Name descending
- Date ascending
- Date descending

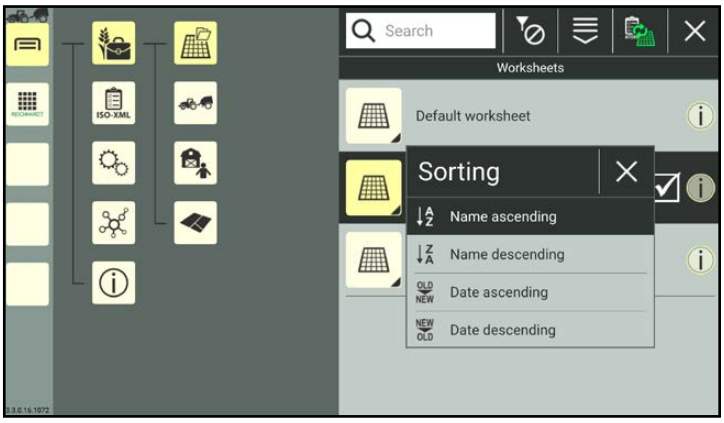


Fig. 376: Selecting a sorting function

7.5.2.5 Deleting Worksheets

NOTICE

The default worksheet and a selected worksheet cannot be deleted.

In the list of worksheets, press and hold the worksheet you wish to delete, to call up the processing options for this worksheet (see Fig. 377).

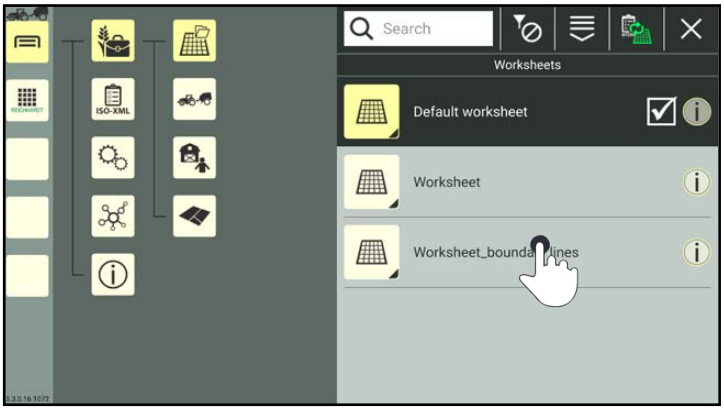


Fig. 377: Pressing and holding the worksheet

Tap "Delete" (see Fig. 378).

Deleting several worksheets simultaneously:

Open the processing options in the top bar of the list of worksheets and tap the trash can symbol. Then select the corresponding worksheets (see chapter 7.2.2).

The deletion process must then also be confirmed by tapping the trash can symbol with the green checkmark.

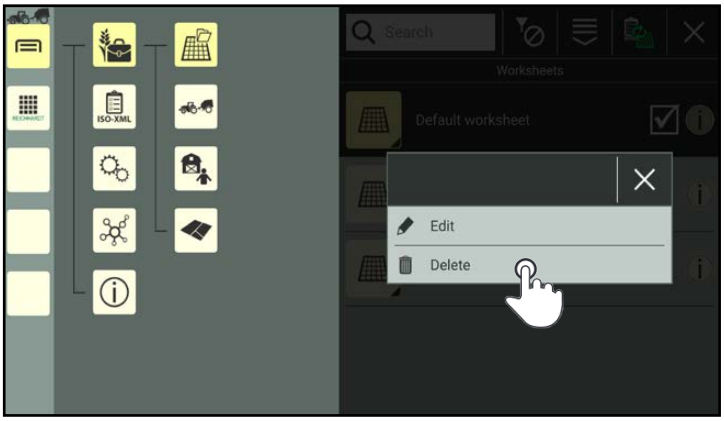


Fig. 378: Deleting a worksheet

Confirm the prompt with the checkmark to delete the worksheets from the list (see Fig. 379).

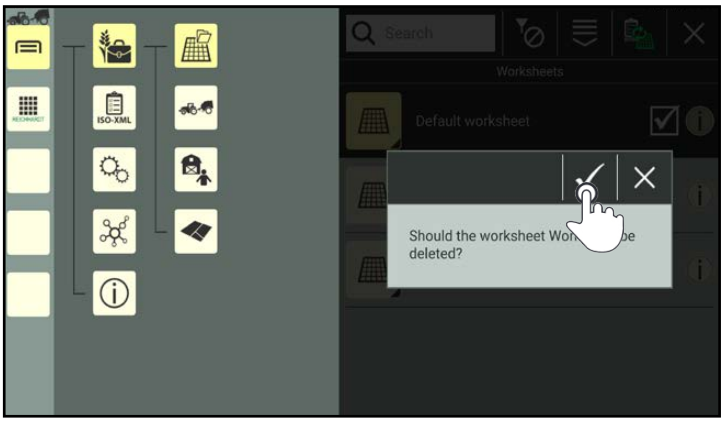


Fig. 379: Confirming the prompt

7.5.3 Tasks

Tasks are designed to document work that is completed and record working times and the area covered in SMART GUIDE.
Tasks are each linked to a customer, user, farm, machine combination, and field. However, a field can be made up of several areas.

Open the task list via the main menu (see Fig. 380):

If worksheets are currently active, select them and use the switching button to switch from worksheets to tasks (see chapter 7.5.1).

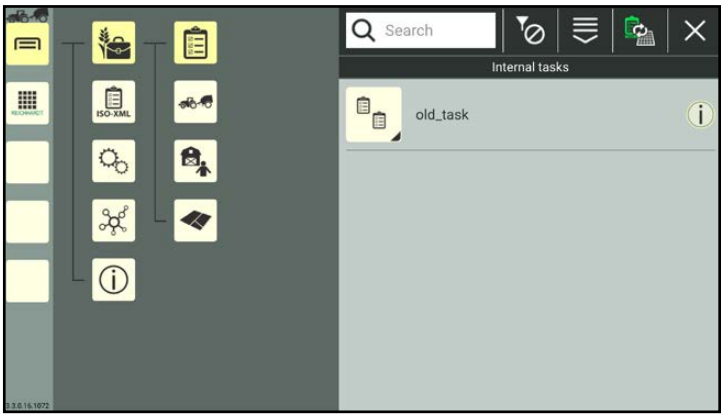


Fig. 380: Empty task list

7.5.3.1 Creating Tasks

Tasks can be created by adding a new one or scanning a QR code.
When scanning a QR code not all of the task properties are created. They must be added manually. The links will be removed if no linked documents are available.

Tasks cannot be duplicated.

7.5.3.1.1 Adding Tasks

Open the processing options in the top bar of the task list.
Tap the plus symbol (see Fig. 381).

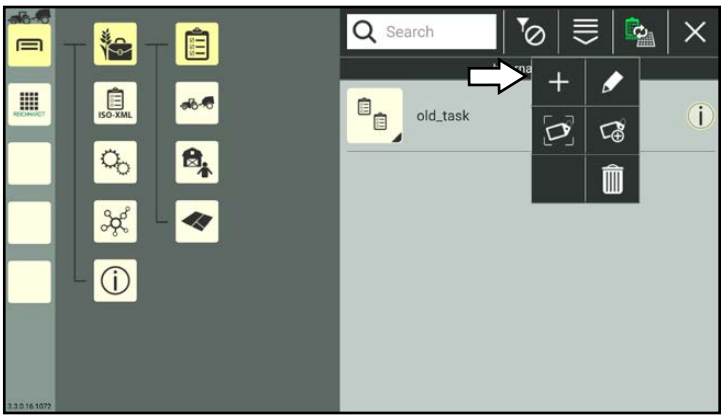


Fig. 381: Creating a new task

A prompt is then displayed (see Fig. 382), in which you can determine whether

- the selected machine combination should be linked to the task,
- a new field should be created and be linked to the task.
  In the task properties, you can also link an existing field to the task (see chapter 7.5.3.2.2).

All of the elements are selected as standard.

You can deselect one or more elements by tapping the checkboxes to remove the checkmarks.

Confirm the prompt with the checkmark to create the task.

The task properties then open (see Fig. 383).

NOTICE

As long as the properties of a task are open, you cannot select another menu item in the sidebar or main menu.

Edit the task, if required.
Editing the task properties is described in chapter 7.5.3.2.

Then save the task using the symbol with the checkmark.

If you save the task without further editing, a designation is created automatically as detailed in the following:

"Task" + consecutive number of the task.

The creation process cannot be cancelled.
If the task was created by mistake, you will have to delete the it again (see chapter 7.5.3.5).

You will automatically return to the task list in which the created task is listed (see Fig. 384).

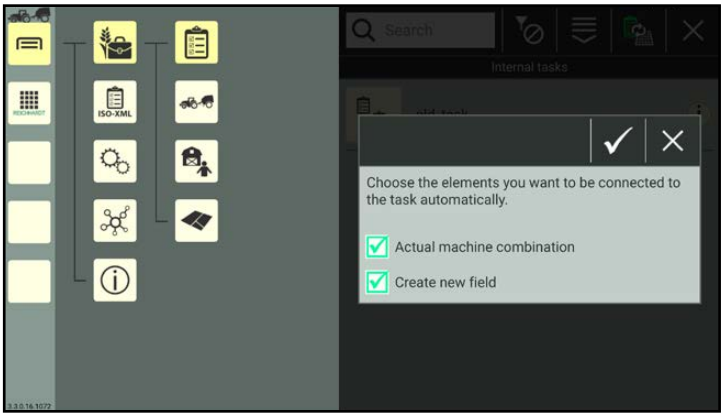


Fig. 382: Elements to link

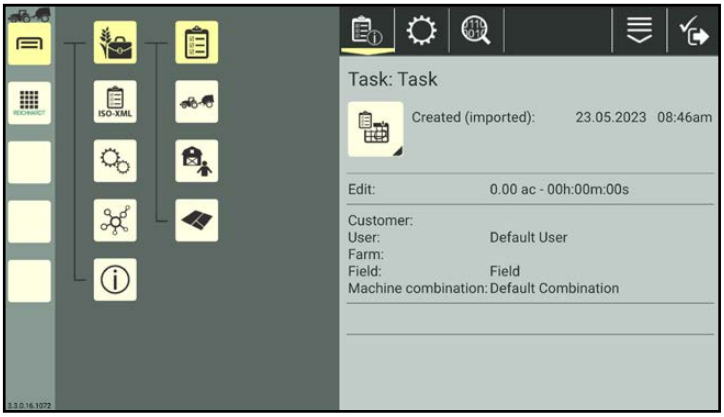


Fig. 383: Task properties

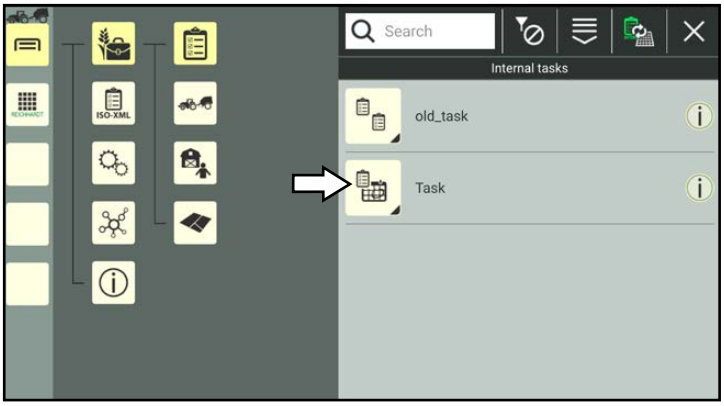


Fig. 384: New task in task list

7.5.3.1.2 Adding a Task by Scanning a QR Code

NOTICE

A camera is required to use this function. The function is not available if the device does not have a camera (e.g., SMART COMMAND terminal).

You can create a new task by scanning a previously created QR code (see chapter 7.3.1.2.2). A corresponding notice is displayed if the task already exists (same task designation).

NOTICE

When creating a task by scanning a QR code, only the task designation and links (if the linked elements are in the system) are added. The task data and task status are not added.

Open the processing options in the top bar of the task list.
Tap the symbol to scan a QR code (see Fig. 385).

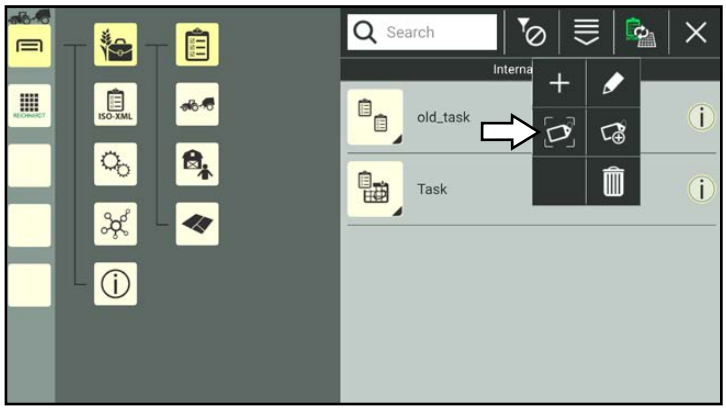


Fig. 385: Selecting "Scan QR"

Scan the QR code (see Fig. 386).

Tap the checkmark to create the scanned task.

The task is then listed in the task list.

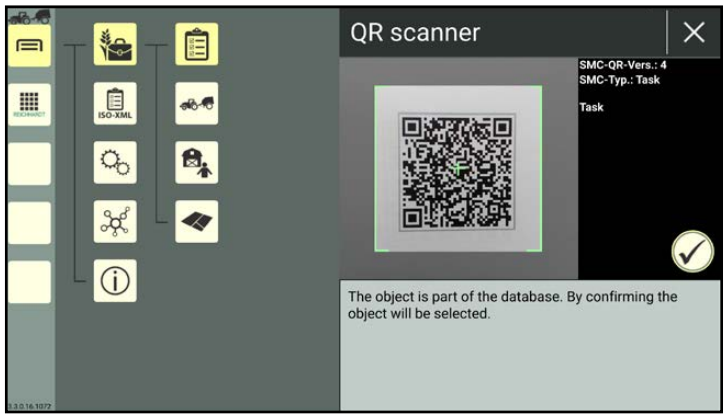


Fig. 386: Scanning the QR code

7.5.3.2 Calling Up, Displaying, and Editing the Task Properties

Calling up task properties

In the task list, press and hold the task you wish to edit, to call up the processing options for this task (see Fig. 387).

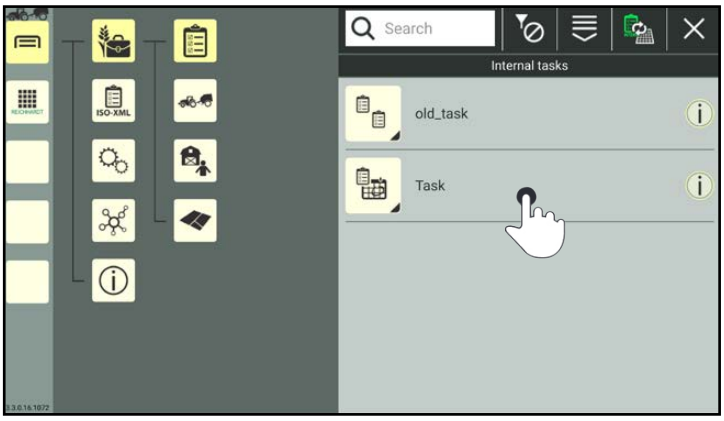


Fig. 387: Pressing and holding the task in the task list

Tap "Edit" (see Fig. 388).

Alternatively, you can also open the processing options via the top bar of the task list and then select the corresponding task (see chapter 7.2.2).

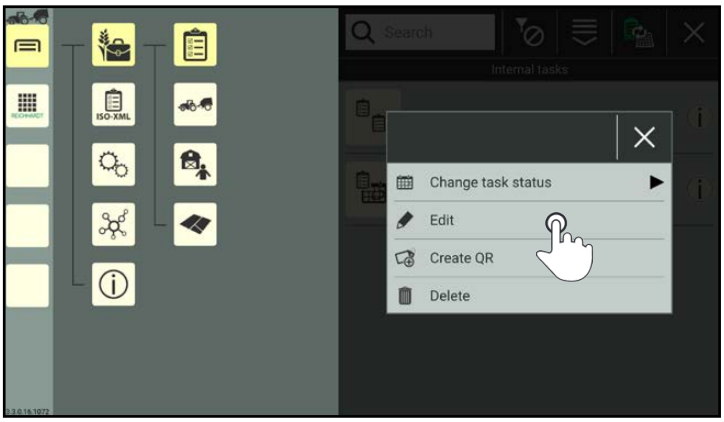


Fig. 388: Editing a task

Displaying and editing the task properties

In the task properties (see Fig. 389) you have the following options:

- Task settings
  - Identification (see chapter 7.5.3.2.1)
  - Linked farm, customer, and user (see chapter 7.5.3.2.2)
  - Linked machine combination and field (see chapter 7.5.3.2.2)
- Manage task data (see chapter 7.5.3.2.3)
- Entry-specific processing options
  - Create a QR code (see chapter 7.5.3.2.4)
  - Delete task properties (see chapter 7.5.3.2.5)
- Save and exit task properties.
  You will then return to the task list.

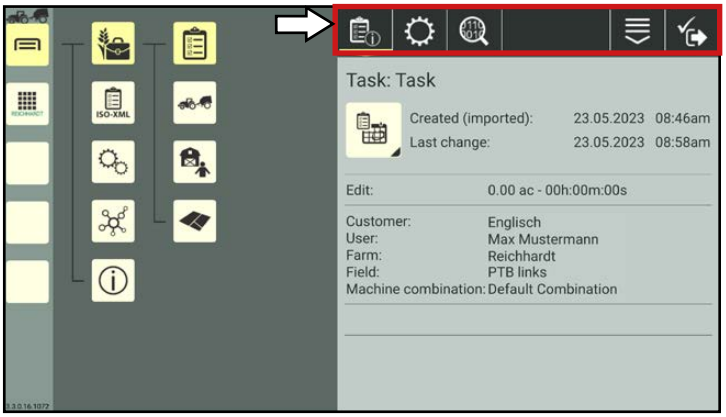


Fig. 389: Task properties – options

NOTICE

As long as the task properties are open, you cannot select another menu item in the sidebar or main menu.

The following information is displayed in the task properties (see Fig. 390):

Ⓐ Designation of the task

Ⓑ Task status image, creation date of task, and date of the last modification.

The task status image shows the tasks status.
The task status can be changed by tapping the task status image (see chapter 7.5.3.3).

Ⓒ The worked area and duration to complete the task.

Ⓓ Linked elements: Farm, customer, user, machine combination, and field.

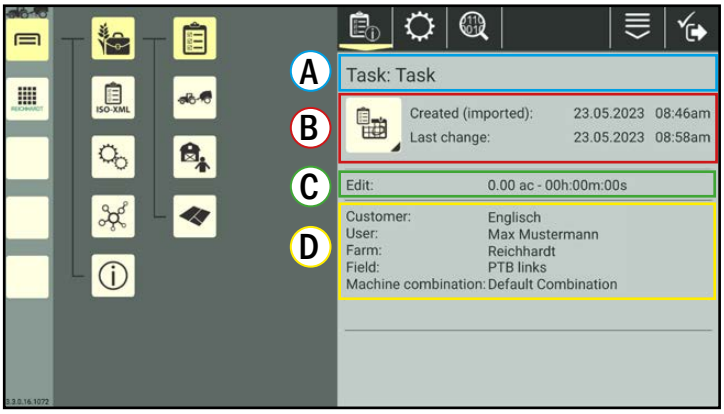


Fig. 390: Task properties

7.5.3.2.1 Task Identification – General Specifications for the Task

Open the task identification via the settings (gearwheel) in the task properties (see Fig. 391).

Here, you can change the task designation and add/create a comment for the task.

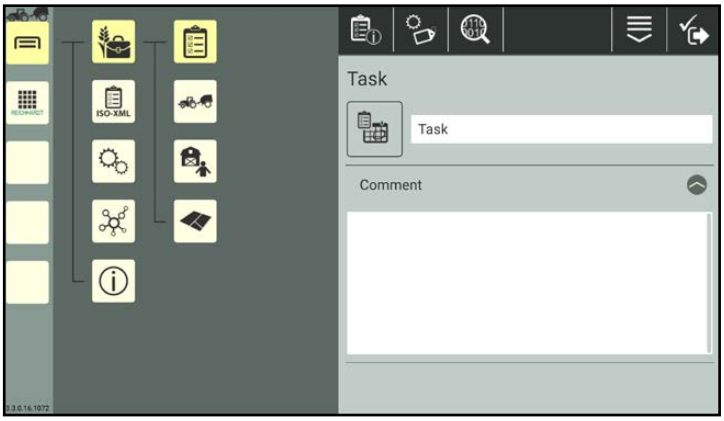


Fig. 391: Task identification

7.5.3.2.2 Managing and Editing Linked Elements

You can link one farm, customer, user, machine combination, and field to each task.

Tap the settings (gearwheel) in the task properties (see Fig. 392).

Select the submenu with the link elements that you would like to edit:

Farm, customer, user
(Create, edit, and delete a link.)

Machine combination, field
(Create, edit, and delete links, and edit fields and machine combinations.)

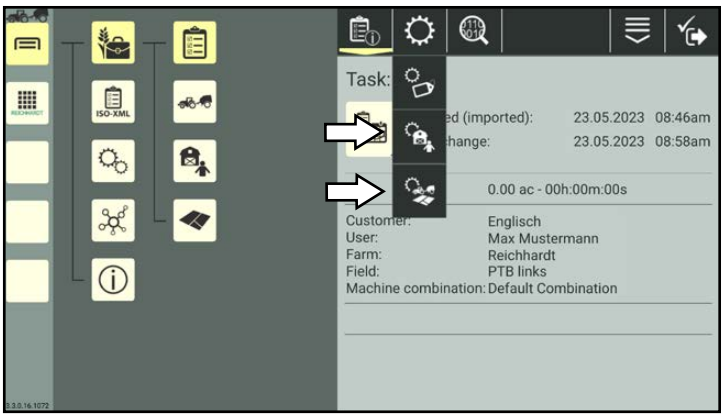


Fig. 392: Calling up the link settings

The process to created, edit, and delete links is the same for all elements.
The process is described in the following, using a field as an example.

Linking an element/editing a link

Open the link settings for the machine combination and field.

Tap the double arrow symbol to the right of the field, to link the field (see Fig. 393).

If there is already a link, it can be edited via the symbol (see Fig. 394).

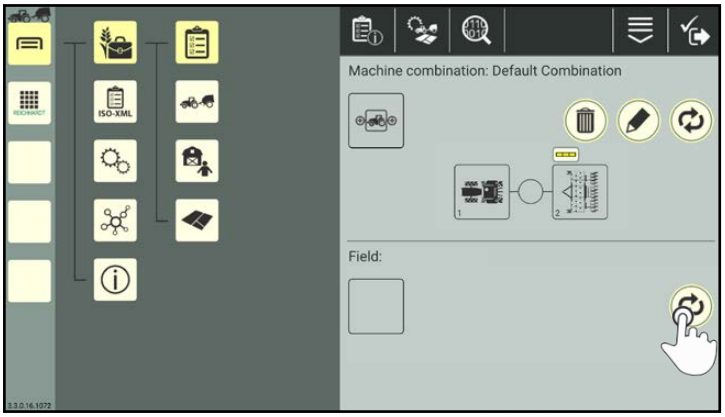


Fig. 393: Linking a field

Fig. 394: Linking a new field

Tap the field that should be linked to the task (see Fig. 395).

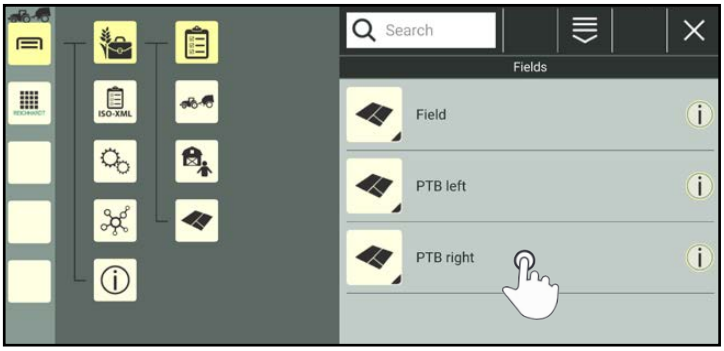


Fig. 395: Selecting a field

The selected field is then linked (see Fig. 396).

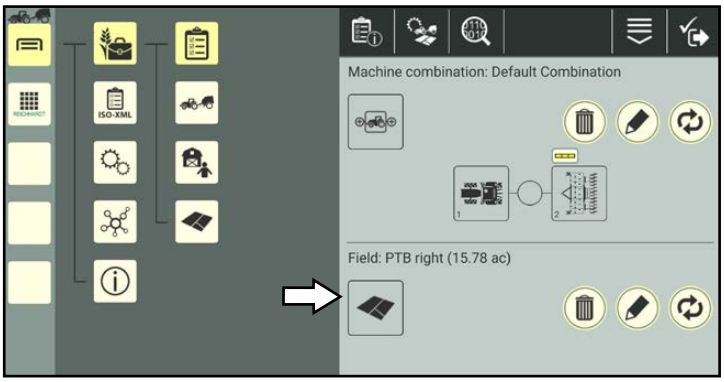


Fig. 396: Selected field linked

Editing a machine combination or field

On an existing link, a pen symbol is also displayed in the linking settings for the machine combination and field.
(This option is not available in the linking settings for the farm, customer, and user.)

Tap the symbol to directly access the properties of the selected element and to edit them (see Fig. 397).

Editing the field properties is described in chapter 7.6.2.
Editing the machine combination properties is explained in chapter 7.4.2.2.

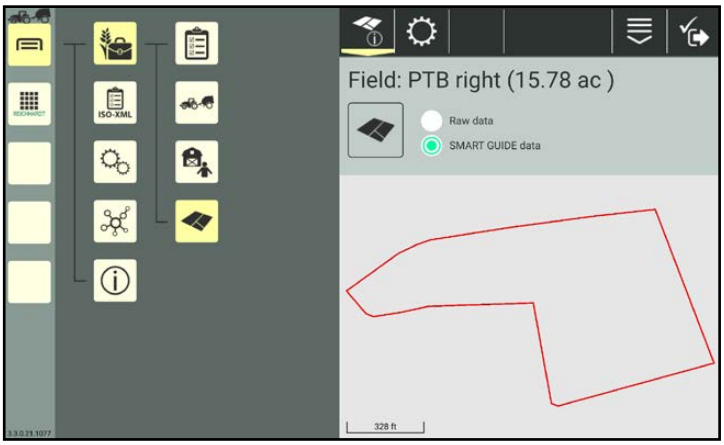


Fig. 397: Field properties

After saving the properties, you will return to the linking settings for the machine combination and field.

Deleting a link

Tap the trash can symbol next to the link, to delete it (see Fig. 398).

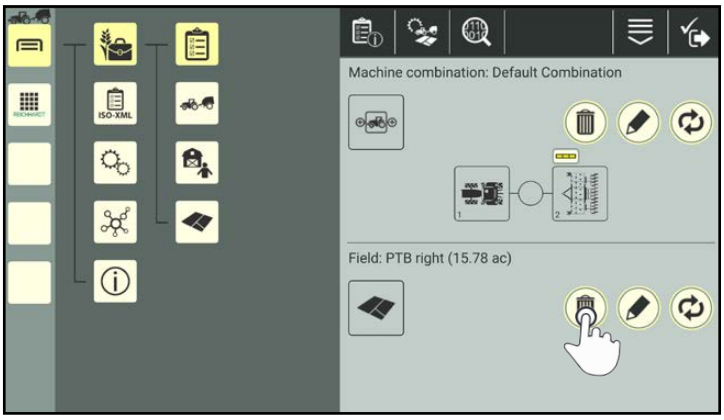


Fig. 398: Deleting a field link

7.5.3.2.3 Managing Task Data – Statistical, Environmental, and Stock Data

SMART COMMAND provides various statistical data (worked area, productivity, etc.), environmental data (temperature, weather conditions, etc.), and stock data for a task.

In the top bar of the task properties tap the magnifying glass symbol.

The submenu for all of the statistical and environmental data for this task will then open (see Fig. 399).

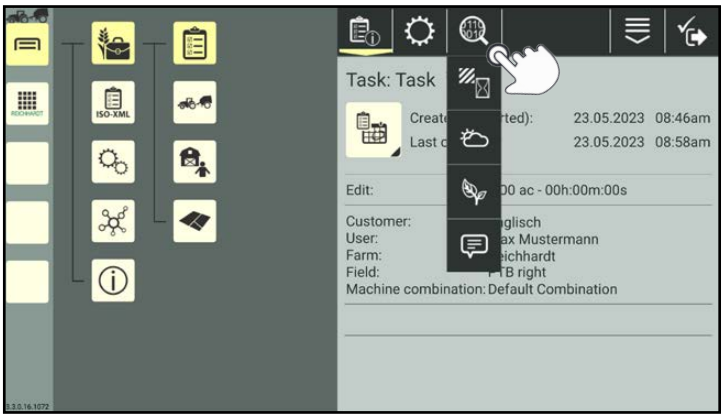


Fig. 399: Opening the submenu for the data

Select the required submenu:

Area and time statistics

Environmental data

Stock data

Task history/comments

Area and time statistics

In this submenu, the statistical data relating to the duration and worked area of the task are displayed (see Fig. 400).

= Total amount of time the task has been active

= Total time of the task

= Driven route

= Worked area

= Average area performance

= Remaining area

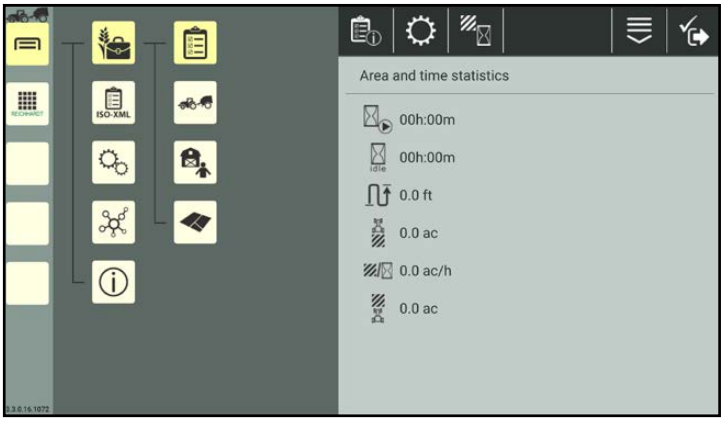


Fig. 400: Area and time statistics

Environmental data

In this submenu, you can create and display several data records on environmental data, such as the temperature, wind speed, wind direction, and weather conditions, etc. (see Fig. 401).

Existing environmental data is hidden by default and sorted by date in descending order (latest data records at the start of the list; see Fig. 402).

Tap the arrow symbol, to show and hide the data records.

Tap the plus symbol to add a data record.

Tap the minus symbol to delete a data record.

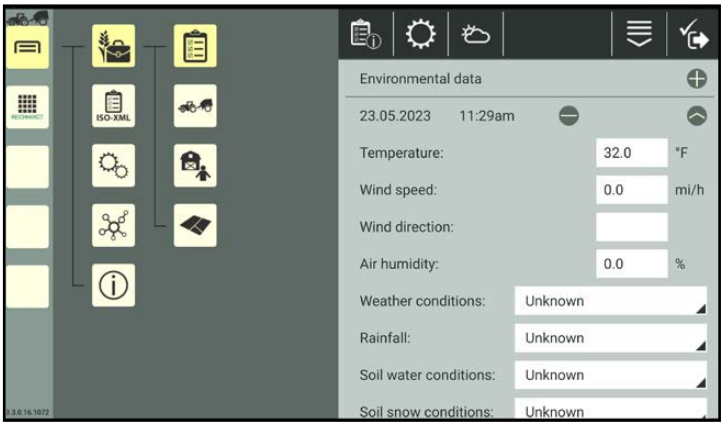


Fig. 401: Input options for environmental data

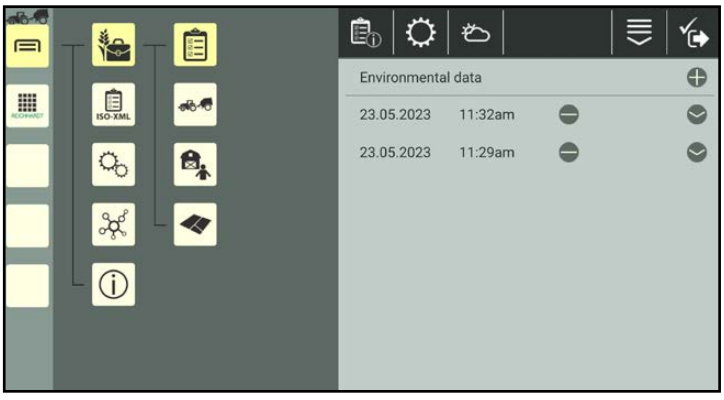


Fig. 402: Data records in the environmental data

Stock data

In this submenu, you can create and display one or more data records for stock data such as the crop, variety, growth stage, and comments for this task (see Fig. 403).

Existing stock data is hidden by default and sorted by date in descending order (latest data records at the start of the list).

Tap the arrow symbol, to show and hide the data records.

Tap the plus symbol to add a data record.

Tap the minus symbol to delete a data record.

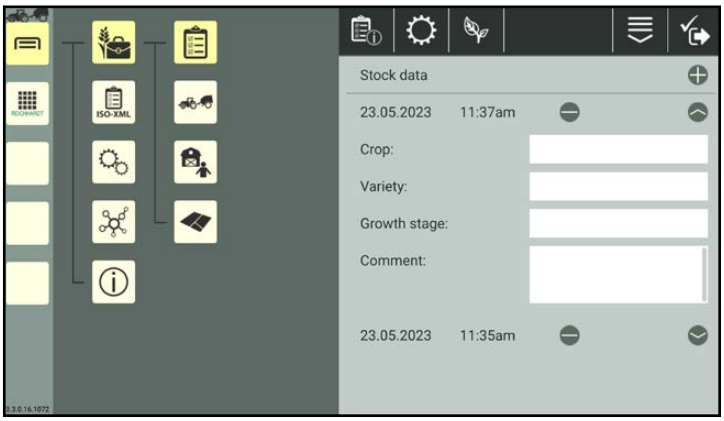


Fig. 403: Stock data with two data records

Task history/comments

In this submenu, you can create/edit comments (see Fig. 404).

Existing comments hidden by default and sorted by date in descending order (latest comment at the start of the list).

Tap the arrow symbol, to show and hide the data records.

Tap the plus symbol to add a data record.

Tap the minus symbol.

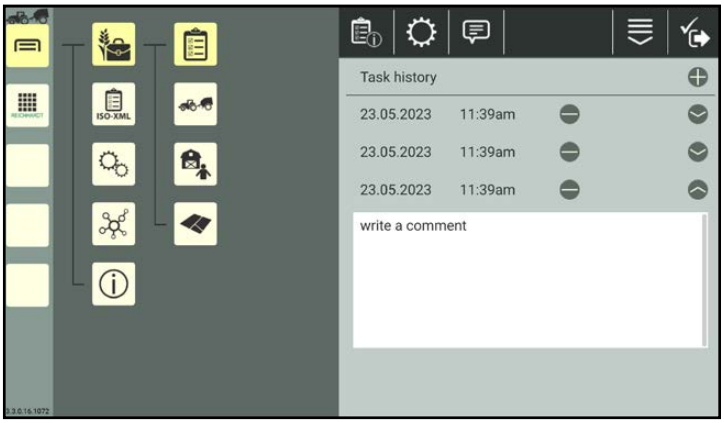


Fig. 404: Task history with several comments

7.5.3.2.4 Creating a QR Code for a Task

You can create a new task by scanning a QR code. During this process, only the task designation and links (if the linked elements are in the system) are added. The task data and task status are not added.
However, to do so you must first create a QR code for this task.

To be able to scan a QR code, the device on which SMART COMMAND is being operated must have a camera. Creating a QR code for a device without a camera does not make any sense.

In the task properties, call up the entry-specific processing options.
Tap the button to create a QR code (see Fig. 405).

Alternatively, you can also open the option via the processing options in the top bar of the task list and then select the corresponding task (see chapter 7.2.2).

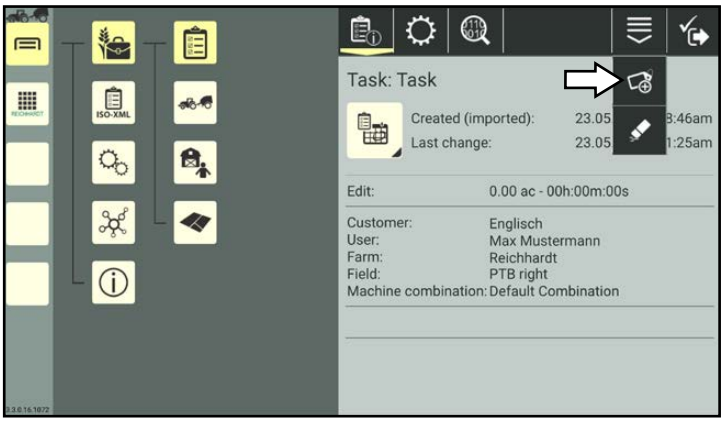


Fig. 405: Creating a QR Code for a task

A PDF file containing the QR code is generated.

Select where you wish to send or save the PDF file (see Fig. 406).

NOTICE

If changes have been made to the designation of the task since the QR code was created, then the QR code becomes invalid.

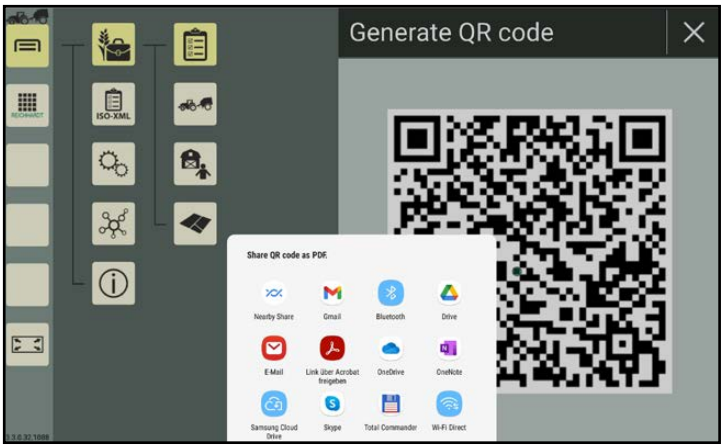


Fig. 406: Saving/sending the QR code

7.5.3.2.5 Deleting the Task Properties

You have the option of deleting all of the properties from a task, with the exception of the designation. This is explained below.
(How to delete a task from the task list is explained in chapter 7.5.3.5.)

In the task properties, call up the entry-specific processing options.
Tap the eraser symbol (see Fig. 407).

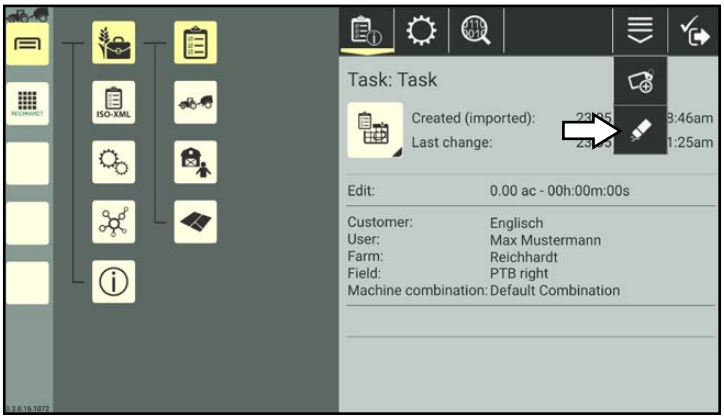


Fig. 407: Deleting task properties

Confirm the prompt with the checkmark to delete the task data (see Fig. 408).

The task designation is retained.

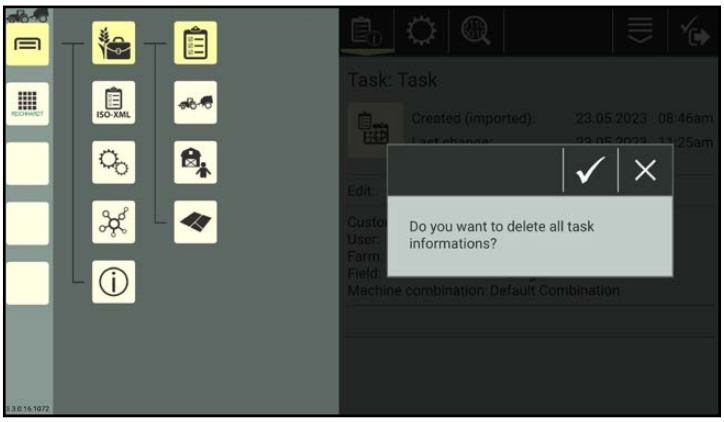


Fig. 408: Confirming the deletion prompt

7.5.3.3 Changing the Task Status – Task Active, Paused, Etc.

NOTICE

The task status can only be changed if SMART COMMAND is in machine combination mode.
The task status cannot be changed in Office mode.

In the task list, press and hold the task you wish to edit, to call up the processing options for this task (see Fig. 409).

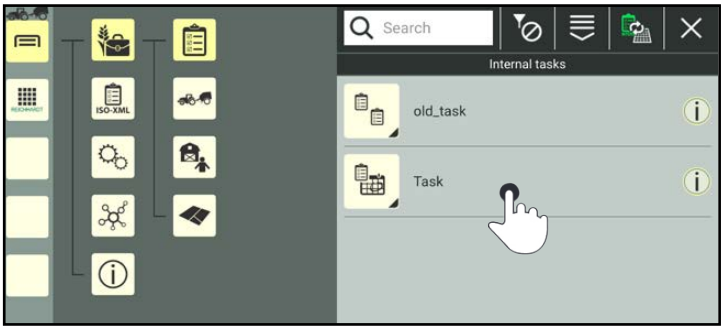


Fig. 409: Pressing and holding the task in the task list

Tap "Change task status" (see Fig. 410).

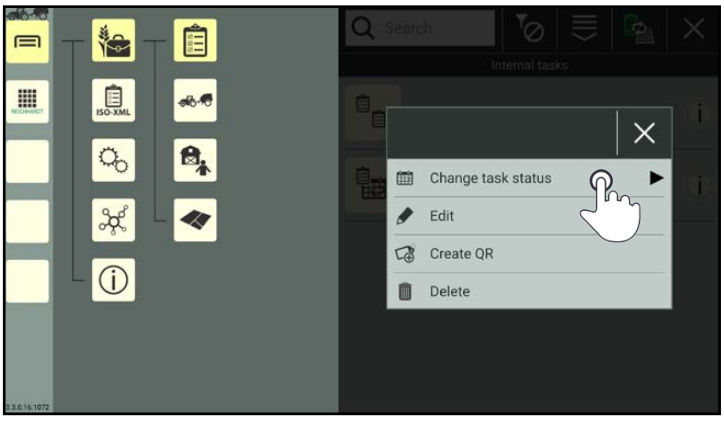


Fig. 410: Changing the task status via the task list

All of the available task statuses are then displayed (see Fig. 411).

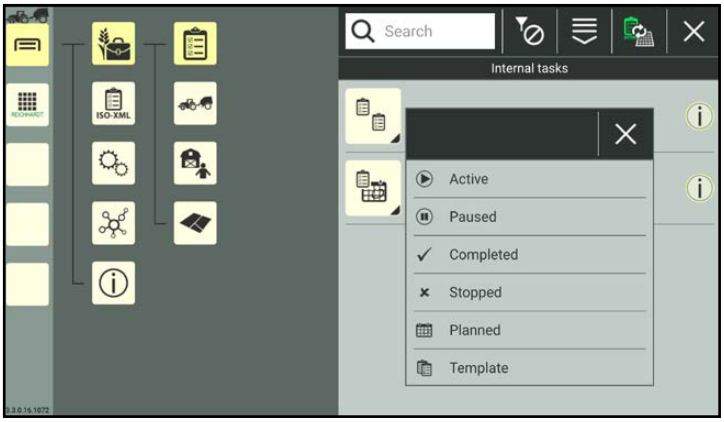


Fig. 411: Available task status

Alternatively, you can also change the task status by tapping the task status image in the task properties (see Fig. 412).

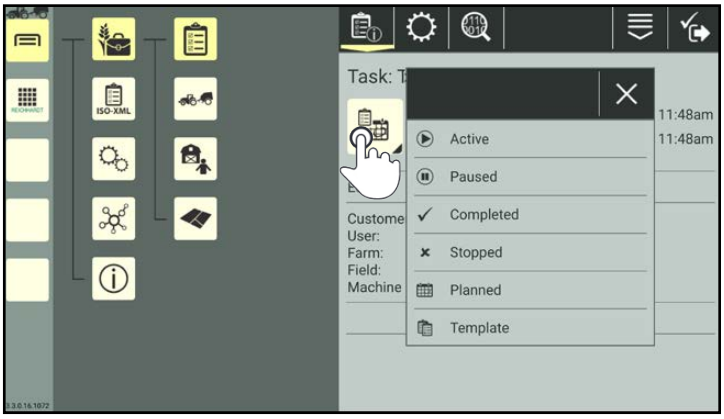


Fig. 412: Changing the task status via the task properties

Task status

Changing the task status changes the task status image in the task list and task properties.

Designation	Selection symbol	Task status image	Meaning
Active			The actions implemented in SMART GUIDE are recorded in the task. The following must be noted: • Only one task can ever be active. • If a task is set to active while another one is active, the previously active task is paused. • An active task is automatically paused when shutting down SMART COMMAND.
Paused			The task is paused. Nothing is recorded. The task can be reactivated at any time.
Completed			The task is completed. Nothing is recorded. The task can be reactivated at any time.
Stopped			The tasks is marked as being discontinued. Nothing is recorded. The task can be reactivated at any time. (This status is more relevant for using ISO-XML mode and the subsequent export into a FMIS.)
Planned			The task was planned. (If a task that has been processed is set back to 'Planned', this has no impact on the task data.)
Template			The tasks is marked as a template.

7.5.3.4 Sorting Functions in the Task List

You can use the search function and filter to reduce the number of tasks displayed in the task list, enabling you to find and select certain tasks more quickly. Both functions can be used in combination.

7.5.3.4.1 Searching for Tasks

You can use the search function to also limit the number of tasks that are displayed or complete a specific search.

Enter the search term in the search field at the top of the task list.
Only the corresponding tasks are displayed (see Fig. 413).

The search term does not have to be at the start of the designation.
Lower and upper case are also not relevant.

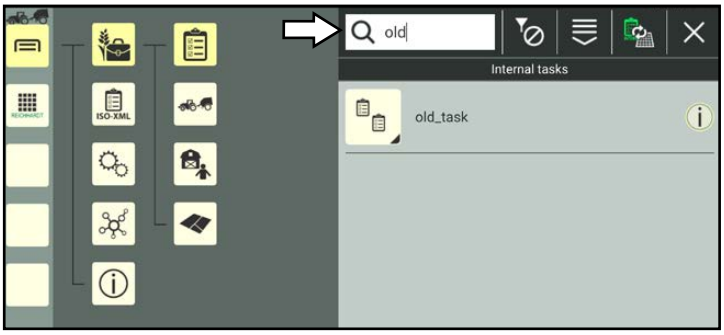


Fig. 413: Searching for tasks

7.5.3.4.2 Sorting and Filtering Tasks

You can use the filter functions to set that only tasks, that meet certain criteria, are displayed (see Fig. 414):

- No filter activated
- Only display planned tasks
- Only display active task
- Only display paused tasks
- Only display completed tasks
- Only display task template
- Only display stopped tasks

Select the corresponding filter symbol in the top bar of the task list.

The filter function includes additional sorting functions.

The following sorting functions are available (see Fig. 415):

- Name ascending
- Name descending
- Date ascending
- Date descending

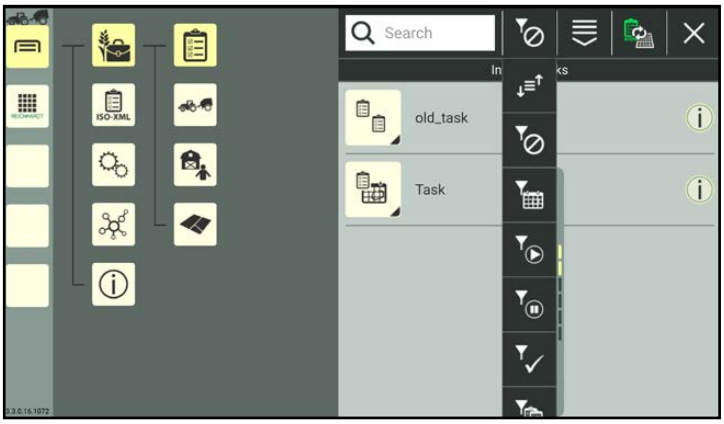


Fig. 414: Selecting a filter

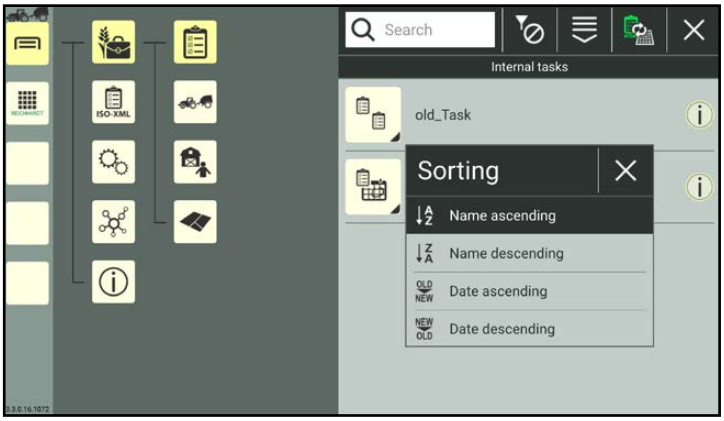


Fig. 415: Selecting a sorting function

7.5.3.5 Deleting Tasks

NOTICE

An active task cannot be deleted.

In the task list, press and hold the task you wish to delete, to call up the processing options for this task (see Fig. 416).

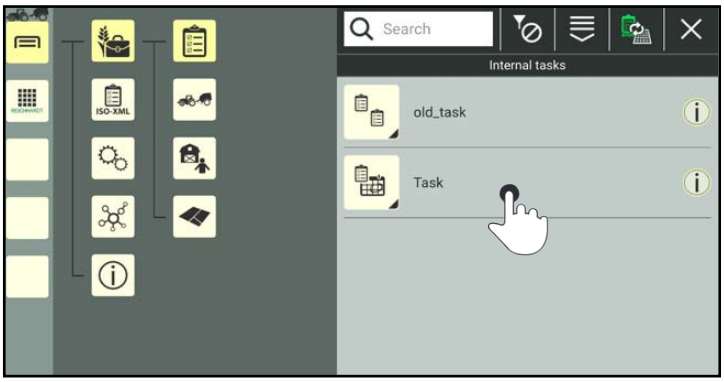


Fig. 416: Pressing and holding the task

Tap "Delete" (see Fig. 417).

Deleting several tasks simultaneously:

Open the processing options in the top bar of the task list and tap the trash can symbol. Then select the corresponding tasks (see chapter 7.2.2).

The deletion process must then also be confirmed by tapping the trash can symbol with the green checkmark.

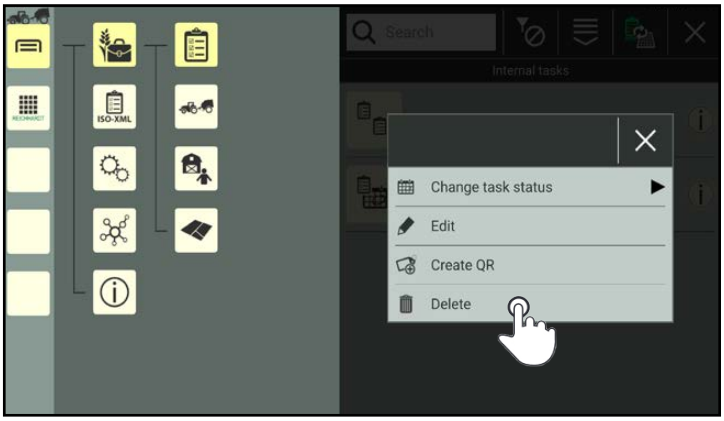


Fig. 417: Deleting a task

Confirm the prompt with the checkmark to delete the task(s) from the task list (see Fig. 418).

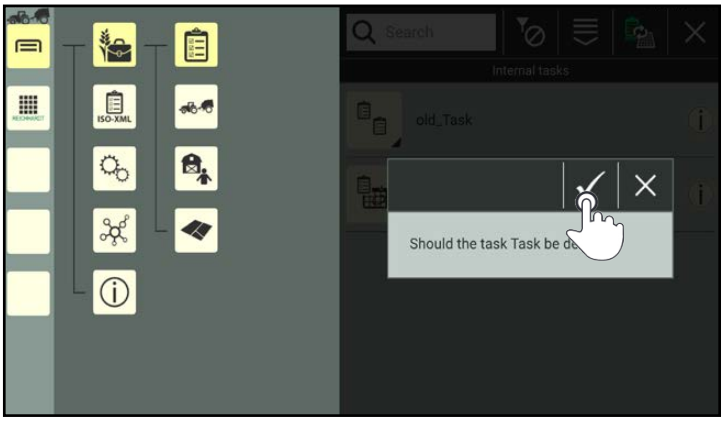


Fig. 418: Confirming the prompt

7.6 Fields

NOTICE

These settings only apply when using the SMART GUIDE application.
If you only use SMART VT, you can skip this section.

NOTICE

Using fields from a FMIS, is only possible using ISO-XML mode (see chapter 7.7).

Fields must be linked to tasks so that they can be used in SMART GUIDE (see chapter 7.5.3.2.2).
The reference tracks and field borders are recorded in a field.

Open the fields via the main menu (see Fig. 419):

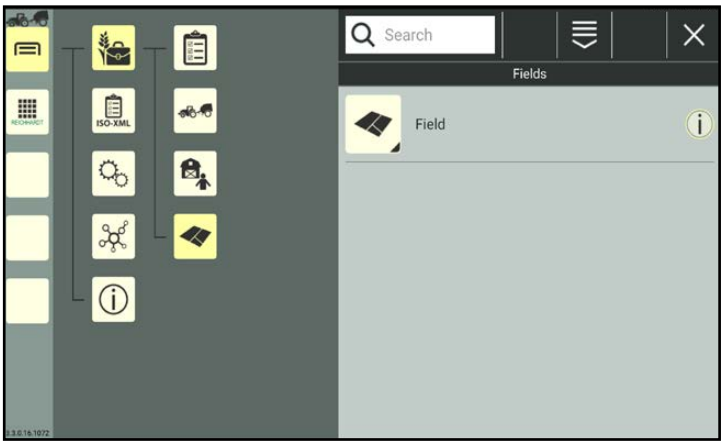


Fig. 419: List of fields

7.6.1 Creating Fields

Fields can be created by duplicating an existing field or adding a new one.
When duplicating a field, all of the settings of the duplicated field are copied.

7.6.1.1 Adding a Field

Open the processing options for fields via the top bar of the list of fields.
Tap the plus symbol (see Fig. 420).

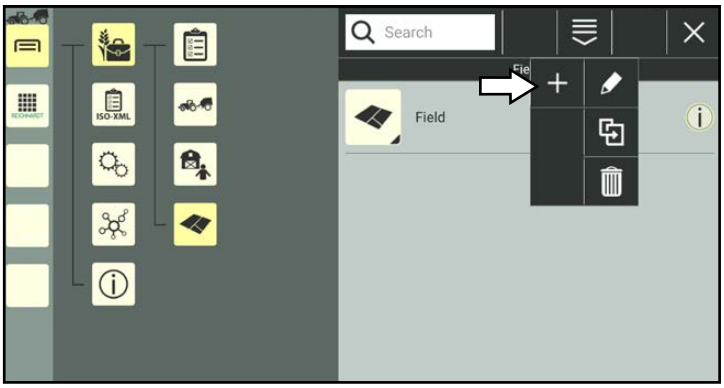


Fig. 420: Adding a new field

The field properties of the newly created field are then opened (see Fig. 421).

NOTICE

As long as the field properties are open, you cannot select another menu item in the sidebar or main menu.

Edit the field, if required.
Editing the field properties is described in chapter 7.6.2.

Save the field via the symbol with the checkmark.
If you save the field without further editing, a field designation is created automatically as detailed in the following:

"Field" + consecutive number of the field.

The creation process cannot be cancelled.
If the field was created by mistake, you will have to delete it again (see chapter 7.6.4).

You will automatically return to the list of fields in which the created field is listed (see Fig. 422).

Fig. 421: Field properties

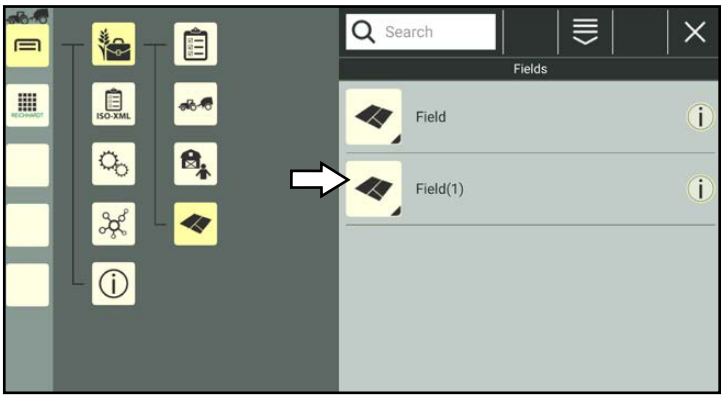


Fig. 422: New field in list of fields

7.6.1.2 Duplicating a Field

You can also create a field by duplicating an existing field.

In the list of fields, press and hold the field you wish to duplicate, to call up the processing options for this field (see Fig. 423).

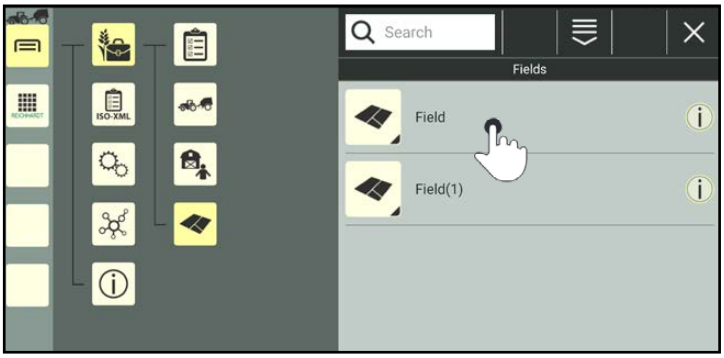


Fig. 423: Pressing and holding the field

Tap "Duplicate" (see Fig. 424).

Alternatively, you can also open the option via the processing options in the top bar of the list of fields and then select the corresponding field (see chapter 7.2.2).

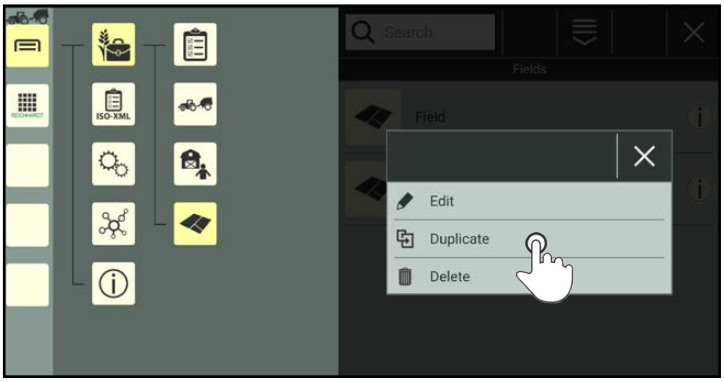


Fig. 424: Duplicating a field

The field properties of the newly created field are then opened (see Fig. 425).

NOTICE

As long as the field properties are open, you cannot select another menu item in the sidebar or main menu.

When duplicating a field, the original field properties are adopted. The ending "Copy1" is added to the designation of the field.

Edit the field, if required.
Editing the field properties is described in chapter 7.6.2.

Save the field via the button with the checkmark.
You will automatically return to the list of fields in which the new field is listed.

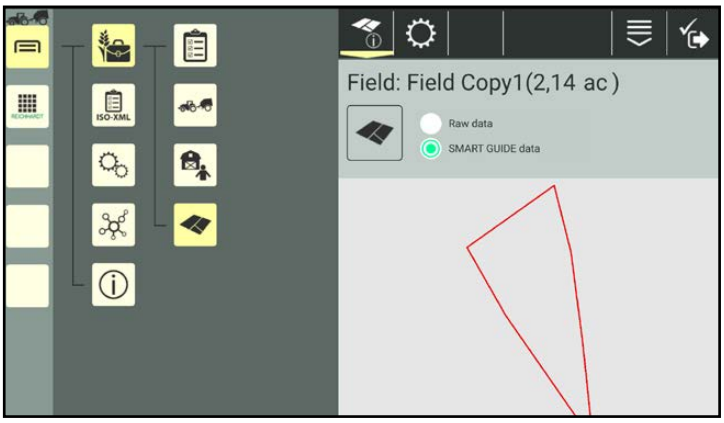


Fig. 425: Field duplicated

7.6.2 Calling Up, Displaying, and Editing the Field Properties

Calling up the field properties

In the list of fields, press and hold the field you wish to edit, to call up the processing options for this field (see Fig. 426).

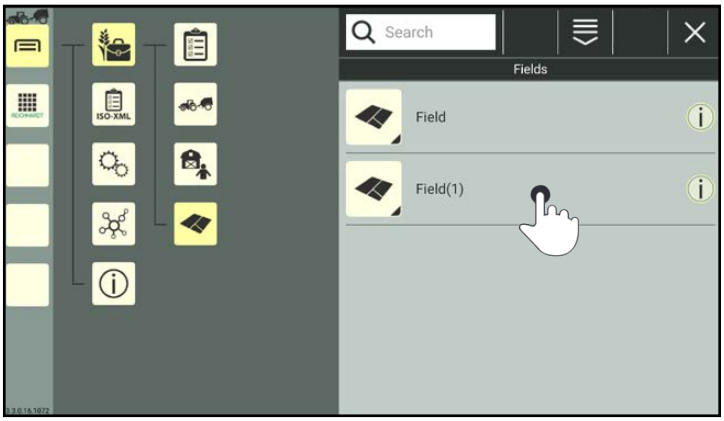


Fig. 426: Pressing and holding the field

Tap "Edit" (see Fig. 427).

Alternatively, you can also open the option via the processing options in the top bar of the list of fields and then select the corresponding field (see chapter 7.2.2).

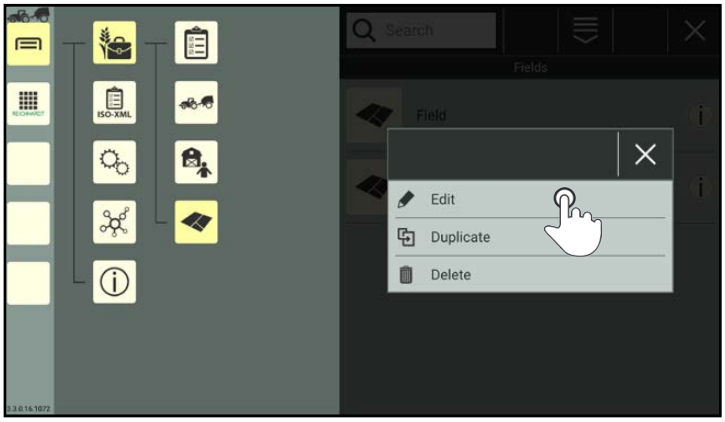


Fig. 427: Calling up the field properties

Displaying and editing the field properties

In the field properties (see Fig. 429) you have the following options:

- Field settings (Field identification; see chapter 7.6.2.1)
- Entry-specific processing options
  - Import shape data (see chapter 7.6.2.2)
  - Delete the properties of a field (see chapter 7.6.2.3)
- Save the field properties and exit. You will then return to the list of fields.

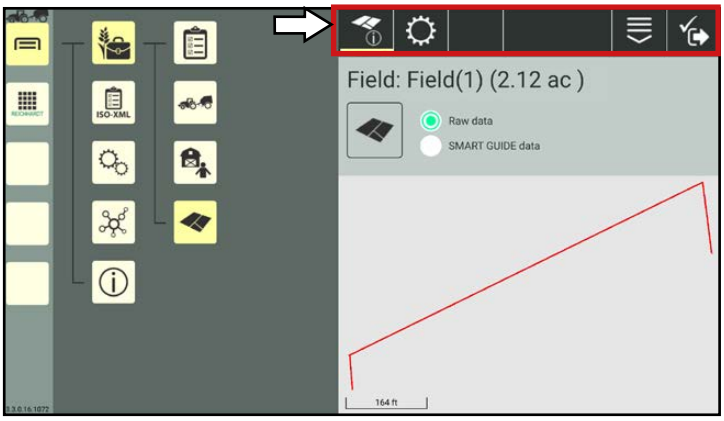


Fig. 428: Field properties – options

NOTICE

As long as the properties of a field are open, you cannot select another menu item in the sidebar or main menu.

Field data (field borders and reference tracks) is assigned to fields in the following way:

- by establishing a link to a task that is being used with SMART GUIDE (see SMART GUIDE Operating Instructions) or
- by manually importing Shape files (see chapter 7.6.2.2).

If field data is already available, it is displayed in the field properties (see Fig. 429 and Fig. 430).

It may include the following information:

Ⓐ Field designation and field size in hectare.

Ⓑ Field data selection and graphic overview of the field data.

- Raw data:
  Shows the uncorrected, recorded field (including gaps and overlaps) (see Fig. 429).
- SMART GUIDE data:
  Shows the recorded and corrected field in SMART GUIDE (see Fig. 430).

Tap the relevant option to display the corresponding data.

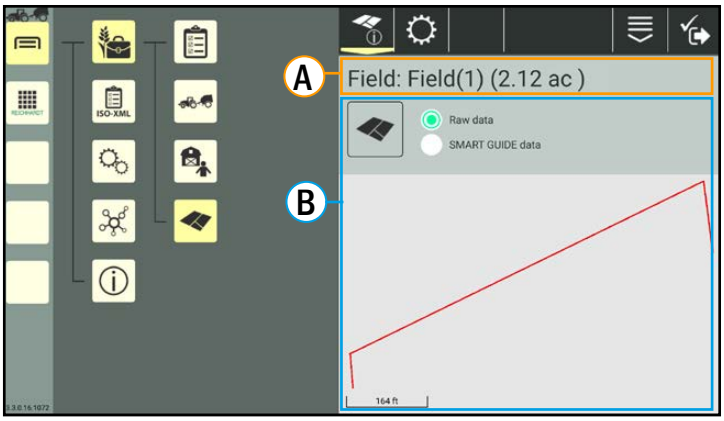


Fig. 429: Field properties – raw data

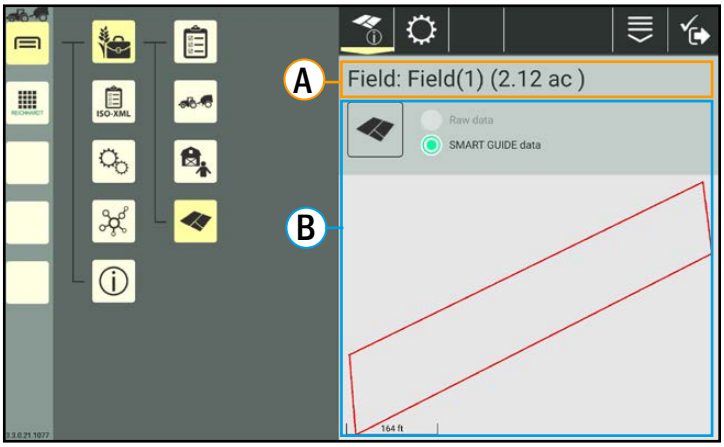
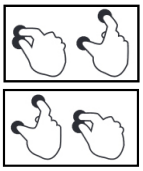


Fig. 430: Field properties – SMART GUIDE data

Zooming in on field data:



Move your fingers apart to zoom in on the field data.
Bring your fingers closer together to zoom out of the field data (see Fig. 431).

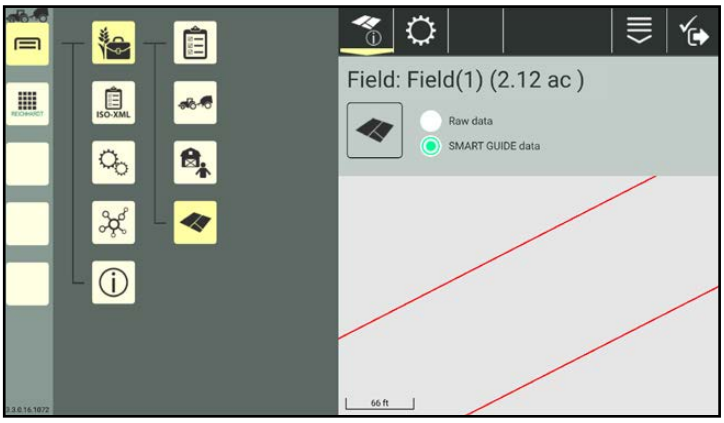
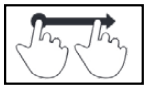


Fig. 431: Enlarged field display

Moving field data:



Press and hold the display in the vicinity of the field data and move your finger to move the field data (see Fig. 432).

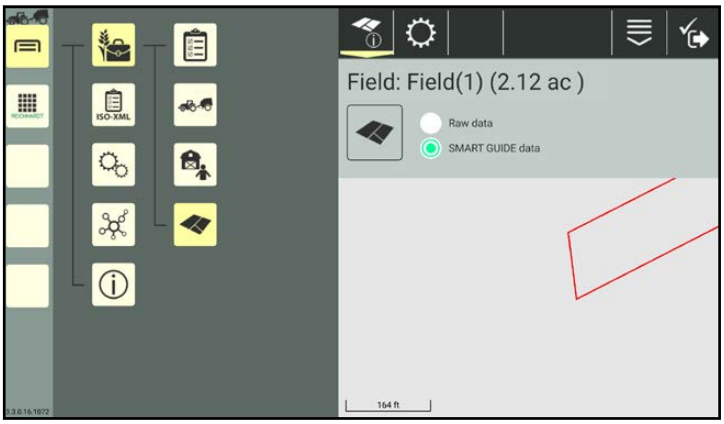


Fig. 432: Moved field display

Editing field data:

You can edit the field data via the SMART GUIDE application (see Fig. 433).
To do so, the field must be linked to the active task (see chapter 7.5.3.2.2).

Further information on editing field data in SMART GUIDE is provided in the SMART GUIDE Operating Instructions.

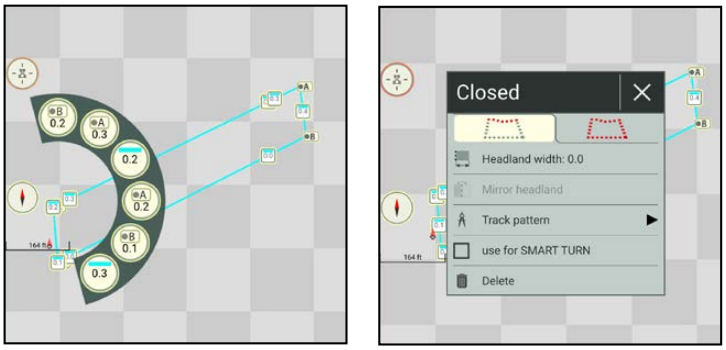


Fig. 433: Editing field data in SMART GUIDE

7.6.2.1 Identification – Changing the Field Designation and Field Image

Open the identification via the settings in the field properties.
Here, you can change the field designation and field image (see Fig. 434).

How to change the image is detailed in the description of users (see chapter 7.3.1.2.1).
Please note that: Images can only be created on devices with a camera.

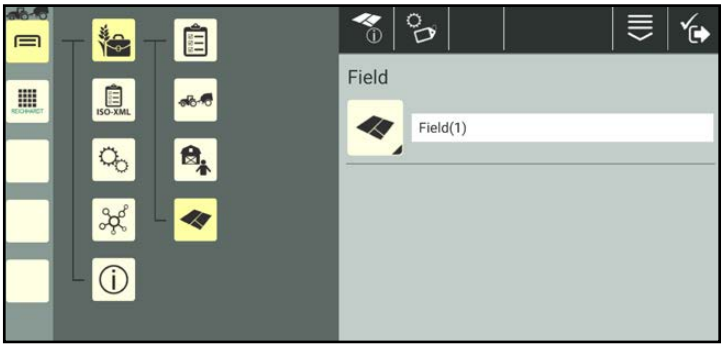


Fig. 434: Renaming a field

7.6.2.2 Importing shape data

You can import shape data (*.shp) for reference tracks and field borders into a field that has already been created.

Open the entry-specific processing options for the selected field in the field properties.
Tap the import symbol (see Fig. 435).

Select the Shape file (*.shp) from the folder structure that is displayed (see Fig. 436).

The folder symbol with the arrow will take you up one level in the structure.

Confirm the selection via the checkmark that appears. The Shape file is imported.

You can cancel the import by selecting X.

NOTICE

Several Shape files cannot be selected at the same time.

Each individual file must be imported successively.

Fig. 435: Importing shape data

Fig. 436: Shape file selected

7.6.2.3 Deleting Field Properties

You have the option of deleting all of the properties from a field, with the exception of the designation. This is explained below.
(How to delete a field from the list of fields is explained in chapter 7.6.4.)

In the field properties, call up the entry-specific processing options.
Tap the eraser symbol (see Fig. 437).

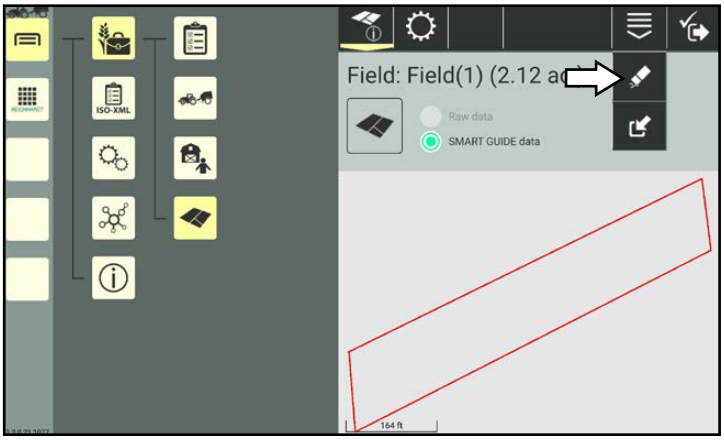


Fig. 437: Deleting field properties

Confirm the prompt with the checkmark to delete the field data (see Fig. 438).

The field designation is retained.

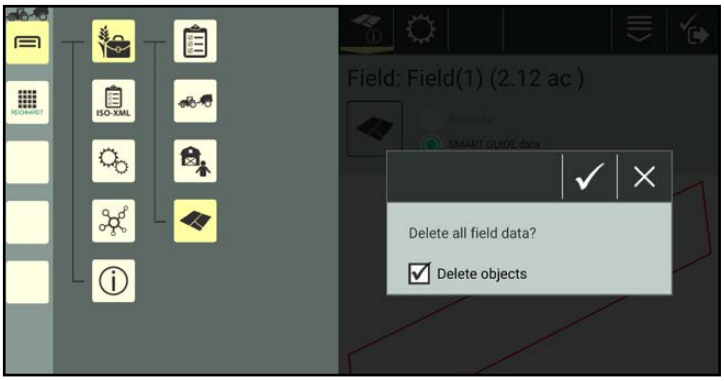


Fig. 438: Confirming the deletion prompt

7.6.3 Search Function in the List of Fields

You can use the search function to search for fields and limit the number of fields displayed in the list of fields.

Enter the search term in the search field at the top of the list of fields.
Only the corresponding fields are displayed (see Fig. 347).

The search term does not have to be at the start of the designation.
Lower and upper case are also not relevant.

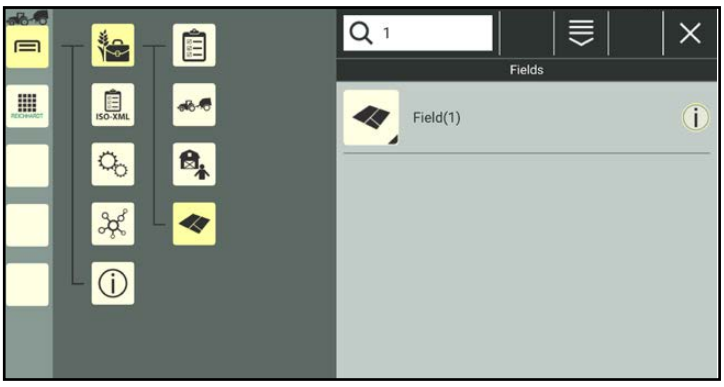


Fig. 439: Searching for a field

7.6.4 Deleting Fields

In the task list, press and hold the field you wish to delete, to call up the processing options for this field (see Fig. 440).

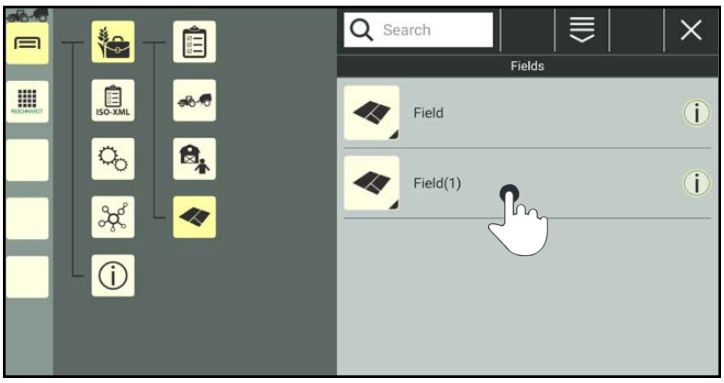


Fig. 440: Pressing and holding the field

Tap "Delete" (see Fig. 441).

Deleting several fields simultaneously:

Open the processing options in the top bar of the fields list and tap the trash can symbol. Then select the corresponding fields (see chapter 7.2.2).

The deletion process must then also be confirmed by tapping the trash can symbol with the green checkmark.

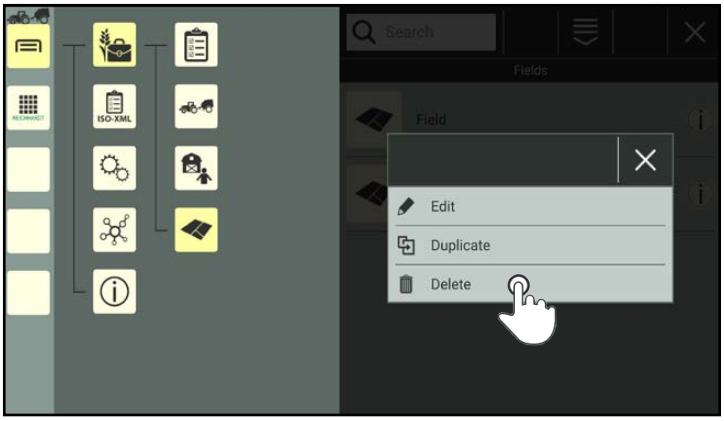


Fig. 441: Deleting a field

Confirm the prompt with the checkmark to delete the field(s) from the field list (see Fig. 442).

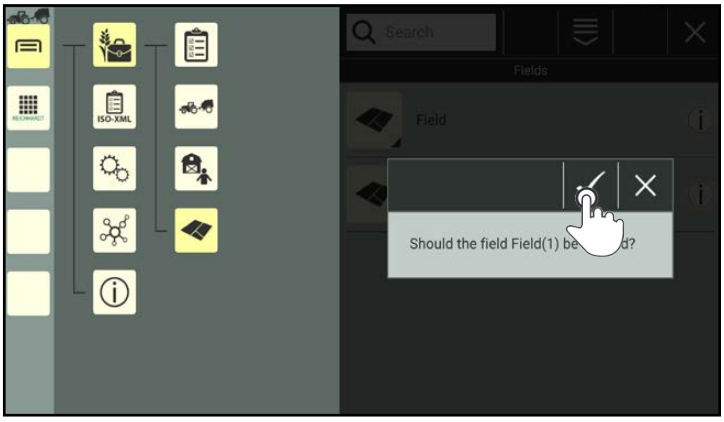


Fig. 442: Confirming the prompt

7.7 Using ISO-XML Mode

ISO-XML mode is a self-contained farm management tool, that is delimited from the SMART COMMAND farm management menu.

In ISO-XML mode, the task data from a farm management information system (FMIS) can be used and processed further in SMART COMMAND. At the same, new data can be created while working with SMART COMMAND and then exported so it can be used in a FMIS.

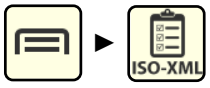
The same processing options that are available in the internal farm management menu are basically available for processing farm management data in ISO-XML mode (see chapter 7.2 to chapter 7.6).

Please note that:

- It is not possible to import machine combinations and machines from a FMIS into ISO-XML mode or export machine combinations and machines into a FMIS.
- The machine management of the internal farm management menu is accessed when using ISO-XML mode. This means that all of the machine combinations/vehicles/implements in the internal farm management menu are displayed. Newly created machine combinations and machines are available in the internal farm management menu and in ISO-XML mode.
- You can export farm management data from ISO-XML mode into the internal farm management menu. This does not apply to tasks and worksheets.
  - Worksheets are not available in ISO-XML mode.
  - Tasks cannot be exchanged between the internal farm management menu and ISO-XML mode.
- Users, farms, customers, and fields created in the farm management menu can be imported in ISO-XML mode and can then be exported for further use in a FMIS.

7.7.1 Activating ISO-XML Mode

ISO-XML mode is opened and activated via the main menu:



XML data must be imported beforehand to be able to activate ISO-XML mode.
A corresponding notice is displayed in the system if this has not occurred yet (see Fig. 443).

XML data is imported via the “Import/Export” application.
Please refer to chapter 10.3.2.

Fig. 443: ISO-XML mode inactive

If XML data has already been imported, ISO-XML mode is activated by tapping the ISO-XML button.

A menu structure via which you can edit the farm management data and exit ISO-XML mode again, is displayed (see Fig. 444).
The farm management menu is inactive.

XML mode remains active until it is terminated (even if SMART COMMAND is restarted) (see chapter 7.7.4).

The following menu items are available in ISO-XML mode:

ISO-XML overview
Information about imported FMIS data.

Exit ISO-XML mode (see chapter 7.7.4).

Export users, customers, farms, and fields into the farm management menu (see chapter 7.7.2).

Tasks
Create, edit, delete, activate, and pause tasks.

Machine management
Access to the machine management of the internal farm management menu.
Create, edit, delete, and select machine combinations, vehicles, and implements.

User/address management
Create, edit, delete, and select users, farms, and customers; and export them into the internal farm management menu and import them from the internal farm management menu.

Fields
Create, edit, and delete fields; and export them into the internal farm management menu and import them from the internal farm management menu.

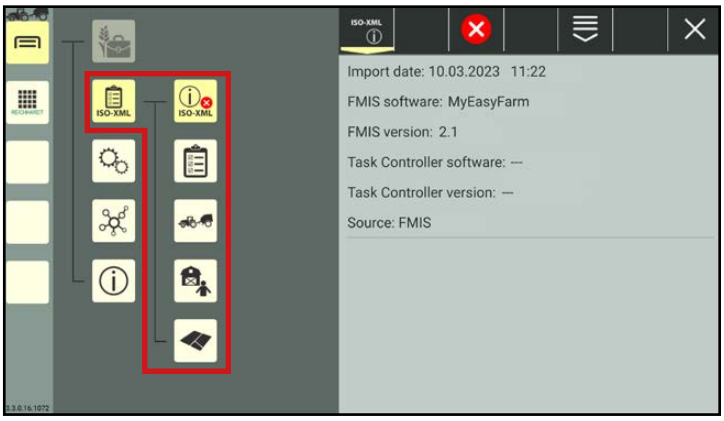


Fig. 444: ISO-XML mode active

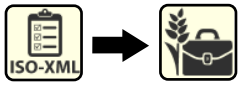
7.7.2 Exporting Data from ISO-XML Mode into the Internal Farm Management Menu

NOTICE

Only users, farms, customers, and fields can be exported into the farm management menu.

Tasks cannot be exported into the farm management menu.

Machine combinations and machines cannot/do not need to be exported, as the same machine combinations and machines are used in the farm management menu and ISO-XML mode.



There are two options to export data into the farm management menu:

- Export the complete user list, list of farms, customer list, and/or list of fields at once.
- Select and export individual list entries.

Both procedures are explained in the following.

Exporting complete lists

If you would like to export complete lists from ISO-XML mode into the farm management menu, proceed as follows:

Open the ISO-XML overview.

Open the export function via the processing options in the top bar (see Fig. 445).

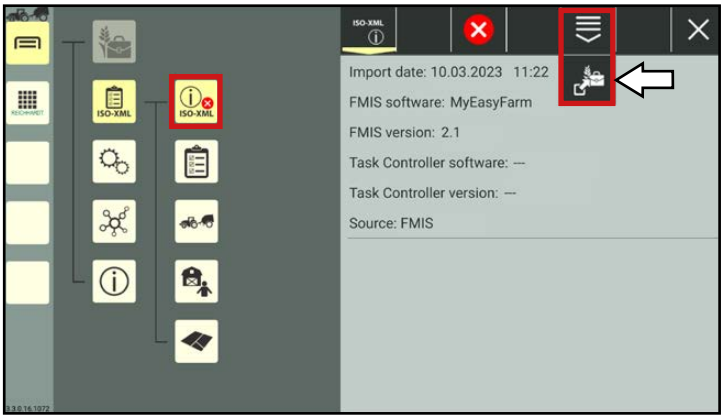


Fig. 445: Calling up the "Export" processing option

Select the checkboxes for the lists you wish to export into the farm management menu (see Fig. 446):

Users

Customers

Farms

Fields

Tap the button with the checkmark to export the data into the internal farm management menu.

The export will start immediately.

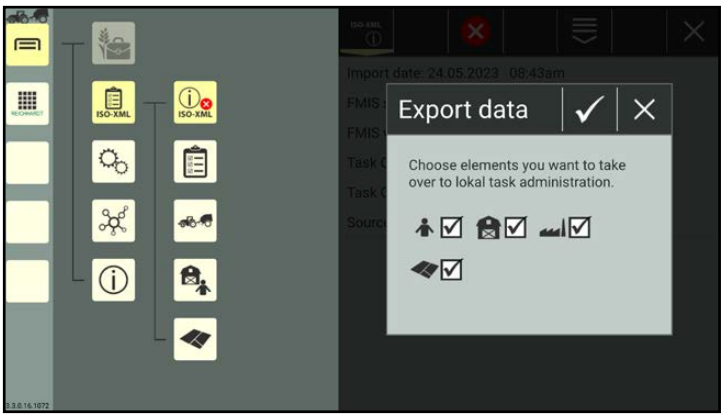
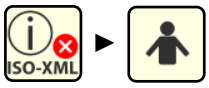


Fig. 446: Selecting and confirming the data to be exported

Exporting individual list entries

If you want to export individual list entries, open the list of entries to be exported in ISO-XML mode (e.g., users):



Open the processing options for the relevant list in the top bar (see Fig. 447).

Tap the export button.

Select the data to be exported by activating the checkboxes (see Fig. 448).

Confirm your selection via the button highlighted in the top bar.

Repeat this process for any other entries in other lists.

After terminating ISO-XML mode (see chapter 7.7.4), the exported data is available in the internal farm management menu.

Fig. 447: Calling up the "Export" processing option in the list

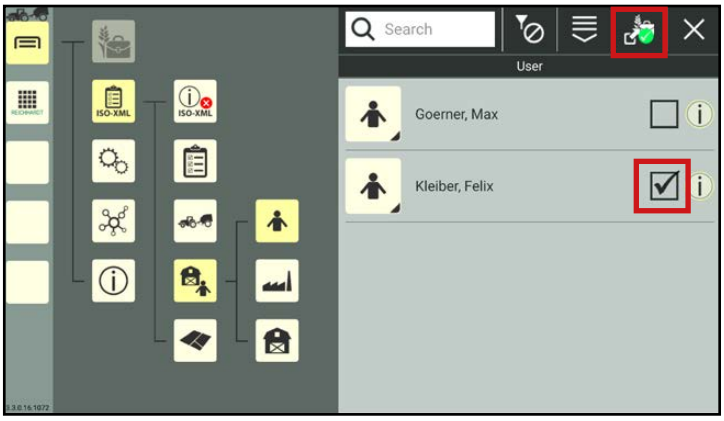


Fig. 448: Exporting individual list entries from ISO-XML mode into the internal farm management menu

7.7.3 Importing Data from the Internal Farm Management Menu into ISO-XML Mode

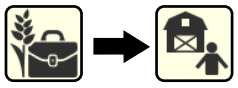
NOTICE

Only users, farms, customers, and fields can be imported.

The default user and service technician cannot be imported.

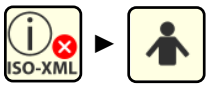
Tasks can also not be imported.

Machine combinations and machines cannot/do not need to be imported, as the same machine combinations and machines are used in the farm management menu and ISO-XML mode.



Data from the internal farm management menu are imported into ISO-XML mode via the relevant category list.

In ISO-XML mode, open the category list to be imported (e.g., users):



Open the processing options for the relevant list in the top bar (see Fig. 449).

Tap the import button.

Select the list entries to be imported by activating the checkboxes (see Fig. 450).

Confirm your selection via the button highlighted in the top bar.

The imported entries are displayed in ISO-XML mode (see Fig. 451).

Repeat this process for any other entries in other lists.

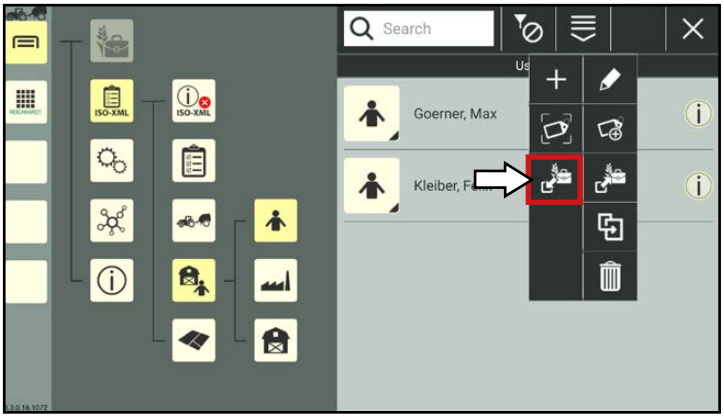


Fig. 449: Calling up the "Import" processing option in the list

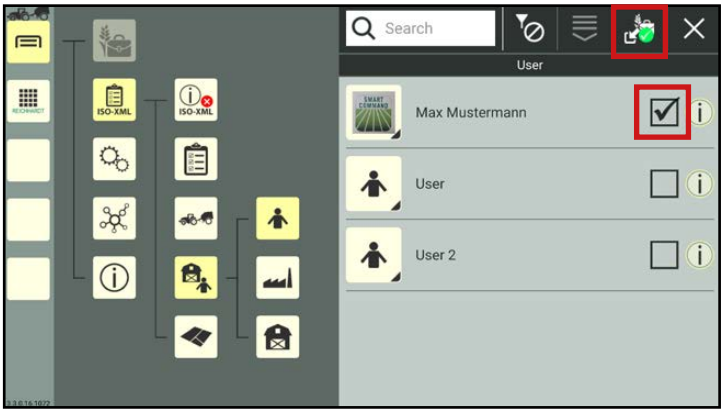


Fig. 450: Selecting entries from the internal farm management menu

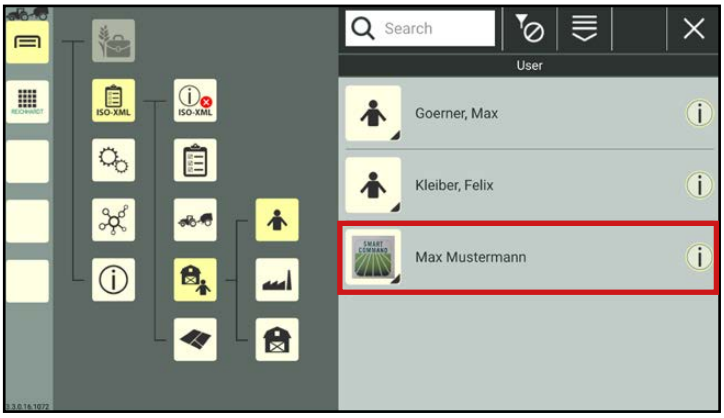


Fig. 451: Importing a data record from the internal farm management menu into ISO-XML mode

7.7.4 Exiting ISO-XML Mode/Saving XML Data

Open the ISO-XML overview via the main menu.

In the ISO-XML overview, tap the red X to exit ISO-XML mode (see Fig. 452).

You then have the option to save data, that was created in ISO-XML mode or imported from the farm management menu, in SMART COMMAND or to discard it.

If you save the data, it will be available when you activate ISO-XML mode again.

NOTICE

The data is only saved internally in SMART COMMAND. No ISO-XML file is generated that could be imported into a FMIS. To do so, you must export the XML data via the “Import/Export” application (see chapter 10.2.2).

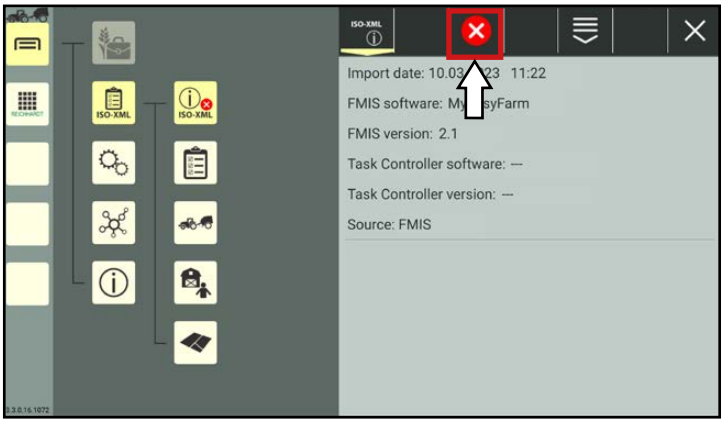
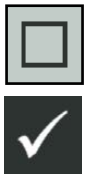


Fig. 452: ISO-XML mode active

Discarding new ISO-XML data



Deselect the checkboxes, if you wish to discard any changes to the data since the last deactivation of ISO XML mode. Then select the check-mark in the top bar (see Fig. 453).

The data, that was created in ISO-XML mode or imported from the farm management menu, is discarded.

Any created machine combination and machine data is retained in the internal farm management menu.

The original data imported from FMIS or last data saved in ISO-XML mode is saved in SMART COMMAND. This data will be available when ISO-XML mode is activated again, until it is exported.

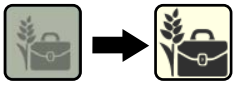
Fig. 453: ISO-XML mode terminated without saving

Saving new ISO-XML data

If you would like to save the new data in SMART COMMAND, select the checkbox and press the checkmark in the top bar.

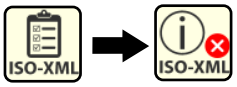
Fig. 454: Terminating ISO-XML mode and saving

ISO-XML mode terminated



After exiting ISO-XML mode, the farm management menu is available again (Fig. 455).

The imported ISO-XML data and any data saved in ISO-XML mode are saved in SMART COMMAND.
This data is available again as soon as ISO-XMl mode is activated again.



ISO-XML mode is automatically activated again when the ISO-XML button is pressed in the main menu.

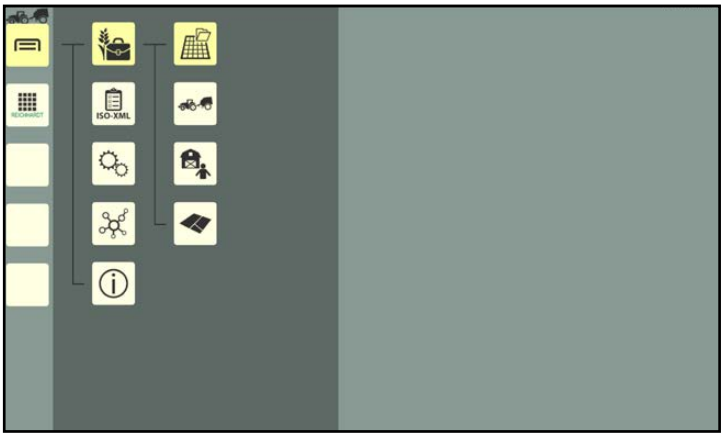


Fig. 455: ISO-XML mode terminated

Saving XML data for FMIS

To be able to use the data collated in ISO-XML mode in a FMIS, you must export the data via the “Import/Export” application and save it in an ISO-XML file (see chapter 10.2.2).

Following the export, another ISO-XML file must be imported via the “Import/Export” application to be able to use ISO-XML mode.

8 SMART COMMAND Application – "SMART GUIDE"

SMART GUIDE is the guide integrated in SMART COMMAND.

SMART GUIDE can be called up via the SMART COMMAND application with the same name in the 'Application overview' (see Fig. 456).

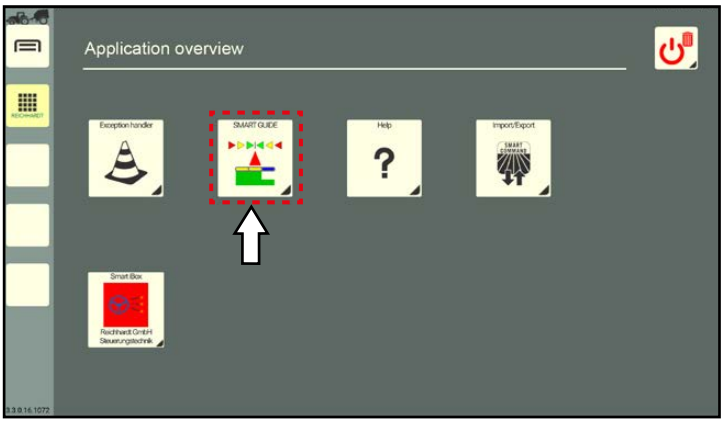


Fig. 456: SMART GUIDE application in 'Application overview'

The guide is executed in an operating mode window (see Fig. 457).

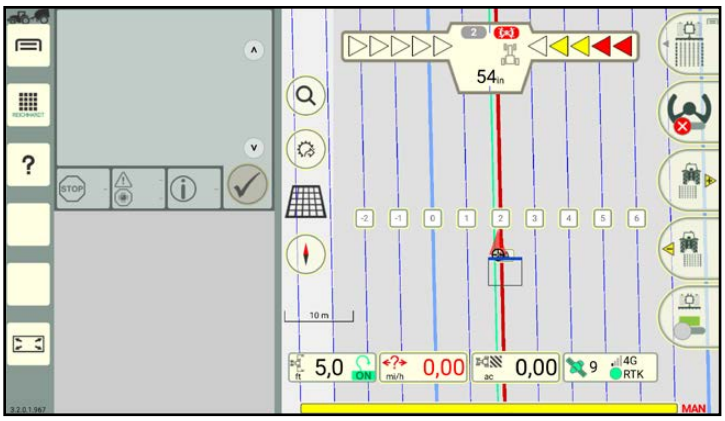


Fig. 457: SMART GUIDE application

The automatic steering system SMART CONTROL is also operated via the SMART GUIDE application (see Fig. 458).

Using the SMART GUIDE application and automatic steering system is described in the "SMART GUIDE Operating Instructions".

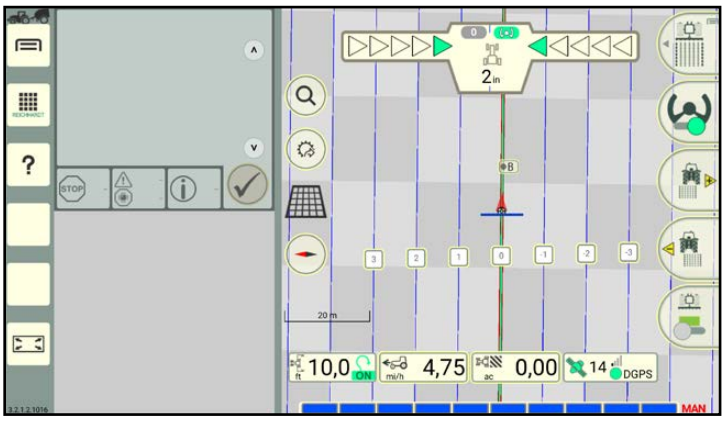


Fig. 458: SMART GUIDE application (with automatic steering)

9 SMART COMMAND Application – "Help"

The SMART COMMAND application “Help” has two functions that are called up in different ways.

- **Help**
  On the one hand, “Help” can be used to open the instructions in an operating mode window (see chapter 9.1). This provides further explanations about SMART COMMAND.
- **Context help**
  On the other, “Help” is designed as a context help to display information texts about menu items and buttons (see chapter 9.2).

9.1 Help

Calling up “Help”

“Help” can be called up by either taping (1) or dragging (2) it across the Application overview and is executed in an operating mode window (see Fig. 459).

In addition, “Help” can be executed in a window by dragging a shortcut (3) into it.

“Help” cannot be executed by taping a “Help” shortcut. This calls up the context help (see chapter 9.2).

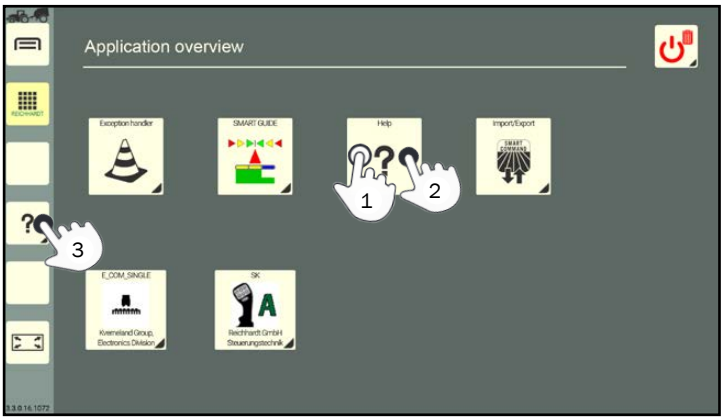


Fig. 459: Calling up “Help”

Help in main window

If “Help” is displayed in the main window it contains general information on SMART COMMAND.

Swipe through the help to call up the relevant content (see Fig. 460).

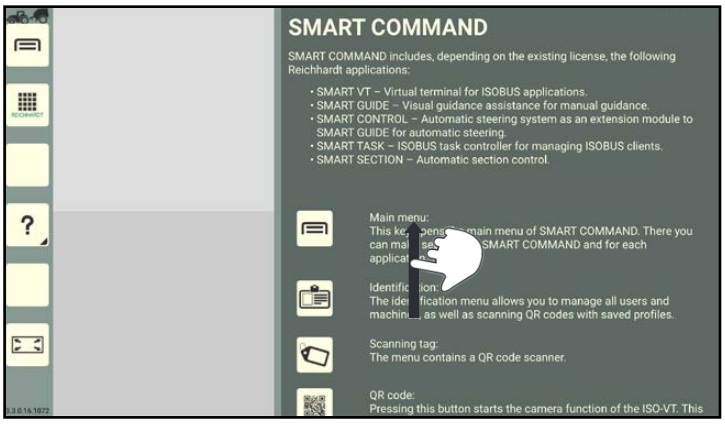


Fig. 460: “Help” in main window

"Help" in small window

If "Help" is in a small window, you can scroll through the help by taping the arrows (top and bottom right) (see Fig. 461). Swiping is not possible.

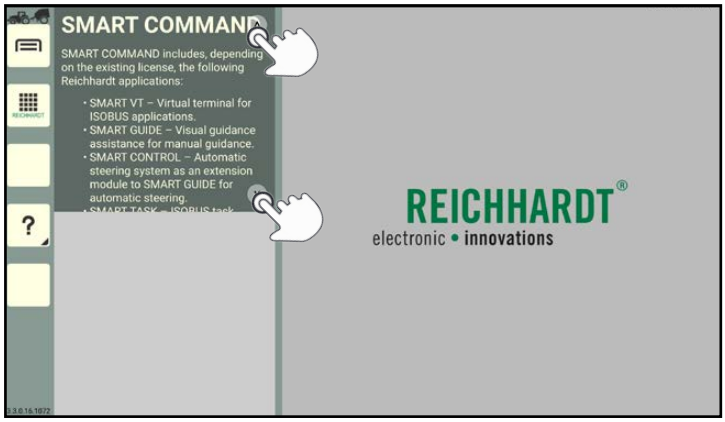


Fig. 461: "Help" in a small window

If "Help" is executed in a small window while SMART GUIDE is executed in the main window, the SMART GUIDE help is displayed instead of the SMART COMMAND help (see Fig. 462).

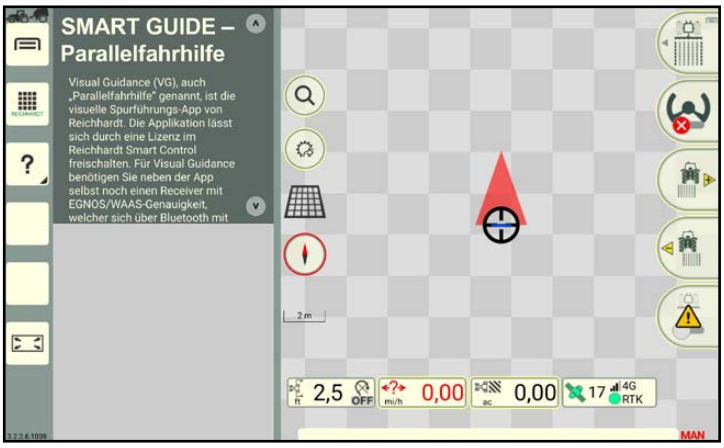


Fig. 462: SMART GUIDE help in small window

9.2 Context Help

"Help" shortcut

To be able to use the context help, you must create "Help" as a shortcut in the sidebar (see Fig. 463).

Creating shortcuts is described in chapter 5.4.1.

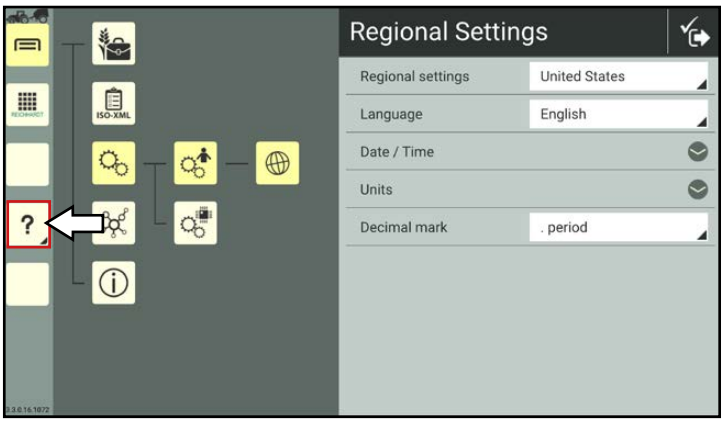


Fig. 463: Calling up context help via shortcut

Display context help

Tap the Help shortcut to display the existing help texts on the individual objects (see Fig. 464).

Help texts are highlighted with a yellow font and dark green background underneath the relevant symbols.

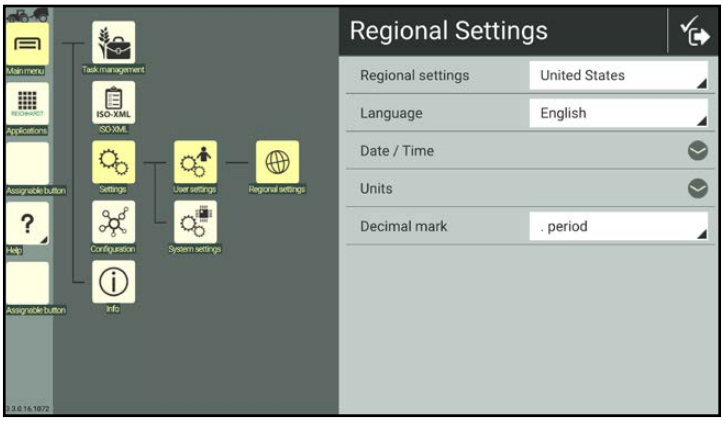


Fig. 464: Context help

Display and hide extended context help

If you tap the help text within the context help, a detailed help text will open (see Fig. 465).

Close the help text by confirming the checkmark.

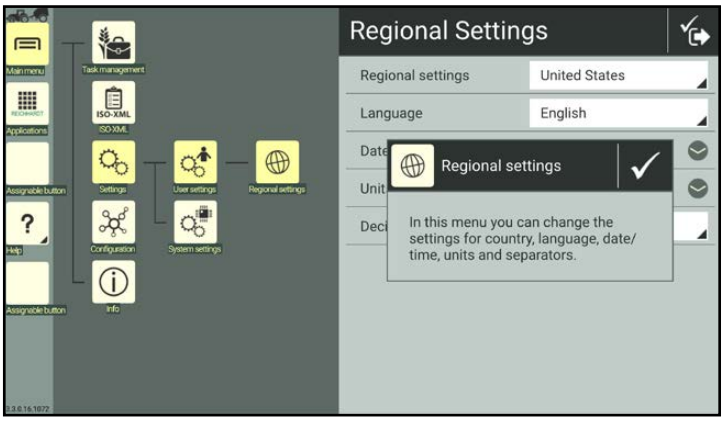


Fig. 465: Extended context help

Hide context help

When the context help is activated, tap the Help shortcut again to hide the context help again (see Fig. 466).

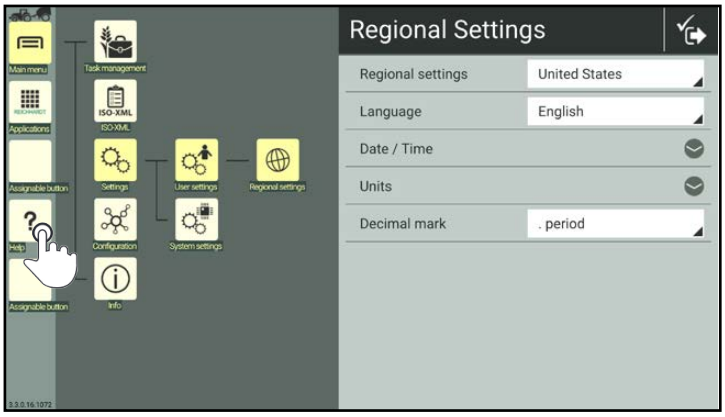


Fig. 466: Hide context help

10 SMART COMMAND "Import/Export" Application

You can use the SMART COMMAND "Import/Export" application to import/export files.

When using the SMART COMMAND app, data can be imported from a folder on the tablet and exported to the same folder.

When using the SMART COMMAND terminal, you can use a data memory stick (USB-C connection) to import/export data.

The “Import/Export” application can be called up via the application overview (see Fig. 467).

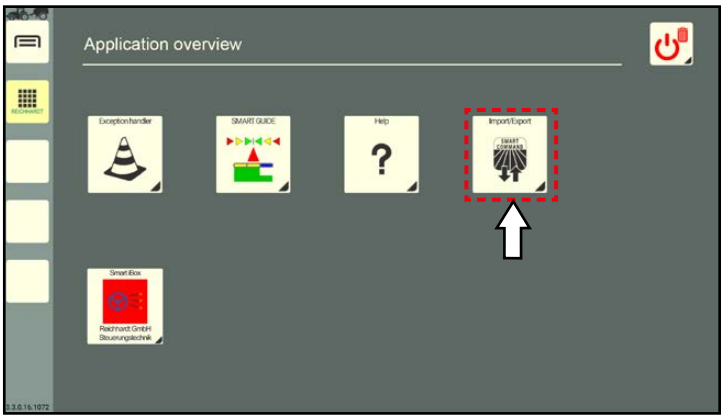


Fig. 467: Import/export symbol in application overview

Please note that:
The "Import/Export" application cannot be used in a small window (see Fig. 468).

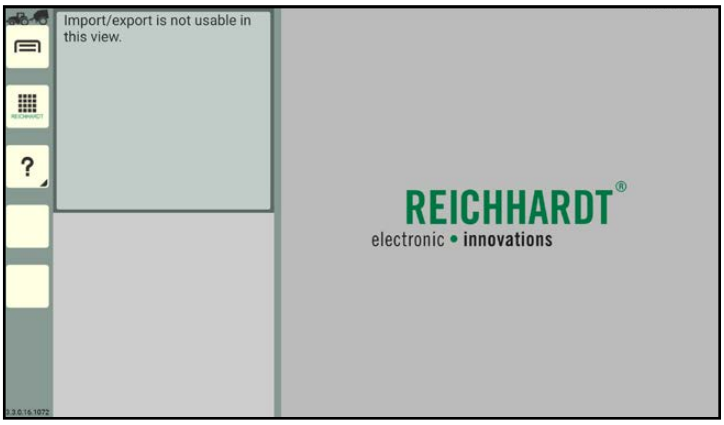


Fig. 468: “Import/Export” application cannot be used in a small window

The application must thus be operated in the main window (see Fig. 469).

In the top bar of the application, there are two buttons to export and import data.

Export

Import

Tap the corresponding button to select which function you want to use.

Which data can be exported/imported is explained in the following sections.

Fig. 469: Using the “Import/Export” application in the main window

10.1 Overview of Exportable and Importable Objects – Explanation of Symbols

Symbols, via which corresponding content can be imported and exported, are displayed in the import and export function. These are explained in the following.

Importing and exporting data between the farm management menu and ISO-XML mode is completed directly in ISO-XML mode, and is explained in chapter 7.7.2 and chapter 7.7.3.

If a symbol is highlighted gray, the selected function is not available or no data is available.

SMART COMMAND database*
Import and export all of the data in the SMART COMMAND farm management menu and SMART COMMAND settings.

ISO-XML files
Import data created in a FMIS.
Export data that was created in ISO-XML mode of SMART COMMAND and should be processed further in a FMIS.

Tasks*
Import/export individual tasks and linked data (driver, machines, spread rates, etc.), that was created in the farm management menu of SMART COMMAND.

Worksheets*
Import/export individual worksheets that were created in the farm management menu of SMART COMMAND.

Error reports (log files)*
Export error reports from the logging function in SMART COMMAND.

Logging configuration file*
Import logging configuration files (Log-Config file) with predefined settings for the logging function.

Licenses*
Import of licences into the SMART COMMAND app. The activation of licenses in the SMART COMMAND app and on the SMART COMMAND terminal are described in chapter 6.6.
There is no export function for licenses.

Machine combinations*
Import/export of machine combinations, incl. linked vehicles and implements.

Vehicles*
Import/export of vehicles with geometry data and linked hardware (ISO FLEX, SMART iBox).

Implements*
Import/export implements including the geometry data.

Users*
Import/export user data.

Customers*
Import/export customer data.

Farms*
Import/export data about farms.

Fields*
Import/export fields, incl. dimensions, borders, tracks.
This does not include worked areas. These are saved in tasks.

Application maps*
Areas including the spread rate and operating material used.

Operating material*/**
Import/export of operating material, such as ammonium sulfate, barley, etc.

Product groups*/**
Import/export of product groups, such as liquid fertilizer, seeds, etc.

Varieties*/**
Import/export of product varieties, such as Tardis, Morris, etc.

Crop*/**
Import/export of crops, such as winter/spring barley, etc.

* Only for importing and exporting internal SMART COMMAND data.
NOT suitable for importing data from a FMIS, or exporting to and processing further in a FMIS.

** Function currently not available.

10.2 Exporting Data, Settings, and Error Reports

Calling up the export screen

In the overview of the “Import/Export” application, tap on the export symbol to subsequently export files (see Fig. 470).

Fig. 470: Tapping the export symbol

Then select the export medium (see Fig. 471).

USB stick
(SMART COMMAND terminal)

Folder
(SMART COMMAND app or tablet)

Fig. 471: Selecting the export medium

The export screen will then open (see Fig. 472).

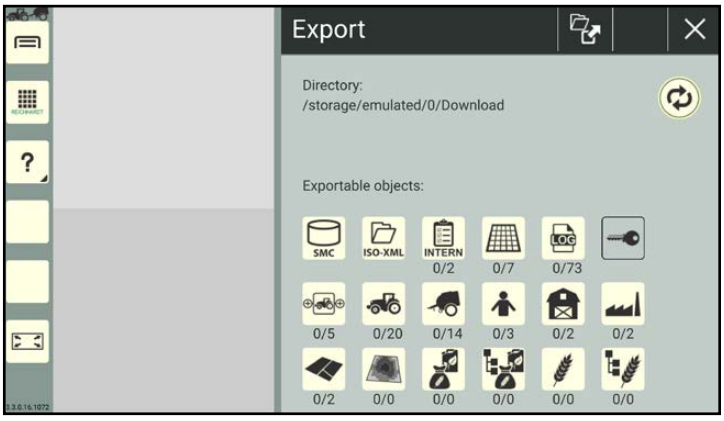


Fig. 472: Export screen

Export directory

A link to the selected directory into which the objects will be exported is displayed under the "Directory" header (see Fig. 473).

The following folder is specified by default for tablets:

"Internal memory/Download"

When using the SMART COMMAND terminal, the objects are exported, by default, to the top level of the USB stick being used.

How to change the directory is described in chapter 10.4.

Fig. 473: Export directory

Exportable objects

An overview of the exportable objects is provided at the bottom of the export screen (see Fig. 474).

Content that is highlighted beige, can be exported.

Content that cannot be exported, is grayed out.

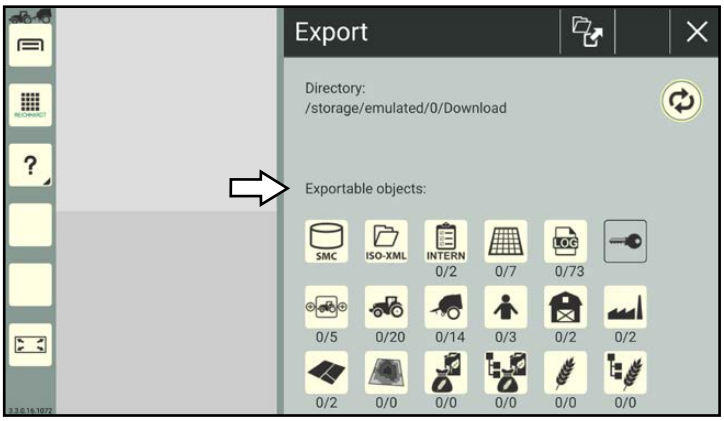


Fig. 474: Overview of exportable objects

10.2.1 Exporting the Entire SMART COMMAND Database

Tap the SmC symbol in the export screen if you would like to export the entire SMART COMMAND database (see Fig. 475).

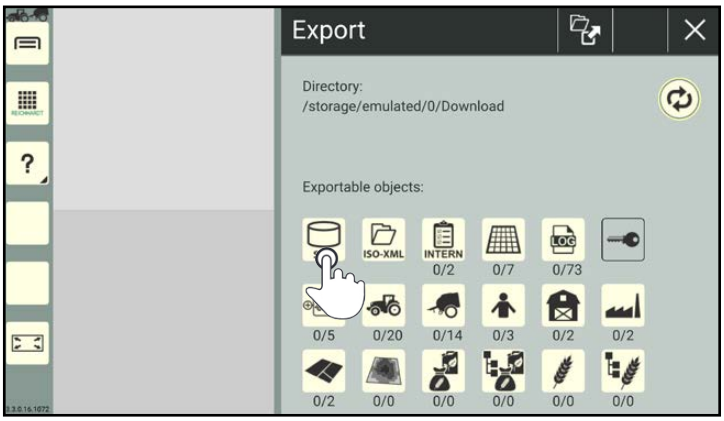


Fig. 475: Tapping the SmC symbol in the export screen

A prompt is then displayed (see Fig. 476).

Confirm this prompt with "Yes" to continue.

Select "No" to cancel the process.

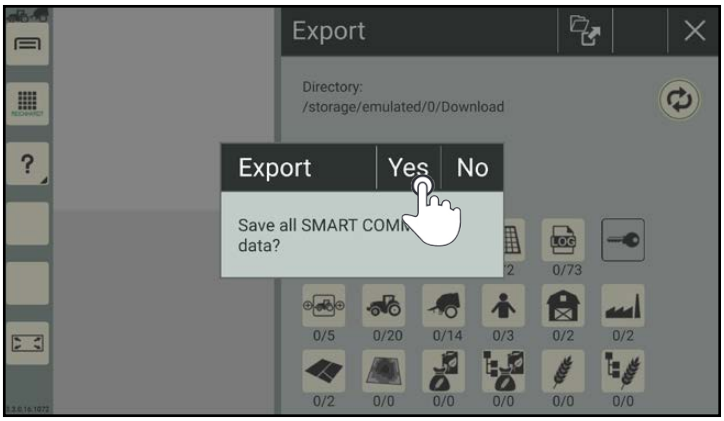


Fig. 476: Confirming the prompt

A window is displayed in which you can add a comment. This comment is displayed during the import.

Add a comment, if required, and confirm it with the checkmark (see Fig. 477).

Fig. 477: Adding a comment

The file is then saved at the selected path as "smc_SmartCommand.zip".

If the specified directory contains a SMART COMMAND database with the same designation, a notice will be displayed indicating that the existing file will be overwritten during the saving process (see Fig. 478).

Confirm this prompt with "Yes" to continue and overwrite the existing database.

If you select "No", the process will be canceled.

If you would like to change the designation of a database ZIP file on the tablet or USB stick, you may only change the end of the designation:

Example: "smc_SmartCommand_old.zip"
"smc_SmartCommand1.zip"

If the designation "smc_SmartCommand" is changed, then SMART COMMAND will not recognize the database when it is imported.

Fig. 478: Notice about existing database file

10.2.2 Exporting an ISO-XML File/FMIS Data

NOTICE

No ISO-XML file can be exported while ISO-XML mode is active in SMART COMMAND.

Exit ISO-XML mode to export the ISO-XML file (see chapter 7.7.4).

In the export screen, tap the ISO-XML symbol to export an ISO-XML file (see Fig. 479).

The export is completed immediately.

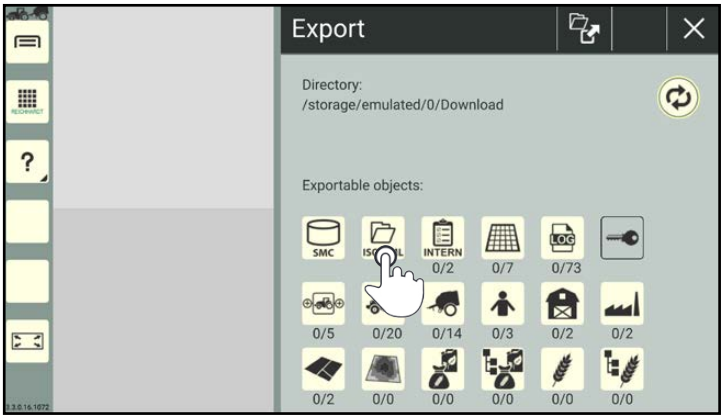


Fig. 479: Tapping the ISO-XML symbol and executing the ISO-XML export

The file is saved at the selected path with the designation "smc_isoxml_taskdata.zip".

If the specified directory contains an ISO XML file with the same designation, a notice will be displayed indicating that the existing file will be overwritten during the saving process (see Fig. 480).

Confirm this prompt with "Yes" to continue and to overwrite the existing file.

If you select "No", the process will be canceled.

If you would like to change the designation of an ISO-XML ZIP file on the tablet or USB stick, you may only change the end of the designation:

Example: "smc_isoxml_taskdata_old.zip"
"smc_isoxml_taskdata1.zip"

If the designation "smc_isoxml_taskdata" is changed, then SMART COMMAND will not recognize the file when it is imported.

Fig. 480: Notice about existing ISO-XML file

10.2.3 Exporting Data from the Farm Management Menu and Error Reports

You have the option to select individual or multiple object entries to be exported.
The selection can also apply to all of the objects and include two worksheets, one user, and three machine combinations, for example.
All of the selected object entries can then be exported together.

Exceptions to this are the export of a SMART COMMAND database (see chapter 10.2.1) and the export of ISO-XML files (see chapter 10.2.2). These must be exported separately.

Numbers under object symbols

There are two numbers under the object symbols (see Fig. 481).

- The first number indicates how many object entries have been selected for the export.
- The second number indicates how many object entries are available for the export.

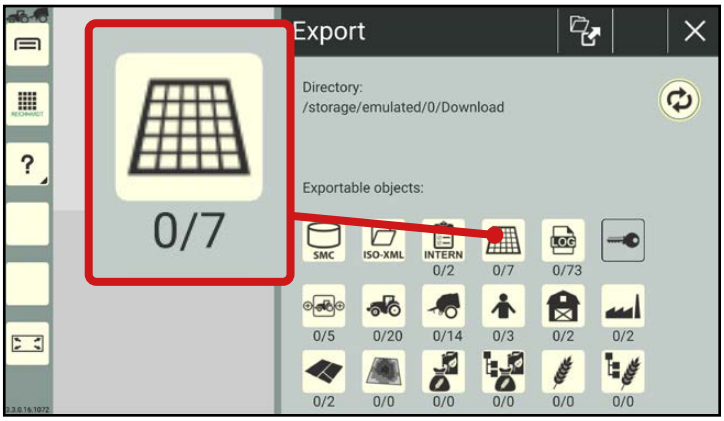


Fig. 481: Number of selected and available object entries in the export screen

Selecting object entries

In the export screen, tap the corresponding symbol to display the object entries (see Fig. 482).

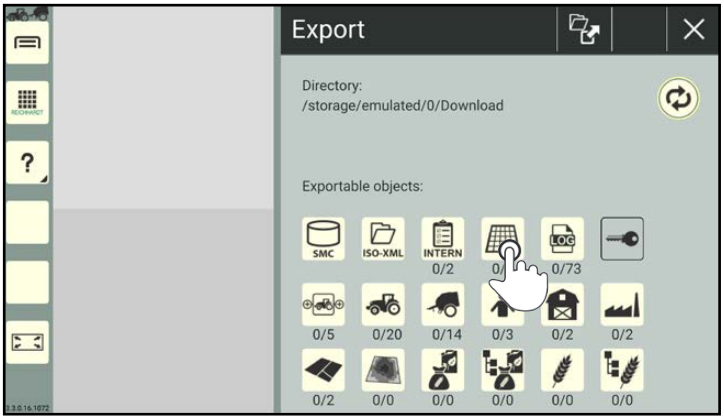


Fig. 482: Tapping the required export object

An overview of the available entries, that can be exported from the selected object, is then displayed (see Fig. 483).

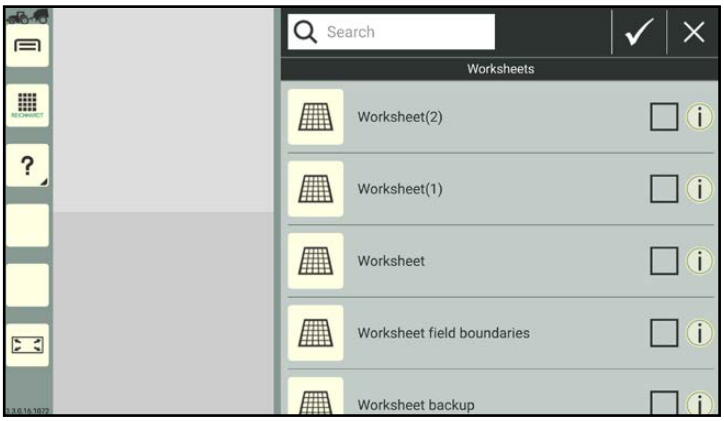


Fig. 483: Object overview and entries

Select the object entries to be exported by activating the checkboxes (see Fig. 484).

Then confirm the selection via the button with the checkmark.

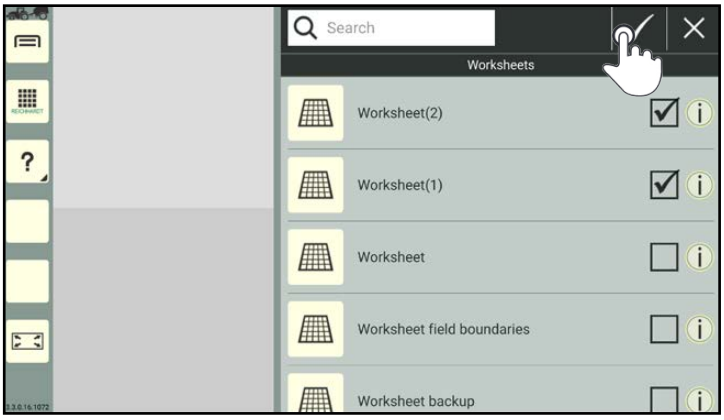


Fig. 484: Selecting entries and confirming the selection

If required, select other object entries via the export screen by proceeding in the same way with the objects.

In the export screen, the first number on all of the objects in which entries have been selected to be exported, shows the number of selected entries highlighted in red (see Fig. 485).

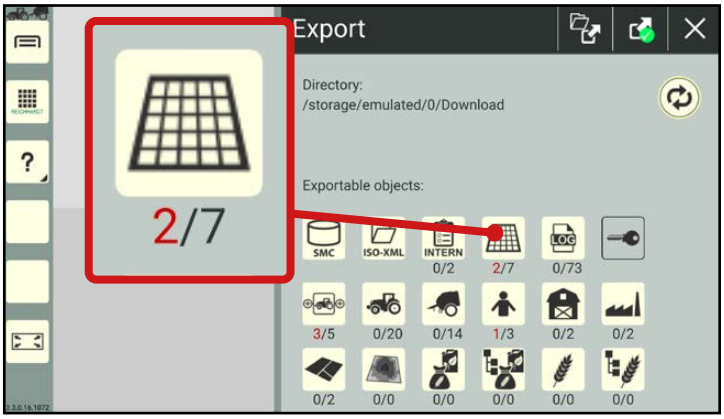


Fig. 485: Number of selected entries in red

Exporting object entries

Confirm the export of the selected object entries, by tapping the export button with the green checkmark (see Fig. 486).

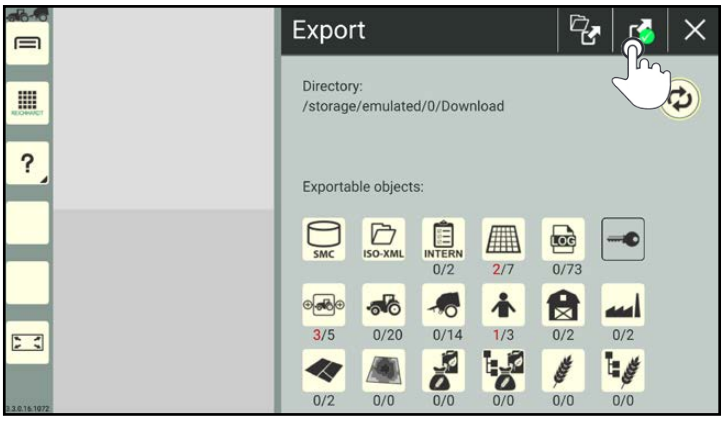


Fig. 486: Confirming and executing the export

Confirm the request with "Yes" (see Fig. 487).

Every exported object entry is saved in the selected directory with the following designation:

"smc_'Object (in EN)'_'name'.zip"

Example:
"Worksheet1" is exported as
"smc_worksheet_Worksheet1.zip"

Fig. 487: Confirming the prompt

10.3 Importing Data, Settings, and Licenses

Calling up the import screen

In the overview of the “Import/Export” application, tap on the import symbol to subsequently import files (see Fig. 488).

Fig. 488: Tapping the import symbol

Then select the import medium (see Fig. 489).

USB stick
(SMART COMMAND terminal)

Folder
(SMART COMMAND app or tablet)

Fig. 489: Selecting the import medium

The import screen will then open (see Fig. 490).

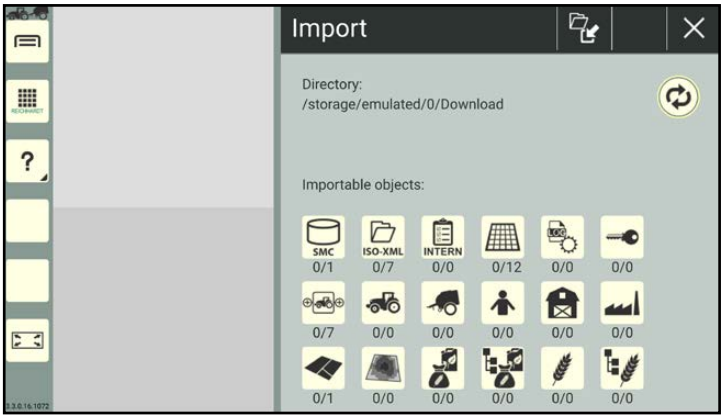


Fig. 490: Import screen

Import directory

A link to the selected directory into which the objects will be imported is displayed under the "Directory" header (see Fig. 491).

The following folder is specified by default for tablets:

"Internal memory/Download".

When using the SMART COMMAND terminal, the objects are imported, by default, from the top level of the USB stick being used.

How to change the directory is described in chapter 10.4.

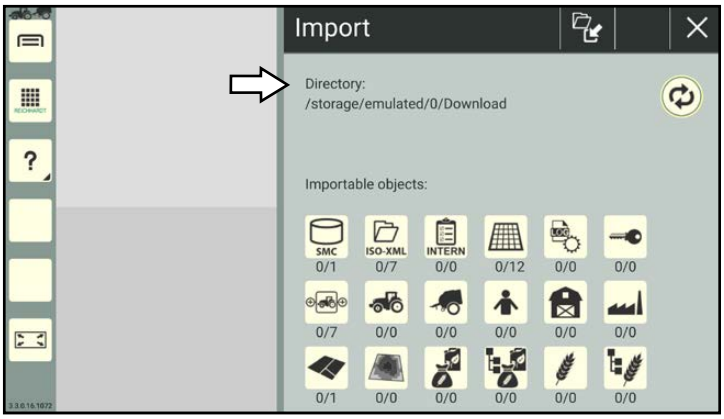


Fig. 491: Import directory

Importable objects

An overview of the importable objects is provided at the bottom of the import screen (see Fig. 492).

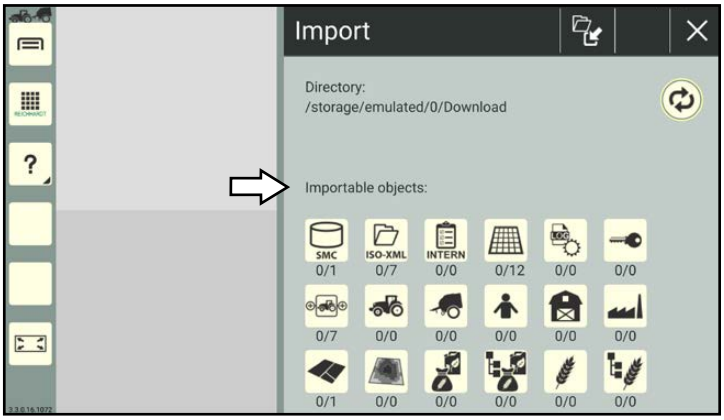


Fig. 492: Overview of importable objects

Numbers under object symbols

There are two numbers under the object symbols (see Fig. 493).

- The first number indicates how many object entries have been selected for the import.
- The second number indicates how many object entries are available for the import.

Fig. 493: Number of selected and available object entries in the import screen

10.3.1 Importing the SMART COMMAND Database

Tap the SmC symbol in the import screen if you would like to import a SMART COMMAND database (see Fig. 494).

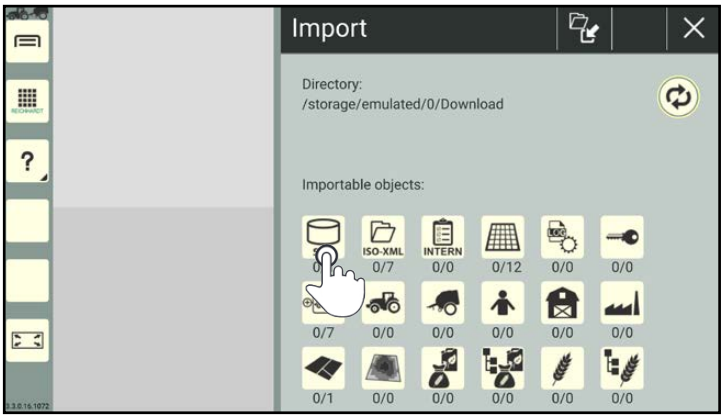


Fig. 494: Tapping the SmC symbol in the import screen

Select the SmC file you would like to import (see Fig. 495).

NOTICE

Only one SMART COMMAND database can be selected and imported at a time.

Then confirm the selection via the button with the checkmark.

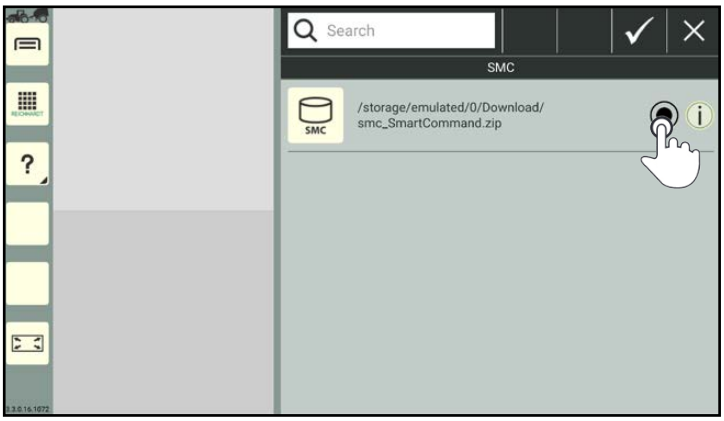


Fig. 495: Selecting a SmC database file

NOTICE

When importing a SMART COMMAND database, all of the existing data and settings in the system are deleted.

Confirm the prompt with "Yes" to import the database, and to delete the existing data and settings (see Fig. 496).
Then restart SMART COMMAND.

Select "No" to cancel the process.

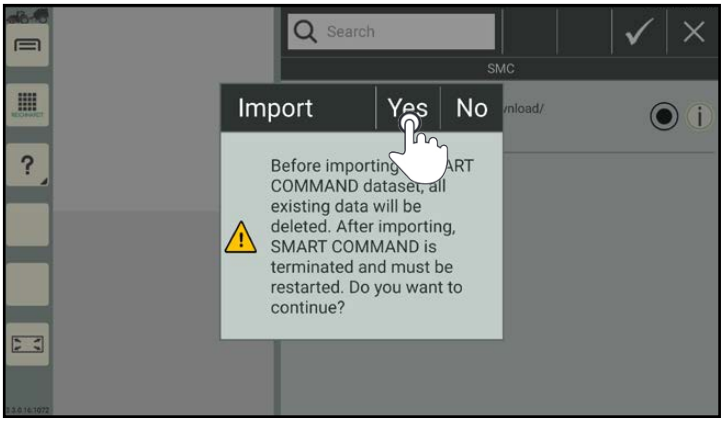


Fig. 496: Confirming the prompt

10.3.2 Importing ISO-XML Files/FMIS Data

ISO-XML symbol is grayed out

No ISO-XML file can be imported while ISO-XML mode is active in SMART COMMAND.
The ISO-XML symbol is grayed out.

1. Exit ISO-XML mode (see chapter 7.7.4).
2. Export the ISO-XML data (see chapter 10.2.2) as these will otherwise be overwritten during an import.

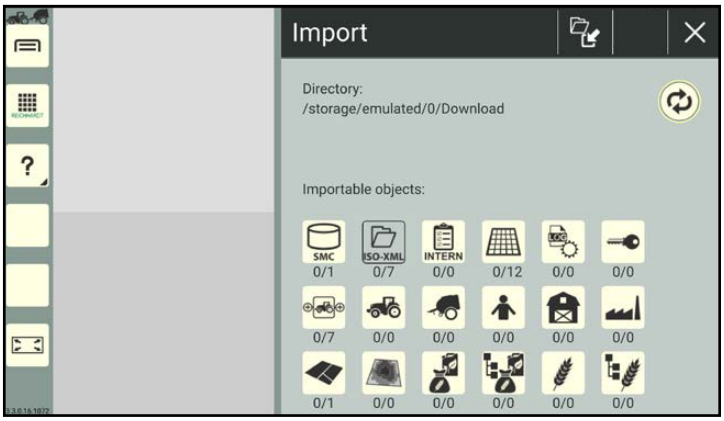


Fig. 497: Tapping the ISO-XML symbol in the import screen

ISO-XML symbol is beige

In the import screen, tap the ISO-XML symbol to subsequently import an ISO-XML file (see Fig. 498).

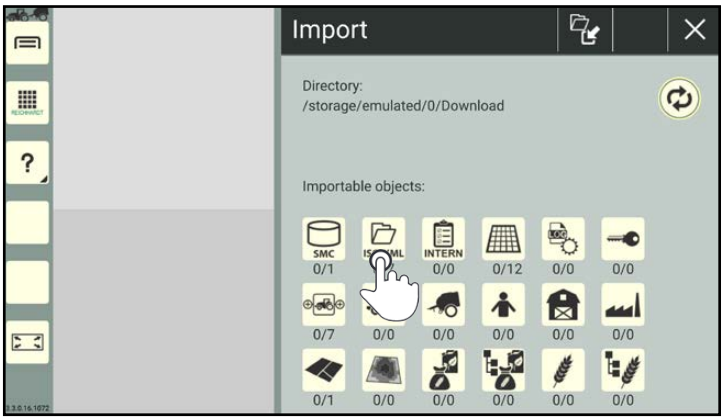


Fig. 498: Tapping the ISO-XML symbol in the import screen

Select the ISO-XML file you would like to import (see Fig. 499).

SMART COMMAND recognizes both XML and ZIP files. This includes files in other subfolders of the specified directory.

NOTICE

Only one ISO-XML file can be selected and imported at a time.

Then confirm the selection via the button with the checkmark.

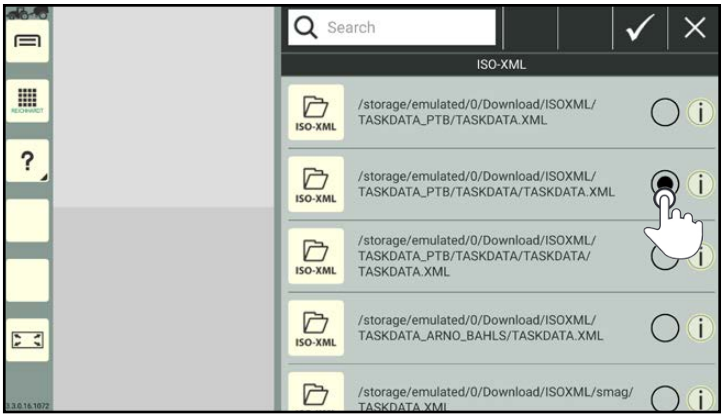


Fig. 499: Selecting and confirming the ISO-XML file

If ISO-XML mode has been terminated and no ISO-XML file has been exported yet, it will remain in SMART COMMAND.
When importing another ISO-XML file, all of the ISO-XML data from ISO-XML mode that is still in SMART COMMAND will be overwritten (exception: machines).

A notice about this will be displayed (see Fig. 500).

Confirm this prompt with "Yes" to continue.

Select "No" to cancel the process.

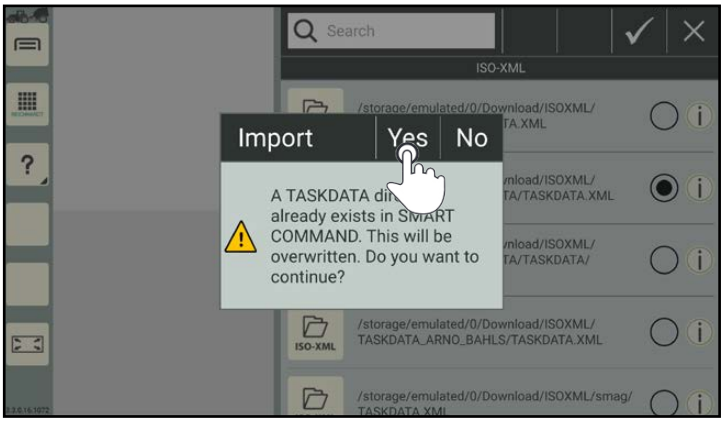


Fig. 500: Notice about overwriting an existing ISO-XML file

Then confirm the import by tapping the import button with the green checkmark (see Fig. 501).

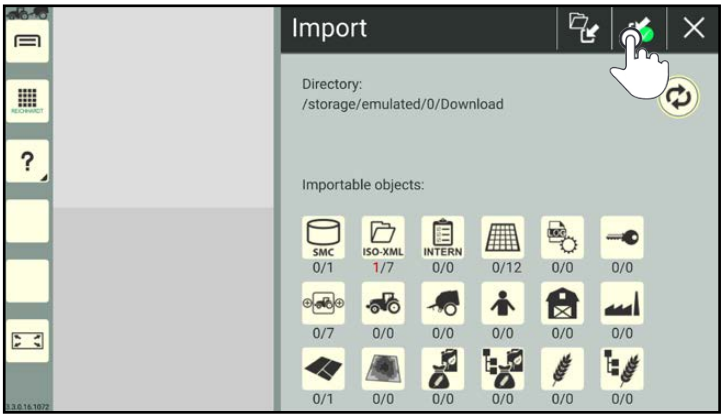


Fig. 501: Confirming the import

10.3.3 Importing Data from the Farm Management Menu, ISO-XML file, Logging Configuration File, and Licenses Individually or Together

You have the option to select individual or multiple object entries to be imported.
The selection can also apply to all of the objects and include two worksheets, one ISO-XML file, and one license file, for example.
A logging configuration file or a Log-Config file ("rlog_config.conf") can also be selected.
All of the selected object entries can then be imported together.

Please note that:

- Licenses are only imported via the “Import/Export” application when using the SMART COMMAND terminal. When using the SMART COMMAND app, the import is implemented via the configuration menu of the ISO FLEX module.
  Importing licenses in the SMART COMMAND app and on the SMART COMMAND terminal is explained in chapter 6.6.
- SMART COMMAND must be restarted after importing a logging configuration file or license file.
- A SMART COMMAND database must always be imported separately and cannot be imported with other data (see chapter 10.3.1).

Selecting object entries

In the import screen, tap the corresponding symbol to display the object entries (see Fig. 502).

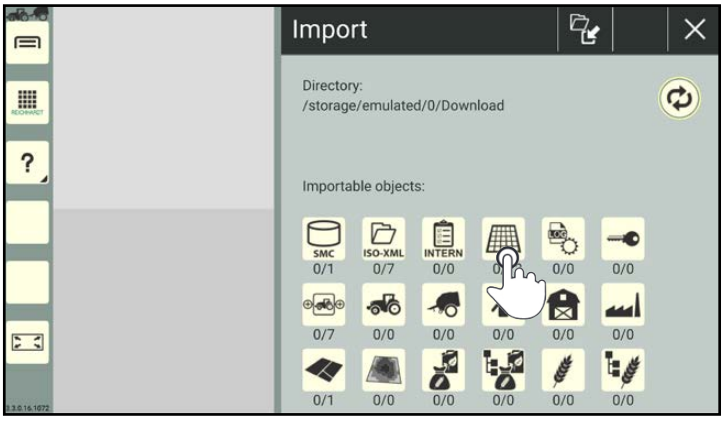


Fig. 502: Tapping the required import object

An overview of the available entries, that can be imported from the selected object, is then displayed (see Fig. 503).

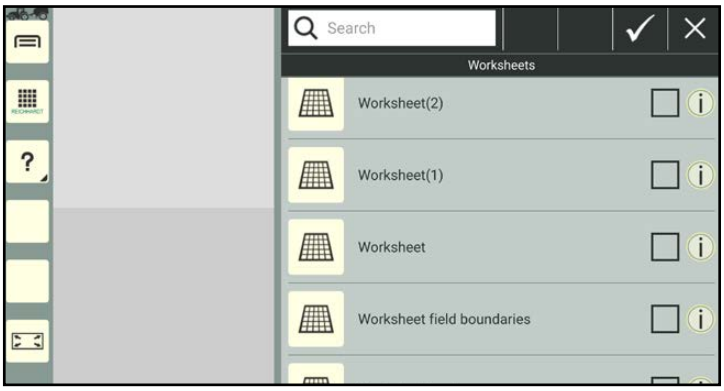


Fig. 503: Object overview and entries

Select the object entries to be imported by activating the checkboxes (see Fig. 504).

Then confirm the selection via the button with the checkmark.

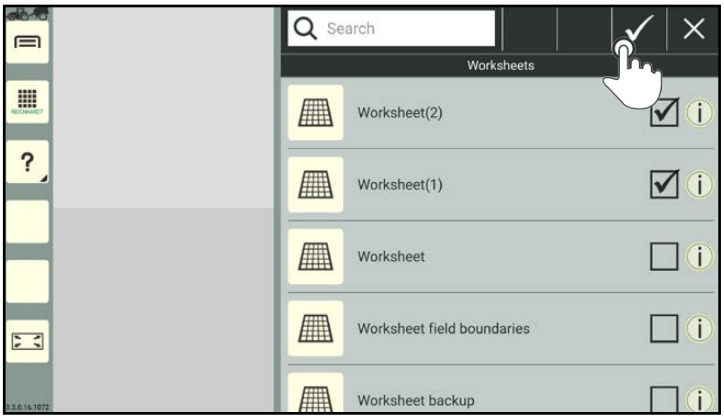


Fig. 504: Selecting entries and confirming the selection

If required, select other object entries via the import screen by proceeding in the same way with the objects.

In the import screen, the first number on all of the objects in which entries have been selected to be exported, shows the number of selected entries highlighted in red (see Fig. 505).

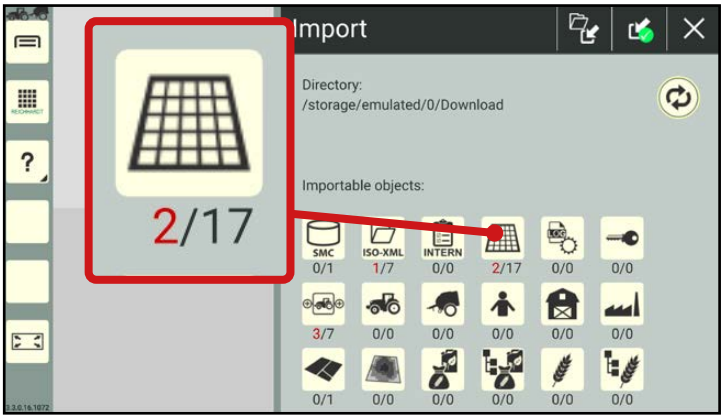


Fig. 505: Number of selected entries in red

Importing object entries

Confirm the import of the selected object entries, by tapping the import button with the green checkmark (see Fig. 506).

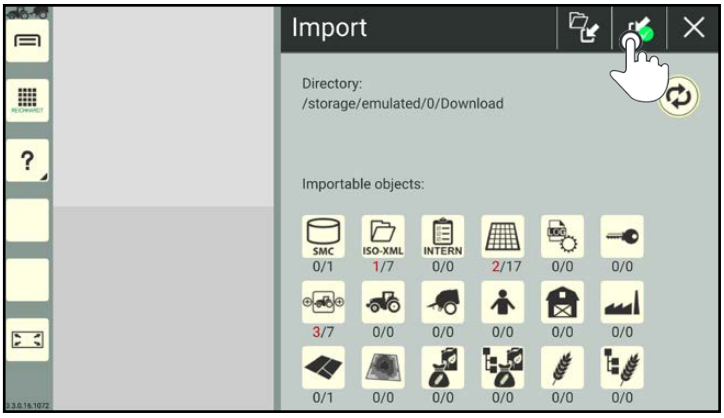


Fig. 506: Confirming and executing the import

Confirm the request with "Yes" (see Fig. 507).

NOTICE

Import data that is already available in SMART COMMAND will not be imported again.

Import data with the same SMART COMMAND designation (e.g., user "John Smith") but different content (e.g., different address data), will be assigned a consecutive number after the designation during the import (e.g., "John Smith1").

NOTICE

SMART COMMAND must be restarted if you have imported a license file for the SMART COMMAND app. The license is only activated after the restart.

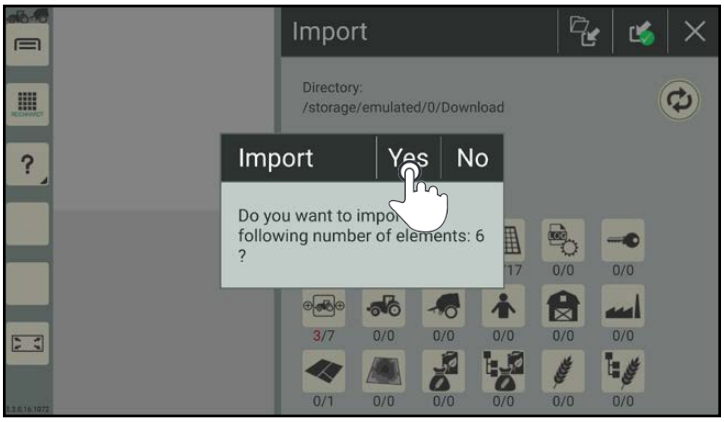


Fig. 507: Confirming the prompt

10.4 Changing the Export/Import Directory

Tap the double arrow symbol in the export or import screen to change the directory into which objects should be exported or from which objects should be imported (see Fig. 508).

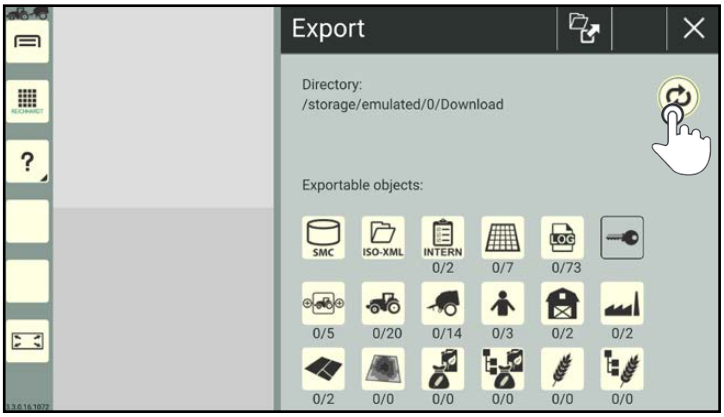


Fig. 508: Tapping the double arrow symbol

The import/export directory will then open (see Fig. 509).

Select the required directory.

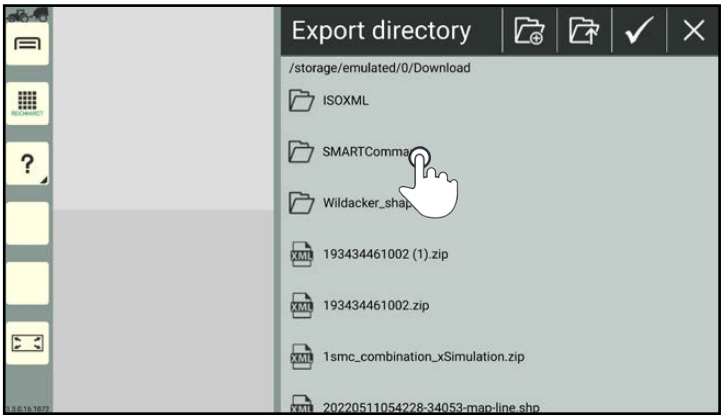


Fig. 509: Export directory

Tap the folder symbol with the arrow to navigate up one level in the directory structure (see Fig. 510).

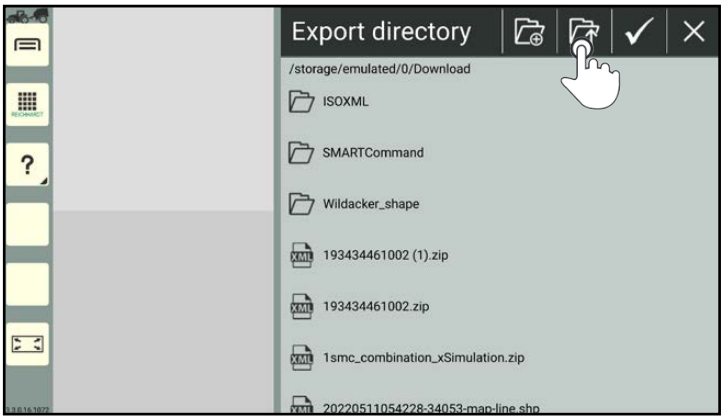


Fig. 510: Navigating up one level

Tap the folder symbol with the plus sign to create a new folder in the currently selected directory (see Fig. 511).

New folders can only be created when exporting files and not when importing.

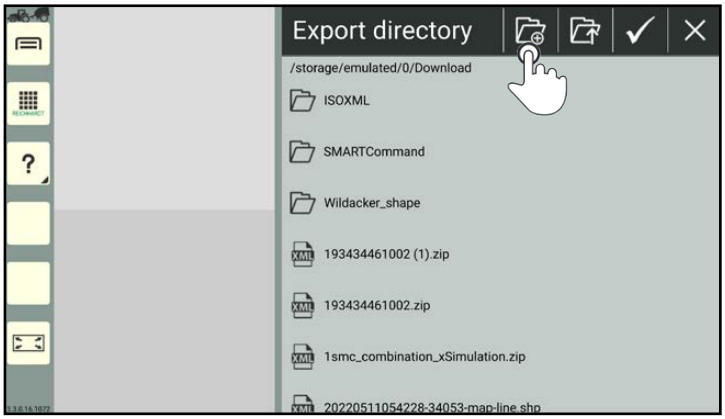


Fig. 511: Creating a new folder

Enter a designation for the folder, and confirm it with the checkmark (see Fig. 512).

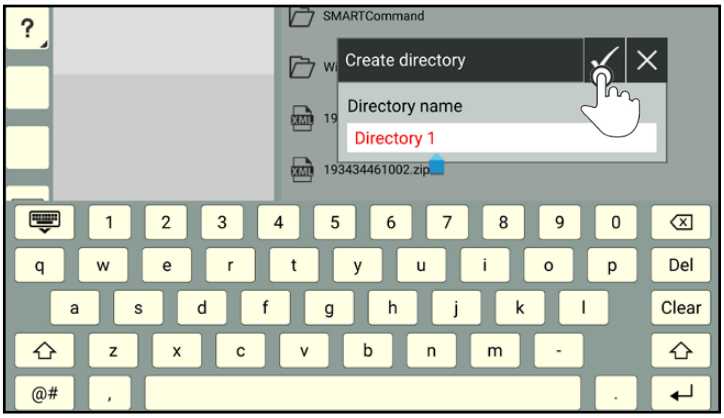


Fig. 512: Creating and confirming the designation for the folder

11 SMART VT – Configuring and Operating ISOBUS Devices

SMART VT can be used to display ISOBUS applications (ISOBUS screens) in SMART COMMAND and to operate the ISOBUS devices via SMART COMMAND.

NOTICE

This function is only available if a SMART VT and SMART TASK license are available (see chapter 6.1.2).

11.1 Display of the VT Instance when Starting SMART COMMAND

When successfully logging into the ISOBUS, the VT instance is displayed in the top left corner of the screen when starting SMART COMMAND (see Fig. 513).

You can change the VT instance via the system settings (see chapter 11.4.1).

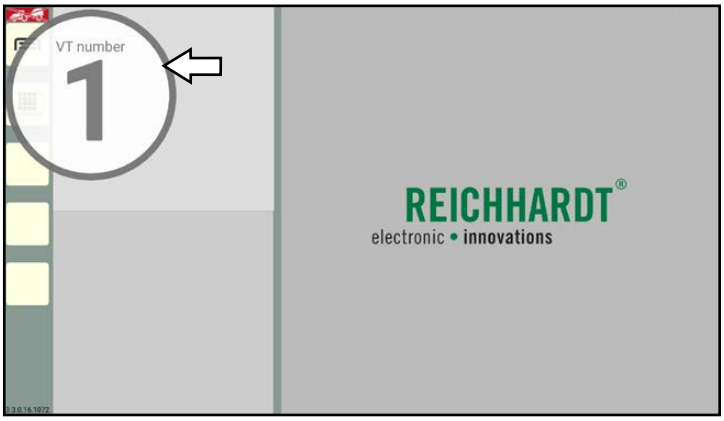


Fig. 513: Display of the ISOBUS VT instance

11.2 ISOBUS Applications in the Application Overview

Press this button in the sidebar to open the application overview.

The available ISOBUS applications (operating screens for ISOBUS devices) are displayed in the bottom row of the application overview (see Fig. 514).

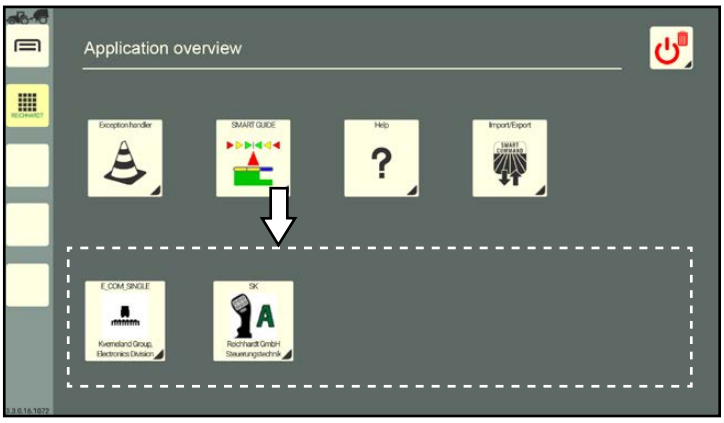


Fig. 514: ISOBUS applications (SMART VT)

Object pools of the ISOBUS devices are loaded

If ISOBUS devices are connected for the first time, the object pools (screen data) of the ISOBUS devices are initially loaded.

An object pool that has not finished loading can be recognized by the ISOBUS symbol with a progress bar in the application overview (see Fig. 515 – 1).

A progress bar is also displayed on the button for calling up the application overview in the sidebar (see Fig. 515 – 2).

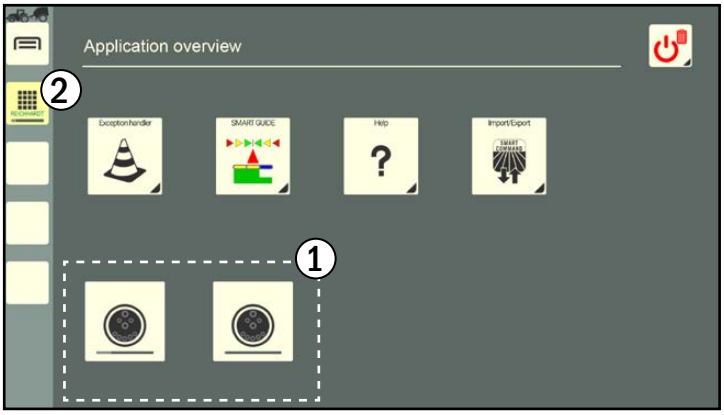


Fig. 515: Object pools of the ISOBUS devices are loaded

11.3 Executing an ISOBUS Application

In the application overview or on the sidebar, if applicable, tap the required application to execute it in the main window (see Fig. 516 and Fig. 517).

Alternatively, you can drag the application into any window.
More information about executing and moving applications in windows is provided in chapter 5.5.

NOTICE

The full functional scope of ISOBUS applications that are executed in small windows may not be available.

Functions, that are initiated in the operating screen of the ISOBUS device by swiping or by pressing and holding, are blocked in small windows as applications in small windows can be dragged into other windows when pressed and held.

The same applies to the swiping function as this is used to scroll through more than two small windows.

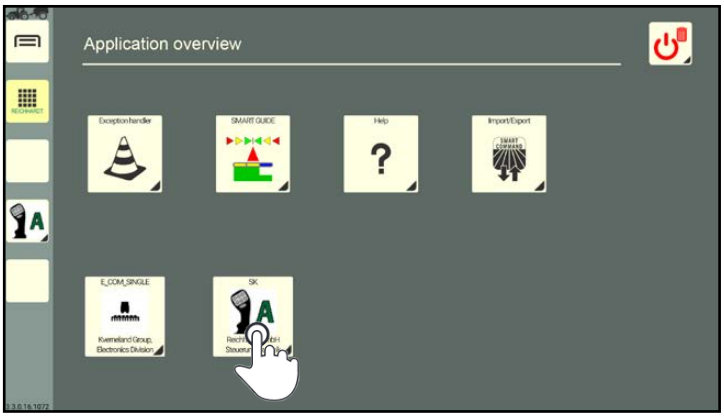


Fig. 516: Executing an ISOBUS application

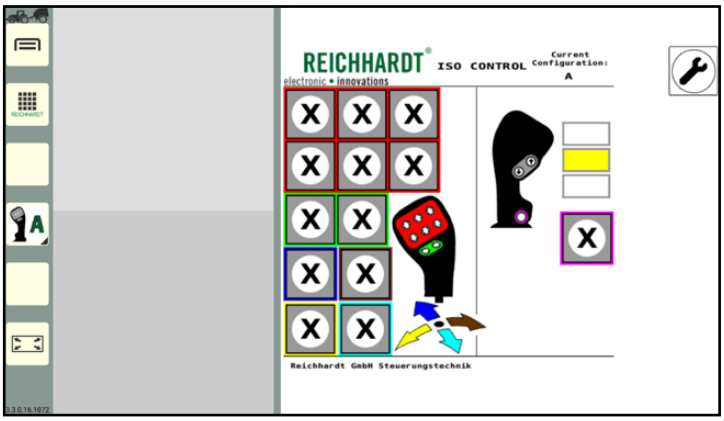
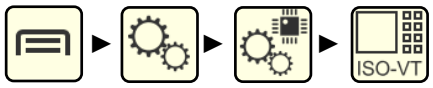


Fig. 517: Operating mode of SMART COMMAND with ISOBUS application

11.4 ISOBUS VT Settings via the Main Menu of SMART COMMAND

If you use several virtual terminals (VTs) on the ISOBUS, you must specify an instance (number) for each VT, to control on which VT the ISOBUS applications should be loaded.

Open the ISOBUS-VT settings via the main menu (see Fig. 518):



You have the following setting options:

Ⓐ VT instance: Specify the registration instance of SMART COMMAND as a VT on the ISOBUS (see chapter 11.4.1).

Ⓑ TC instance: Specify the task controller instance on the ISOBUS (see chapter 11.4.2).

Ⓒ Delete object pools of ISOBUS devices (and reboot) (see chapter 11.4.3).

Ⓓ Task Controller settings (see chapter 11.4.4)

Ⓔ Deviations from ISO 11783 (ISOBUS standard): Settings for devices that are not compliant with standard behavior (see chapter 11.4.5).

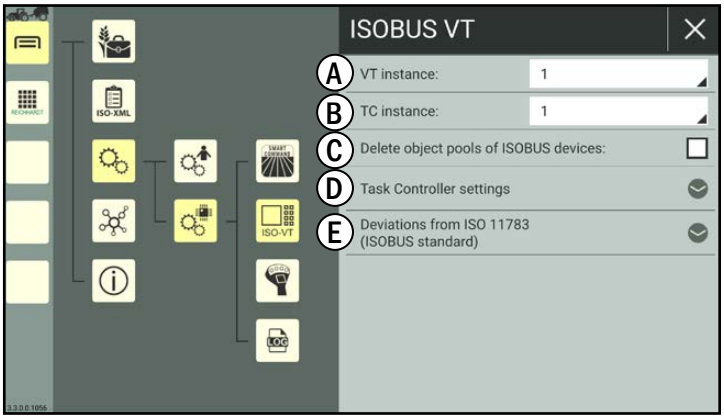


Fig. 518: ISOBUS VT settings

11.4.1 Specifying VT Instances on the ISOBUS

Assign an instance between 1 and 32.
This specifies the registration sequence of the different terminals on the ISOBUS.
The VT with instance number 1 is the main terminal (see Fig. 519).

In the operating screen of an ISOBUS device, you can usually specify on which VT instance it should be loaded.

The AUX editor of the main terminal is used to assign ISOBUS device functions to control units (e.g., joystick).
The configuration screen of the ISOBUS control unit is also loaded on the main terminal.

More information about the AUX editor of SMART COMMAND is available in chapter 11.5.

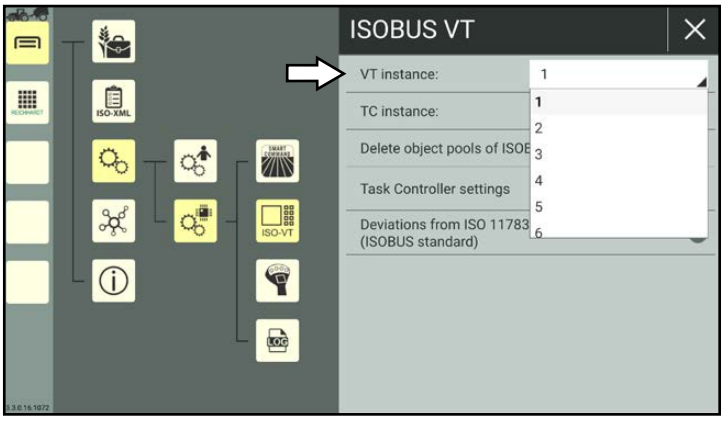


Fig. 519: Specifying a VT instance

11.4.2 Specifying a Task Controller Instance on the ISOBUS

Assign a task controller instance (see Fig. 520).

Set the same instance in the operating screen of the ISOBUS device to be able to use the SMART COMMAND task controller.

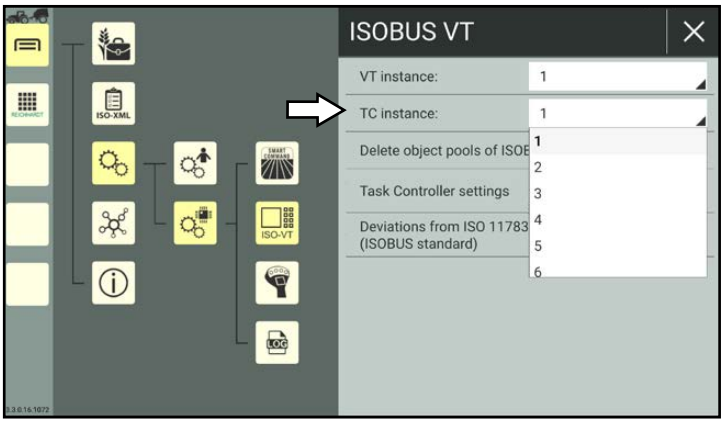


Fig. 520: Specifying a TC instance

Multiple terminals must not be registered on the same instance at the same time.
If this is the case, you will be notified by a warning (see Fig. 521).

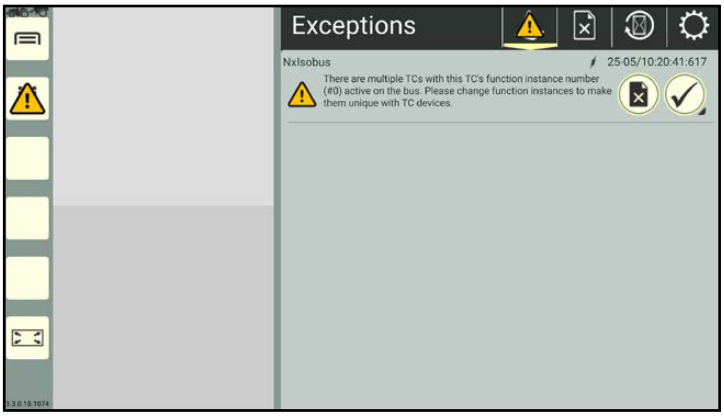


Fig. 521: TC instance warning

11.4.3 Deleting and Reloading Object Pools of ISOBUS Devices

The data to display ISOBUS screens is loaded during the first connection, and is saved in so-called "object pools".

If one or more ISOBUS applications are not displayed correctly and restarting SMART COMMAND does not change this, then you will need to delete the object pools in SMART COMMAND and reload them.

To do so, tap the checkbox next to "Delete object pools of ISOBUS devices" (see Fig. 522).

Please note that: Although the checkbox does not remain selected, the pools are still deleted.
You will notice that the ISOBUS screens in the application overview are reloaded (also see Fig. 515).

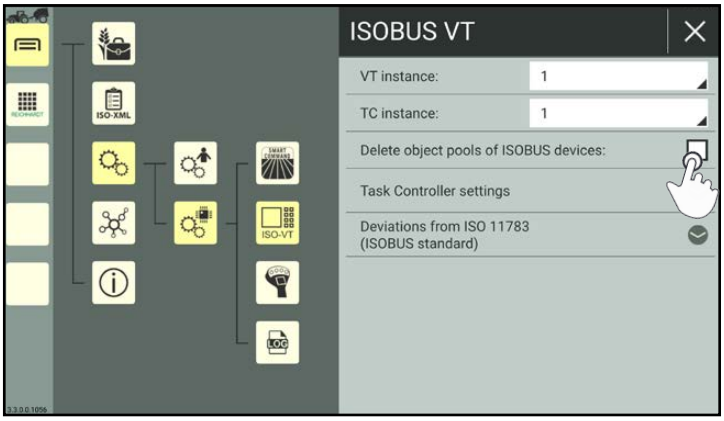


Fig. 522: Deleting object pools from ISOBUS devices

11.4.4 Task Controller Settings

Tap the arrow symbol, to show and hide the data records.

In the task controller settings, you can set the maximum number of the following values (see Fig. 523):

- sections
- booms
  (area covered by application points)
- channels
  (output channel per application point)

NOTICE

If the set number is too low, this can result in an implement not being controlled correctly.

254 is set for all of them by default. Leaving this setting is recommended.

However, it may be the case that some ISOBUS devices cannot process the settings and error messages are displayed.

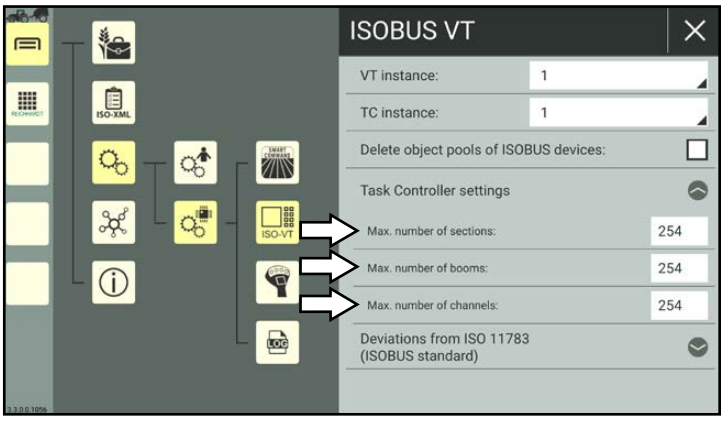
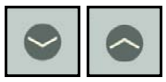


Fig. 523: Task controller settings

11.4.5 Settings for ISOBUS Devices that Deviate from ISO 11783

NOTICE

You should only activate these settings if advised to do so by your dealer/Reichhardt Customer Service.
The settings only become effective once SMART COMMAND has been restarted.



In the ISOBUS-VT settings, you can implement other settings for devices that are not compliant with ISO 11783 (see Fig. 524).
Tap the down arrow to open the settings.

I: Activate the option "Do not validate object pools", to permit the operation of ISOBUS devices even though the object pool is faulty and/or is not ISOBUS-compliant. However, when using SMART COMMAND this can cause unexpected secondary effects and, in the worst case, can cause the entire object pool to be deleted.

II: Activate the option "Accept invalid device initialization sequence" to register ISOBUS devices that do not correspond to the ISOBUS-compliant initialization sequence.
However, this setting can have a negative impact on ISOBUS-compliant devices which can be difficult to foresee.

III: Activate the option "Do not treat ISOBUS devices according to their VT version" to accept the non-ISOBUS-compliant functions of an ISOBUS device.
During this process, functions that the device is not officially allowed to use, may be approved.
This setting can cause other devices to not function correctly.
Example: An ISOBUS device registers with an older version of the ISOBUS standard but then supports functions from the newer version.

IV: Activate the option "Suppress exception warnings in case of command not acknowledged" so that commands sent by the ISOBUS device to SMART COMMAND do not cause a visible error message.

V: Activate the option "Task Controller communicates version 3" to use SMART COMMAND with ISOBUS devices, that do not have the same task controller version, and that are not included in the list of ISOBUS devices in the machine management of SMART COMMAND. However, this option can have a negative impact on the display of other ISOBUS operating screen.

VI: Activate the option "Ignore implement workstate for Section Control" to use section control with SMART COMMAND on ISOBUS devices that do not signal an availability for work or send an incorrect signal for section control.

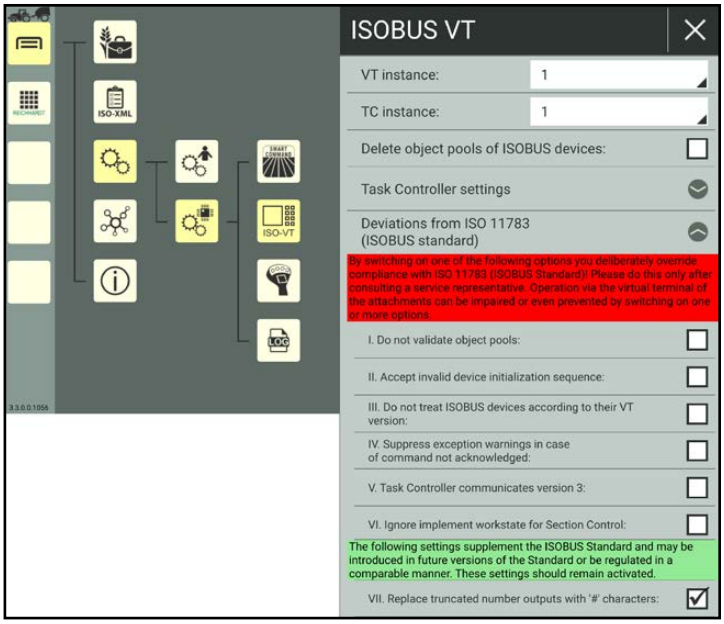


Fig. 524: Non ISO 11783-compliant settings

VII: Activate the option "Replace truncated number outputs with '#' character" to prevent numbers that are not displayed correctly from being misinterpreted. The truncation of numbers can otherwise be misinterpreted. For example, "-1000" could be displayed as "1000" on the screen if there is not enough space for the negative prefix. If the setting is activated, numbers in the operating screen of the ISOBUS device that are too long, are not truncated but are instead replaced with a # character. This settings is set by default.

11.5 AUX Editor – Assigning Functions from ISOBUS Implements to AUX Control Units

Via the AUX editor, you can assign functions from ISOBUS implements to AUX-N-capable ISOBUS control units, such as a joystick.

Prerequisites:

- Valid license for SMART VT.
- Connected, AUX-N-capable ISOBUS control unit.
- At least one connected ISOBUS implement (with AUX functionality).
- SMART COMMAND must be specified as the main terminal (by assigning the corresponding VT instance) (also see chapter 11.4.1);

11.5.1 Confirming Existing AUX Assignments

If connected implements and control units have already been recognized, used together, and had functions assigned, information about existing assignments is displayed when SMART COMMAND is started (see Fig. 525). You can accept or reject them.

Accept existing assignments.

Reject existing assignments.

The information will be displayed every time SMART COMMAND is restarted as long as the functions of the implement are assigned to the joystick.

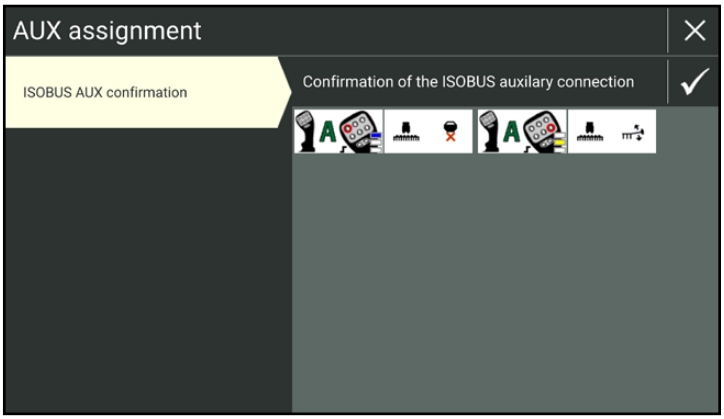
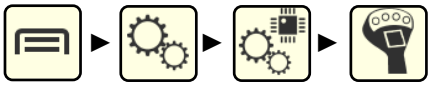


Fig. 525: Information about existing assigned functions

11.5.2 Starting the AUX Editor and Checking the Detection of Implements and Control Units



Open the AUX editor via the main menu (see Fig. 526).

If you have only just started SMART COMMAND or have only just connected the devices, the object pool for the devices must be loaded first. The devices will not be listed before that.
This may take up to two minutes.

If the required ISOBUS devices and/or AUX control units are still not listed after this, but other ISOBUS devices are detected, then check

- the connections of the devices, and
- ensure that SMART COMMAND is selected as the main terminal (see chapter 11.4.1).

All of the detected ISOBUS implements are listed in the "ECU" tab. Assigned functions for implements can also be displayed, added, and deleted (see chapter 11.5.4).

All of the detected ISOBUS control units are listed in the "AUX" tab. Assigned functions for implements can also be displayed, added, and deleted (see chapter 11.5.5).

The tab with the filter symbol is displayed by default. All of the detected devices are displayed in two columns (see Fig. 526):

① Left column:
ECUs (ISOBUS implements)

② Right column:
AUX control units

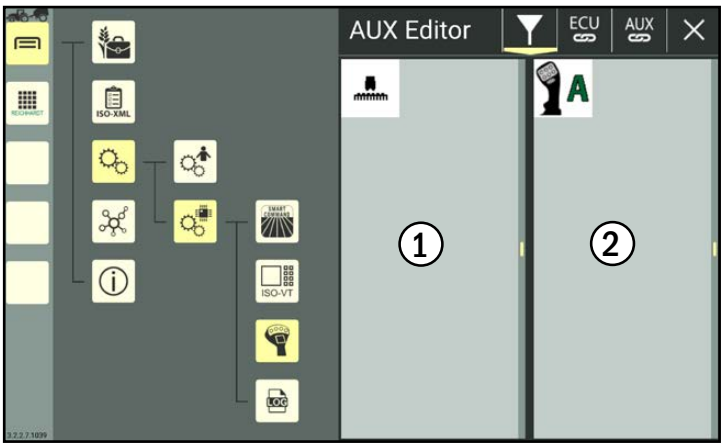


Fig. 526: AUX editor with ISOBUS implements (left) and AUX control units (right)

11.5.3 Selecting an Implement and Control Unit

Select the tab with the filter symbol to display all of the detected devices (see Fig. 527).

Tap the required elements in both of the columns to select them. (Multi-selections are possible.)

Selected devices are marked with a green checkmark.

Once you have selected at least one implement and one control unit, you can complete an ECU-based assignment (from the control unit) or an AUX-based assignment (from the implement) via the corresponding tab.

Fig. 527: Implement and control unit selected

11.5.4 ECU-Based Assignment

During the ECU-based assignment, you assign the buttons of the control units to the functions of the implements.

Tap "ECU" at the top of the bar to execute the ECU-based assignment (see Fig. 528).

(1) Left column:
selected implement(s)

(2) Right column:
existing assignments, if applicable

You can use the arrow buttons to show/hide existing assignments of the selected implement. This may provide you with a better overview of the assignments of another implement, if applicable.

In the left column, tap the symbol for the implement to open the function assignment.

The following content is displayed in the function assignment (see Fig. 529):

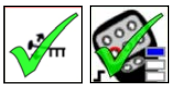
(A) Functions of the implement

(B) Buttons of the control unit

Functions of the implement (ECU) and buttons of the control unit (AUX) that have already been assigned are grayed out.

Swipe to scroll through the functions and buttons.

You can use the arrow buttons to show/hide the overview of the buttons for the AUX control units. This may provide you with a better overview of the buttons of another control unit.



Tap to select a function and button.
They are marked with a green checkmark.

Then tap the linking symbol to assign the implement function to the button.

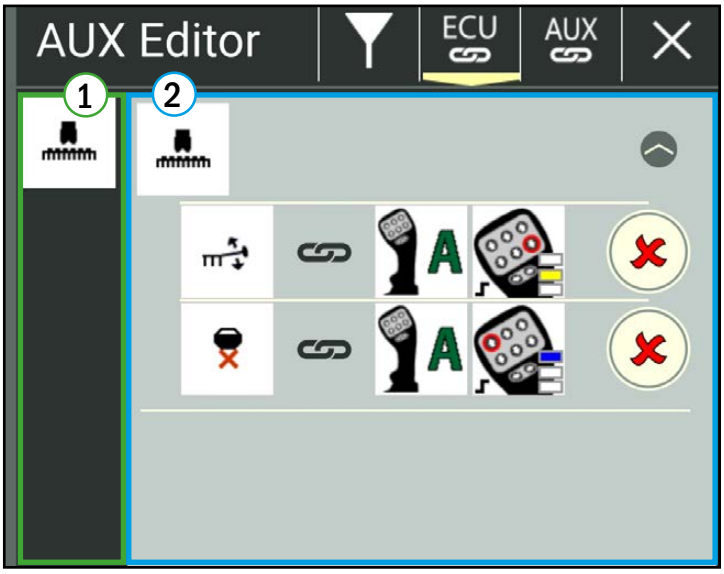


Fig. 528: ECU-based assignment – existing assignments

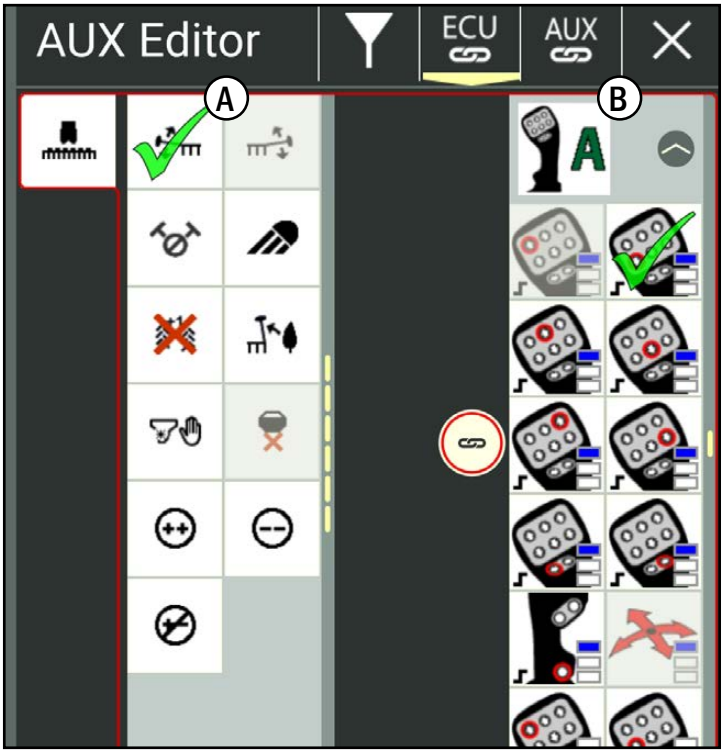


Fig. 529: ECU-based assignment – selecting a function and button

The function and button are then grayed out and can no longer be selected (see Fig. 530).

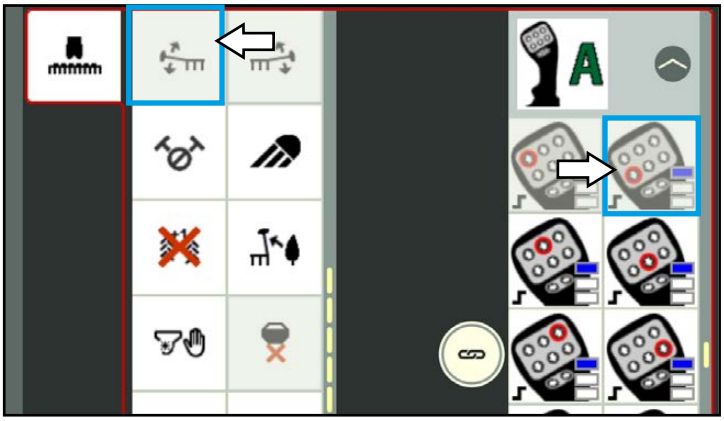


Fig. 530: ECU-based assignment – blocked functions and buttons

In the left column, tap the symbol for the implement to display the overview of existing assignments again.

The new assignments will now be listed (see Fig. 531).

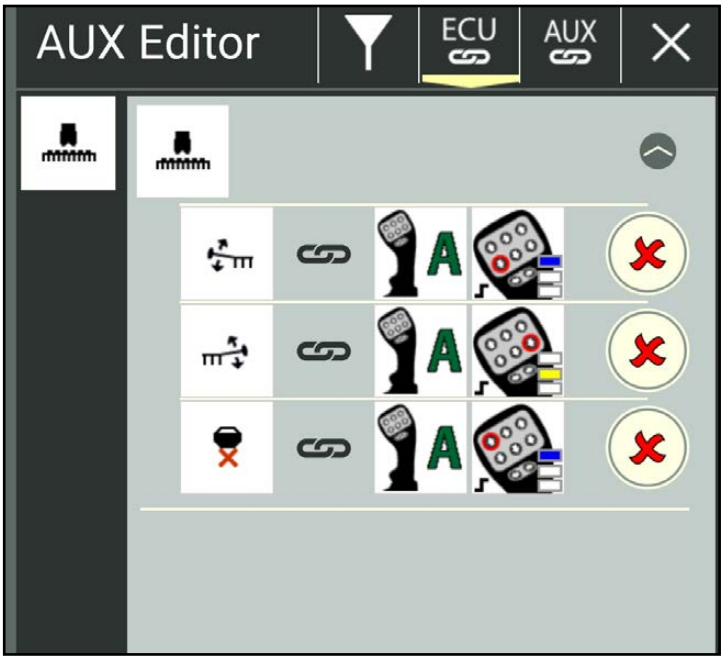


Fig. 531: ECU-based assignment – assignment overview

11.5.5 AUX-Based Assignment

During the AUX-based assignment, you assign the functions of the implements to the buttons of the control units.

Tap "AUX" at the top of the bar to execute the AUX-based assignment (see Fig. 532).

(1) Left column:
selected AUX control units(s)

(2) Right column:
existing assignments, if applicable

You can use the arrow buttons to show/hide existing assignments of the selected control unit. This may provide you with a better overview of the assignments of another control unit.

In the left column, tap the symbol for the control unit to open the function assignment.

The following content is displayed in the function assignment (see Fig. 533):

(A) Buttons of the control unit

(B) Functions of the implement

Functions of the implement (ECU) and buttons of the control unit (AUX) that have already been assigned are grayed out.

Swipe to scroll through the functions and buttons.

You can use the arrow buttons to show/hide the overview of functions for the displayed implement. This may provide you with a better overview of the functions of another implement, if applicable.

Tap to select a button and function.
They are marked with a green checkmark.

Then tap the linking symbol to assign the implement function to the button.

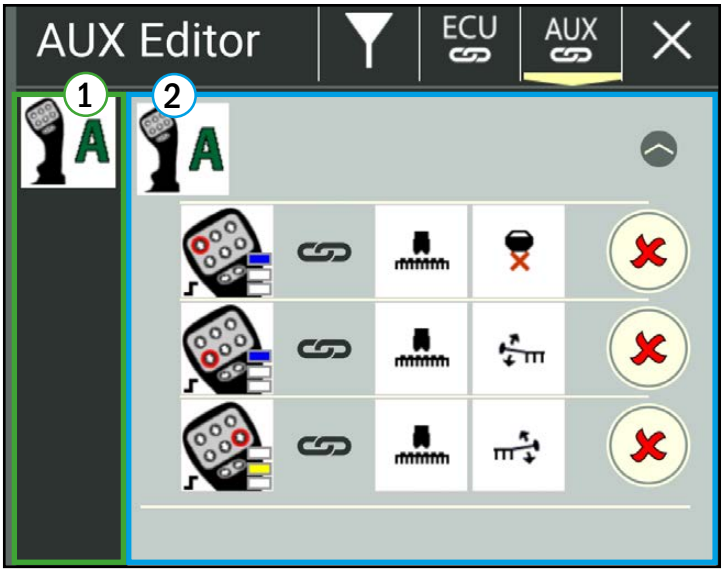


Fig. 532: AUX-based assignment – existing assignments

Fig. 533: AUX-based assignment – selecting a function and button

The function and button are then grayed out and can no longer be selected (see Fig. 534).

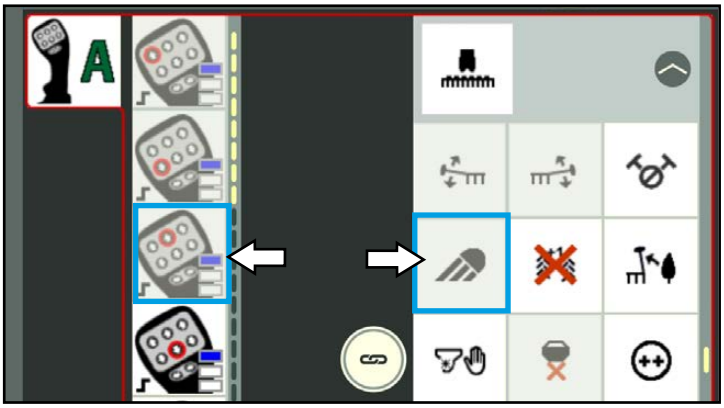


Fig. 534: AUX-based assignment – blocked functions and buttons

In the left column, tap the symbol for the control unit to display the overview of existing assignments again (see Fig. 535).

The new assignments will now be listed.

Fig. 535: AUX-based assignment – assignment overview

11.5.6 Deleting Assigned Functions

In the AUX editor, select the implement and control unit (see chapter 11.5.3).

Open the ECU-based or AUX-based assignment via the relevant button.

Tap the red X to delete the assignment (see Fig. 536). A confirmation prompt will be displayed.

Fig. 536: Deleting an assignment via the AUX-based assignment

11.6 Error Handling

If there are any problems with the ISOBUS applications, you may find the solution in the points listed below.

11.6.1 SMART VT License Not Recognized

If no ISO VT license is detected, the symbol illustrated in Fig. 537 is displayed.

This can be caused by one of the following:

- You do not have a SMART VT license.
- There is no connection to an ISO FLEX (only when using the SMART COMMAND app with a mobile end device).
  - Check the power supply of the ISO FLEX module and the WLAN connection to the module.
  - Restart SMART COMMAND.

More information on licenses is provided in chapter 6.6.

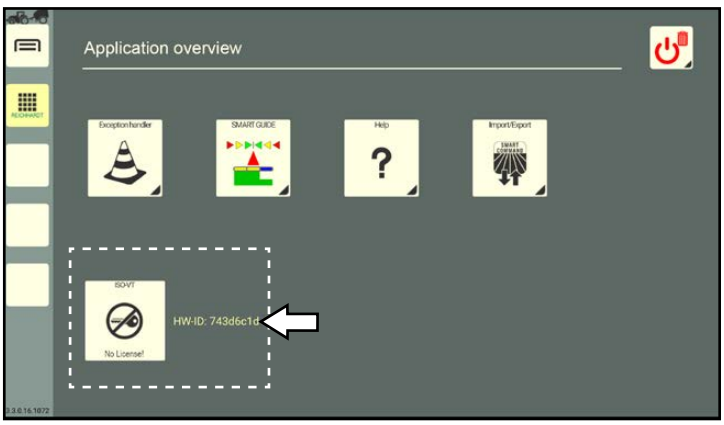


Fig. 537: ISO VT license not recognized

11.6.2 ISOBUS Applications Are Not Being Loaded

If ISOBUS applications are not being loaded in the bottom row of the application overview and in the operating mode windows (see Fig. 538 and Fig. 539), despite the criteria specified in chapter 11.6.1 being met, this may be because:

- The ISOBUS applications are being loaded on a different terminal.

  If applicable, change the settings for the prioritized terminal in the ISOBUS operating screens and the VT instance of SMART COMMAND (see chapter 11.4.1).
- SMART COMMAND has been in Office mode for a longer period of time (see chapter 5.2.1.2).
- There is a problem with the ISOBUS, e.g., components are connected incorrectly.
- No ISOBUS devices are connected.

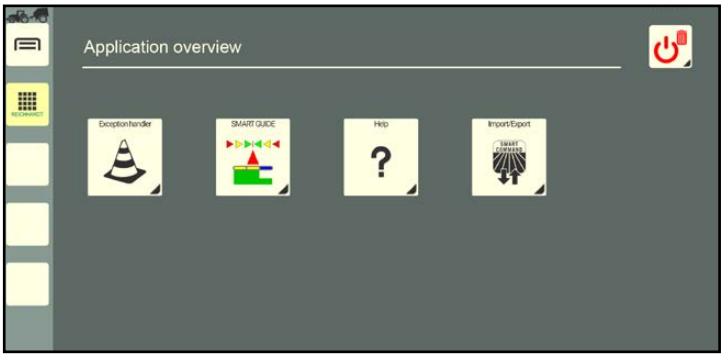


Fig. 538: ISOBUS applications are not being loaded in the application overview

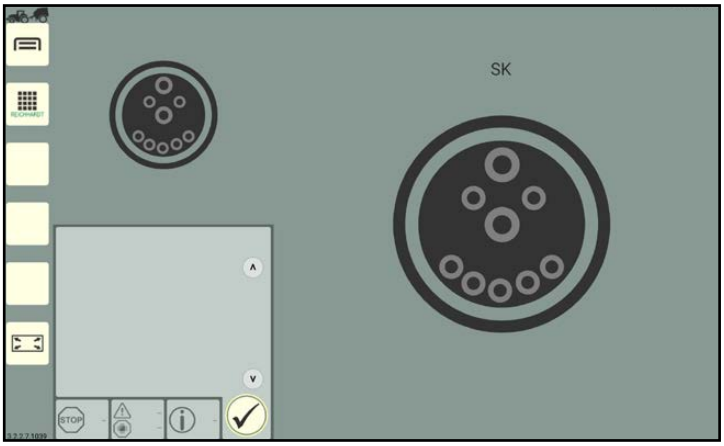


Fig. 539: ISOBUS applications are not being loaded in operating mode

12 Exception Handler in SMART COMMAND

Different types of errors and problems can occur in SMART COMMAND that must be treated in different ways.

1. On the one hand, there are SMART COMMAND-specific exceptions that are displayed in SMART COMMAND, and are processed and managed via the SMART COMMAND "Exception handler" application. More information is provided in chapter 12.1.
2. There are also ISOBUS exceptions, that are reported by ISOBUS devices and can be displayed at any time. These exceptions are displayed across the entire screen and must be processed immediately. More information is provided in chapter 12.2.
3. In addition, there is also the option to log system errors and to send these logs to Reichhardt Customer Service for fault analysis. More information is provided in chapter 12.3.

12.1 SMART COMMAND "Exception Handler" Application

Exceptions are displayed and managed via the SMART COMMAND "Exception handler" application.

Exceptions show information, unscheduled system states, and system errors in SMART COMMAND.

The exception handler can be called up via the application overview (see Fig. 540).

Fig. 540: Selecting the exception handler in the application overview

12.1.1 Flashing Exception Symbol in SMART COMMAND

If an unscheduled system state occurs or if system-relevant information is available, these are displayed by exception symbols.

Flashing symbol on the "Application overview" button in the sidebar and on the exception handler in the application overview

If there are new exceptions, a flashing exception symbol for messages with the highest severity, is displayed on the button for calling up the application overview in the sidebar (see Fig. 541).

A flashing exception symbol is also displayed on the exception handler in the application overview (see Fig. 541).

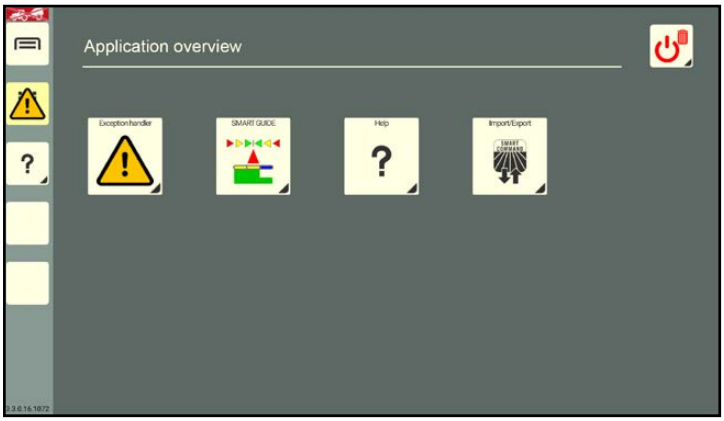


Fig. 541: Message on the application overview button and on the exception handler in the application overview

Flashing symbol on the exception handler shortcut

If a shortcut for the exception handler has been created in the sidebar, a flashing exception symbol for messages with the highest severity is displayed there (see Fig. 542).
The exception symbol is then not displayed on the button for calling up the application overview.

In this case, the exception symbol is also displayed on the exception handler in the application overview (see Fig. 542).

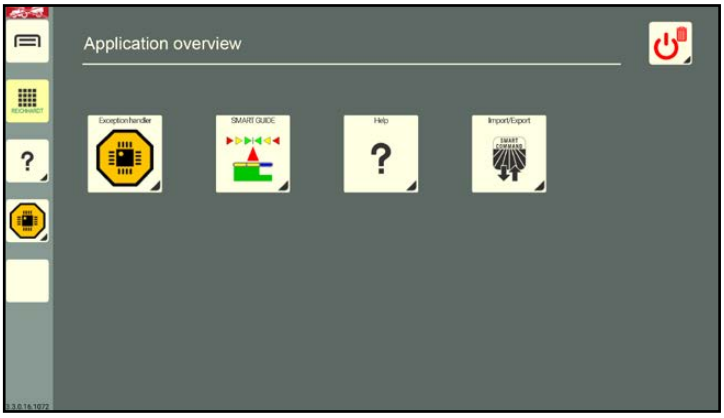


Fig. 542: Exception on shortcut in the sidebar and on the exception handler in the application overview

12.1.2 Exception Symbols and Severity of Exceptions

The exceptions are split by differing degrees of severity. These are described in the following.

Icon	Designation/severity	Description
	Extremely serious warning: Critical system state that requires immediate action; can cause personal injury.	If ignored, extremely serious warnings can result in personal injury and property damage. They thus require immediate action. Work must be interrupted until the cause of the fault has been resolved. Extremely serious faults primarily occur when using SMART CONTROL. Example: "Risk of tipping. The vehicle is being steered automatically and is traveling at a speed of more than 30 km/h. This speed is too fast and there is a risk that the vehicle will tip over during the automatic steering maneuver. Reduce the speed to below 30 km/h."
	Serious warning: System error or adverse system state that severely restricts its use. Action must be taken.	Serious exceptions require the user to take action as the system can otherwise not be used as intended until the cause of the error has been resolved. Example: "You are connected to an ISO FLEX. However no ISO FLEX is saved for the vehicle setting. Please add it to the configuration settings of the towing vehicle (see section 'ISO FLEX')."
	Warning: System message that requires action	Warnings indicate a vehicle state that requires the user to take action as it can impair the intended use of the system. Example: "ATTENTION, low battery level. Connect the device to a power supply to ensure continued operation of SMART COMMAND."
	Notice: System message	Notices inform the user about processes and system states that can have a significant impact on the use of the system. Example: "GNSS receiver starting, please wait."

12.1.3 Overview of Active Exceptions

Open the exception handler via the application overview or the shortcut (see Fig. 543).

The tab with the exception handler symbol is displayed by default in the application. An overview of all the active exceptions is displayed here.

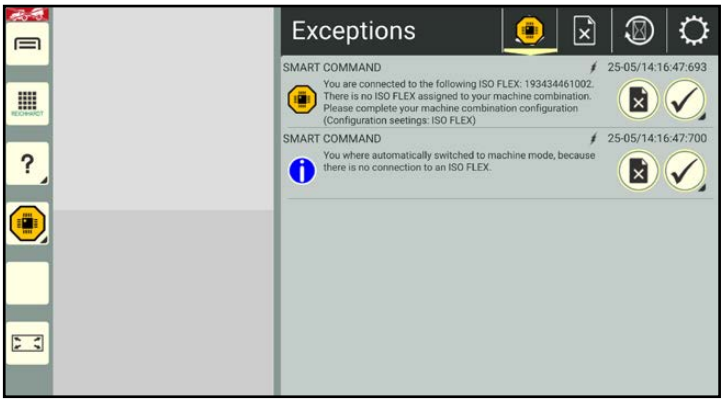


Fig. 543: Exception handler in SMART COMMAND

In tab, all of the exceptions that have occurred since the system started and that have not been processed yet are listed underneath one another with the following content (see Fig. 544):

1. Exception symbol,
2. error source /error ID,
3. exception description,
4. time of the event.

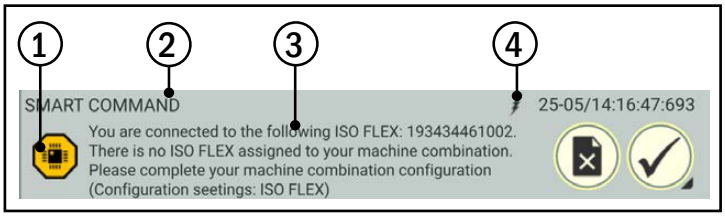


Fig. 544: Information about the exception

You can use the buttons to the right of the exception to acknowledge or block it.

Acknowledging and removing an exception (see chapter 12.1.3.1).
If the error remains, another exception may be displayed. This can particularly be the case if SMART COMMAND is restarted.

Blocking an exception (see chapter 12.1.3.2).
A blocked exception is not displayed again. An exception from this are extremely serious warnings.

Management options/exception handler tab

The remaining tabs of the exception handler can be called up via the block top bar in the application. You can manage the exceptions via this.

Current exceptions (since last restart)

Blocked exceptions (see chapter 12.1.4)

Show history (see chapter 12.1.5.1)
(All of the acknowledged and blocked exceptions since SMART COMMAND was commissioned. Can be displayed for specific users or for all users.)

Delete user-specific history (see chapter 12.1.5.2)

Exception handler setup (see chapter 12.1.6)

12.1.3.1 Acknowledging and Removing a Current Exception

Acknowledging and hiding exceptions

Acknowledging individual exceptions:

Tap the button with the checkmark after the exception to acknowledge it (see Fig. 545).

Acknowledging all of the exceptions for a severity level:

Press and hold the button after one of the exceptions to hide all of the exceptions of this severity level at once.

Confirm the prompt with the checkmark (see Fig. 546).

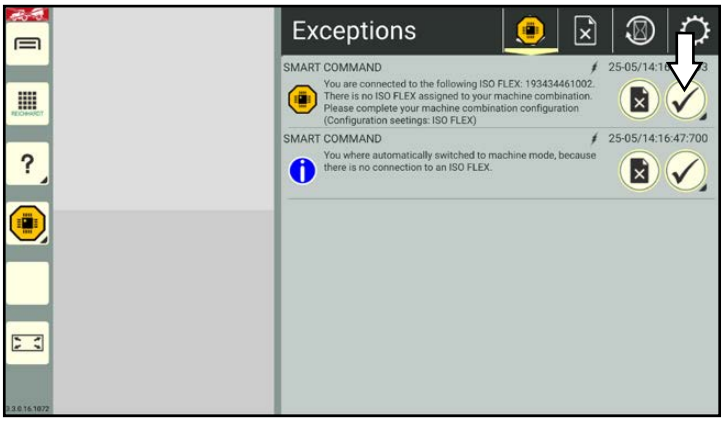


Fig. 545: Confirmation button after current exception

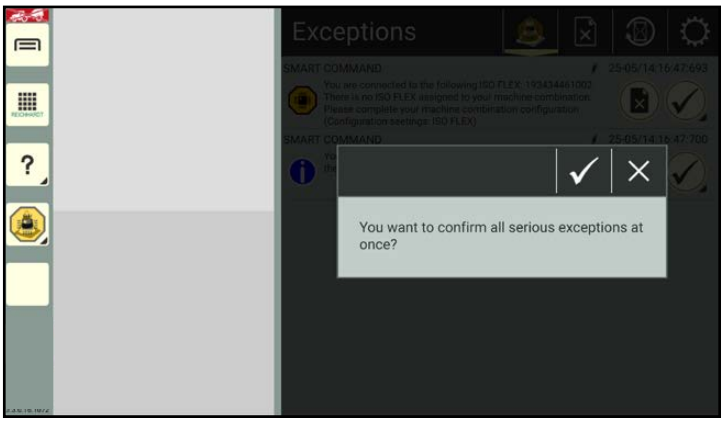


Fig. 546: Hiding all of the messages of a severity level

Acknowledges exceptions

Exceptions are usually hidden after they have been acknowledged (see Fig. 547) and are then displayed in the History (see chapter 12.1.5).

If all of the exceptions of the highest severity level have been acknowledged, the warning symbol for the next (lower) severity level will flash.

Exceptions that have been acknowledged but that are still active in the system, are grayed out at the bottom of the overview of current exceptions.

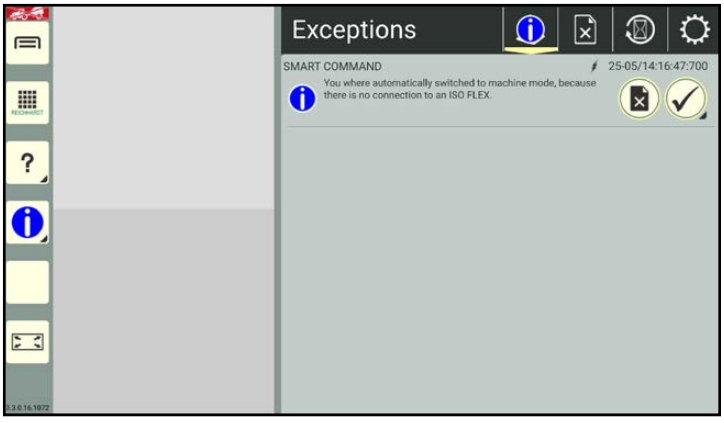


Fig. 547: Acknowledged exception removed

12.1.3.2 Blocking Current Exception

Tap the button with the crossed out document after the exception (see Fig. 548), to block all of the errors and warnings from the error source and ensure they are not displayed again.

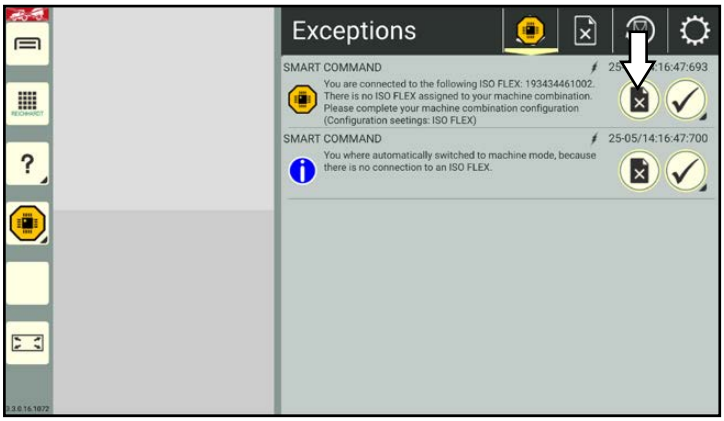


Fig. 548: Blocking an exception

Confirm the prompt with the checkmark (see Fig. 549).

No flashing warning symbol will be displayed for this exception in future.
The exception will also no longer be displayed in the overview of current exceptions.

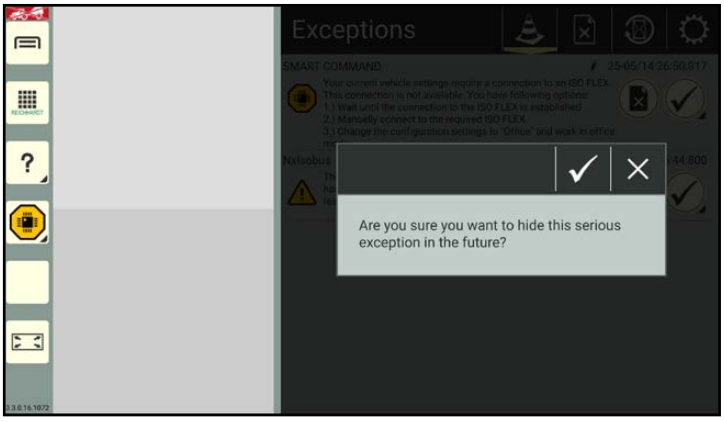


Fig. 549: Blocking confirmed

NOTICE

Property damage possible!

Please note that blocking exceptions will prevent the troubleshooting of critical system states.

Only block exceptions if they are not critical to the system.

Extremely serious warnings cannot be blocked (see Fig. 550).

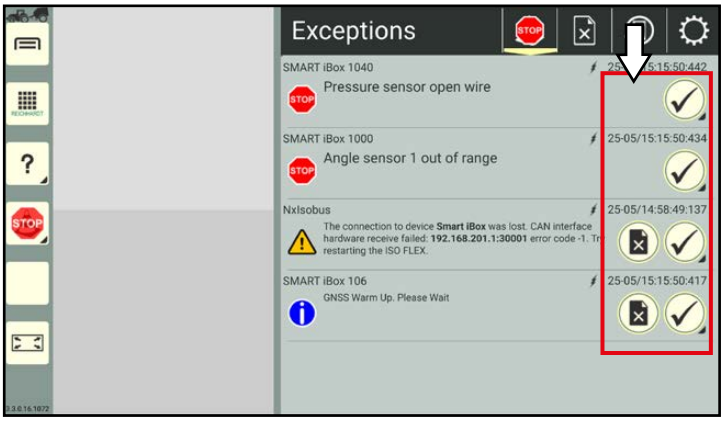


Fig. 550: Extremely serious warnings cannot be blocked

12.1.4 Blocked Exceptions – Overview and Unblocking Exceptions

Calling up the overview

In the black top bar of the exception handler, tap on the tab with the crossed out document to display all of the blocked messages (see Fig. 551).

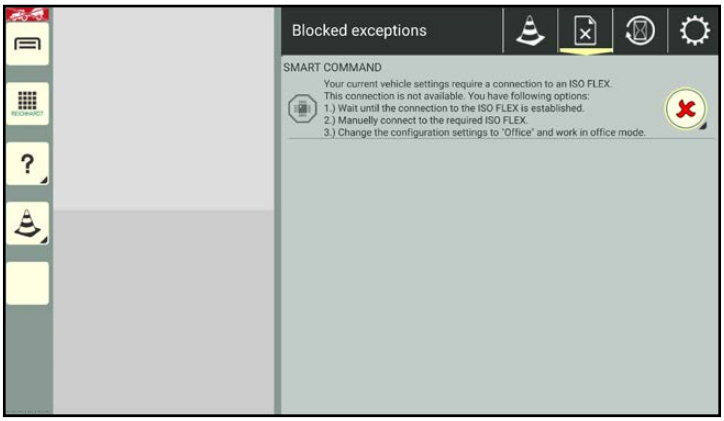


Fig. 551: "Blocked exceptions" tab

Unblocking exceptions

Unblocking individual exceptions:

Tap the red X after an exception to unblock it (see Fig. 552).

Unblocking all of the messages of a severity level:

Press and hold the red X after an exception to unblock all of the exceptions of this severity level.

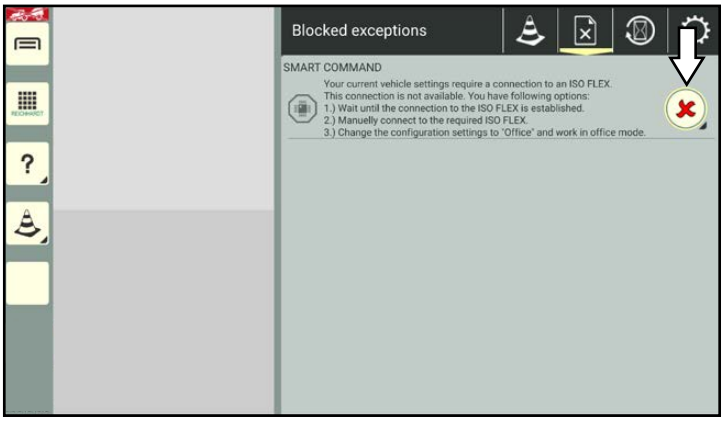


Fig. 552: Unblocking exception(s)

Confirm the prompt with the checkmark (see Fig. 553).

The flashing warning symbol is displayed again for unblocked exceptions.
They are also displayed in the overview of current exceptions again.

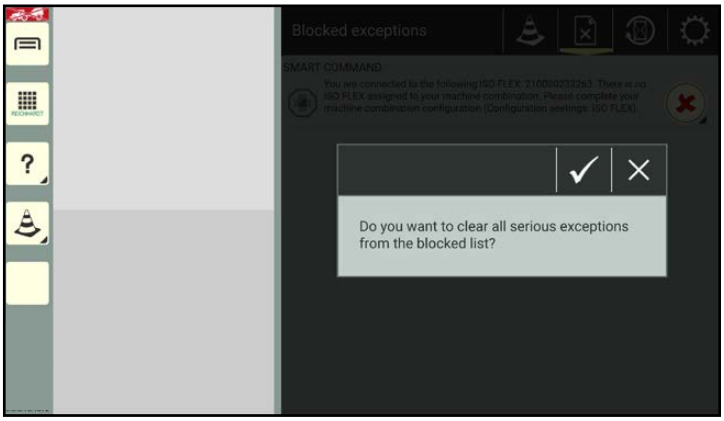


Fig. 553: Unblocking all of the messages of a severity level

12.1.5 History – Managing Acknowledged and Blocked Exceptions

In the black top bar of the exception handler, tap on the tab with the hourglass.

A selection list of other buttons is then displayed (see Fig. 554):

Display history
(Display the acknowledged and blocked exceptions since SMART COMMAND was commissioned).

Delete history

Fig. 554: Selection list in History tab

12.1.5.1 Displaying the History

The exceptions that have already been acknowledged and blocked since SMART COMMAND was commissioned are displayed in the History (see Fig. 555).
Depending on whether "Show full history" is activated or deactivated in the exception handler setup, either the full history or just that of the logged in user is displayed.

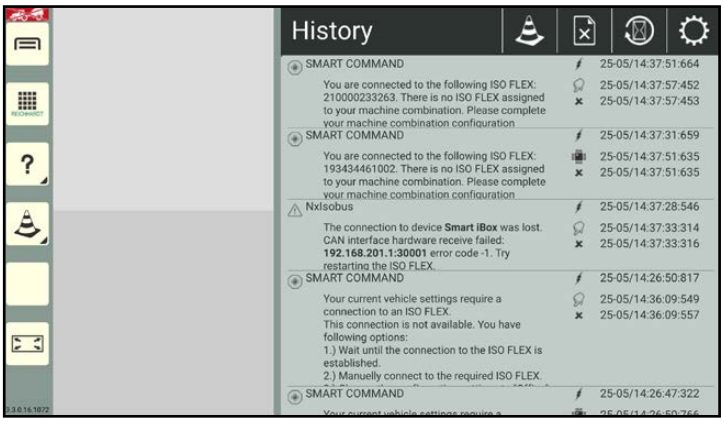


Fig. 555: History

The exceptions are displayed in rows and contain the following content (see Fig. 556):

1. Exception symbol
2. Error source /error ID
3. Exception description
4. Time information:
   - Time of the event.
   - Time it was acknowledged by the user.
   - Time it was acknowledged by the system.
   - Time when the exception was removed from the system. If no time is specified (and there are three dashes instead) the problem that occurred has not been resolved and has not been deleted from the error source.

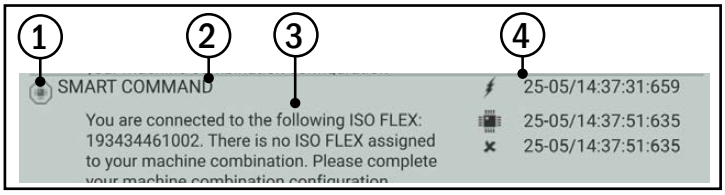


Fig. 556: Information from a history entry

The latest exceptions are at the top of the list.

Swipe across the page to scroll through the complete history.

The text of individual exceptions may not be displayed in full as all of the rows are the same size. Drag the exception text to position it accordingly and be able to read it.

12.1.5.2 Deleting the History

Tap the trash can in the top bar to delete the entire history (see Fig. 554).

Confirm the prompt with the check-mark (see Fig. 557).

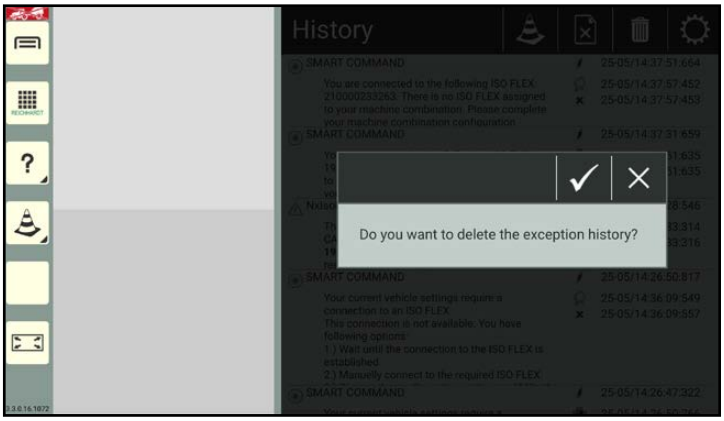


Fig. 557: Deleting the history

All of the exceptions that have occurred while the selected user has been logged in, will be deleted from the history (see Fig. 558).

Fig. 558: History deleted

12.1.6 Setup for Exception Handler

In the black top bar of the exception handler, tap on the tab with the gearwheel to open the setup for the exception handler (see Fig. 559).

Here you can change the way in which exceptions are displayed by activating and deactivating setup options.

The following setup options are available:

(1) Diagnostic mode

- ON: Blocked exceptions continue to be displayed.
- OFF: Blocked exceptions are hidden.

This option is deactivated by default.

(2) Show full history

- ON: Full history for all users is displayed.
- OFF: Only the history for the logged in user is displayed.

This option is activated by default.

(3) Warning audio

- ON: A warning tone is issued in the event of warnings, serious warnings, and extremely serious warnings.
- OFF: A warning tone is issued in the event of serious warnings and extremely serious warnings.

This option is activated by default.

(4) Info audio:

- ON: A warning tone is issued in the event of notices.
- OFF: No warning tone is issued in the event of notices.

This option is activated by default.

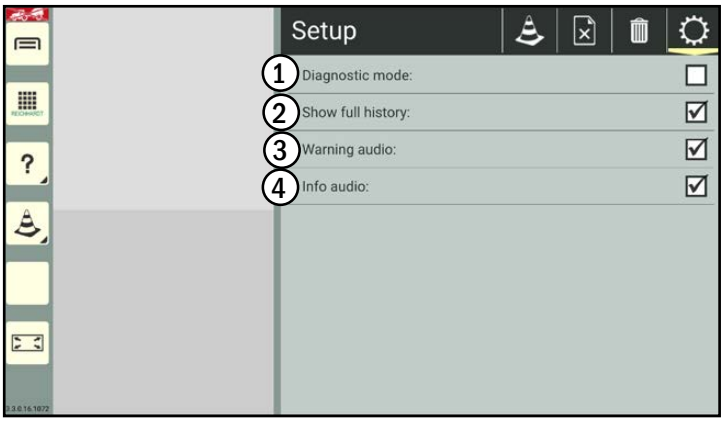


Fig. 559: Exception handler setup

12.1.7 Exception Handler in a Small Window

If you execute the exception handler in a small window, the number of current messages (that have not been acknowledged yet) will be sorted based on the severity level (see Fig. 560).

You can use the checkmark to acknowledge the messages in order of their severity and when they occurred.

It is not possible,

- to block messages,
- to manage the history, and
- implement settings in the exception handler.

By tapping the arrow buttons you can scroll through the full description of the exception. Swiping is not possible.

Fig. 560: Exception handler in a small window

12.2 ISOBUS Exceptions

Exceptions from ISOBUS devices can be displayed at any time (see Fig. 561).

These exceptions are displayed across the entire screen and must be processed immediately.

Displaying exceptions

① The ISOBUS device that is reporting the error is displayed on the left of the screen. If several devices are available, you can select the corresponding ISOBUS device by tapping it.

② The error of the selected ISOBUS device is displayed on the right of the screen.

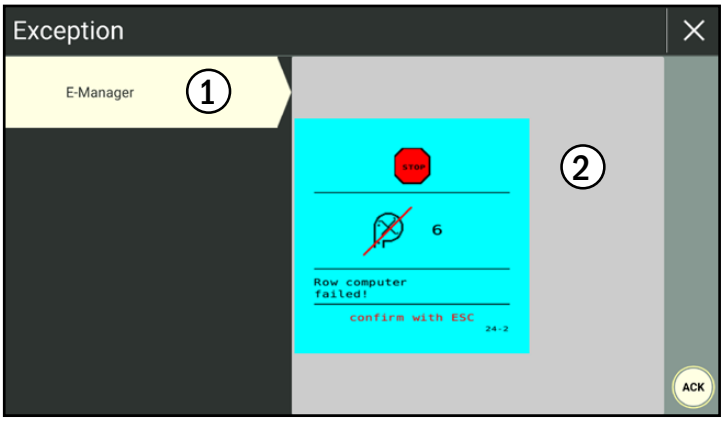


Fig. 561: ISOBUS error message of a sowing machine

Acknowledging exceptions

Tap "ACK" to acknowledge and hide the displayed exception.

If there are other exceptions, these are then displayed.

The exception screen closes automatically if all of the exceptions, that have occurred, have been acknowledged.

Closing ISOBUS Exceptions

Tap the X in the top right of the exception screen, to hide it and return to the SMART COMMAND interface.

If all of the exceptions have not been acknowledged, the next exception is acknowledged when the X is tapped.
The X must be tapped as often as necessary until all of the exceptions are acknowledged.

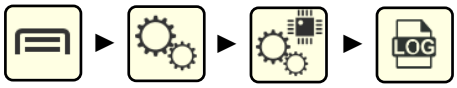
12.3 Error Logging – Recording Errors in SMART COMMAND

NOTICE

Logging must only be used after consulting Reichhardt Customer Service.

You can use logging to record problems when executing SMART COMMAND or record other errors that have occurred. These error logs can be exported using the “Import/Export” application and then sent to Reichhardt Customer Service.

Open logging via the main menu:



Tap to acknowledge the displayed notice (see Fig. 562).

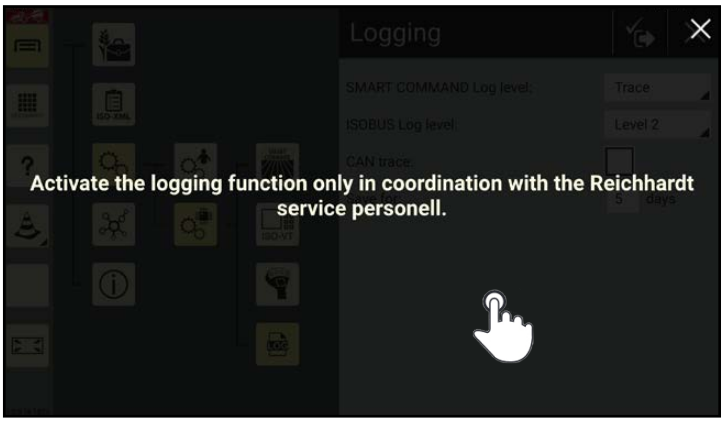


Fig. 562: Logging notice

Logging is then displayed (see Fig. 563).

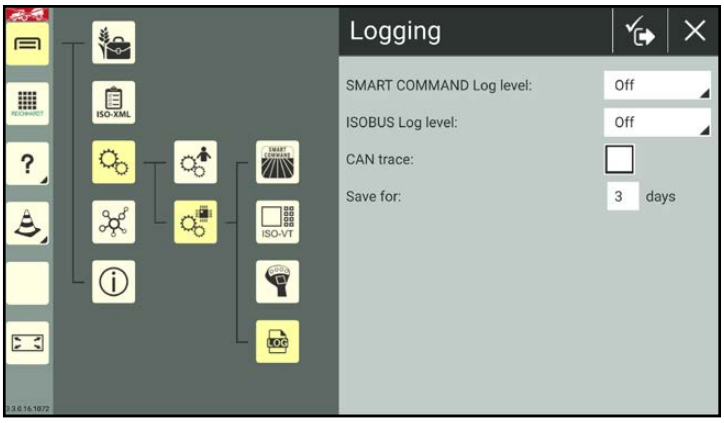


Fig. 563: Logging

12.3.1 Activating Logging

Implement the logging settings based on the specifications provided by Reichhardt Customer Service to record possible SMART COMMAND, ISOBUS, and/or CAN bus errors.
The individual logging options are explained in the following.

If Reichhardt Customer Service has sent you a logging configuration file, you can import it in SMART COMMAND using the “Import/Export” application (see chapter 10.3.3).
This ensures that all of the necessary settings are set.

From the time when logging is activated, SMART COMMAND creates internal logging files that are expanded on a permanent basis. If SMART COMMAND is switched off, logging will be continued once it is switched back on again. New log files are created.

If a system error occurs during the logging process, you can export the logging files for the relevant period of time using the “Import/Export” application.

SMART COMMAND log level – Selecting SMART COMMAND error logging

The SMART COMMAND log level specifies whether and which SMART COMMAND errors should be recorded.

Select the log level stipulated by Customer Service (see Fig. 564).

The following log levels are available:

- Off: No log is created
- Critical
- Err
- Warn
- Info
- Debug
- Trace

} A log is created

New log files are created at the start of each new day. New log files are also created every time SMART COMMAND is restarted.

The size of the log files varies depending on the selected log level.
When the SMART COMMAND log level is activated, ensure that the device has enough free memory (at least 500 MB).

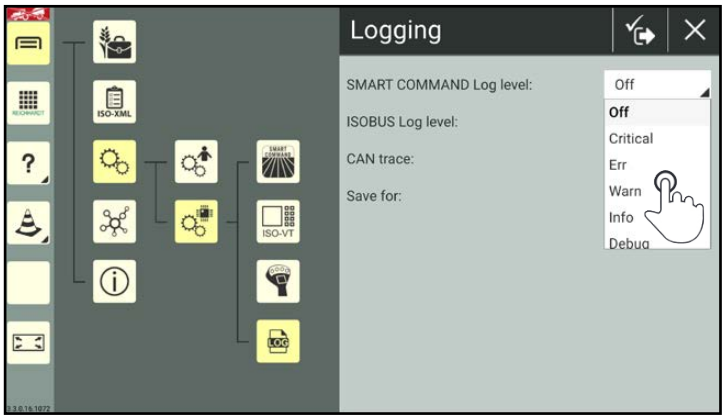


Fig. 564: Specifying the log level

ISOBUS log level – Selecting ISOBUS error logging

The ISOBUS log level specifies whether and which ISOBUS errors should be recorded.

Select the log level stipulated by Customer Service (see Fig. 565).

The following ISOBUS log levels are available:

- Off: No log is created
- Level 0
- Level 1
- Level 2

} A log is created

New log files are created every time SMART COMMAND is restarted.

The size of the log files varies depending on the selected log level.
When the ISOBUS log level is activated, ensure that the device has enough free memory (at least 500 MB).

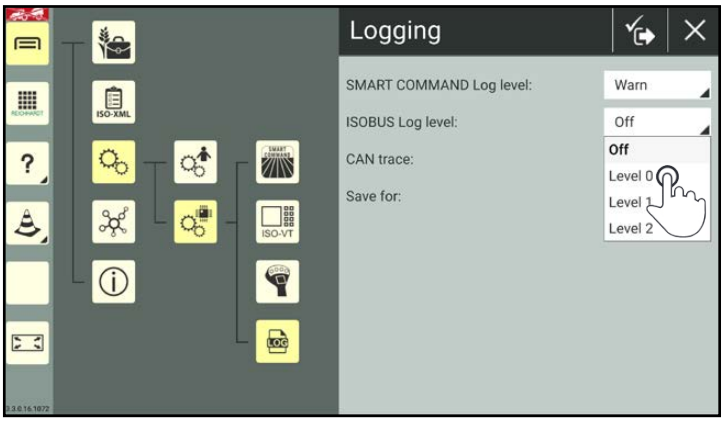


Fig. 565: Specifying the ISOBUS log level

CAN trace – Activating CAN BUS logging

Activating the checkbox after "CAN trace" activates the logging of CAN bus errors (see Fig. 566).

New log files are created every time SMART COMMAND is restarted.

When CAN trace is activated, ensure that the device has enough free memory (at least 500 MB).

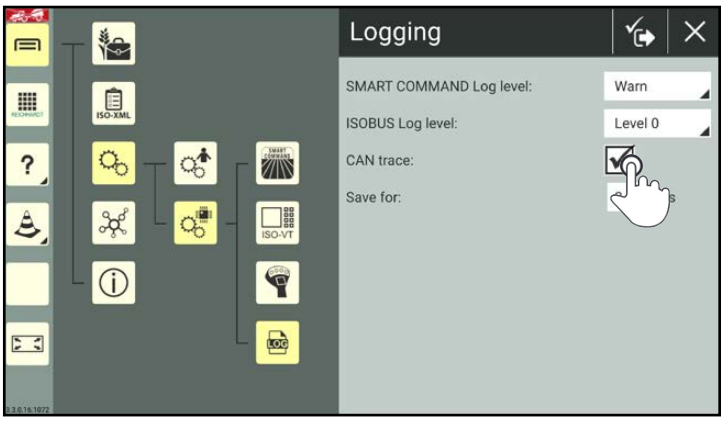


Fig. 566: Activating CAN trace

LOG memory – Setting the storage times for logs in the system

Via "Save for", you can specify how long you would like the logs to be saved in SMART COMMAND (see Fig. 567).
When this time expires, the log files are automatically deleted and can no longer be exported.

If you have been creating logs for 4 days, for example, but "Save for" is set to "3", then the files for the first day have already been deleted.
Generally, setting the duration to 1-2 days is recommended to reduce the amount of data. In this case, it must be assumed that you will export the data within one day of the error occurring.

Only full days can be specified. Decimal points cannot be used. The decimal point will be ignored by the system.

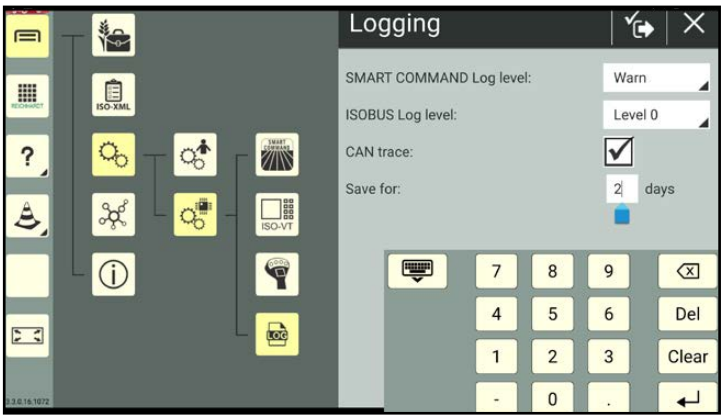


Fig. 567: Saving log files

Saving logging settings

Save the logging settings by tapping the symbol with the checkmark in the top bar of the logging interface (see Fig. 568).

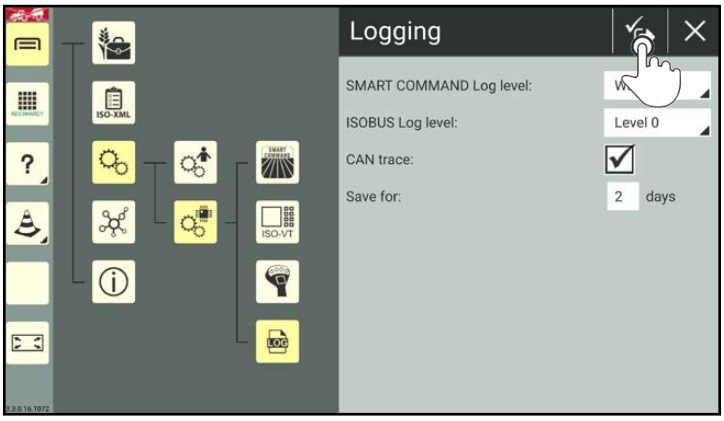


Fig. 568: Saving logging settings

SMART COMMAND must then be restarted (see Fig. 569).

Confirm the prompt with the checkmark.
SMART COMMAND will then be terminated automatically.

Error logging will start once SMART COMMAND has bee restarted.

If you press X, the settings will be discarded.

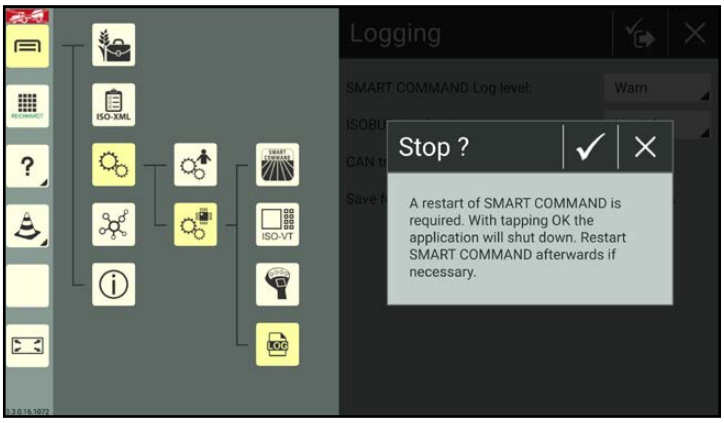


Fig. 569: Confirming the prompt and restarting SMART COMMAND

12.3.2 Exporting Error Logs

Use the “Import/Export” application to select and export the error logs (see Fig. 570 and Fig. 571).

(The function of the “Import/Export” application is described in chapter 10.)

Error logs are saved in the selected folder as "smc_logging.zip".

Send these files to Customer Service.

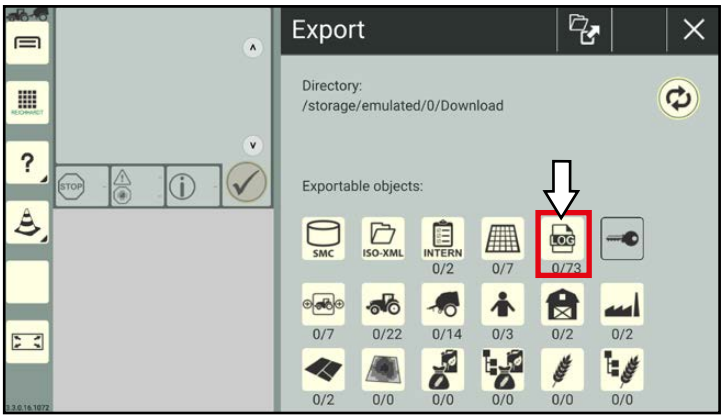


Fig. 570: Exporting error logs

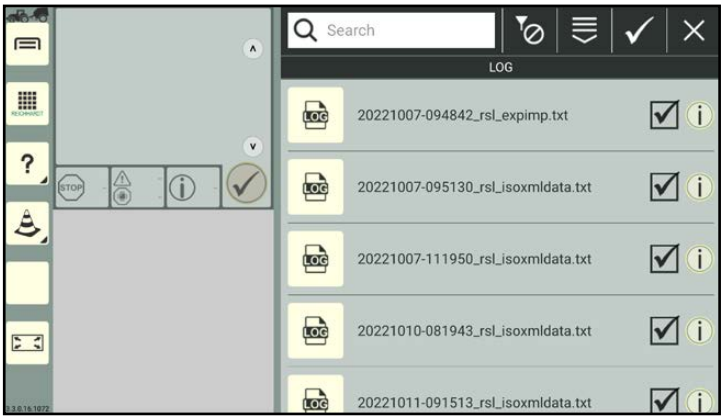


Fig. 571: Error logs selected

12.3.3 Deactivating Logging

Implement the following settings to deactivate logging (see Fig. 572):

- SMART COMMAND Log level: "Off"
- ISOBUS COMMAND Log level: "Off"
- CAN trace: deactivate

The value for the log memory is irrelevant if all of the logging settings are deactivated.

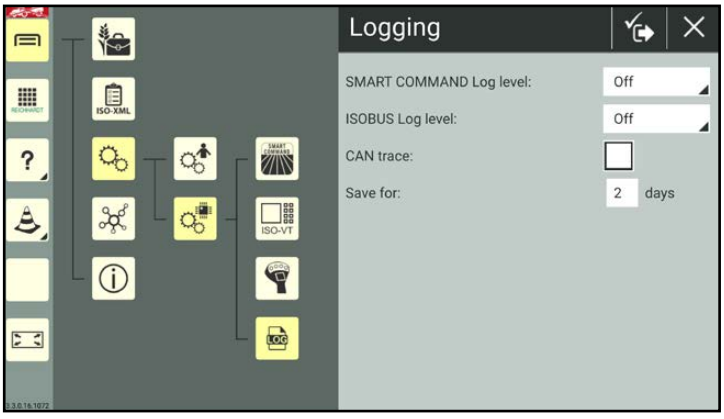


Fig. 572: Deactivating logging

13 Technical Data

This section contains the technical data for the individual system components.

13.1 ISO FLEX

System

Type	Property
Power supply	9 ... 32 V DC
Power consumption	Operation (ignition ON) 230 mA (at 12 V)
Operating temperature range	-40°C ... +85°C/-40°F ... +122°F (internal operating temperature)
Dimensions	174.0 x 117.4 x 35.5 mm (L x W x H, without SMA connections)
Connections	1x Tyco, 3x rows, 29x pins, pin; 3x SMA, bushing

Communication interfaces

Type	Quantity	Configuration
CAN	4	CAN 2.0 B, high/low speed, max. 1 Mbps, reception only (listen only mode) possible.
RS232	2	Serial interface with programmable Baud rate up to 230400 Baud.
Ethernet	1	ETH1-10/100-Base-T half/full duplex
USB	1	USB 2.0
WIFI	1	IEEE 802.11b/g/n – 2.4 GHz 64-, 128-, 256-bit WEP, WPA, WPA2.0 TKIP, or AES performance class 1 (+18 dBm) IEEE 802.11s mesh network support* performance class 1.5 (+11.7 dBm)
4G modem	1	Option 1 – EMEA (EU): • 4G: Six band LTE cat. 1 (B1/B3/B5/B7/B8/B20) • 3G: Three band HSPA+ (B1/B5/B8) • 2G: GSM 900/1800 Option 2 – North America (USA): • 4G: Three band LTE cat. 1 (B2/B4/B12) • 3G: Three band HSPA+ (B2/B4/B5) SIM card options: Standard SIM (mini SIM); alternative micro SIM, or nano SIM with adapter on mini SIM

* Being developed; will be available in future versions.

Pin arrangement of Tyco connector

Pin no.	Designation		Pin no.	Designation
1	Multi-function input (RH)		16	USB 5V
2	Multi-function input		17	Multi-function input
3	Rx 2		18	Rx
4	Tx 2		19	Tx
5	Digital output		20	CAN low 1
6	USB GND		21	CAN high 1
7	Digital output		22	CAN low 2
8	+UB		23	CAN high 2
9	GND		24	USB D-
10	Ignition		25	USB D+
11	CAN low 3		26	ETH Rx-
12	CAN high 3		27	ETH Rx+
13	Multi-function input		28	ETH Tx-
14	CAN low 4		29	ETH Tx+
15	CAN high 4			

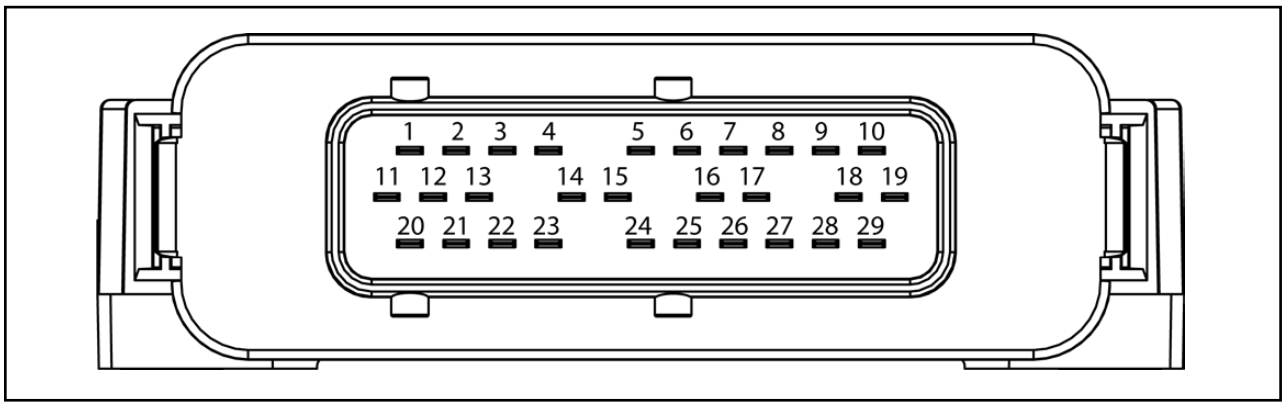


Abb. 573: Pin arrangement of ISO FLEX connection

13.2 SMART COMMAND Terminal

Processor core

Type	Property
Overview	i.MX 8QuadXPlus, quad core CPU, integrated GPU & M4 Co processor
CPU	4 x Cortex A35 @ 1 GHz
GPU	Vivante GC7000lite high-performance graphics processor
Memory	8 GB
RAM	2 GB 32 bit LPDDR4 @ 1200 GHz

Display

Type	Property
Type	IPS-type with viewing angles of >88° in all directions
Surface	Toughened glass with AG coating.
Legibility	Improved legibility on the display due to optical- bonding technology.
Color resolution	24 bit, 16 million
Dimming	Yes, in stages, 1-100%
Ambient light sensor	Yes, enables automatic dimming.
SMART COMMAND terminal 10"	
Size and resolution	10.1" WXGA, 1280x800 pixels
Contrast ratio*	800:1
Brightness*	800 cd/m²
SMART COMMAND terminal 12"	
Size and resolution	12" WXGA, 1280x800 pixels
Contrast ratio*	1000:1
Brightness*	1275 cd/m²

User interface

Type	Property
Touchscreen	Projected capacitive screen with up to 10-point multi-touch. Calibrated to support interactions when wearing gloves and not sensitive to drops of water.
Status LED	RGB LED
Buzzer	Yes. Max. 75 dB at distance of 10 cm from front.

Interfaces

Type	Property
CAN	2 connections, ISO 11898 2:2016. Configurable bitrate.
USB	1x USB 2.0 high speed, 1x USB 3.0 super speed
Ethernet	1x 1000BASE-TX
Power supply	12/24 VDC nominal, range 9-36 VDC. Switch on from 4.5 VDC.
Input signal	Import an input signal to switch on and shut down.

Mechanics

Type	Property
Housing material	Nylon, Valox 357x
Assembly	4-point VESA-75 assembly
Connections	3x DIN M12 for power & CAN, Ethernet and USB 2.0 1x USB-C for USB 3.0 interface.
SMART COMMAND terminal 10"	
Dimensions	265 x 184 x 41 mm
Weight	< 1050 g
SMART COMMAND terminal 12"	
Dimensions	316 x 222 x 41 mm
Weight	< 1580 g

Environment

Type	Property
IP class	IP65, IP66, and IP67
EMC conformity	2014/30/EU, ISO 14982:2009, ISO 13766-1:2018, ISO 13766-2:2018, ISO 11783-5:2019 (2 ms interruptions with a capacitor)
Vibrations	IEC 60068-2-64. Random, 0.02 g^2/Hz 5-2000Hz 3x3 h
Impact strength	IEC 60068-2-27. ±25 g /6 ms±3 x3, 15000 total impacts
Temperature range	Operation: -30 to +70, Storage: -40 to +80

Operating system

Type	Property
System	User-defined Linux system
Turn on time	Cold start 4-7 seconds

Software framework and tools

Type	Property
CAN network	Fieldbus access, simple configuration of J1939 and CANopen networks.
ISOBUS	Universal terminal
Remote access to applications	VNC server and client, web browser and server.

* Average values

Pin arrangement of power M12 connector (connector 1) – power and CAN M12

Suitable plug: Bushing, 8-pin, A-coded with shielding.

Pin no.	Signal
1	Power supply
2	Ground
3	–
4	Ignition voltage
5	CAN1 high
6	CAN1 low
7	CAN2 high
8	CAN2 low

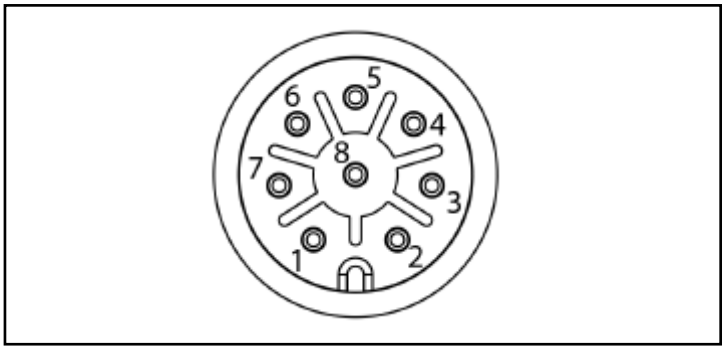


Abb. 574: Pin arrangement of power and CAN M12 connector (connector 1) of the SMART COMMAND terminal

Pin arrangement of Ethernet M12 connector (connector 3) – Ethernet M12

Suitable plug: Pin, 8-pin, X-coded.

Pin no.	Signal
1	TR4-
2	TR4+
3	TR3-
4	TR3+
5	TR1-
6	TR1+
7	TR2+
8	TR2-

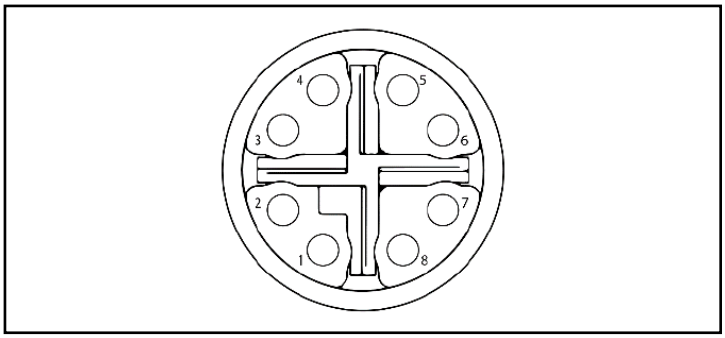


Abb. 575: Pin arrangement of Ethernet M12 connector (connector 3) of the SMART COMMAND terminal

Pin arrangement of USB M12 connector (connector 4) – USB M12

Suitable plug: Pin, 5-pin, A-coded with shielding.

Pin no.	Signal
1	VBUS
2	Data-
3	Data+
4	Shielding ground
5	Ground

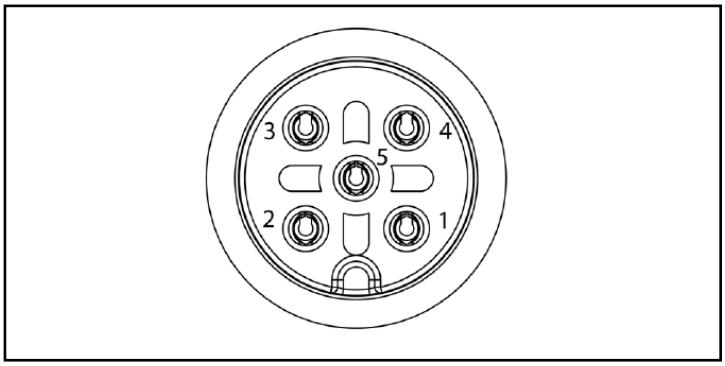


Abb. 576: Pin arrangement of USB M12 connector (connector 4) of the SMART COMMAND terminal

13.3 SMART iBox

Processor system

Type	Property
Processor	Infineon Xc2287, 16 bit, f = 80 MHz
SRAM	1 MByte
Flash	768 kByte
FRAM/EEPROM	64 kByte

Interfaces

Type	Property
CAN	2x CAN 2.0 a/b (11 and 29 bit identifier) low/high speed up to 1 Mbit/s
RS232	Configurable Baud rate (max. 230400 Baud)

Inputs and outputs

Type	Property
Digital inputs	Max. 14 digital inputs
Analog inputs	Max. 6 analog inputs, 0 to 10 V, 8 analog inputs, 4 to 20 mA

Systems data

Type	Property
Power supply:	9 to 32 VDC
Current consumption	Approx. 100 mA without power rating, standby < 1.5 mA, total current max. 11 A

Mechanical properties

Type	Property
Connector	42-pin, Tyco/AMP
Weight	0.3 kg
Dimensions (L x W x H)	Approx. 134 mm x 117 mm x 36 mm

Environment

Type	Property
Requirements	Testing in accordance with standards of the automobile, agricultural, and construction machinery industry, and to ensure OE conformity. E1 approval from the Federal Motor Vehicle and Transport Authority (KBA)
Temperature range	During operation: -40 °C to +80 °C casing temperature
Casing	IP67 and IP69k

Pin arrangement of Tyco/AMP connector

Pin no.	Designation	Description		Pin no.	Designation	Description
1	GND	Ground		22	UIN, DIN	UIN
2	OUT, RPM, DIN	RPM		23	2CAN_H	Can bus 2 (vehicle)
3	OUT, RPM, DIN	RPM		24	IIN, DIN	IIN
4	OUT, RPM, DIN	RPM		25	IIN, DIN	IIN
5	Out, DIN	OUT		26	UIN, DIN	UIN
6	PWM 4	PWM LS		27	UIN, DIN	UIN
7	PWM 3	PWM HS		28	+Ub	Power supply
8	PWM 2	PWM HS		29	LGND	Ground LS
9	PWM 1	PWM HS		30	+Ue	Power supply
10	PVG, DIN	DIN		31	1CAN_H	CAN bus 1 (ISO)
11	PVG, RPM, DIN	PVG, RPM		32	U_EXT_10_V	10 V ref. output
12	OUT, RPM, DIN	RPM		33	RxD	RS232
13	OUT, RPM, DIN	RPM		34	UIN, DIN	DIN
14	+Ub	Power supply		35	UIN, DIN	DIN
15	AGND	Ground, analog		36	UIN, DIN	UIN
16	D +	Power ON/OFF		37	2CAN_L	CAN bus 2 (vehicle)
17	1CAN_L	CAN bus 1 (ISO)		38	IIN, DIN	IIN
18	TxD	RS232 transmit		39	IIN, DIN	IIN
19	UB_OUT	Power after relay		40	UIN, DIN	UIN
20	UIN, DIN	DIN		41	UIN, DIN	UIN
21	UIN, DIN	UIN		42	+Ub	Power supply

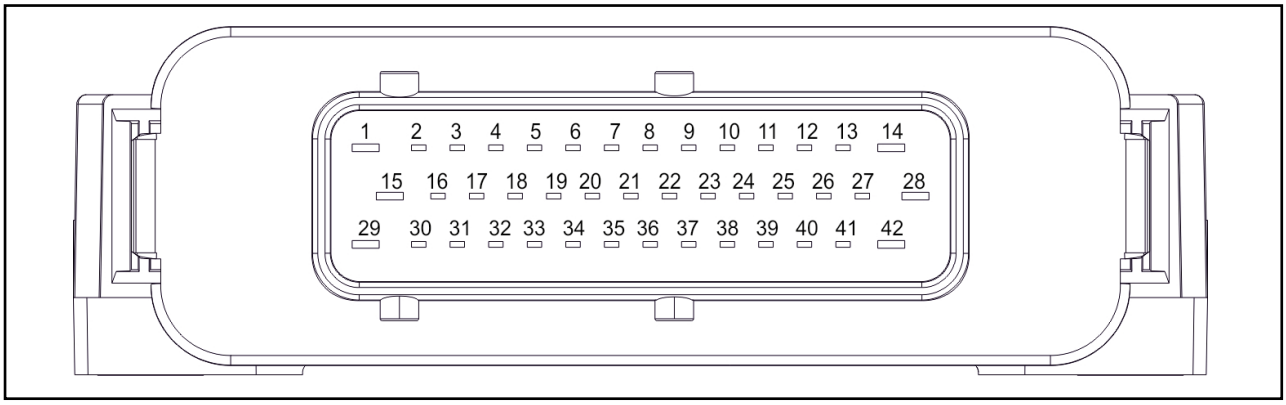


Abb. 577: Pin arrangement of Tyco/AMP connector of the SMART iBox

13.4 RGS 200 and RGS 700

Reception properties

Type	Property
RGS 200	
Receiving satellites:	up to 108
Satellite systems:	GPS (L1, L2 & L2C), GLONASS (L1, L2), Optional: Galileo (E1, E5b), BeiDou (B1I, B2I), QZSS (L1, L2)
Accuracy:	DGPS, +/-30 cm can be upgraded to chargeable correction signal (+/-5 cm track for tracking accuracy)
RGS 700	
Receiving satellites:	108
Correction format:	RTCM3 & RTCM3.2
Satellite systems:	GPS (L1, L2, L2C & L5), GLONASS (I1 & L2), Galileo (E1, E5a/b & E5 AltBOC), BeiDou (B1I, B1C, B2I & B2a), QZSS (L1 & L2)
Accuracy:	RTK +/-2 cm, also suitable for Omnistar

Communication

Type	Property
Connections	3x RS232, 1x CAN, 1x speed signal
Baud rate	4800 - 115200
Data I/O log	NMEA 0183, NMEA 2000

Electric properties

Type	Property
Input voltage	7-30 VDC
RGS 200	
Power consumption	2.5 Watt
RGS 700	
Power consumption	4 Watt

Mechanical properties

Type	Property
Status display (LED)	Power, GNSS
Connector	14-pin, male, Tyco/AMP seal
RGS 200	
Dimensions (H x W x L)	81.0 x 155.0 x 220 mm
Weight	470 g
RGS 700	
Dimensions (H x L x W)	66.0 x 220.0 x 192.0 mm
Weight	1100 g

Environment

Type	Property
Working temperature	-40 °C to +70 °C
Air humidity	MIL-STD-810G (CH1), method 507.6
Shock and vibration	MIL-STD-810G (CH1), method 516.7
Mechanical stress	MIL-STD-810G (CH1), method 505.6, method 509.6
Operational EMC	FCC, ISED, CE
Casing	IP67

Pin arrangement of Tyco/AMP seal connector

Pin no.	Function		Pin no.	Function
1	Tx 1		8	Tx 3
2	Rx 1		9	GND (ground)
3	Tx 2		10	Radar output
4	Rx 2		11	**RGS 200:** MKI; **RGS 700:** not assigned
5	sGND (serial ground)		12	PPS output
6	CAN high		13	Rx 3
7	CAN low		14	+12 VDC

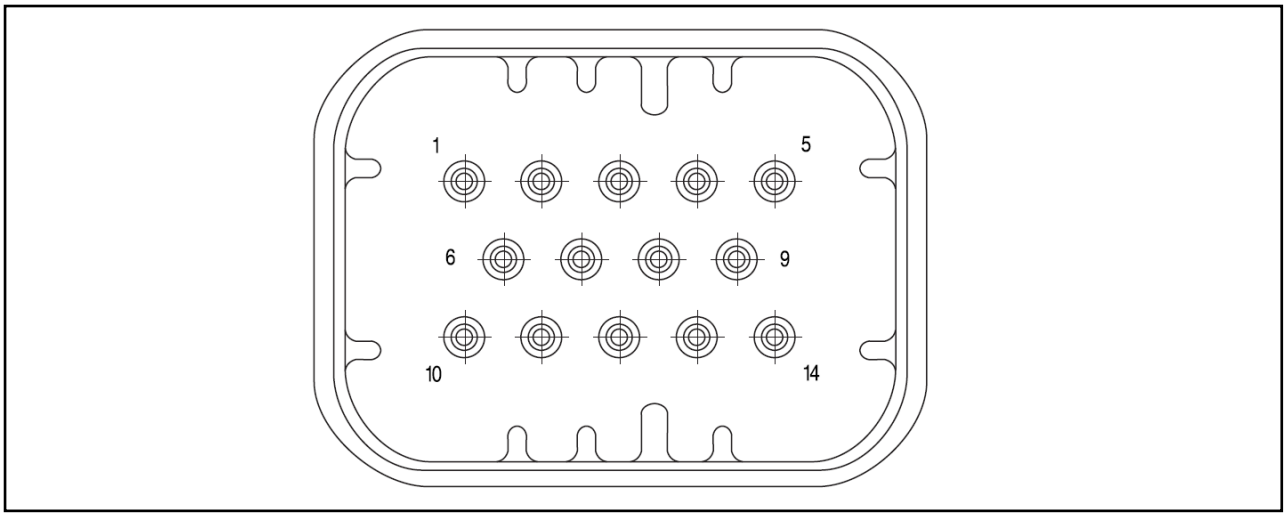


Abb. 578: Pin arrangement of Tyco/AMP seal connector of the receiver RGS 200/700

13.5 GSM Antenna

Electric properties

Type	Property
Frequency range	824-960 MHz and 1710-2170 MHz
Resistance	50 Ohm
VSWR	< 1.7
Amplification	7 dBi
Max. voltage	50 Watt

Mechanical properties

Type	Property
Connector	SMA (male)
Coaxial cable/length	RG 58/U; 3 m
Size (H x W)	590 x 72 mm
Working temperature range	-40°C to +85°C