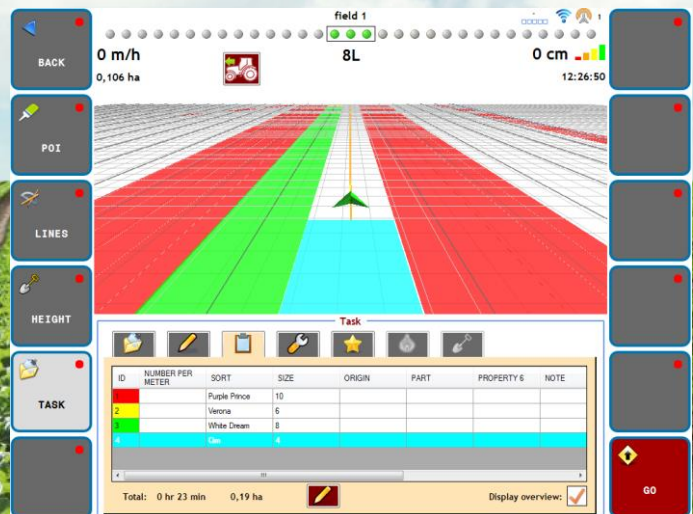




USER MANUAL
(ENGLISH)(TRANSLATED)

SBGuidance
Crop Registration

016-8000-019EN Rev. A



The screenshot displays the SBGuidance software interface overlaid on a photograph of a field with rows of crops. The interface includes a top status bar with 'field 1', speed '0 m/h', and fuel '8L'. A central map shows a field with a green center lane and red side lanes. A 'Task' table is visible at the bottom of the interface.

ID	NUMBER PER METER	SORT	SIZE	ORIGIN	PART	PROPERTY 6	NOTE
1		Purple Prince	10				
2		Verona	6				
3		White Dream	8				

At the bottom of the interface, it shows 'Total: 0 hr 23 min 0,19 ha' and a 'Display overview' checkbox.

Performing perfection.



WARNING!

All persons involved in the installation, commissioning, operation, maintenance and repair of this product must be provided with these instructions.

Name of device:	
Type designation:	
Manifold serial number:	
Terminal serial number:	
Steering Controller serial number:	
DynamIQ serial number:	
Year of manufacture:	
Options:	
Installed software modules:	
1	
2	
3	
4	
5	

Your dealer:

Preface

This user manual is intended for persons responsible for the operation of the SBGuidance software module Crop Registration. This manual contains important instructions that should be followed when commissioning, operating and maintaining your SBGuidance system with Crop Registration module. Therefore this manual should have been read and understood by the responsible personnel before commissioning and must always be present with the device.

This manual has been created with the utmost care. SBG Precision Farming does not accept any liability for errors or omissions in this document.

Any comments or questions may be sent to service-eu@ravenind.com.

SBG Precision Farming or any of its suppliers cannot be held liable for any physical or material damages caused during the use of the SBGuidance system.

This user manual uses a number of terms to particularly draw your attention to a number of things.

**Hint!:**

Gives suggestions to make it easier to carry out certain tasks.

**Note!:**

Alerts the user to possible problems.

**Caution!**

Indicates that the device may possibly be damaged.

**Warning!:**

Indicates a risk of personal injury.

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Disclaimer



Warning!

You should follow the safety instructions from the user manual of the tractor or machine in all circumstances.



Warning!

It is strictly prohibited to use the SBGuidance system on public roads.



Warning!

It is strictly prohibited to leave a moving machine with or without switched-on SBGuidance steering system.



Warning!

In order to prevent damage or fire, replace defect fuses only by fuses of the same type and amperage.



Warning!

The SBGuidance steering system is not capable of detecting and thus avoiding obstacles. If there is an obstacle in your way, you always need to take action yourself to avoid it.



Warning!

Allow only qualified persons to operate the system. Qualified persons are defined as: persons who have read the manual and are both physically and mentally capable of operating the system.



Caution!

Always start the machine first before starting the SBGuidance steering system to avoid peak voltages.



Caution!

Only touch the touch screen using your finger or a special touch screen pen. If sharp objects are used to operate the touch screen, it may be permanently damaged.



Caution!

Only clean the touch screen with a damp cloth. Do not use any caustic or aggressive products.



Note!

If the terminal is not used for an extended period of time, preferably remove the terminal from the tractor and store in a heated environment. This will prolong the service life of the electronic components.



Note!

To prevent theft, you are advised not to leave your tractor with terminal and GPS antenna in the field unattended.

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1. Starting registration task

When a valid licence has been activated, the registration may be started provided that a field has been loaded. The registration may be started by selecting **Registration** and then **Task** (Figure 1).

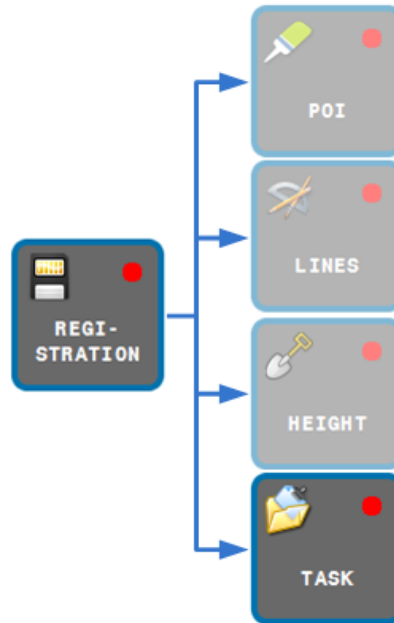


Figure 1 Starting crop registration

The crop registration menu (Figure 2) is opened after **Task** has been selected.

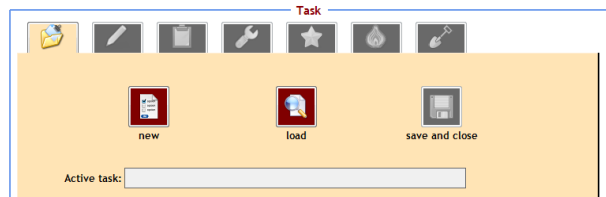


Figure 2 Crop registration menu



Note!:

In order to use crop registration, a valid activation needs to be present. Please contact your dealer if the message shown in Figure 3 appears.

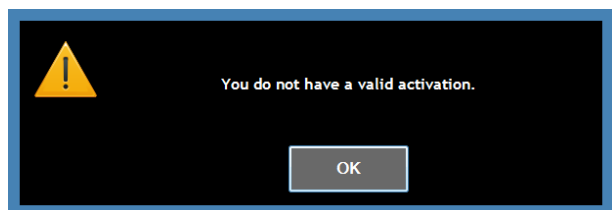


Figure 3 Activation message

2. Creating new task

A new task may be created by selecting **New** in the crop registration menu (Figure 2). The wizard as shown in Figure 4 appears on the screen. The ID is created automatically. The name may be kept the same as the ID of the task or a name may be chosen.

The **Machine Link** option needs to be selected if the crop registration is activated automatically when the planter/seeder is switched on. If this option is not selected, the crop registration will not start automatically when the planter/seeder is switched on. The **Invert Hitch Signal** option may be selected when the signal for switching on the crop registration works the other way around (e.g. if the crop registration switches off when the machine switches on).

i Tip!: *Keep the name of the task unique and clear, thus preventing duplicate names.*

On the next tab in the wizard (Figure 5) properties for the registration may be created, edited, selected and removed.

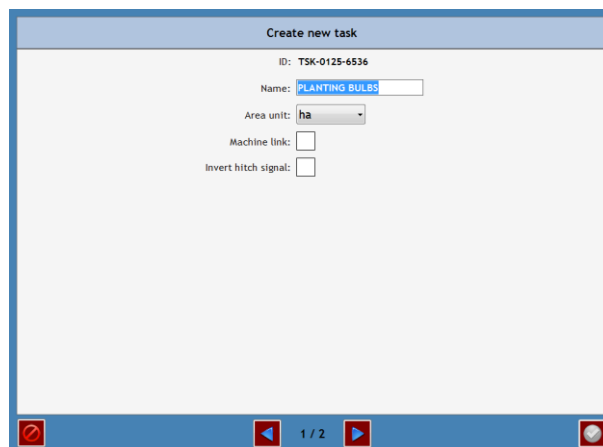


Figure 4 Creating new task

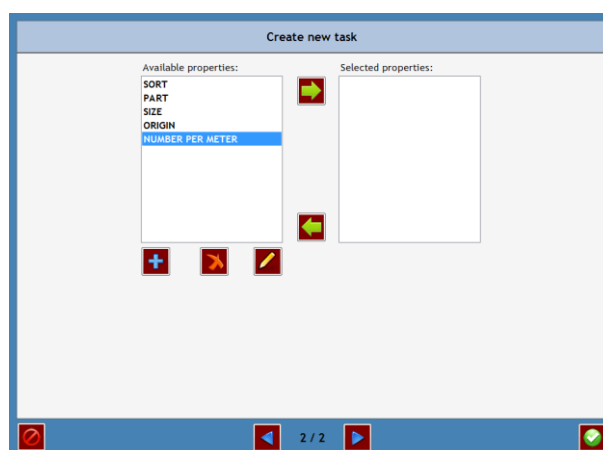


Figure 5 Creating attributes

-  Add new property
-  Remove property
-  Edit property
-  Select property for registration
-  Do not use property for registration

When a property is added or edited, a pre-made list may be linked to the property. This means the user may choose from a pre-filled list instead of typing the values each time. To do this, select **Values from List** (Figure 6).

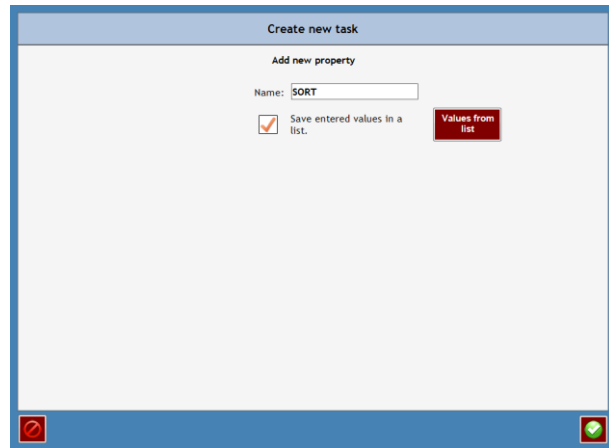



Figure 6 Importing values

Put the USB drive, containing the .CSV files (see chapter 3 for creating these), into the SBG terminal and, if necessary, click on  (Figure 7) to refresh the list.

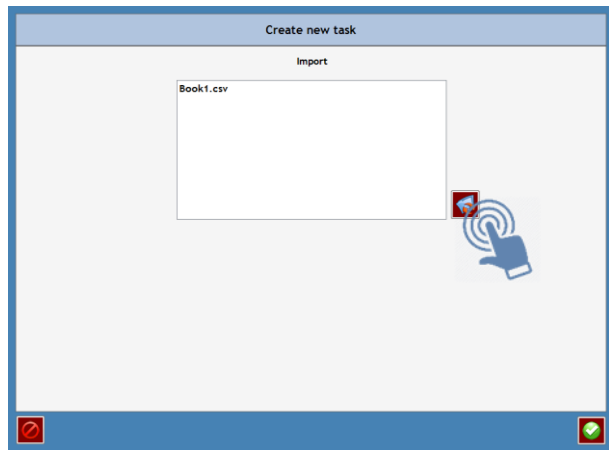


Figure 7 Importing list

Select the file containing the values for the respective property (Figure 8) and then click on the green check mark on the bottom right. The number of values imported is shown. Click on **OK** to continue (Figure 8).

Repeat this operation for all properties to which a list with pre-filled values needs to be linked.

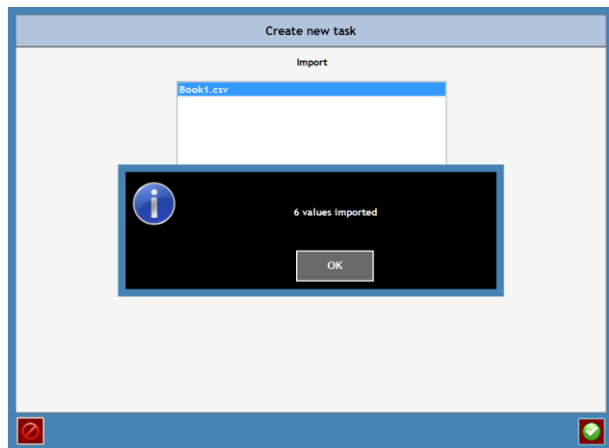




Figure 8 Selecting file

After creating the properties and optionally importing the values, the properties necessary for the registration need to be dragged from the available properties to the selected properties.  To do so, select the property and click on the green arrow () to drag the property (Figure 9).

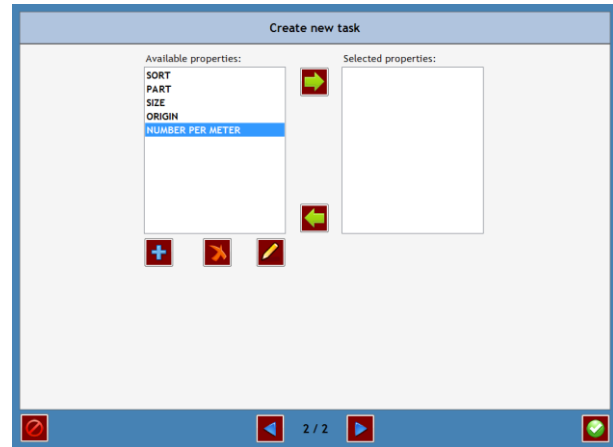


Figure 9 Available attributes

After dragging, the property is in the selected properties box (Figure 10).

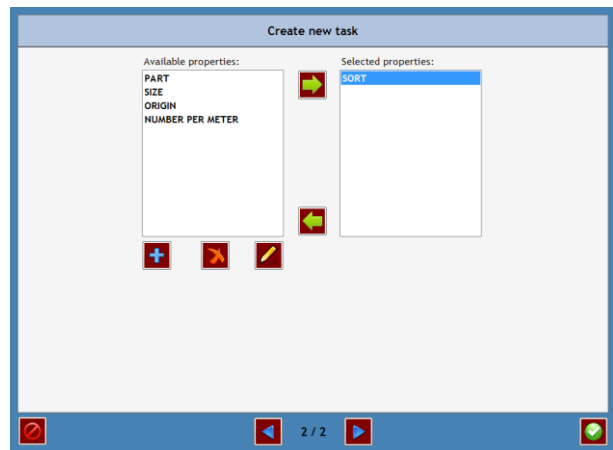


Figure 10 Selected attributes

Repeat this step for all the properties to be used for the crop registration (Figure 11).

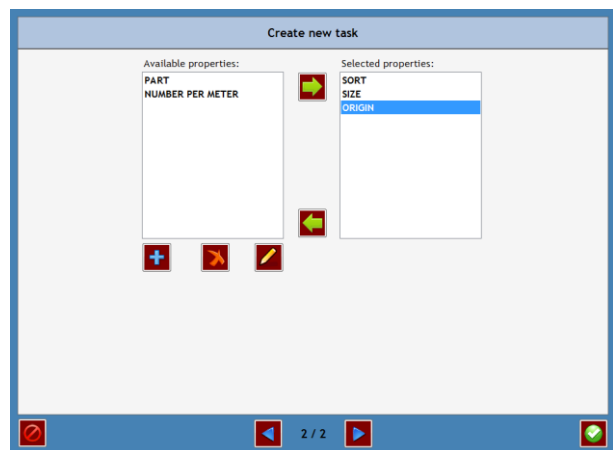


Figure 11 Selected attributes for crop registration



Crop Registration

3. Creating .CSV file

To be able to import the values from a list, first a .CSV file should be created.

For this, open Microsoft Excel on the computer in the office. Put all types (for the property TYPE) one below the other in column A (Figure 12 **Error! Reference source not found.**).

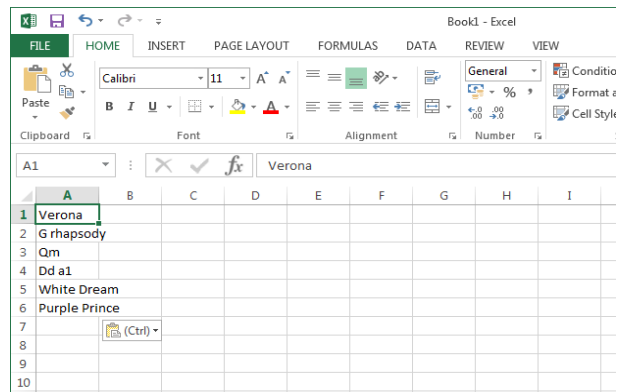


Figure 12 Creating list

Save the file as a .CSV file (so not as an Excel file). For this, go to 'Save as' and change the file format in the 'Save as type' column (**Error! Reference source not found.**).

Select the CSV (Comma delimited) file format. Then name the file 'Type' and save it directly onto the USB drive inserted into the computer (so not in a folder).

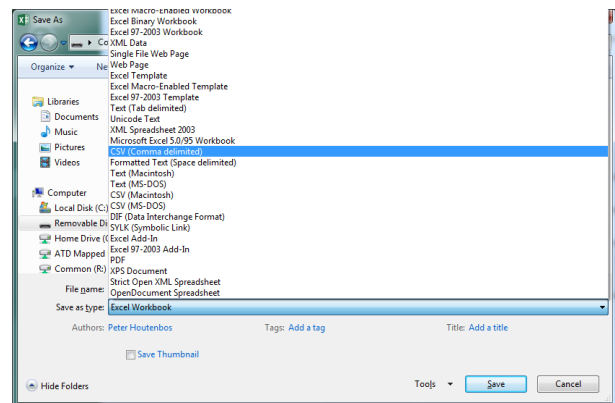


Figure 13 File type

Create a separate .CSV file for each property and put them all directly onto the USB drive (so not in a folder), see Figure 14.

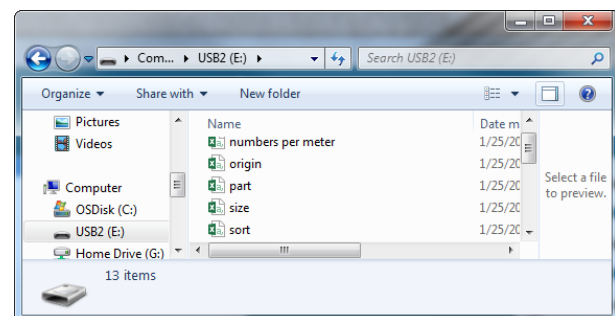


Figure 14 Save file types

4. Working with crop registration

When the previous steps have been completed, the crop registration may be started.

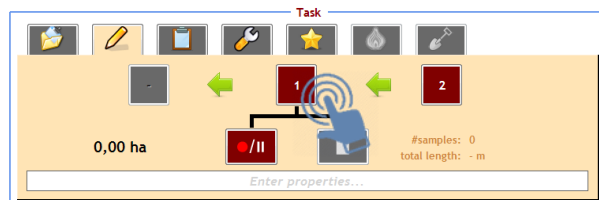


Figure 15 Entering properties

When the number of the registration (Figure 15 **Error! Reference source not found.**) is clicked, the wizard appears as is shown in Figure 16. Here the selected properties may be entered.

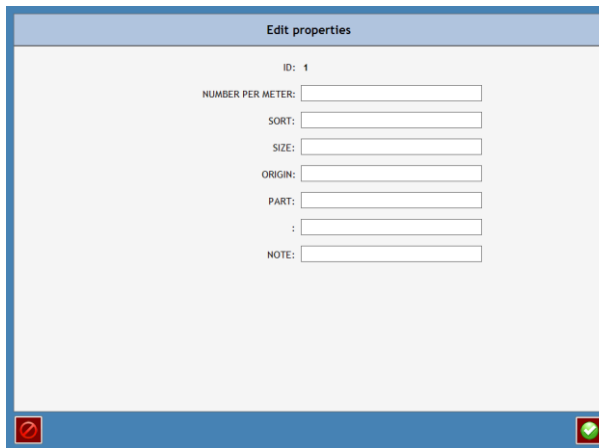


Figure 16 Editing properties

When a .CSV file is linked to a property, a list appears with the values entered in the list. A selection thereof may be made, and then click on the green check mark (Figure 17) to link the selection to the property.

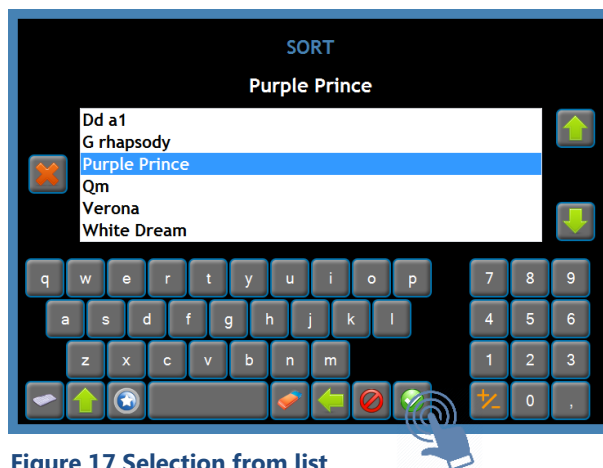


Figure 17 Selection from list

The entered values of the active property (in this case type 1) are shown below the crop registration in the white bar (Figure 18). The registration starts with ID number 1, as is shown in the red box between the green arrows.

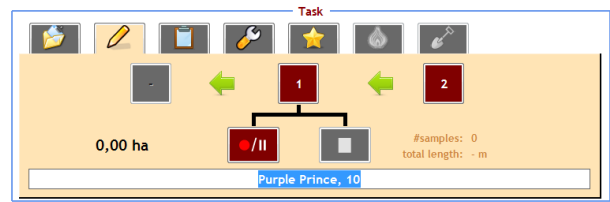




Figure 18 Working with crop registration

The crop registration starts when the record button () is clicked. This will flash green (), see Figure 19. At the top of the screen, a record icon will appear as well when the registration is recording (as a diskette icon).

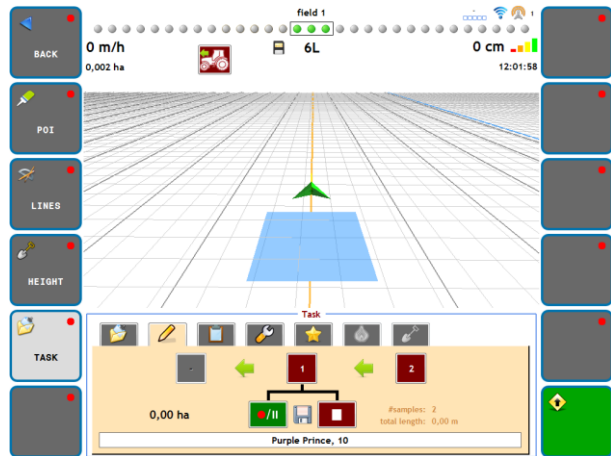



Figure 19 Starting crop registration

At the end of the row the registration needs to be paused. This can be done by clicking on the record button. This will flash orange (Figure 20) and the pause icon will blink, at the location of the record icon.

When changing to planting a different type, size or other property, the registration needs to be stopped by clicking on the stop button (). The registration of the current type will be stopped and new properties may be entered for the next registration (after clicking on the stop button, the ID of the registration changes from 1 to 2, meaning that the next registration may be started). Properties can be entered while the registration has been stated. For the part field IDs of which the button is visible in the screen. (Figure 19 1 and 2 / Figure 20 2,3 and 4)

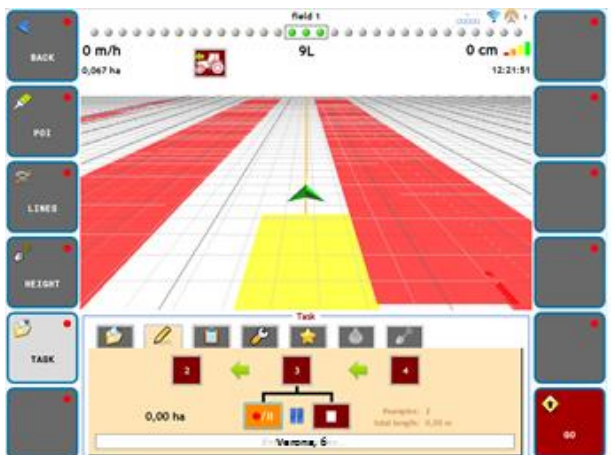


Figure 20 Pausing crop registration



Crop Registration

An overview of the part already planted may be shown in the 3D view of SBGuidance. This may be done by selecting the 'Display overview' check mark, as shown in Figure 21.

Each ID number in the registration is shown by a colour. This colour cannot be changed. But the partfield ID in which is still worked will not be displayed.

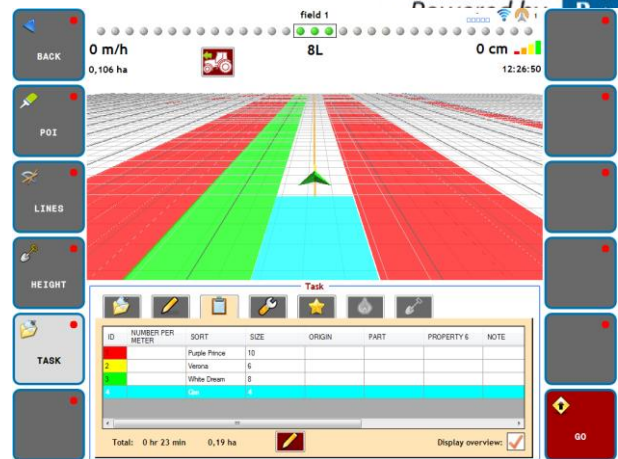


Figure 21 Showing overview

In the next tab (Figure 22), the area unit may be changed and settings may be modified, for example when a machine link or hitch signal is used.

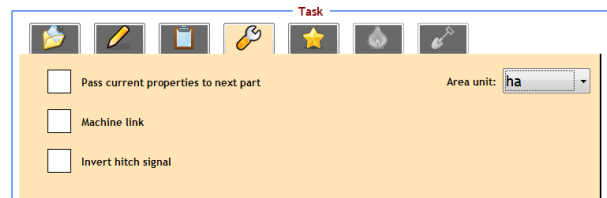


Figure 22 Crop registration settings

When a registration is stopped, the registration may be saved and closed in the first tab (Figure 23). The registration is linked to the field and is independent of the selected operation.

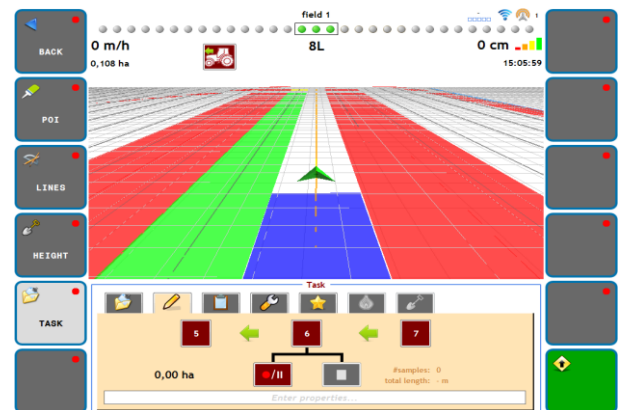


Figure 23 Saving and closing crop registration

5. Loading an existing task

A saved task may be loaded again by going, after loading a field, to the crop registration menu (**Registration > Task**) and then selecting **Load** (Figure 24).

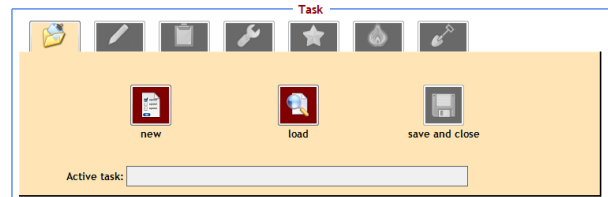


Figure 24 Crop registration menu

The existing task(s) are shown. The right task may be selected and this may be started by clicking on the green check mark (Figure 25).

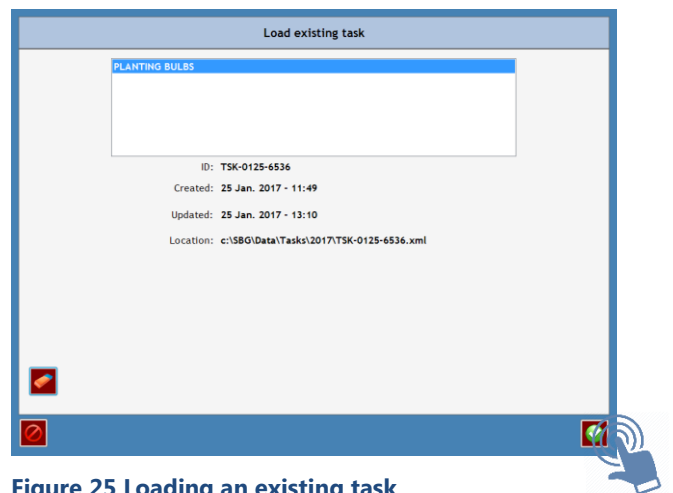


Figure 25 Loading an existing task

6. Exporting

The crop registration is linked to the field. The registration is therefore exported simultaneously with the field. For exporting, go to the home screen of the SBG software and activate the SBGuidance Field Manager. (Figure 26)

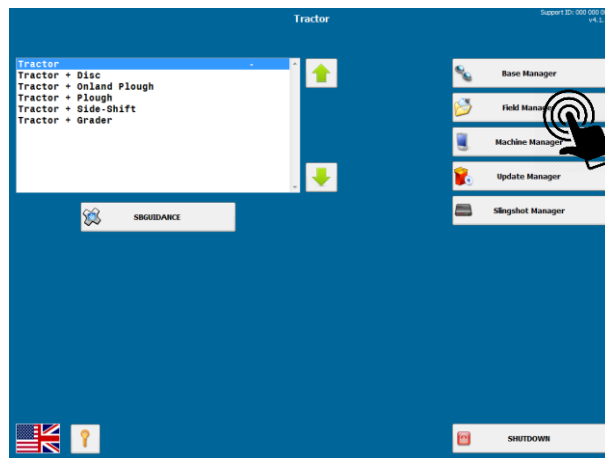



Figure 26 Opening Field Manager

In the Field Manager, all fields present on the terminal are shown.

In this Field Manager, click on the settings button () and select the export method KML (Figure 27 Select export method).

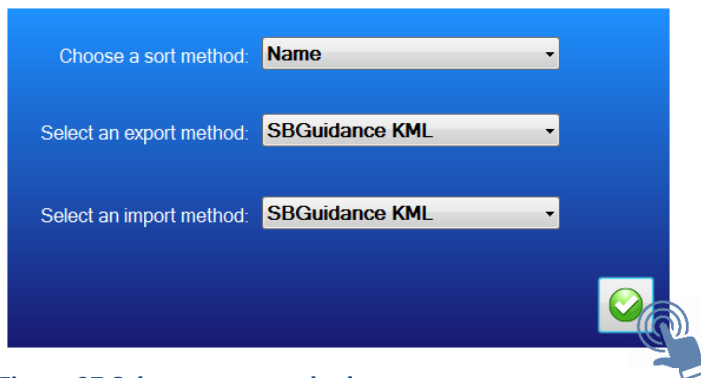




Figure 27 Select export method

When a crop registration has been saved in the field, it is shown below the field. Select the respective field by selecting it.

Click on the KML button () to export (Figure 28).

 *Exporting is only possible when a USB device placed in the terminal.*

 *See the Office Manager manual on the SBG website for importing and editing the files on the computer in the office.*

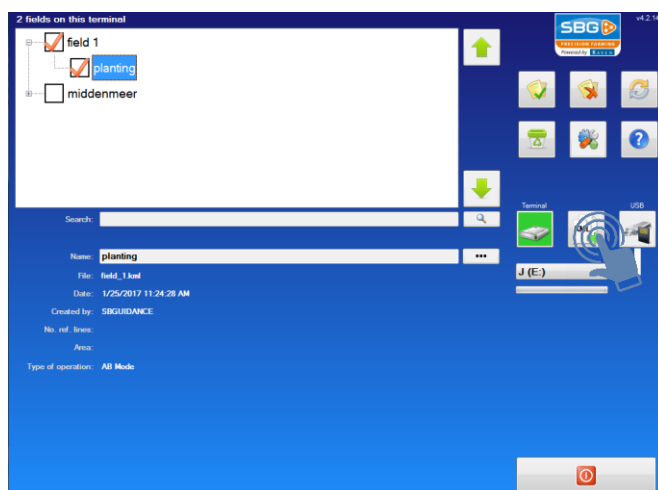


Figure 28 Selecting and exporting field

The logo for SBG, featuring the letters 'SBG' in a bold, white, sans-serif font on a blue background. To the right of the text is a white icon consisting of three circles connected by lines, resembling a network or a stylized 'S'.

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A wide-angle photograph of a vast agricultural field with rows of young green plants stretching towards the horizon. The sky is a clear, vibrant blue with scattered white clouds. The sun is visible in the upper left, creating a bright glow and casting soft shadows on the field.

Performing perfection.