



# 2D Floor Planner

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## 1. Introduction

FARO® 2D Floor Planner is a software tool to generate 2D floor plans in different formats using the FARO Scan Localizer. Together with the 2D Floor Planner software the FARO Scan Localizer can be used as a stand-alone device for creating 2D floor plans.

2D Floor Planner supports the live recording of 2D floor plans, simple on-site measuring tasks and export to the following formats: png (scaled), tiff (scaled), bmp, jpg. The files can be directly imported to any CAD program supporting one of these formats. CAD programs supporting tagged png and tiff formats will directly import with the right scaling.

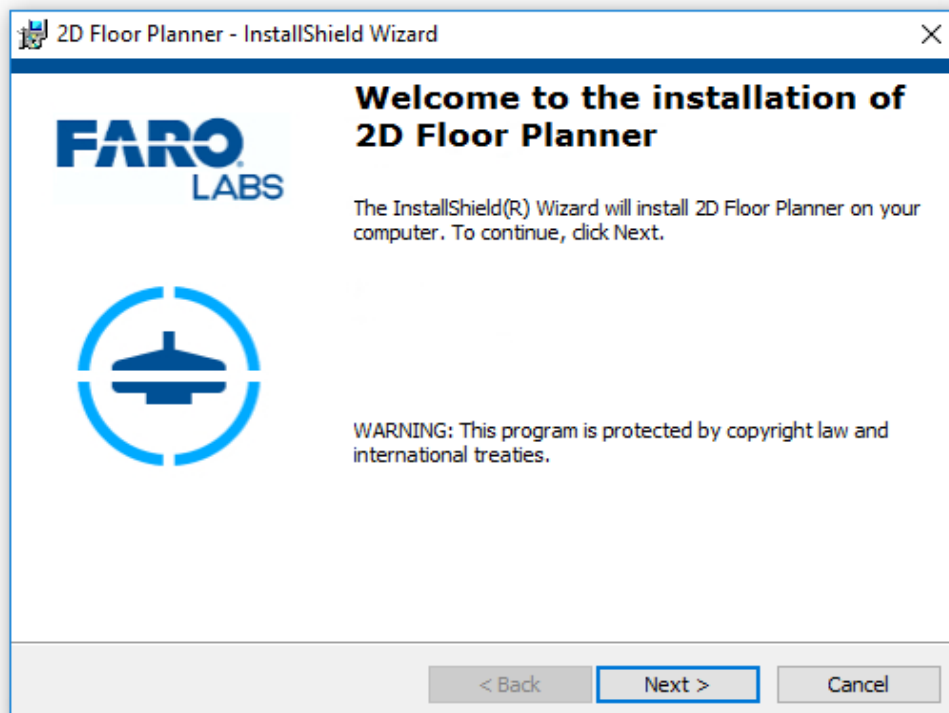
Additionally, 2D Floor Planner can directly export to FARO ZONE 2D.



- 2D Floor Planner works with all firmware versions of the Scan Localizer. Nevertheless, we recommend to update to firmware version 1.0.5.2 or higher.

## 2. Installation

1. Open the 2D Floor Planner installation file
2. Follow the on screen instructions



**Figure 2-1: Installation wizard for 2D Floor Planner**

### 3. Connecting to Scan Localizer

First the Scan Localizer has to be connected to the Wireless LAN of the PC on which 2D Floor Planner is running. The Scan Localizer offers its own Wi-Fi network, and your computer has to connect with it. The name of the network (SSID) of a Scan Localizer always starts with LSL0716 followed by 5 individual numbers.

The password for the Scan Localizer is **0123456789**.

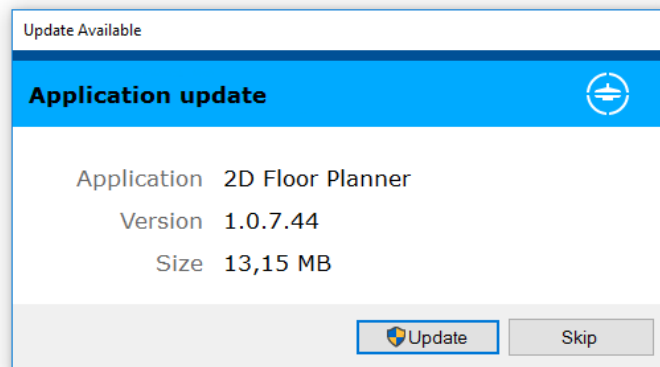


For more information on connecting the Localizer, please see chapter "Connect Scan Localizer with the computer via Wireless LAN" in the Scan Localizer manual.

## 4. Work with 2D Floor Planner

### 4.1. Start the Application

After the 2D Floor Planner software is installed it can be started from the Start Menu. 2D Floor Planner supports automatic updates. If you have an internet connection 2D Floor Planner will connect to the update server and inform you about available updates. If an update is available, the dialog in Figure 4-1 shows up. If you select **Update**, the update will download and install automatically. If **Skip** is selected, the update is not installed.

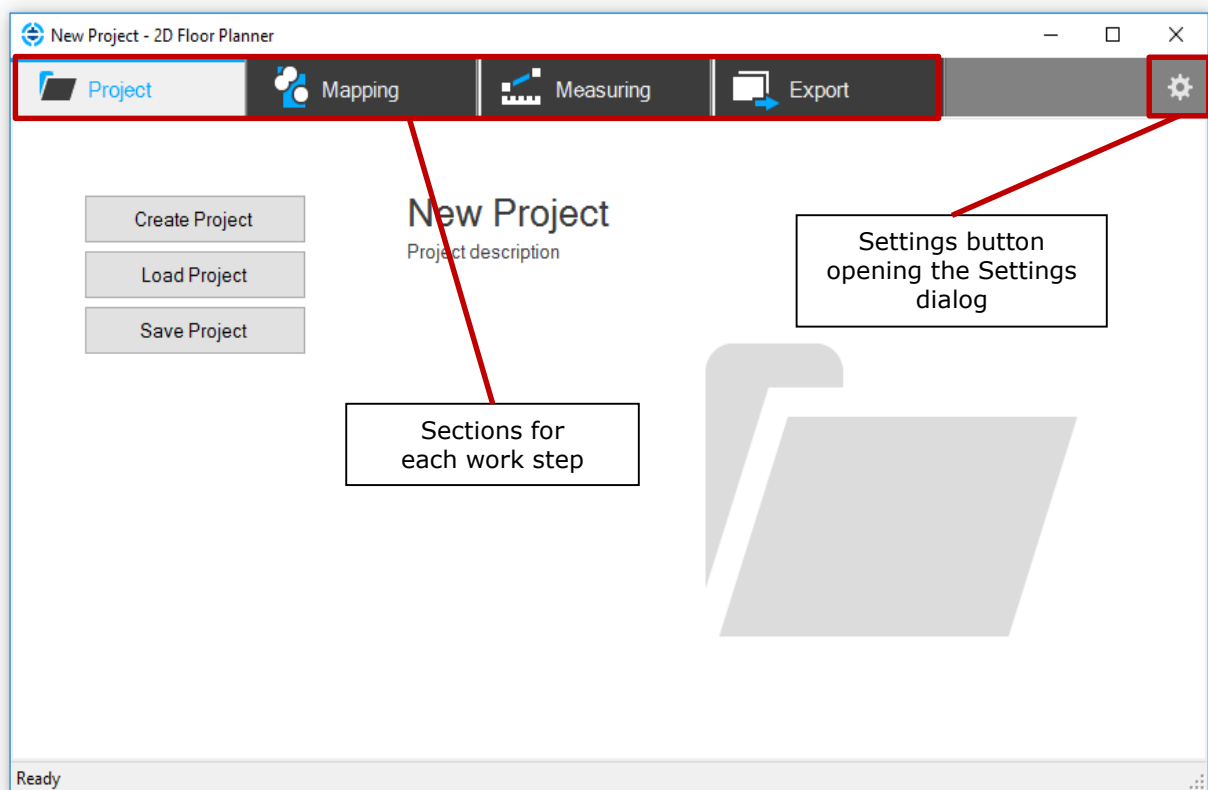


**Figure 4-1: Update dialog**

If you start 2D Floor Planner for the first time the activation / registration dialog will appear. See Section 5-2 for details.

### 4.2. 2D Floor Planner Main Window

The main window of the 2D Floor Planner represents the recommended workflow for recording a 2D floor plan. It is divided into different sections. Each section represents a work step. Figure 4-2 shows the main window.



**Figure 4-2: Main window of 2D Floor Planner including sections for each work step.**

## 1. Sections

- Project
  - Create, Load, Save project
- Mapping
  - Record 2D floor plans on the fly with the Scan Localizer
- Measuring
  - Measure distances in the 2D floor plan
- Export
  - Export to different formats
  - Open floor plan directly in FARO Zone 2D



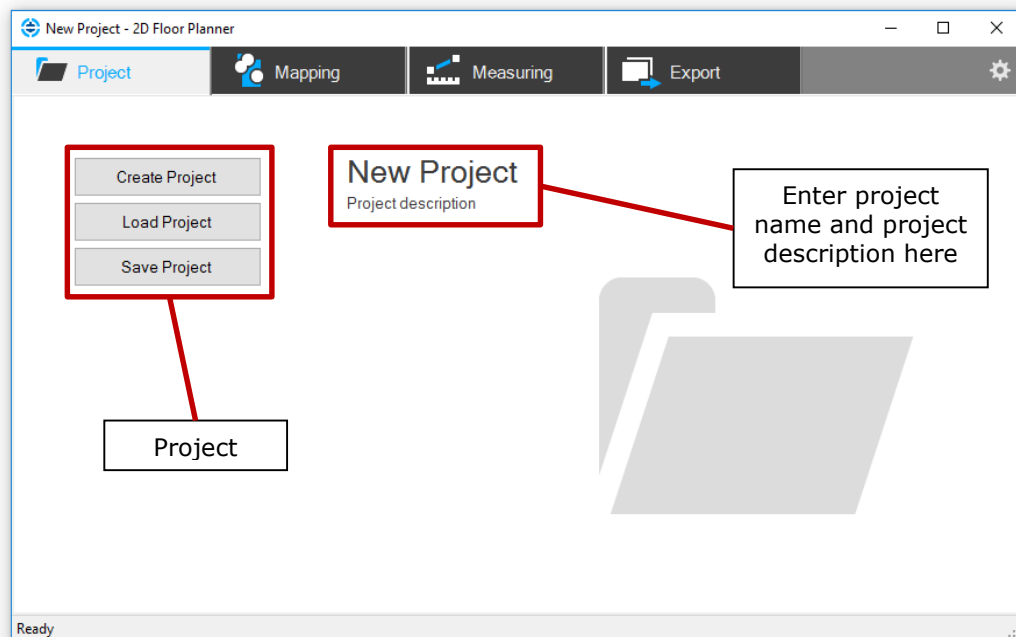
- You can always return to the Project Section and save your current project using the **Save Project** button

## 2. Settings

- The Settings are available via the setting icon in the right corner of the window.

### 4.3. Project section

The Project section handles all relevant project actions. Figure 4-3 shows an overview. On the left side the project controls are located.



**Figure 4-3: Project section with project controls**

#### Project Control

- **Create Project**
  - Creates a new project with name and description entered in the text fields.
- **Load project**
  - Loads an existing project. If a mapping process is running a dialog appears and the user can choose the next action.
- **Save project**
  - The project will be saved. If it has not been saved before, a save dialog will appear.

## 4.4. Mapping Section

Figure 4-4 shows an overview with a floor plan generated by the Scan Localizer.

If the Mapping section is opened the system will directly connect to the Scan Localizer. If there is a problem during the connection process an error message will be shown in the **Status Bar** of the application. The **Scan Localizer Connection** symbol will be red. The system will automatically try to connect to the Scan Localizer in a certain time interval.



- If the Scan Localizer is not connected and the connection should be reinitiated immediately, change to another section, e.g. Project and then again to the Mapping section symbols on the right side represent the current state of the Scan Localizer.
- You can always change to any other Section when the Scan Localizer is connected without using data.
- If your notebook runs out of power and/or you have to restart you can just restart 2D Floor Planner after reboot and your recorded map is still available if you change to the Mapping Section.

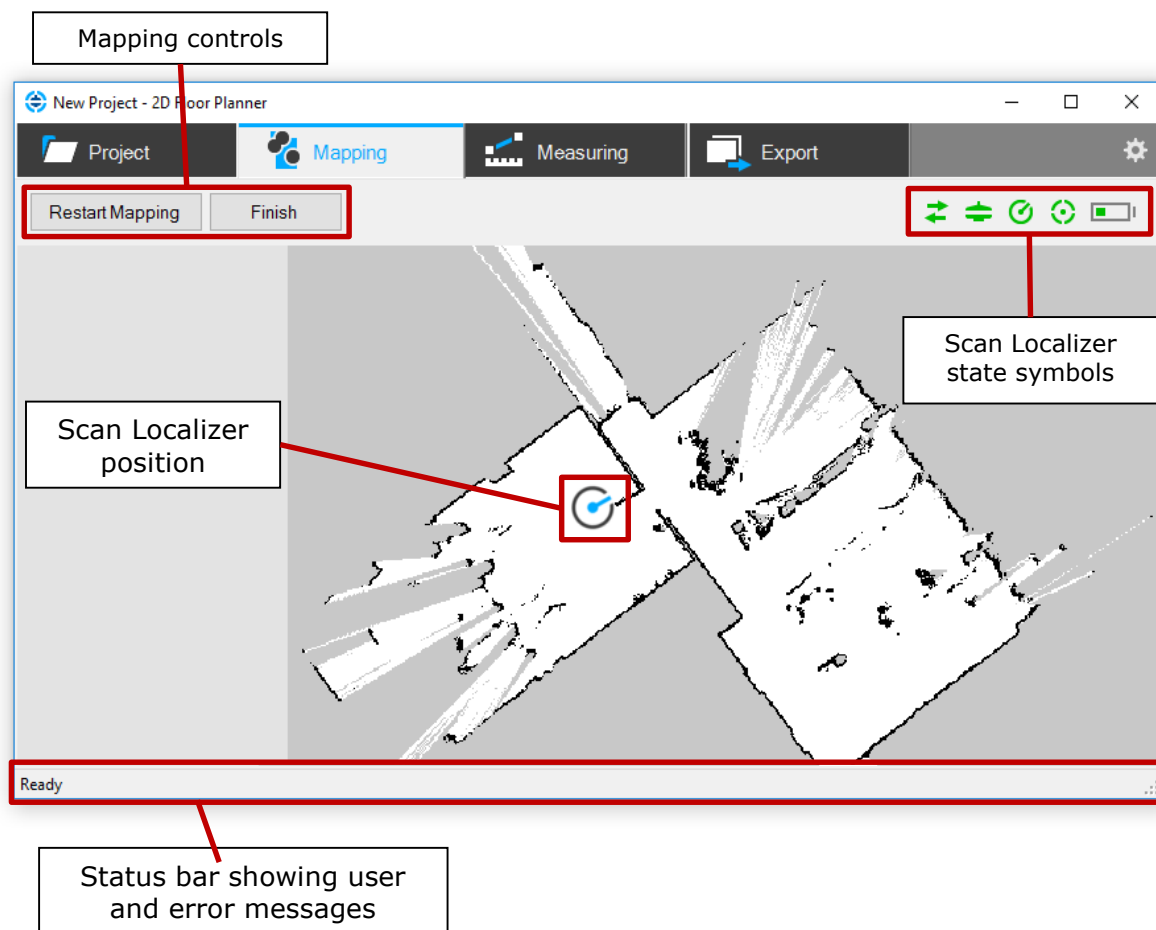







Figure 4-4: The Mapping Section



In the right corner the right corner the Scan Localizer status symbols can be found that inform about the current hardware state of the Scan Localizer. Figure 4-5 describes the different statuses of the symbols.

## 1. Scan Localizer Status symbols

If the symbols are grey the map recording process was either stopped or the Scan Localizer is not online.

Symbol	Status - Color	Description
	red, green	<b>Scan Localizer Connection</b> red: Not connected to Scan Localizer. green: Connected to Scan Localizer.
	red, green	<b>Scan Localizer status</b> red: error in the Scan Localizer. In most cases a hardware error occurred. Move with the mouse over the icon to get more information. green: system working correct.
	red, green	<b>Scan Localizer map/position quality</b> red: the quality of the map/position is not good enough to guarantee a correct result. The system may still work correctly, but the user should check the map visually for errors. If the map is erroneous, save the project and start a new map. Errors can be corrected using the <b>Rewind Function</b> . green: the quality of the map/position is good enough.
	red, yellow, green	<b>Laser view</b> red: the view for the laser in the Scan Localizer is blocked, maybe by an obstacle. This can have a negative impact on the map/position quality. Try to move the Scan Localizer away from the obstacle. yellow: the view of the Scan Localizer is not completely blocked, but at least in parts. green: the laser view is free.
	red, yellow, green	<b>Battery Charging state</b> red: critical state. Scan Localizer will soon shut down. yellow: the battery charge is low. Change the battery or charge it soon. green: charging state ok.

**Figure 4-5: Scan Localizer status symbols**

## 2. Scan Localizer position

The current position of the Scan Localizer is represented by the  symbol in the floor plan.

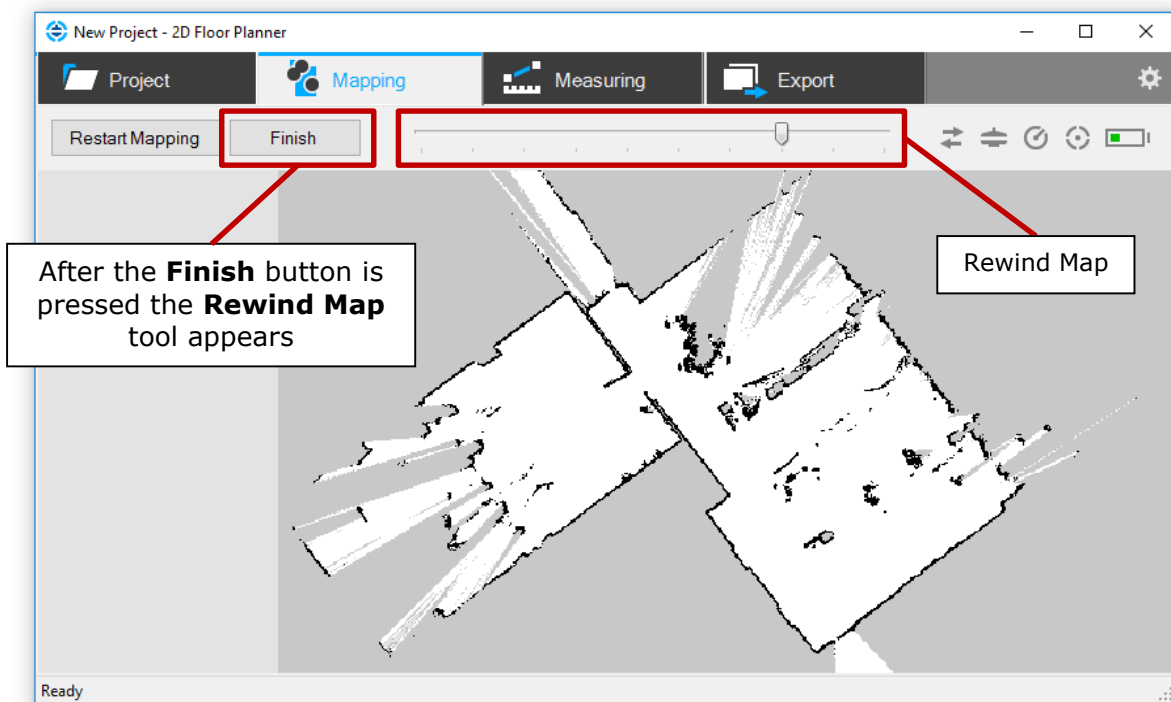
## 3. Mapping controls

The Mapping controls contain two buttons:

- **Reset Mapping:**
  - Resets the complete map / floor plan and starts a new floor plan from the current position of the Scan Localizer.
- **Finish:**
  - Stop the mapping process. After the project is finished the Rewind Control is available to jump back to earlier versions of the floor plan.

## 4. Rewind Control

The Rewind Control allows to jump back in time to earlier versions of the floor plan. This is useful in an error case when the current map was destroyed by a faulty measurement. The Rewind Control is available as soon as the **Finish** button has been pressed. The user can use the Rewind Control slider to jump in the floor plan history. If an acceptable version is found just leave the slider in the corresponding position and this version will be automatically used. Figure 4-6 shows the Rewind Control function.



**Figure 4-6: Rewind Control slider to go back in the floor plan history**

## 4.5. Measurement Section

The Measurement Section allows for measuring distances in the floor plan during and after the mapping process. Figure 4-7 show the Measuring Section.



**Figure 4-7: Measurement tool for floor plan**

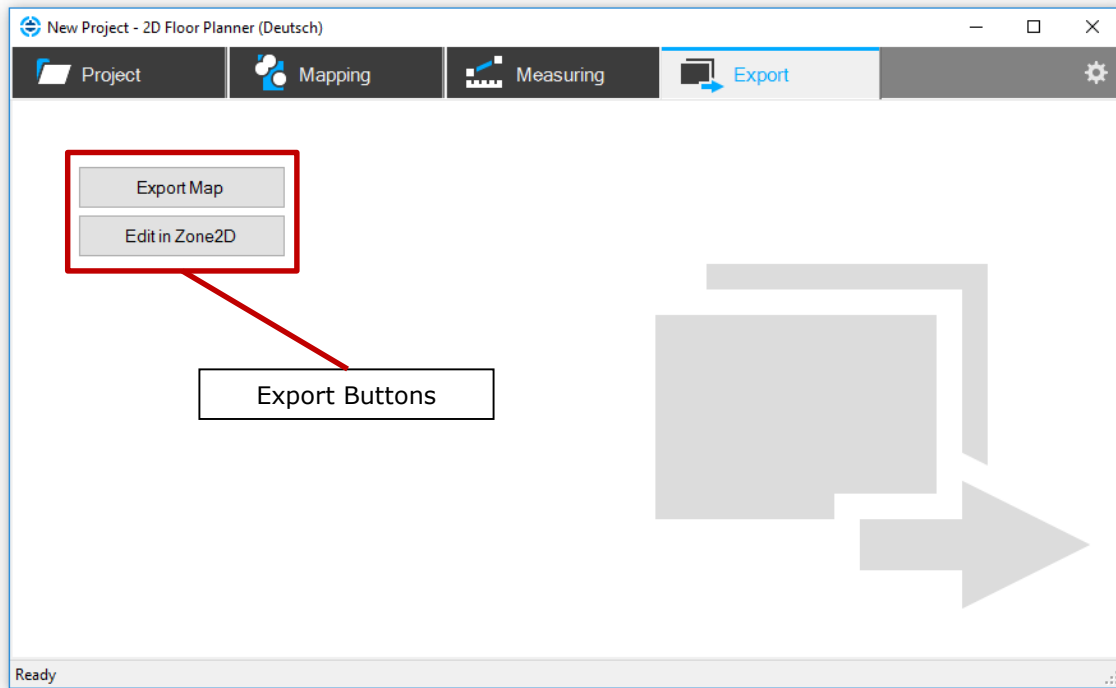
The user can always change to the Measuring Section, execute a measurement and go back to another section. Measuring a distance is done by pressing the **Measure** button. The cursor will change to a cross. Now click on the starting point of the measurement with the left mouse button, hold it and move the mouse to the end point of the measurement. A blue line represents the measurement. When the mouse button is released the measurement is finished. The measurement is shown in the Measure tool next to the Measure button.



- Zoom function: The floor plan in the Mapping and Measuring section has a zoom function. The mouse wheel is used to zoom in and out

## 4.6. Export Section

The Export Section is used to export your floor plan to different formats. An exported floor plan can be imported in e.g. a CAD program. Figure 4-8 shows the Export Section.

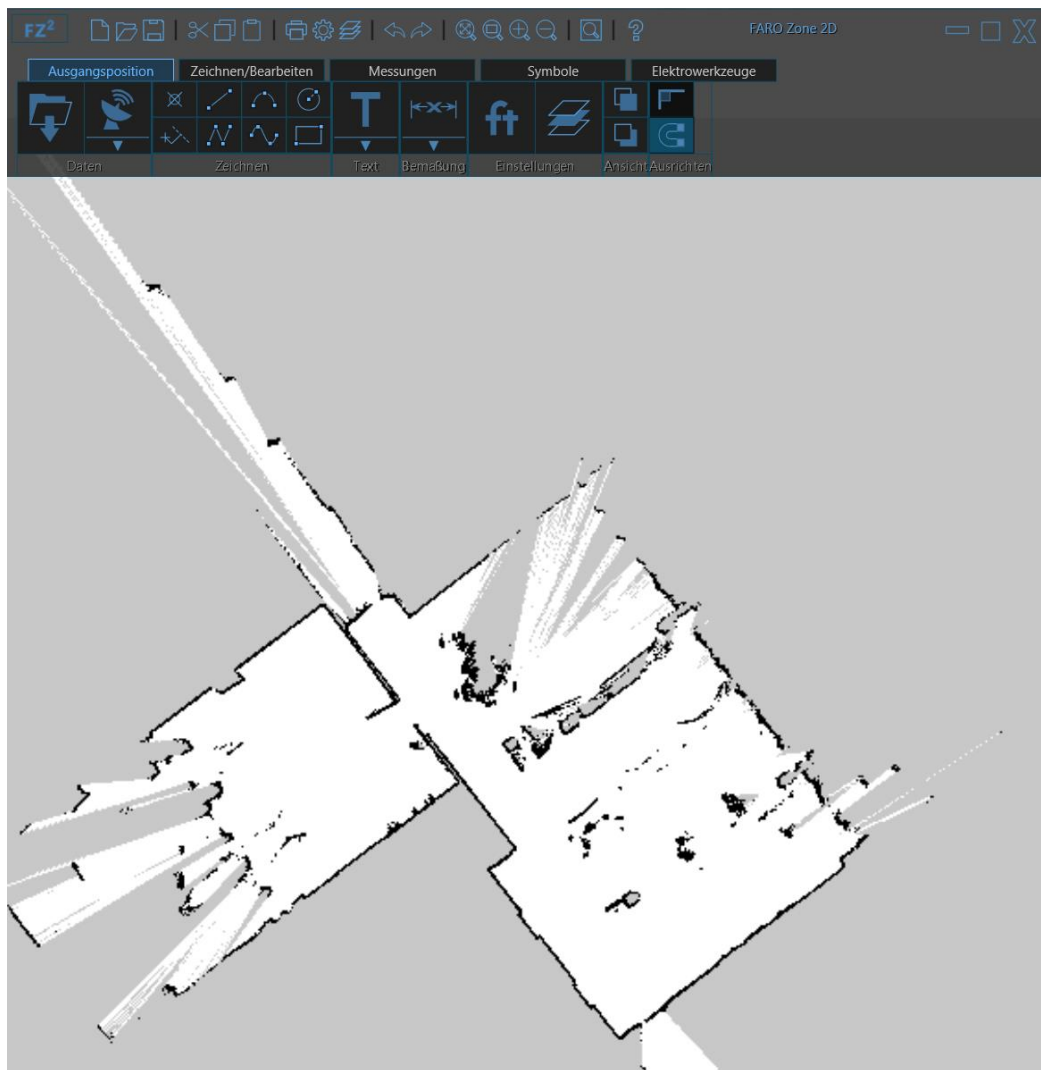


**Figure 4-8: Export section**

The **Export Map** button will open a save dialog. It is possible to choose between different export formats:


- PNG (scaled)
- TIFF (scaled)
- BMP
- JPG

The button **Edit in Zone2D** is only enabled if FARO Zone 2D is installed on the computer. The **Edit in Zone2D** Button automatically opens a new window of FARO Zone 2D with a new project and the floor plan from 2D Floor Planner. Figure 4-9 shows the floor plan opened in FARO Zone 2D.



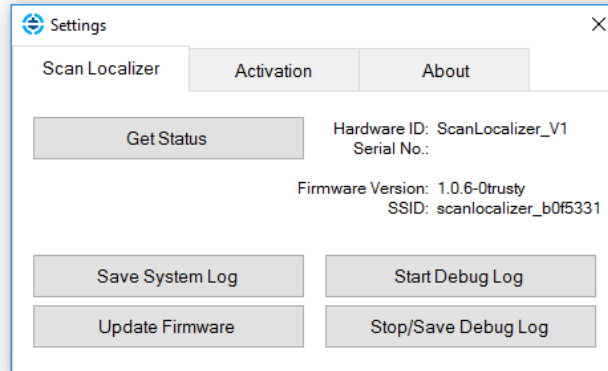
**Figure 4-9: FARO Zone 2D with the imported floor plan from 2D Floor Planner**

## 5. Settings

The Settings Dialog can be opened with the  icon. It consists of three tabs: Scan Localizer, Activation and About.

### 1. Scan Localizer

The Scan Localizer tab allows for accessing the Scan Localizer hardware. Figure 5-1 shows the Scan Localizer tab.



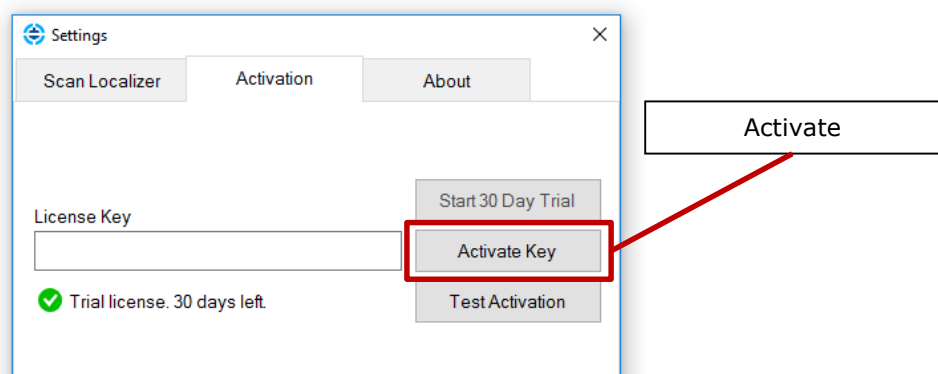
**Figure 5-1: Scan Localizer system settings**

The following functions are available:

- **Get Status:** Get information about Firmware version, SSID, Serial No. and Hardware ID of the Scan Localizer.
- **Save System Log:** Downloads the system log from the Scan Localizer. In case of a hardware error the FARO support will ask you to send this log file.
- **Update Firmware:** Update the firmware of the Scan Localizer. In case of a firmware update an update file is available. An open dialog is displayed. Select the firmware update file and press **OK**. This will install the firmware update. The Scan Localizer has to be connected to a power source and the battery charge must be at least 50%.
- **Start Debug Log:** Debug function for error cases. The support team will inform how to use this feature in an error case.
- **Stop/Save Debug Log:** Debug function for error cases. The support team will inform how to use this feature in an error case.

## 2. Activation

Figure 5-2 shows the license activation functions.



**Figure 5-2: 2D Floor Planner license / activation dialog**

If the application is started for the first time this dialog will automatically appear. The **Start 30 Day Trial** button can be pressed to start trial use. If a license is available, the license key must be entered into the **License Key** field. Afterwards the **Activate Key** button should be

pressed. There must be a connection to the Internet to activate a license key. Otherwise, activation will fail.



- If the activation process fails several times, check the internet connection and if applicable the proxy settings

### 3. About

The About tab shows general information about FARO 2D Floor Planner. You can also check for an updated version there.

## 6. Known Issues

- **Mount the Scan Localizer at the right height:** if you use the Scan Localizer for recording floor plans it makes sense to put it in a high position (e.g. over 2m). At this height there are normally less obstacles that block the view on the walls of the building. As a result, you will get the walls in your floor plan straight away rather than other objects located in the building.
- **Don't tilt the Scan Localizer:** while recording the 2D floor plan with the Scan Localizer take care that you don't tilt the Scan Localizer too much (approx. not more than 20°). This will have a negative impact on the data quality and may cause corrupted data. If the Scan Localizer is moved over obstacles try to keep it in a horizontal position.
- **Don't put the Scan Localizer directly in front of an opening door:** Opening doors can sometimes lead to wrong measurement results. If you encounter continuous problems with your project, try to keep the Scan Localizer at least 2m away from the opening door and put its front side away from the door.

## 7. Technical Support

This software is part of the "Technical Sneak Preview" program and is currently not supported by the common FARO support channels.

**Only** direct Email support from the FARO Labs team is available.

The **Scan Localizer Hardware** is fully supported by the FARO support channels. Please refer to the information in the Scan Localizer manual.

If you have any problem using one of our products, please follow these steps before contacting our Technical Support Team:

- Be sure to read the relevant sections of the documentation to find the help you need.
- Document the problem you are experiencing. Be as specific as you can. The more information you have, the easier the problem will be to solve.
- If you still cannot resolve your problem, have your device's Serial Number available *before calling*.
- **E-Mail**  
[faroeulabssoftware@faro.com](mailto:faroeulabssoftware@faro.com)

E-Mails will be answered within 48 hours if possible. However, this cannot be guaranteed in the "Technical Sneak Preview" Program.

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