TRBOnet One

User Guide

Version 6.2

Last revised on 24 January 2024

Contents

1 Introduction

This document is intended for end users of the TRBOnet One software.

1.1 About TRBOnet

TRBOnet is a suite of professional applications for MOTOTRBO digital two-way radio networks. TRBOnet manages voice and data communication paths across network endpoints. It provides a unified graphical dispatcher workbench interface for the entire range of workforce fleet management tasks.

For more information about TRBOnet products, refer to our website.

1.2 Contacts

Region	Phone	Email & Support
EMEA	+44 203 608 0598	info@trbonet.com — general and commercial inquiries
Americas	+1 872 222 8726	support@trbonet.com — technical support
APAC	+61 28 607 8325	http://trbonet.com/kb/ — online knowledge base

2   About TRBOnet One

TRBOnet One is a PC-based voice dispatch and data application for MOTOTRBO professional digital two-way radio systems. This application is a new generation of TRBOnet dispatch consoles that brings new features and capabilities.

2.1   Features

- Flexible Graphical User Interface
- Voice Dispatch
- Voice Recording
- Location Tracking
- Indoor Location, support for 3D Floor Plans
- Chats and File Transfer
- Visual Alerts and Notifications
- Online Video
- SCADA Support
- Telemetry Dashboard, support for MODBUS

2.2   Prerequisites

- TRBOnet Server and Dispatch Console must be installed and configured. See *TRBOnet Enterprise/PLUS User Manual, section 4.3 Installing TRBOnet Enterprise/PLUS*.

2.3   Hardware and Software Requirements

CPU	Intel Core i5
Memory	4 GB
HDD	2 GB for installation files
Sound Card	Yes
Display	640x480 minimum resolution, 1920x1080 and higher resolution is recommended
Additional Devices	Speakers and microphone, or headset; Imtradex devices are recommended
Supported OS	Windows 10/11
Software	.NET Framework 4.8

3　Connecting to Server

Launch TRBOnet One using the desktop or Start menu shortcut.
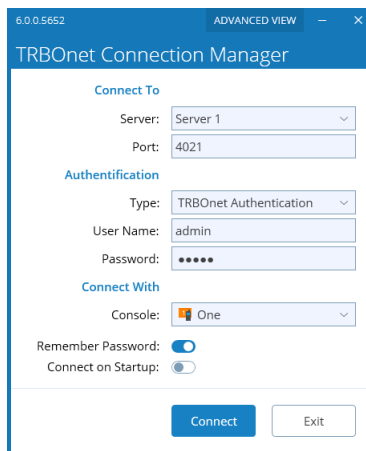
Connect To

- **Server**
  Enter the IP address of TRBOnet Server. Or, from the drop-down list, select the previously defined connection profile (see section 3.1, Creating Connection Profile).

- **Port**
  Enter the local port of the TRBOnet Server PC.

Authentication

- **Type**
  From the drop-down list, select the Authentication type:

  - **TRBOnet Authentication**
    Select this method to log on as a user registered in the TRBOnet Dispatch Console users list.

  - **Windows Authentication**
    Select this method to log on using the PC name. The system automatically shows the PC name as a user name.

    Note: The Windows user must be registered in the TRBOnet Dispatch Console users list.

- **User Name**
  Enter the user name registered in the TRBOnet Dispatch Console users list.

- **Password**
  Enter the user password.

  For the default Admin credentials (**User Name** and **Password**), consult our support team.

> Note: For security reasons, we strongly recommend that you change the password for the administrator immediately after the first login.

Connect With

- **Console**
  From the drop-down list, select **One**. If you select **Enterprise**, then TRBOnet Dispatch Console will be launched.

- **Remember Password**
  Select this option if you want your password to be securely stored on your PC so that you can automatically connect to TRBOnet Server.

- **Connect on Startup**
  Select this option to launch the dispatch console without having to type the user name and password every time. Use this option if you regularly connect to the same TRBOnet Server and your workstation is in a secure location.

3.1   Creating Connection Profiles

- Click the **Advanced View** button at the top right of the TRBOnet Connection Manager dialog box.
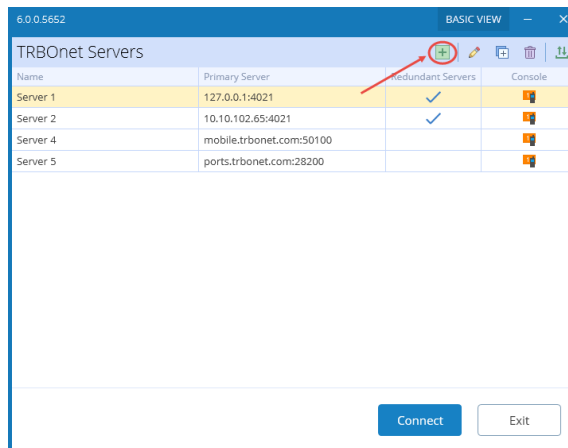
- To add a connection profile, click the plus sign button at the top of the dialog box.
 As a result, the **Add Server Connection** dialog box opens.
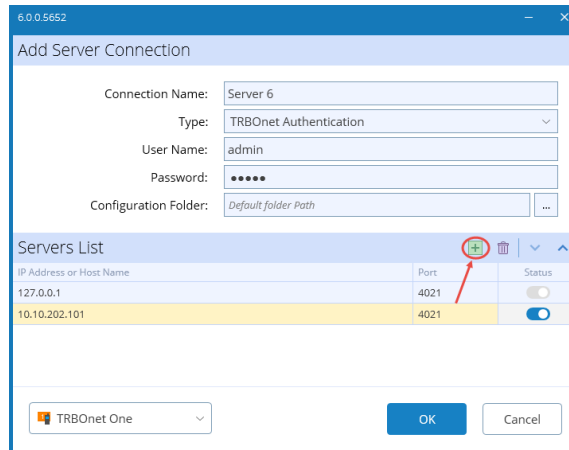
- Enter desired profile parameters and populate the list of servers.
- To add a server to the Servers List, click the plus sign button at the right. Enter the **IP Address** and **Port** of the server. You can also uncheck a server in the list, so it won't be used until checked again.

  > Note: The first checked server in the list will be used as the primary server, whereas the others will be used as redundant servers in their respective order.

4   Administration Tool

A user that has administrative privileges can run the Administration Tool that will allow them to completely configure the radio system.

- Click the [≡] button in the upper-left corner of the main window.
- On the slide-out menu, click **Administration**.
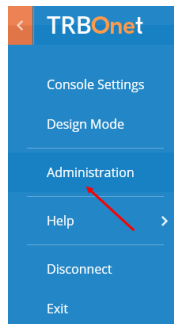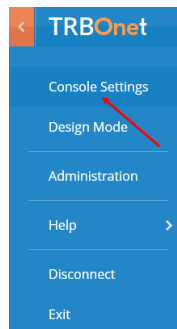

For more information on how to use the Administration Tool, see *TRBOnet Enterprise/PLUS User Manual, section 6.4, Administration*.
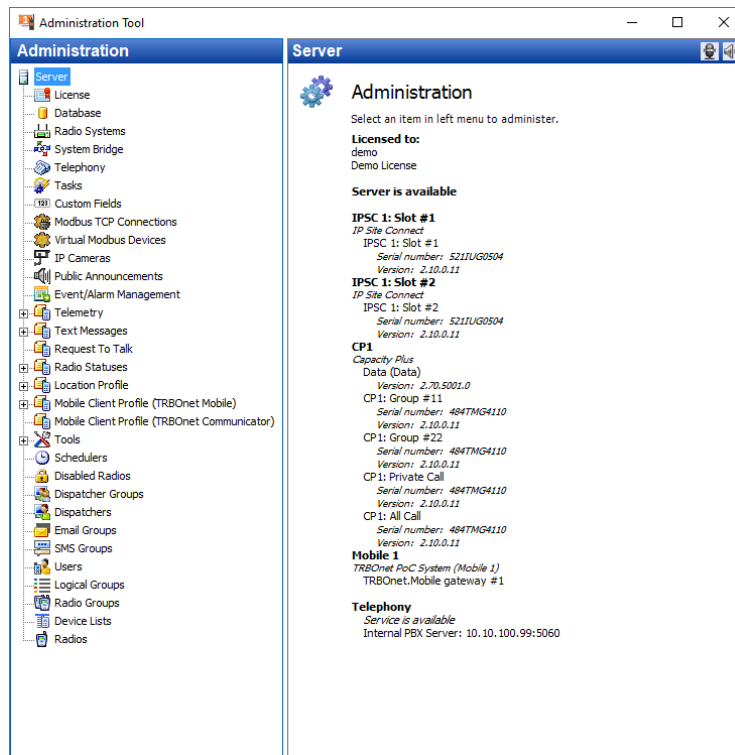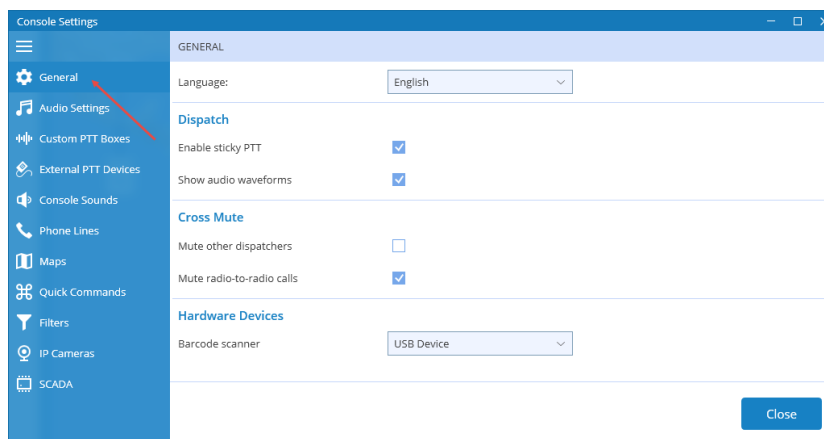
5   Console Settings

- Click the ☰ button in the upper-left corner of the main window.
- On the slide-out menu, click **Console Settings**.

In the Console Settings window, specify the following parameters:

5.1   General

- Click the **General** tab in the left pane.

- **Language**
  From the drop-down list, select the interface language for TRBOnet One.

Dispatch

- **Enable sticky PTT**
  Select this option to start and finish voice calls by a short press of the PTT rather than holding the PTT down until the end of a voice call.

- **Show audio waveforms**
  Select this option to display an audio wave indicator in the PTT box when there is voice activity.

Cross Mute

- **Mute other dispatchers**
  Select this option to mute all other dispatchers.

- **Mute radio-to-radio calls**
Select this option to mute calls from radio to radio.

Hardware Devices

- **Barcode scanner**
From the drop-down list, select the required device (**1900**).

5.2 Audio Settings

In the **Audio Settings** tab, the administrator can edit audio profiles.

- Click the **Audio Settings** tab (1) in the left pane.
- In the **Audio Settings** pane, select the required audio profile (such as, Default, Selected, etc.), and click the pencil button (2).
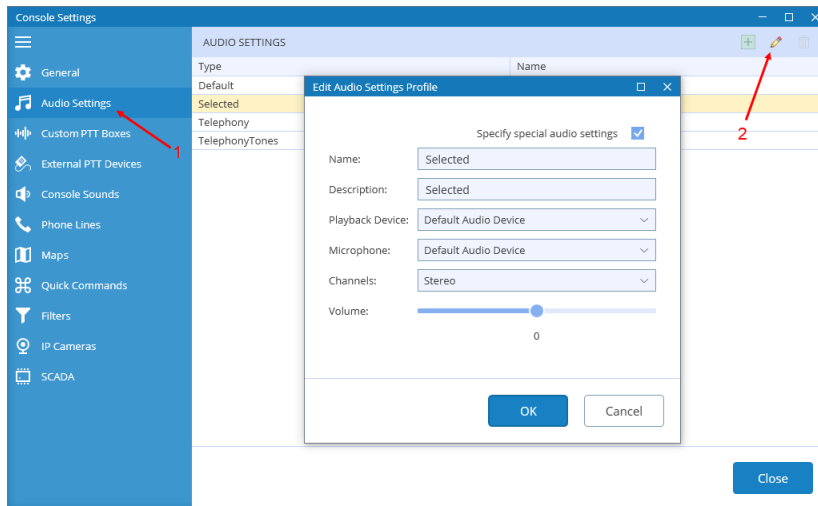
In the **Edit Audio Settings Profile** dialog box, specify the following parameters:

- **Name**
Enter a name for the profile.

- **Description**
Enter a brief description for the profile.

- **Playback Device**
From the drop-down list, select the audio device to play incoming voice messages and playback voice recordings in the dispatch console.

- **Microphone**
From the drop-down list, select the recording device the microphone is connected to.

Note: If TRBOnet One is running on the same PC with TRBOnet Server connected to control stations via programming cable and sound card, the playback and recording devices cannot be the same for TRBOnet One and TRBOnet Server.

- **Channels**
  From the drop-down list, select the channels on the playback device (Stereo, Left, or Right).
- **Volume**
  Move the slider to the right/left to increase/decrease the volume level.

5.3   Custom PTT Boxes

In the **Custom PTT Boxes** tab, you can add/edit custom PTT boxes that are associated with radio channels. You can then add a custom PTT box to the Radio Interface panel.

- In the left pane, click the **Custom PTT Boxes** tab (1).
- In the **Custom PTT Boxes** pane, click the plus sign button (2).
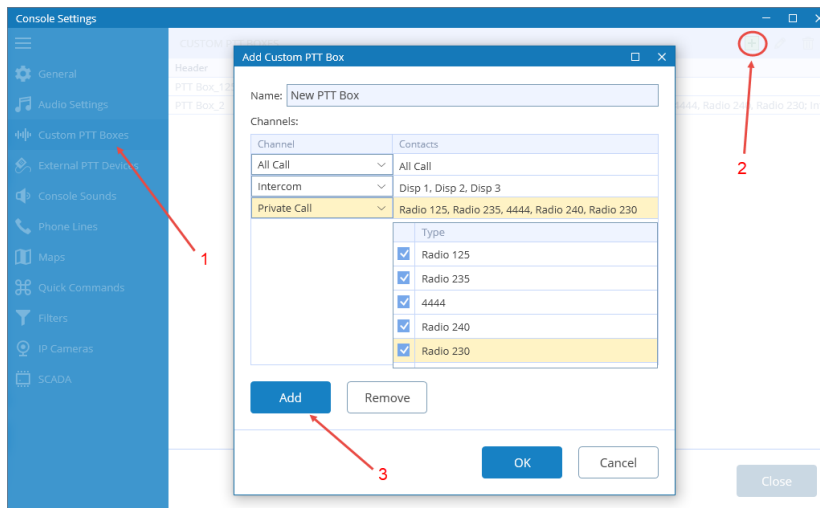
- In the **Add Custom PTT Box** dialog box, specify the following settings:
- **Name**
  Enter a name for the custom PTT box.
- Click **Add** (3) to add a channel to the custom PTT box.
- **Channel**
  Select the channel. This could be All Call, Private Call, Intercom, Dispatcher Group, Radio Group, or Slot.
- **Contacts**
  Select the radio(s)/radio group(s)/dispatcher(s)/dispatcher group(s) the selected channel will be associated with.

> Note: Radios/radio groups/dispatchers/dispatcher groups must be registered in TRBOnet Dispatch Console.

5.4   External PTT Devices

In the **External PTT Devices** tab, you can configure various devices to be used as PTT devices, such as a footswitch, etc. Note that the connected external PTT buttons will be applied to selected PTT boxes.

- In the left pane, click the **External PTT Devices** tab (1).
- In the **External PTT Devices** pane, click the plus sign button (2).
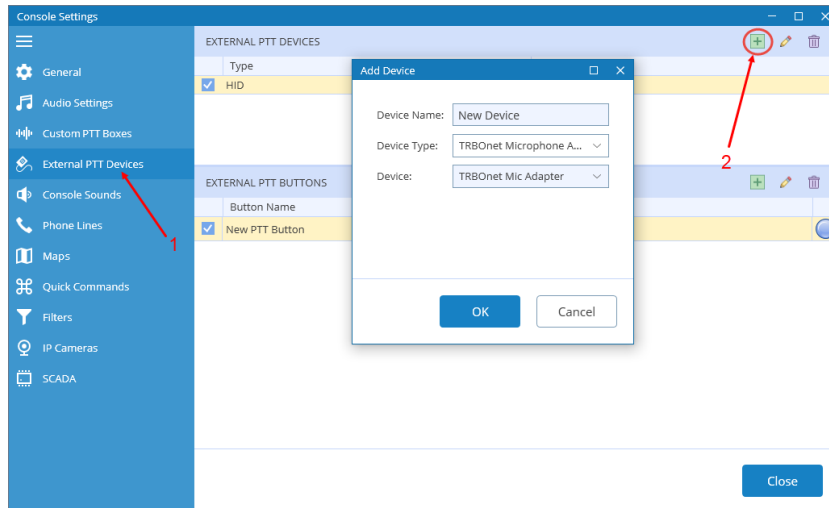
- In the **Add Device** dialog box, specify the following settings:
  - **Device Name**
    Enter a name for the device.

5.4.1   Adding Remote Microphone

The Motorola Remote Microphone is connected to the PC with the help of TRBOnet Swift Adapter M002.

- Connect the remote microphone to a USB-port of the PC by using the M002 adapter.
- From the **Device Type** drop-down list, select **TRBOnet Microphone Adapter**.
- Click **OK**.
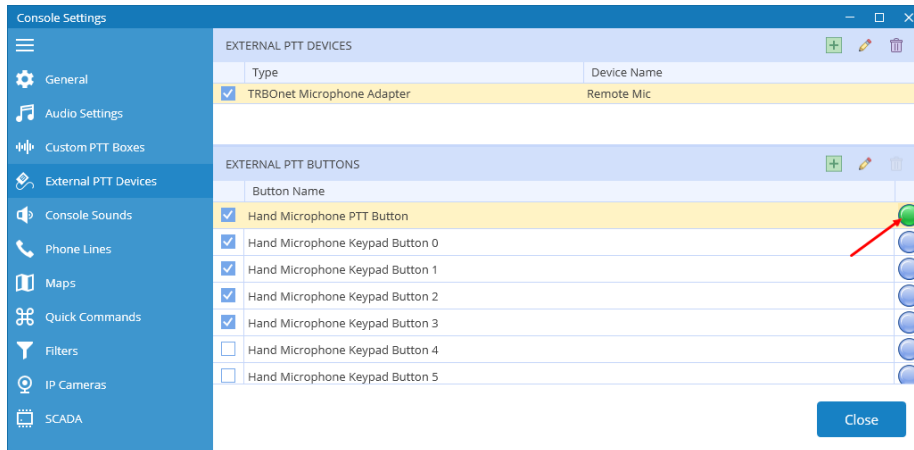
- In the **External PTT Buttons** pane, select the required buttons.
- To test a button, press the corresponding key on the remote microphone device and see if the indicator circle on the right becomes green. Release the key and see if the indicator box returns to blue.

5.4.2 Adding TIPRO Speakerbox

- Connect the speaker box to a USB-port of the PC.
- From the **Device Type** drop-down list, select **Tipro**.
- Click **OK**.
- In the **External PTT Buttons** pane, click the plus sign button.
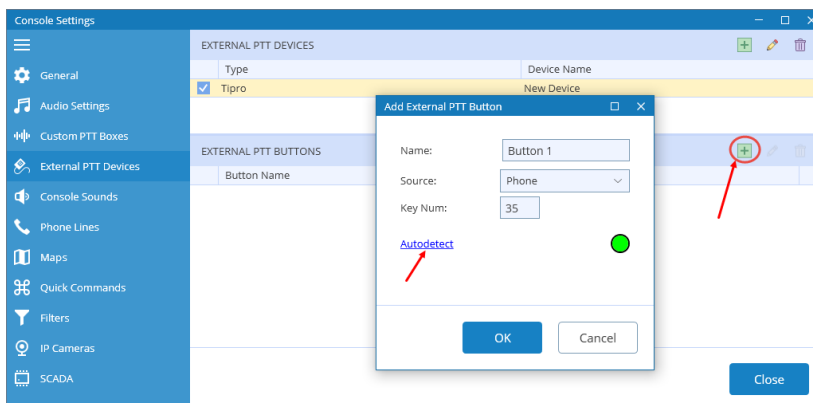
- In the dialog box that opens click the **Autodetect** link.
- Press the key on the box you want to use as the PTT button and see how the dialog fields get populated.
- Click **OK**.

5.4.3 Adding TRBOnet Swift Footswitch

TRBOnet Swift Footswitch P001 is a device that can be used for hands-free PTT operation. The footswitch can be supplied with either the RS-232, RJ-45 or USB connector. To connect the footswitch with the RJ-45 connector to the PC via a USB port, use the additional TRBOnet Swift Adapter M002.

5.4.3.1 Adding TRBOnet Swift Footswitch connected to USB port

- Connect the footswitch to a USB-port of the PC either directly or by using the M002 adapter.
- From the **Device Type** drop-down list, select **HID**.
- From the **Device** drop-down list, select **TRBOnet Footswitch USB**.
- Click **OK**.

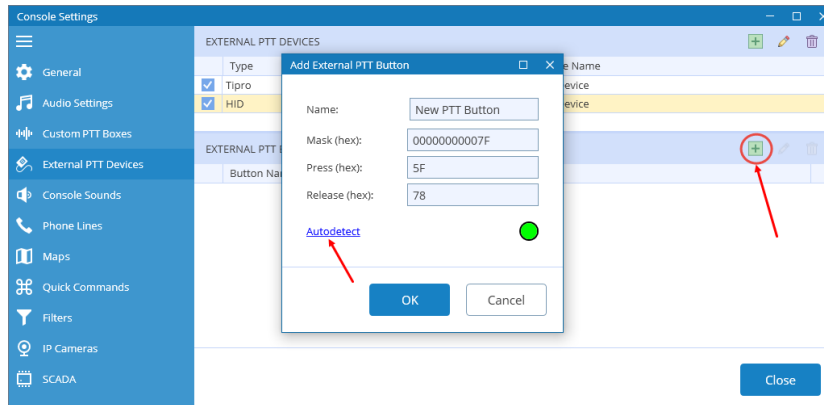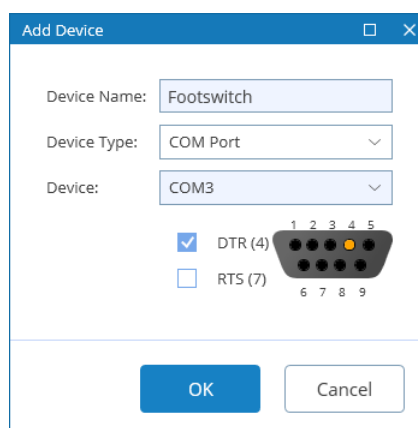- In the **External PTT Buttons** pane, click the plus sign button and then **Add button**.
- In the dialog box that opens click the **Autodetect** link.
- Press the footswitch button and see how the dialog fields get populated.
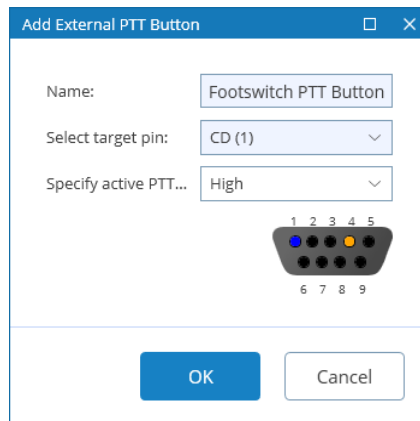- Click **OK**.

5.4.3.2 Adding TRBOnet Swift Footswitch connected to COM port

- Connect the footswitch to the PC via a COM-port.
- From the **Device Type** drop-down list, select **COM Port**.

- From the **Select Port** drop-down list, select **COM3**.
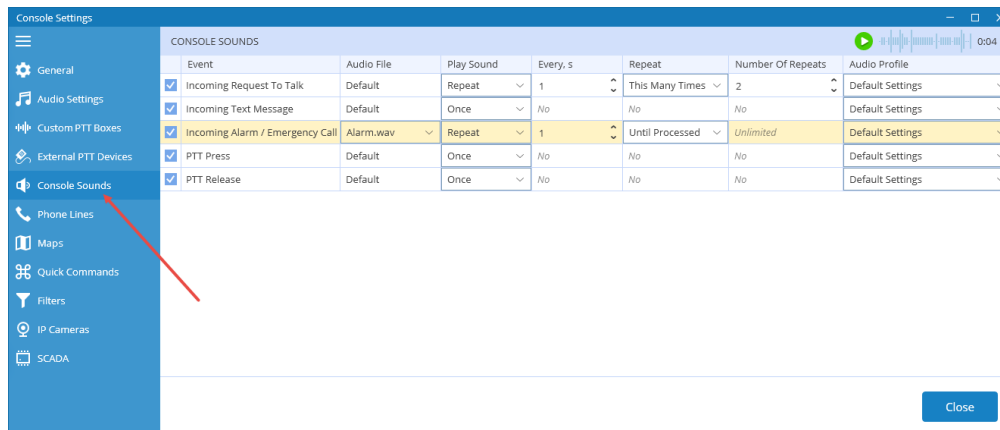- Select **DTS (4)** checkbox.
- Click **OK**.

- In the **External PTT Buttons** pane, click the plus sign button and then **Add button**.

- In the dialog box that opens, click **OK**.

5.5 Console Sounds

- Click the **Console Sounds** tab in the left pane.

- In the **Console Sounds** pane, specify the following parameters:
  - Selected checkbox on the left of the event name means that the selected audio file will be played for the event.
  - **Audio File**
    From the drop-down list, select the desired .wav file.
  - **Type**
    From the drop-down list, select either **Once** or **Repeat**.

    If you have selected **Repetitive**, enter the following parameters:
  - **Every**
    Enter time interval, in seconds, between playing the wav file.
  - **Repeat**
    From the list, select either **This Many Times** or **Until Processed**.

    If you have selected **This Many Times**, enter the following parameter:

▪ **Number Of Repeats**
Enter the number of times the .wav file will be played.

▪ **Audio Profile**
From the drop-down list, select the audio profile (playback device, etc.)
that will be used for the event. For the list of available audio profiles,
see section 5.2, Audio Settings.

5.6 Phone Lines

In the **Phone Lines** tab, the administrator can add/edit telephone lines that will
be available for telephone calls.

- In the left pane, click the **Phone Lines** tab (1).
- In the **Phone Lines** pane, click the plus sign button (2).
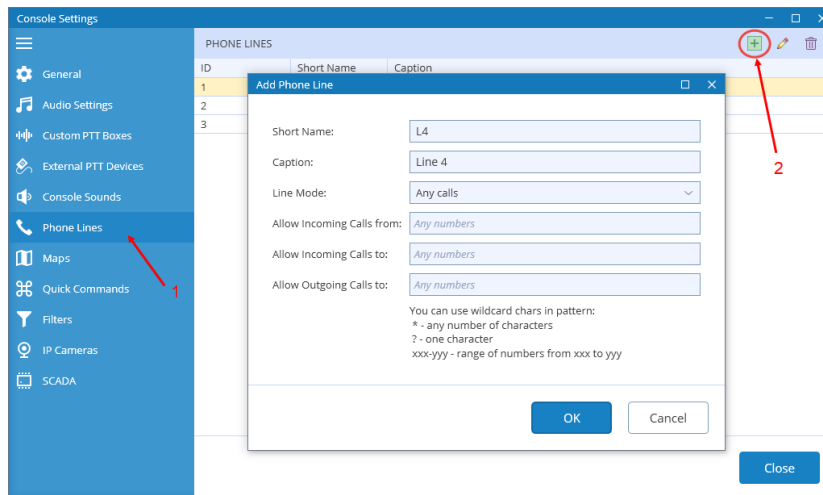
In the **Add Phone Line** dialog box, specify the following parameters:

▪ **Short Name**
Enter a short name for the phone line.

▪ **Caption**
Enter a caption for the phone line.

▪ **Line Mode**
From the drop-down list, select how to use the telephone line (for
incoming calls, for outgoing calls, or for any calls).

▪ **Allow Incoming Calls from**
Enter the phone number or the range of phone numbers from which
incoming calls will be allowed.

▪ **Allow Incoming Calls to**
Enter the phone number or the range of phone numbers to which
incoming calls will be allowed.

▪ **Allow Outgoing Calls to**
Enter the phone number or the range of phone numbers to which
outgoing calls will be allowed.

5.7　Maps

In the **Map** tab, you can select the map to display in the Map panel.

- In the left pane, click the **Maps** tab (1).
- In the **Maps** pane, click the plus sign button (2).
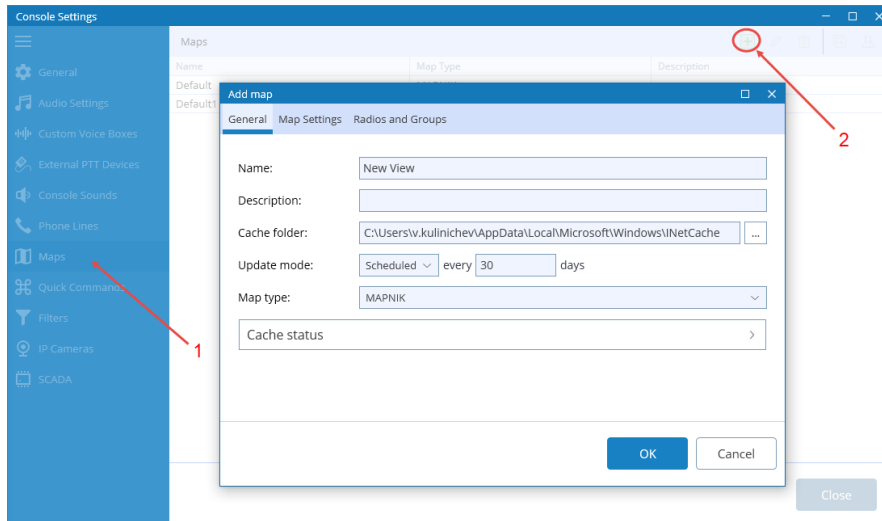
In the **Add map** window that opens, enter the following information:

- ▪ **Name**
  Enter a name for the map.

- ▪ **Description**
  Enter a description for the map.

- ▪ **Cache folder**
  Click the ellipsis (**...**) button and locate the folder on the PC where you want to store map data.

- ▪ **Update mode**
  Select the mode for updating the map tiles stored in the specified Cache folder ('Don't update', 'Forced update', or 'Scheduled').

- ▪ **Map Type**
  From the drop-down list, select the map type.

- ▪ **Key**
  Enter the API key for the selected map type.

Note:　To obtain the API key, click the **Apikey info** link below and follow the instructions.

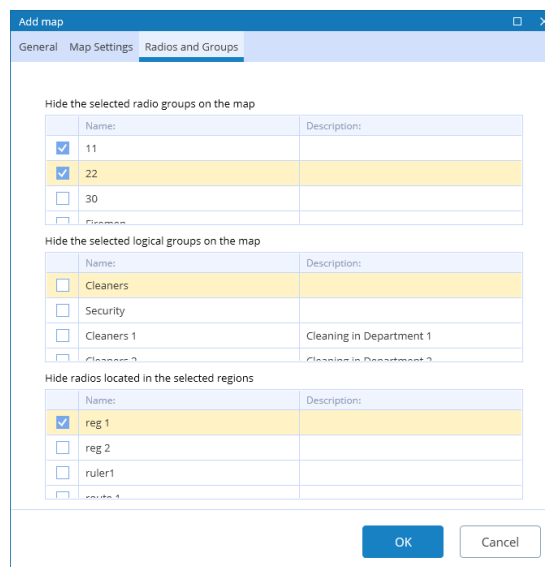**5 Console Settings**

5.7.1 Object Filter

- Click the **Map Settings** tab.
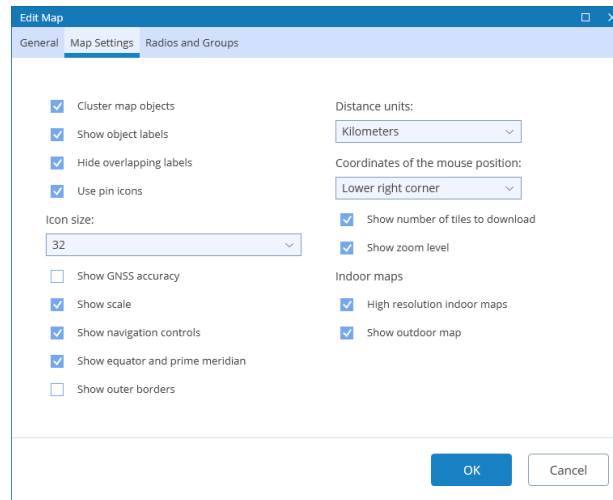
  - In this tab, you can select what to show on the map by selecting the appropriate checkboxes.

5.7.2 Radio Filter

- Click the **Radios and Groups** tab.

  - In this tab, you can hide radios belonging to certain groups/logical groups/regions by selecting the appropriate checkboxes.

5.8 Quick Commands

In the **Quick Commands** tab, you can create and configure Quick Commands (Text Messages, Send Telemetry, Request Location, Send Voice Message, and some other commands). With these commands, the dispatcher can quickly send Text Message, Telemetry, Location Request, Voice Message, and some other commands to a radio by clicking the appropriate Quick Command button located in the Quick Commands Panel (see section 9.6.7, Quick Commands Panel).

- In the left pane, click the **Quick Commands** tab (1).
- In the **Quick Commands** pane, click the plus sign button (2).
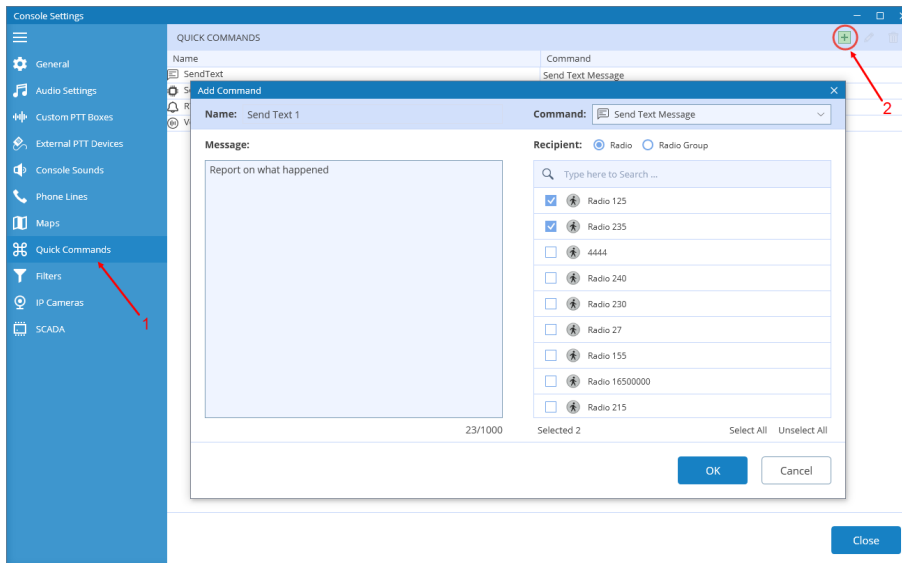
In the **Add Command** dialog box, specify the following parameters:

- **Name**
  Enter a name for the command.

5.8.1 Send Text Message

- **Command**
  From the drop-down list, select **Send Text Message**.

- **Message**
  Enter the text of the message.

- **Recipient**

  - **Radio**
    Choose this option to send a predefined text message to individual radios registered in the system. In the **Recipient** box, select target radios.

  - **Radio Group**
    Choose this option to send the text message to radio groups registered in the system. In the **Recipient** box, select target groups.

5.8.2   Send Telemetry

- **Command**
  From the drop-down list, select **Send Telemetry**.

- **VIO**
  Specify a VIO to which to send a telemetry command.

- **Command**
  From the drop-down list, select a telemetry command for the selected VIO.

- **Recipient**

  - **Radio**
    Choose this option to send the telemetry command to individual radios registered in the system. In the **Recipient** box, select target radios.

  - **Radio Group**
    Choose this option to send the telemetry command to radio groups registered in the system. In the **Recipient** box, select target groups.

5.8.3   Request Location

- **Command**
  From the drop-down list, select **Request Location**.

- **Recipient**
  Select radios to which to send a location request.

5.8.4   Send Voice Message

- **Command**
  From the drop-down list, select **Send Voice Message**.

- **Message**

  - **Load from File**
    Click this link and locate the audio file on your PC.

  - **Record Message**
    Click this link to record a new voice message.

  - **Convert Text to Speech**
    Click this link and on the drop-down panel, specify the following:

    - **Voice**
      From the drop-down list, select the voice for the message.

    - **Message**
      Enter the text of the message to be converted to speech.

- **Play back message**
  Click this link to play back the voice message.

- **Priority**
From the drop-down list, select the priority with which the voice message will be sent/queued. If this priority is higher than that of the current transmission, which is, in turn, allowed to be interrupted, the current transmission will be interrupted and the voice message will be sent instead.
- **Recipient**
  - Click the plus sign button on the right and specify the **Call Type**, **Channel**, and **Call Target** for the voice message.

5.8.5   Send Signaling

- **Command**
From the drop-down list, select **Send Signaling**.
- **Type**
From the drop-down list, select the signaling system type (Quick Call I, Quick Call II, DTMF, or Custom).

  If the **Custom** type is selected, specify the **Frequency 1**, **Frequency 2**, **Duration**, and **Pause** for the signal to be sent.
- **Radio System**
From the drop-down list, select the radio system.
- **Target Group**
From the drop-down list, select the target group to which the signal will be sent.

5.8.6   Send Command to Control Station

- **Command**
From the drop-down list, select **Send Command to Control Station**.
- Click the plus sign button to add a control station.
  - **Control Station**
From the drop-down list, select the Swift Agent connected to TRBOnet Server.
  - **Command**
From the drop-down list, select the PIN number and its value.

5.8.7   Request to Talk

- **Command**
From the drop-down list, select **Request to Talk**.
- **Recipient**
  - **Radio**
Choose this option to send the request to talk to individual radios registered in the system. In the **Recipient** box, select target radios.

▪ **Radio Group**
Choose this option to send the request to talk to radio groups registered in the system. In the **Recipient** box, select target groups.

5.8.8 Custom Event

- **Command**
From the drop-down list, select **Custom Event**.
- **Event ID**
Specify the event ID.

5.8.9 Send Swift Command

- **Command**
From the drop-down list, select **Send Swift Command**.
- **Swift Command**
From the drop-down list, select the appropriate Swift command.

Enter the required parameters, if any.
- **Recipient**

  ▪ **Radio**
  Choose this option to send the Swift command to individual radios registered in the system. In the **Recipient** box, select target radios.

  ▪ **Radio Group**
  Choose this option to send the Swift command to radio groups registered in the system. In the **Recipient** box, select target groups.

5.8.10 Send Push Notification

- **Command**
From the drop-down list, select **Send Push Notification**.
- **Subject**
Enter the subject of the notification.
- **Message Severity**
Choose the message severity (Information, Warning, or Alarm).
- **Message**
Enter the notification message to be displayed.
- **Recipient**

  ▪ **Radio**
  Choose this option to send the push notification to individual radios registered in the system. In the **Recipient** box, select target radios.

  ▪ **Radio Group**
  Choose this option to send the push notification to radio groups registered in the system. In the **Recipient** box, select target radio groups.

- **Dispatcher Group**
  Choose this option to send the push notification to dispatcher groups registered in the system. In the **Recipient** box, select target dispatcher groups.

5.9   Filters

In the **Filters** tab, the administrator can add filters that can be applied in the Activity Monitor panel.

- In the left pane, click the **Filters** tab (1).
- In the **Filters** pane, click the plus sign button (2).
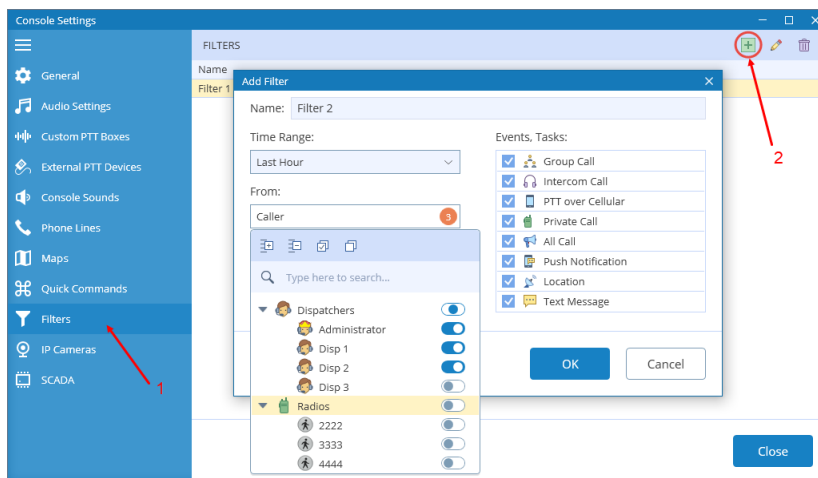
- **Name**
  Enter a name for the filter.

- **Time Range**
  From the drop-down list, select the desired time range.

- **Caller**
  From the drop-down list, select the caller(s).

- **Destination**
  From the drop-down list, select the destination(s).

- **Events, Tasks**
  In the list below, select the desired call type(s) (Group Call, Private Call, etc.) and/or event type(s) (Push Notification, Text Message, Location Data).
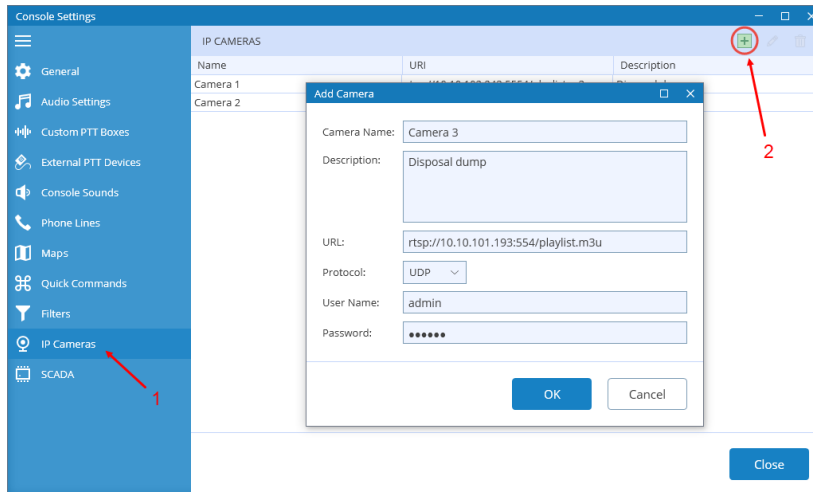
5.10   IP Cameras

In the **IP Cameras** tab, the administrator can add cameras as well as modify existing ones.

Note: The cameras you are adding must support the RTSP streaming protocol.

To add a camera:

- In the left pane, click the **IP Cameras** tab (1).
- In the **IP Cameras** pane, click the plus sign button (2).

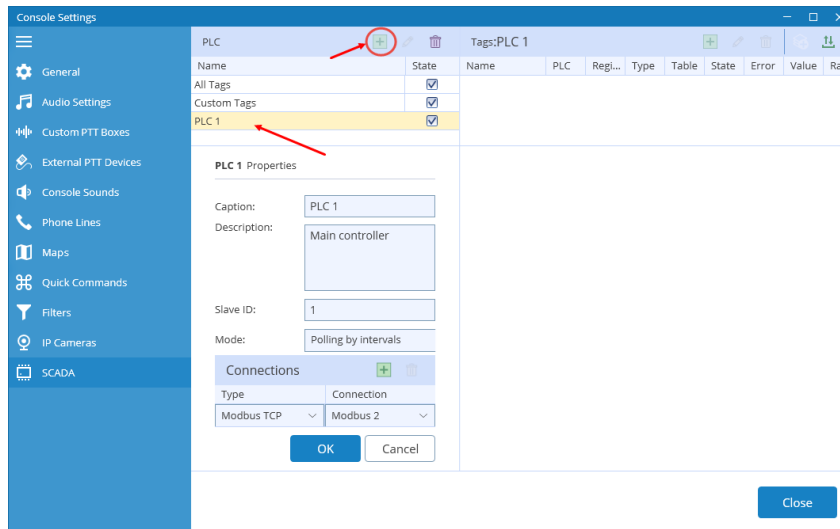In the **Add Camera** dialog box, specify the following parameters:

- **Camera Name**
  Enter a name for the camera.

- **Description**
  Enter a description for the camera.

- **URL**
  Enter the URL of the camera. Note the use of the **RTSP://** prefix and port number **554**.

- **Protocol**
  From the drop-down list, select **UDP**.

- **User Name**
  Enter the user name for the authentication, if needed.

- **Password**
  Enter the password for the authentication, if needed.

5.11   SCADA

In the **SCADA** tab, you can add/edit PLC devices and tags that can be associated with telemetry elements. Programmable Logic Controllers (PLCs) must be connected to TRBOnet Server via a Modbus TCP/IP connection.

For instructions on how to create a Modbus TCP/IP connection to TRBOnet Server, see section *6.4.7, Modbus TCP Connections* in *TRBOnet Enterprise User Manual*.

5.11.1 PLC Device

- In the **PLC** pane, click the plus sign button to add a PLC device, or double
 click the corresponding line in the list to edit the existing device.

  In the **PLC properties** pane, specify the following parameters:

  - **Name**
    Enter a name for the PLC device.

  - **Description**
    Enter a description for the PLC device.

  - **Slave ID**
    Enter the Slave ID of the PLC device.

  - **Mode**
    From the drop-down list, select one of the polling modes.

  - **Connections**
    Click the plus sign button to add a connection.

    - **Type**
      From the drop-down list, select 'Modbus TCP'.

    - **Connection**
      From the drop-down list, select the appropriate Modbus TCP
      connection previously created in TRBOnet Dispatch Console.

5.11.2 Tags

- In the **PLC** pane, select **All Tags**

- In the **Tags** pane, click the plus sign button to add a new tag, or double
  click the corresponding line in the list to edit the existing tag.
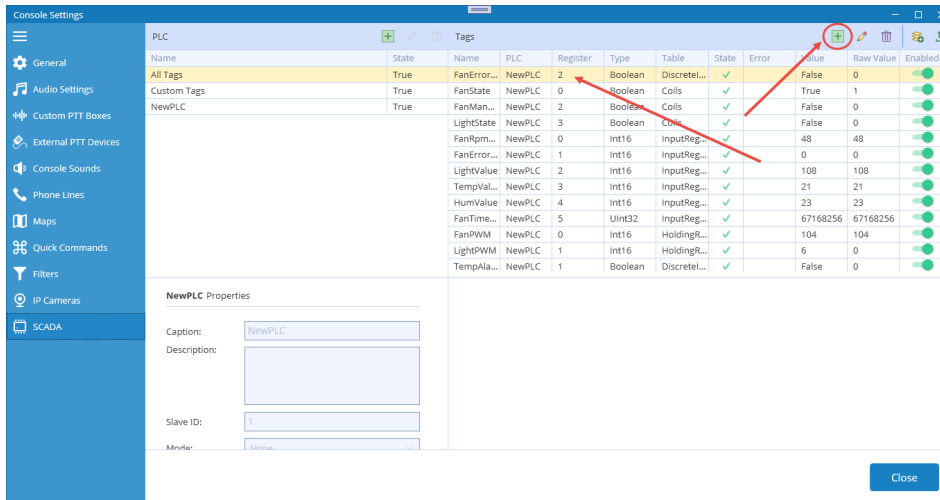
- In the **Tag Properties** pane, specify the desired tag parameters and click **OK**.

- Or, click the 🗂 button, and in the dialog box that opens specify parameters for a set of tags.

Importing a set of tags

- In the **Tags** pane, click the ⬆⬇ button, and on the drop-down menu, choose **Import**.

- In the **Open** dialog box, navigate to the desired *.csv* file and click **Open**.

Exporting the current set of tags

- In the **Tags** pane, click the ⬆⬇ button, and on the drop-down menu, choose **Export**.

- In the **Save As** dialog box, locate the folder on the PC where you wish to store the file with tags and click **Save**.

5.11.3 Custom Tags

- In the **PLC** pane, select **Custom Tags**.
- In the **Tags** pane, click the plus sign button.
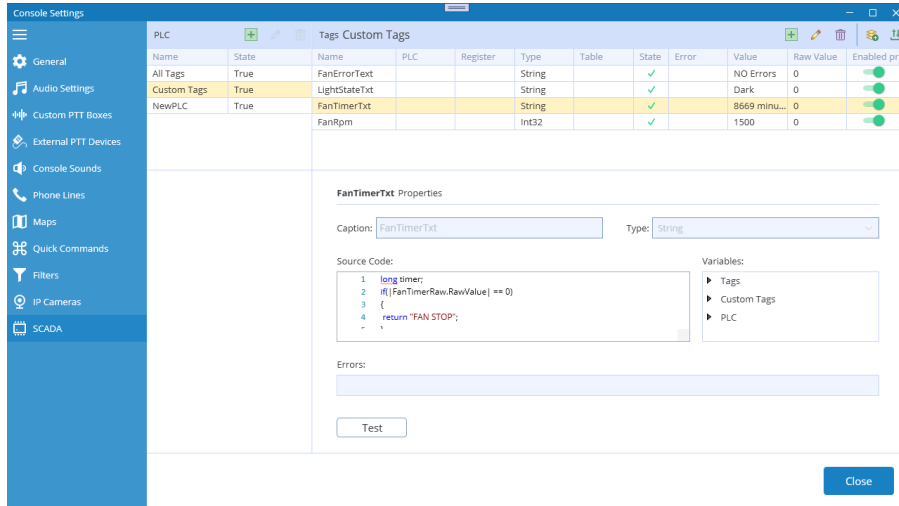
- In the **Tag Properties** pane, specify the desired tag parameters and click **OK**.

6   Voice Dispatch

When the TRBOnet One application is initially launched, the default main window will be displayed with the **Voice Dispatch** tab being active.

When the **Voice Dispatch** tab is selected, the dispatcher can make and receive radio and phone calls, monitor recent calls and events, etc.
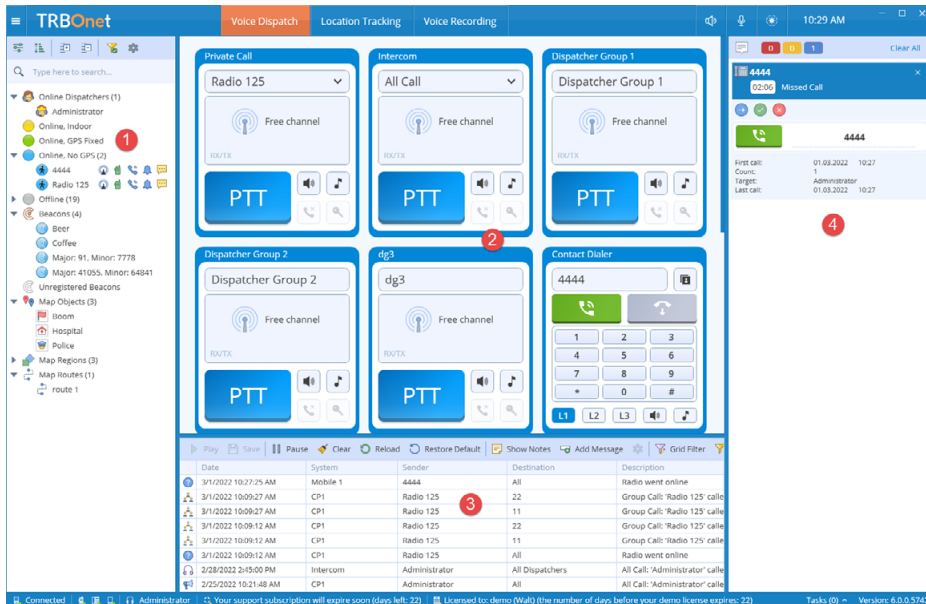
The typical elements of the **Voice Dispatch** layout are as follows:

1. Radio List panel
2. Radio Interface panel
3. Activity Monitor panel
4. Notification panel

Switching from light to dark theme

To switch from the light theme to dark theme, click the **Change theme** icon on the right side of the title bar ( ).

6.1   Radio List

6.1.1   View Options

The toolbar in the upper part of the Radio List panel provides buttons to change the appearance of the list:

6.1.1.1 Displaying the List

*   Click the button, and from the drop-down list, select one of the following items:

- **Statuses**
Select this item to display radios grouped according to their statuses.
- **List**
Select this item to display a plain list of groups, radios, and other objects.
- **Logical Groups**
Select this item to display radios grouped according to the logical groups they belong to.
- **Radio Groups**
Select this item to display radios grouped according to the radio groups they belong to.
- **Users**
Select this item to display only users registered in TRBOnet Dispatch Console.

6.1.1.2 Sorting Order

- Click the ⏷ button, and from the drop-down list, select one of the following items:
  - **By Name**
  Select this item to display radios sorted by name.
  - **By ID**
  Select this item to display radios sorted by Radio ID.
  - **By Status**
 Select this item to display radios sorted by status.

6.1.2 Quick Actions

- On the Radio List toolbar, click ⚙, and in the **Quick Actions** dialog box, specify which quick buttons to display in the Radio List panel.
    - Switch between the **Dispatcher**, **Radio**, **Radio Group**, **Logical Group**, and **Indoor** tabs, and select the quick buttons to display for each of the Radio List entry types.
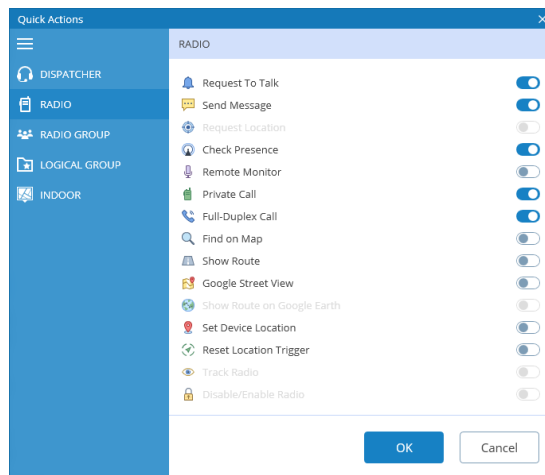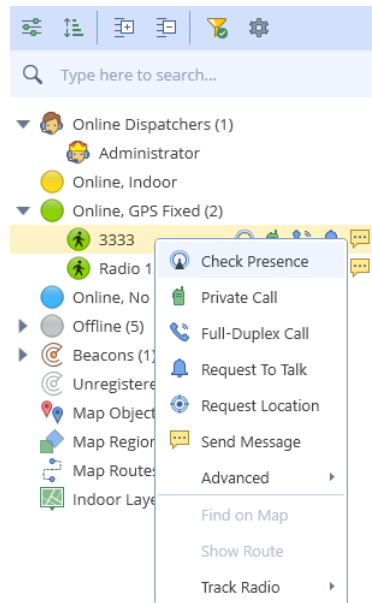

6.1.3 Radio List Filter

- On the Radio List toolbar, click 🔽, and on the drop-down menu select the checkboxes beside the appropriate objects.
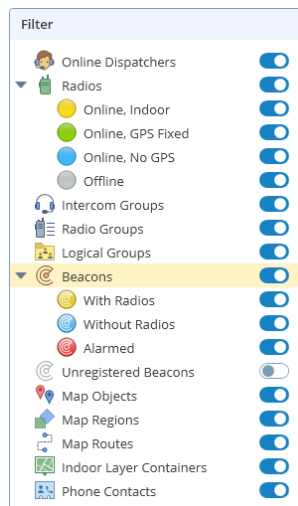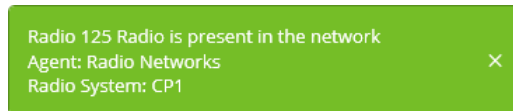
6.1.4 Radio Shortcut Menu

To open the radio's shortcut menu, right-click a radio in the Radio List:

- **Check Presence**
  Choose this menu item to send a Check Radio command. If the radio is online and is located in the coverage area, the dispatcher will see a pop-up message like this:

- **Private Call**
  Choose this menu item to initiate a private PTT call to the selected radio.

- **Phone Call/ Full-Duplex Call**
  Choose this menu item to initiate a phone call (full-duplex call) to the selected radio.
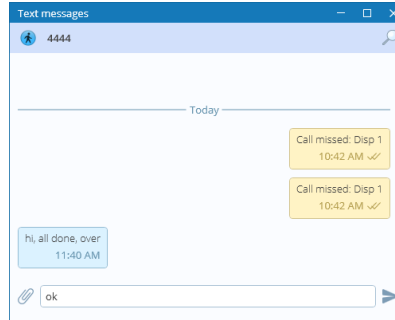
- **Request to Talk**
  Choose this menu item to send a talk request to the selected radio.

- **Request Location**
  Choose this menu item to request the location of the selected radio (for radios with GPS module only).

- **Send Message**
  Choose this menu item to open a text chat with the selected radio.

- Enter the text in the text box and click **Send**.

- To attach a file, click the paperclip icon, then locate the file you want to send, and click **Send**. You can also paste an image from the clipboard by pressing CTRL-V while in the text box.

- **Advanced > Remote Monitor (Open mic)**
  Choose this menu item to activate the radio microphone in hidden mode (remote monitor duration – 30 sec.)

- **Advanced > Change Location Update Settings**
  Choose this menu item to customize the location trigger settings. When you reconnect to the Server or reassign a Location Profile to the radio, temporary settings will be updated to Location Profile settings.
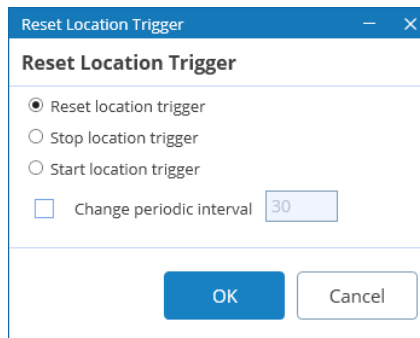
- **Restart/Turn off/Start location updates**
  Choose which command to send to the radio.

- **Change periodic update interval**
  Select this option and specify the new location update interval.

- **Advanced > Enable Radio**
  Choose this menu item to enable the selected radio.

- **Advanced > Disable Radio**
  Choose this menu item to disable the selected radio.

- **Find on Map**
  Choose this menu item to display the selected radio in the center of the map.

- **Show Route**
  Choose this menu item to display a route traveled by the selected radio for the specified time period.

For more details, see section 7.1.10, Show Route.

> Note: The **Find on Map** and **Show Route** commands are available only when the **Location Tracking** tab is selected in the application's title bar.

- **Track Radio > Set Location > Set Location**
  Choose this menu item to manually set the radio on the map.

- **Track Radio > Set Location > Set by Coordinates**
  Choose this menu item, and in the dialog box that appears, enter the desired coordinates.

- **Track Radio > Google Street View**
  Choose this menu item to open Google Street View with the latest location and direction of the selected radio.

- **Clear Emergency Call**
  This menu item appears when the radio is in Alarm state.

  - Choose this item to clear the Alarm state.

  - Enter the note and click OK.

7 Location Tracking

When the **Location Tracking** tab is selected, the dispatcher can monitor selected radio location on supported maps. In addition, the dispatcher can view and edit the following objects (1): beacons, map objects, map regions, map routes, and indoor container layers.
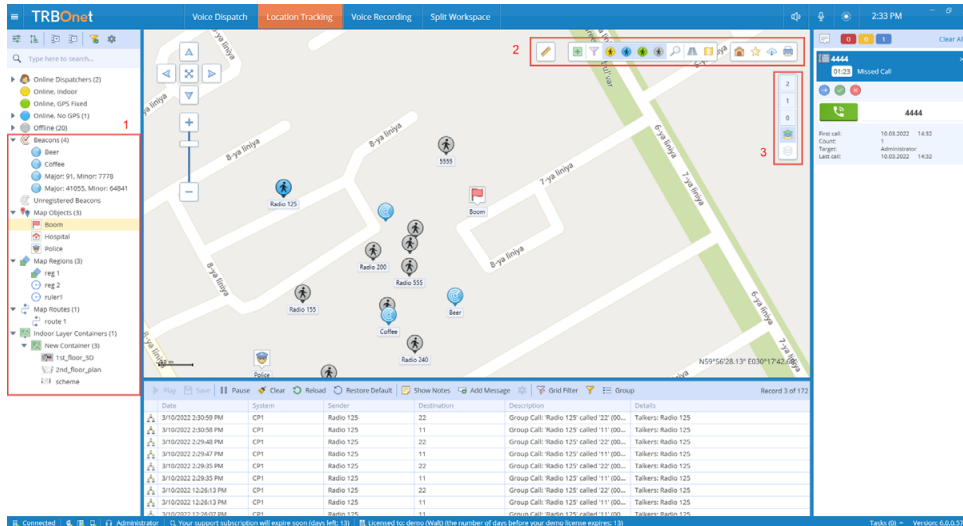

7.1 Map Tools

The map toolbars are located at the upper-right corner (2) of the Map panel. In addition, you may see a separate toolbar (3) on the right side of the Map panel. The right-side toolbar (3) is associated with the indoor layer containers added to the map (see section 7.1.7, Add Building Indoor Plans).

7.1.1 Bookmarks and Default View

To save a bookmark:

- Click ☆ on the upper-right toolbar, and on the drop-down menu click **Save as Bookmark**.
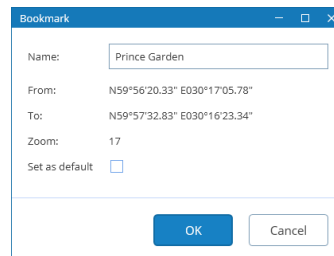
- In the dialog box that opens, enter a name for the bookmark. To set the view as a default view, select the corresponding option. Click **OK**.

To open a bookmark:

- Click ☆ on the upper-right toolbar, and select the bookmark in the list.

To save a bookmark as the default view:

- Click ⭐ on the upper-right toolbar, and on the drop-down menu click **Set default** and then click the bookmark you want to set as the default view.
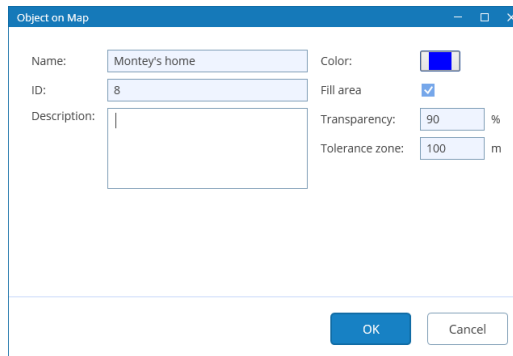
To open the default view:

- Click 🏠 on the lower toolbar.

7.1.2 Ruler

- On the upper toolbar, click 📏 to enable the tool to measure distances on the map.
- Left-click a point on the map to start measuring. Left-click intermediate points and see the distance displayed at the mouse pointer.

7.1.3 Create Route

- On the upper toolbar, click ➕, and in the drop-down menu under **Regions**, click **Route**.
- While in this mode, click successively on the map to create route waypoints.
- Once you have finished drawing the route, click **Complete** in the prompt popup.
- In the **Object on Map** dialog box, specify the following parameters:

  - ▪ Enter a **Name**, **ID** and **Description** for the route.
  - ▪ **Color**
    Select the color in which to display the route on the map.
  - ▪ **Fill area**
    Select this checkbox to display a transparent edge around the route line. The edge width is specified by the value of the **Tolerance zone** parameter.
    - **Transparency**
      Specify the transparency, in percent, for the line edge.

- **Tolerance zone**
  Specify the corridor width, in meters. If a radio will pass out of this tolerance zone, the dispatcher will receive an alarm signal.

7.1.4   Create Polygonal Region

- On the upper toolbar, click ⊞, and in the drop-down menu under **Regions**, click **Polygon**.
- While in this mode, left-click points on the map to create a new map region.
- Once you have finished drawing the region, click **Complete** in the prompt popup.
- In the **Object on Map** dialog box, specify a **Name**, **ID** and **Description** for the region. In addition, you can specify the following parameters:
  - **Color**
    Select a color to display the region on the map.
  - **Fill area**
    Select this checkbox to fill in the region area on the map.
  - **Transparency**
    Specify the transparency level (in percent) for the fill color.

7.1.5   Create Circular Region

- On the upper toolbar, click ⊞, and in the drop-down menu under **Regions**, click **Circle**.
- While in this mode, left-click where you want to place the center of the circular region. Drag the right sizing handle to resize the region. Drag the center handle to change the center position.
- Once you have finished drawing the region, click **Complete** in the prompt popup.
- In the **Object on Map** dialog box, specify a **Name**, **ID** and **Description** for the region. In addition, you can specify the following parameters:
  - **Color**
    Select a color to display the region on the map.
  - **Fill area**
    Select this checkbox to fill in the region area on the map.
  - **Transparency**
    Specify the transparency level (in percent) for the fill color.
  - If needed, change the **Radius** (in meters), **Latitude** and **Longitude**.

7.1.6   Create Beacon

The dispatcher can place beacons on the map.

- On the upper toolbar, click ⊞, and in the drop-down menu under **Special Objects**, click **Beacon**.
- While in this mode, click on the map where you want to place the beacon.
- Click **Complete** in the prompt popup.

  In the **Beacon on Map** dialog box, specify the following parameters:

  - **Type**
    From the drop-down list, select the beacon type (**iBeacon** or **K-Term**).

  - **Major ID** and **Minor ID**
    Enter the beacon's major and minor ID exactly as specified on the iBeacon device.

  - **Name**
    Specify a name for the beacon.

  - **Description**
    Add a description for the beacon.

7.1.7   Add Building Indoor Plans

The dispatcher can add building indoor plans that will be displayed in the Map panel.

- On the upper toolbar, click ⊞, and in the drop-down menu under **Special Objects**, click **Indoor**.
- While in this mode, drag a rectangle on the map where you want to place the building.
- Click **Complete** in the prompt popup.
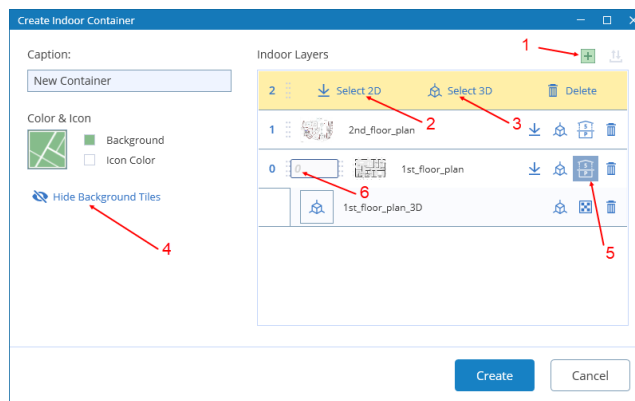
In the **Create Indoor Container** window that opens, enter the following information:

- **Caption**
  Enter a name for the building.

- To add a layer, click the plus sign button (1) and specify the 2D and 3D files by clicking **Select 2D** (2) and **Select 3D** (3), respectively.
  In the **Open** dialog box, locate the desired file(s) and click **Open**.

- As soon as you add a layer, you will see it displayed in the upper-left corner of the previously defined building area in the Map panel.
- Stretch and rotate the layer image to fit the underlying map. If desired, you can hide the background map by clicking **Hide Background Tiles** (4).
- To add a custom index to the layer, click the **Show/Hide Index** button (5) and in the in the text box that opens (6), enter the desired index number.

7.1.8   Create Map Object

The dispatcher can place POIs or custom objects on the map.

To place a POI on the map:

- On the upper toolbar, click , and in the drop-down menu under **Points of Interest**, click one of the icons.
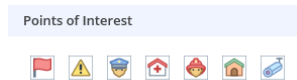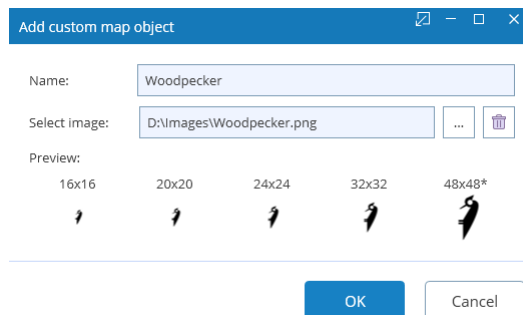

- Click on the map where you want to place the POI.
- Click **Complete** in the prompt popup.

  In the **Object on Map** dialog box, specify a name and description for the object and click **OK**.

To add a custom map object:

- On the upper toolbar, click , and at the bottom of the drop-down menu, click **Custom Map Objects > Add Object**.

  - **Name**
    Specify a name for the object.
  - **Select image**
    Click the Browse button (...) and locate the image file you want to use as an icon for the object.

  After you create a custom object, the corresponding icon will appear along with other predefined icons under **Custom Map Objects**.

  - To delete a custom object, click **Delete Custom Object**.

7.1.9 Find on Map

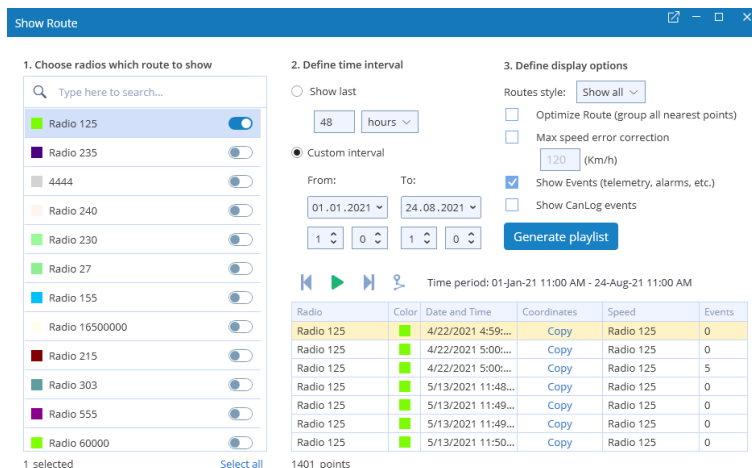The dispatcher can search for addresses as well as find radios on the map.

> Note: For online maps, Internet access is required!

- On the upper toolbar, click 🔍.
  - On the drop-down menu, click **Address**.
    - In the **Search by Address** dialog box, type in the address and click the lens button on the right.
    - Click the address in the list below to display it on the map.
  - Or, on the drop-down menu, click **Radio**.
    - In the **Find Radio on Map** dialog box, select the radio to be displayed on the map.

7.1.10 Show Route

To show the route traveled by the radio(s) on the map:

- On the upper toolbar, click ⚠.
  Or, right-click a radio in the Radio List and, on the drop-down menu choose **Show Route**.
- In the **Show Route** window, enter the following information:

1. **Choose radios which route to show**
   - In the list, select the radio(s) which route to show on the map.
2. **Define time period**
   - **Show last**
     Choose this item and enter the time period, in hours or minutes, for which to show the route.
   - **Custom interval (From...To)**
     Choose this item and enter the start and end dates of the time period for which to show the route.

3. **Define display options**

- **Optimize Route (group all nearest points)**
  Select this option to group all points in a 100-meter radius.

- **Max speed error correction**
  Select the maximum possible speed for your vehicles.

- **Show Events**
  Select this option to display TRBOnet server events (telemetry, alarms, and other events).

- **Show CanLog events**
  Select this option to display events that occurred in a vehicle (door opening, and other events).

- Click the **Generate playlist** button.

- Once the route is generated, the table below is populated with the route points, and the route is shown on the map. To play back the route on the map, click the **Play** button (▶).

7.1.11 Select Map View

To select the view of the map to be displayed in the Map panel:

- On the upper toolbar, click 📙, and in the drop-down menu, select the map view you have previously defined in Console Settings. To edit a map view, click 🖉 to the right of the profile name (see also section 5.7, Maps).
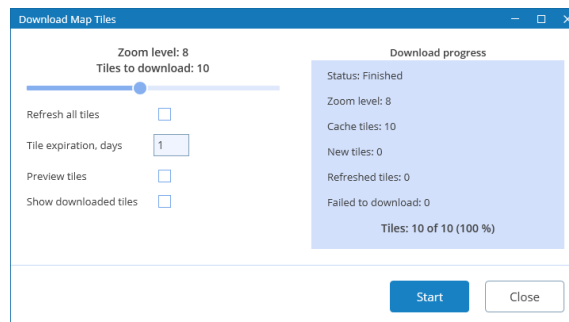
7.1.12 Print Map

To print the map region currently displayed in the Map panel:

- Click 🖨 on the upper-right toolbar.

7.1.13 Download Map Tiles

To download the tiles of the map currently displayed in the Map panel:

- On the upper-right toolbar, click ☁.

In the dialog box, specify the following parameters:

- **Zoom level**

  Move the slider from left to right to increase the detail level of the map.

- **Refresh all tiles**

  Select this option to refresh the map tiles before saving to your PC.

- **Tile expiration, days**

  Enter the time the saved offline map will be stored before it is automatically updated.

- **Preview tiles**

  Select this option to show borders around the tiles to be downloaded.

- **Show downloaded tiles**

  Select this option to show how the tiles are being downloaded.

- Click **Start** and wait for the system to save the files. This may take several minutes.

7.1.14 Map Filter

The dispatcher can set the filter to display all or only specific radios and objects on the map.

- On the upper toolbar, click , and on the drop-down menu select the checkboxes beside the appropriate objects.
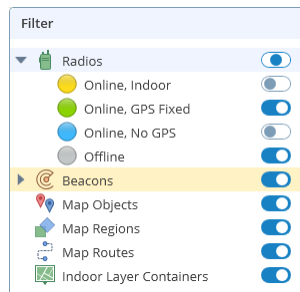

7.2 Objects List

Beacons, map objects, regions, routes, and indoor layer containers are represented at the bottom of the Radio List panel, grouped by their type.
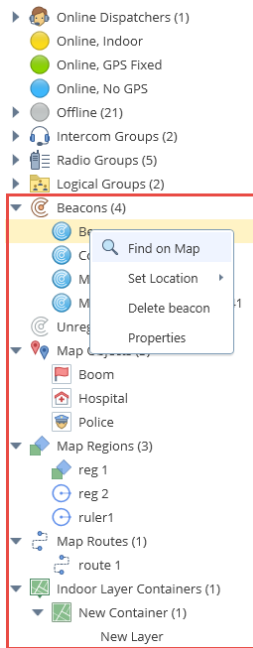
If you right-click on an object in the list, a shortcut menu will appear with commands related to the object.

8 Voice Recording

On the **Voice Recording** tab, the dispatcher can display the list of calls according to certain criteria, listen to the calls and save them to file.
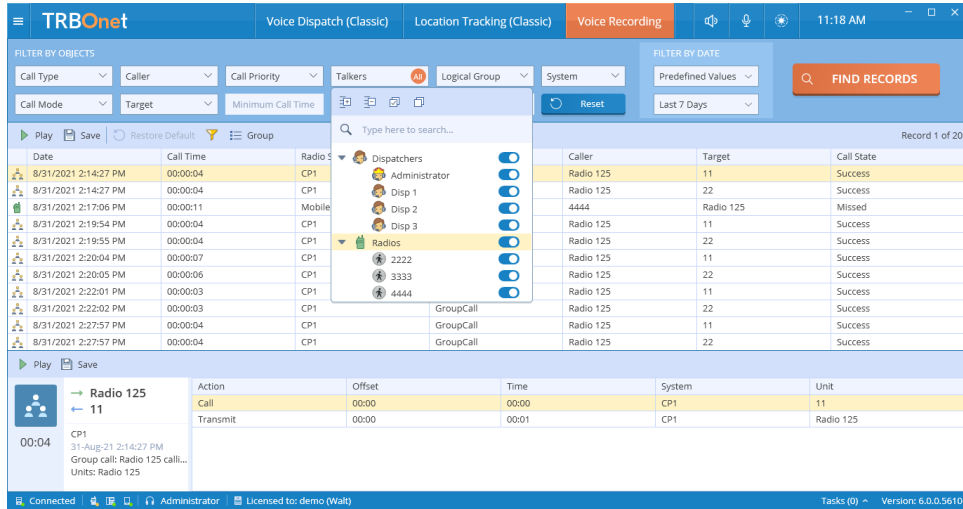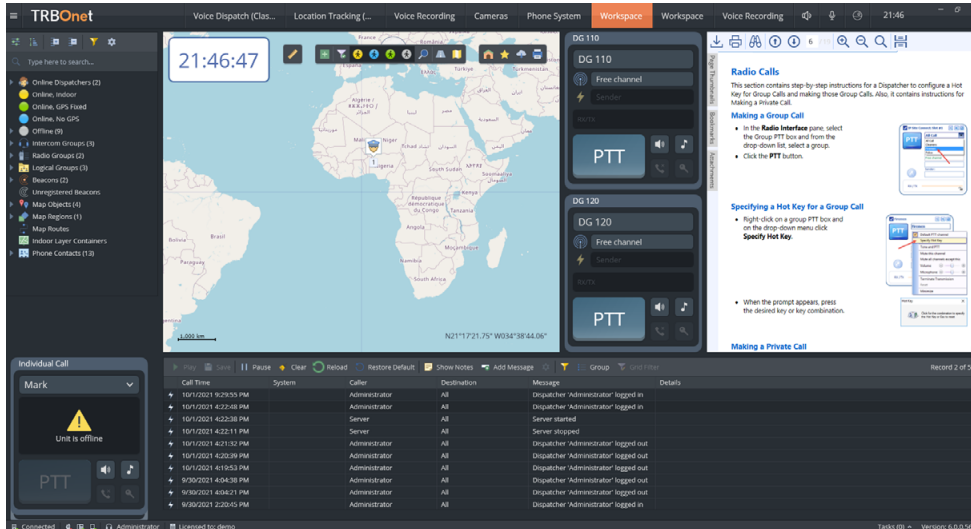

- In the **Filter by Objects** panel, click the desired field, and on the drop-down list select the desired value(s).

- Click **Find Records**.

- To play back a record, select it in the list and click the **Play** button on the toolbar.
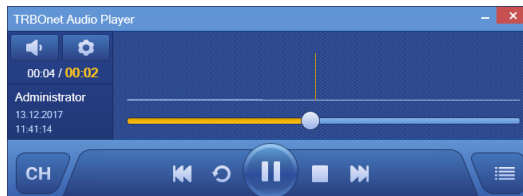
9 Custom Workspaces

In TRBOnet One, you can create your own workspaces and modify the existing Voice Dispatch and Location Tracking layouts.

9.1 Creating a Custom Workspace

In the Design Mode you can populate your workspace with a variety of components related to your radio system.

- Click the ☰ button in the upper-left corner of the main window.
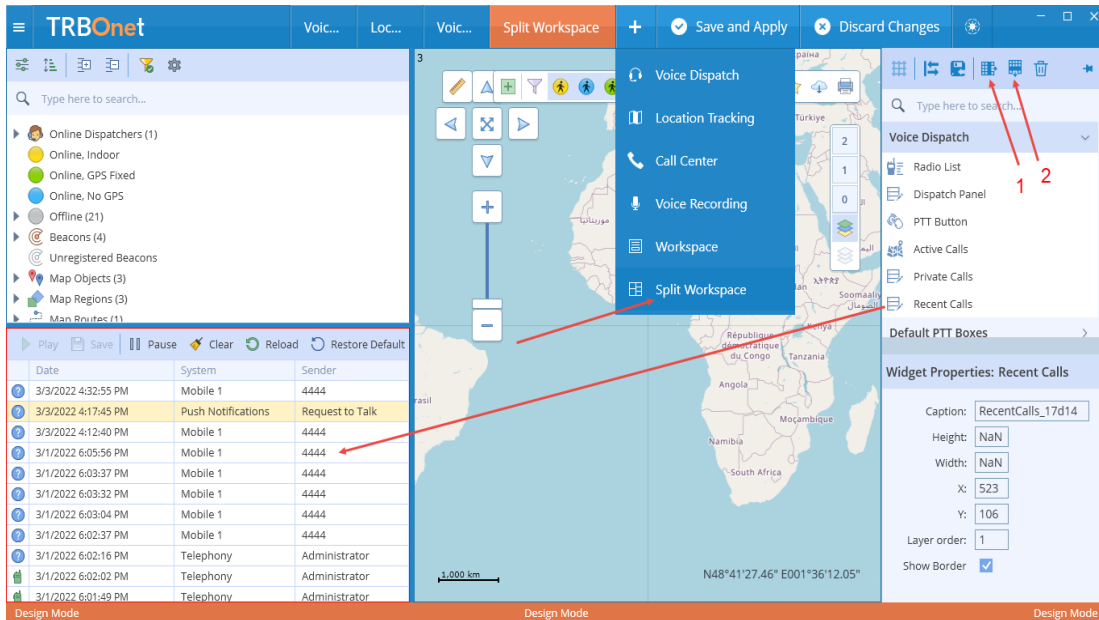- On the slide-out menu, click **Design Mode**.
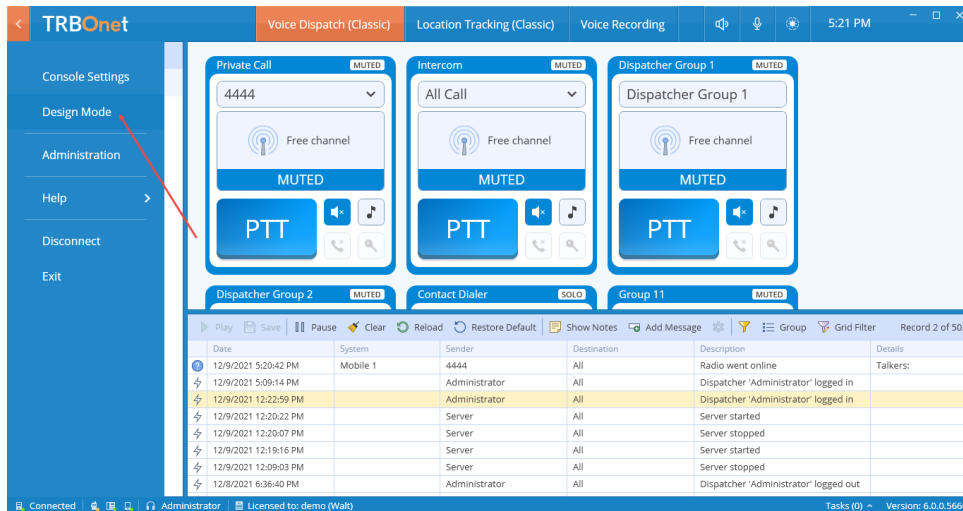
- Click the plus button to the right of the tabs, and on the drop-down menu, click **Workspace** or **Split Workspace**.

9.1.1 Split Workspace

To create a split layout, do the following:

- Click the plus button to the right of the tabs, and on the drop-down menu, click **Split Workspace**.

- Click the **Add column** (1) and **Add row** (2) buttons on the right pane toolbar to divide the workspace into panels.
- Drag an element from the right pane to the desired panel.

> Note: The element will fit the size of the panel it is placed in.

9.1.2 Exiting Design Mode

To exit the design mode and save changes, click the **Save and Apply** button.

To exit without saving changes, click the **Discard Changes** button.

9.2   Adding Voice Dispatch Elements

- In the right pane, pull down the **Voice Dispatch** menu.
- Select the required item and drag it to the left grid pane.

Note: The grid is shown over the workspace if the ⊞ button is pressed on the right pane toolbar.
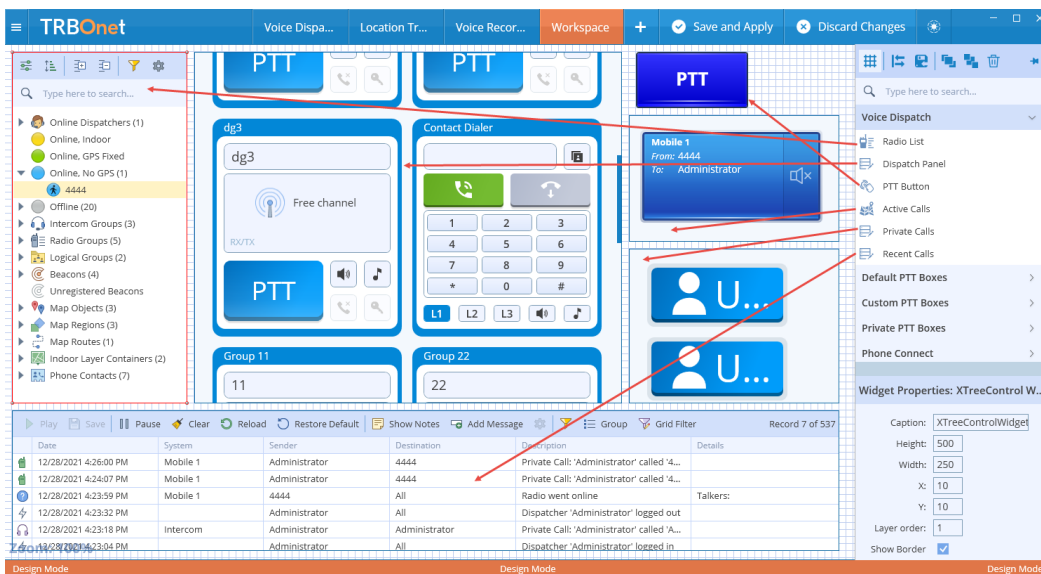
- In the **Widget Properties** panel, specify the required properties.

9.3   Adding PTT Boxes

- In the right pane, pull down one of the **PTT Boxes** menus (**Default**, **Custom**, or **Private**).
- Select the required PTT box and drag it to the left grid pane.
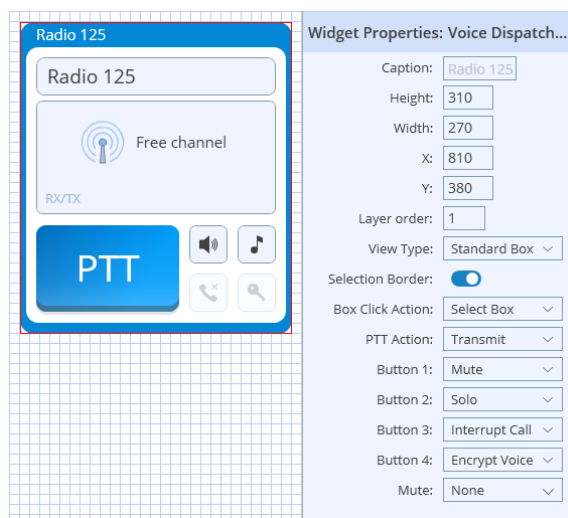
In the **Widget Properties** panel, specify the following PTT box properties:

▪ **Height/Width**
These are the dimensions, in pixels, of the element.

▪ **X/Y**
These are the screen coordinates of the upper-left corner of the element.

▪ **Layer order**
Specify the order in which the element will be drawn.

▪ **View Type**
Select the box type (small, medium, large, or custom).

▪ **Selection Border**
Select this option to display a border around the box when it is selected.

▪ **Box Click Action**
Select the action to happen when you click on the PTT box.

▪ **PTT Action**
Select the action to happen when you click the PTT button.

▪ **Button #**
Select the action to happen when you click the appropriate button. These buttons are located around the PTT button.

▪ **Mute**
Select the channels to be muted when there is voice activity in the box.

9.4 Adding Phone Connect Elements

- In the right pane, pull down the **Phone Connect** menu.
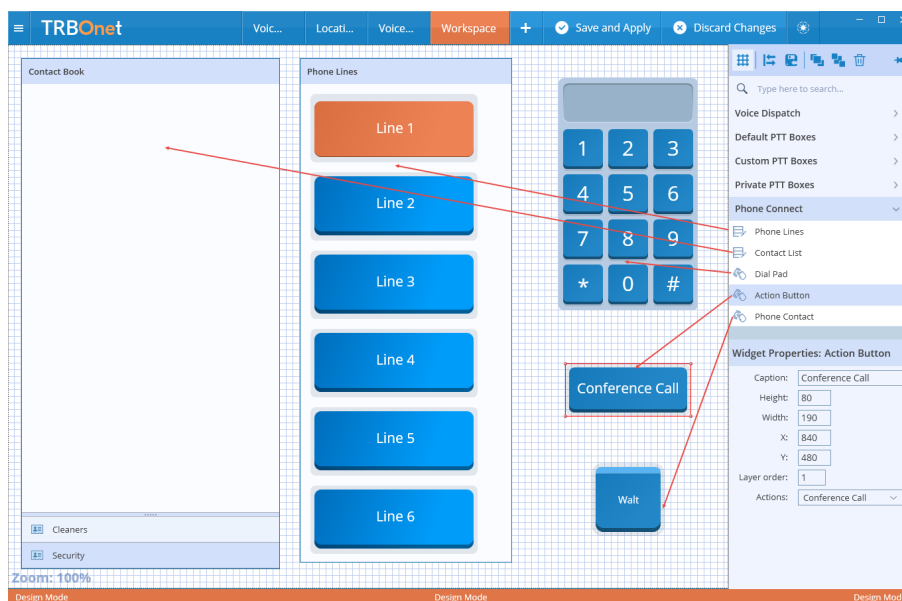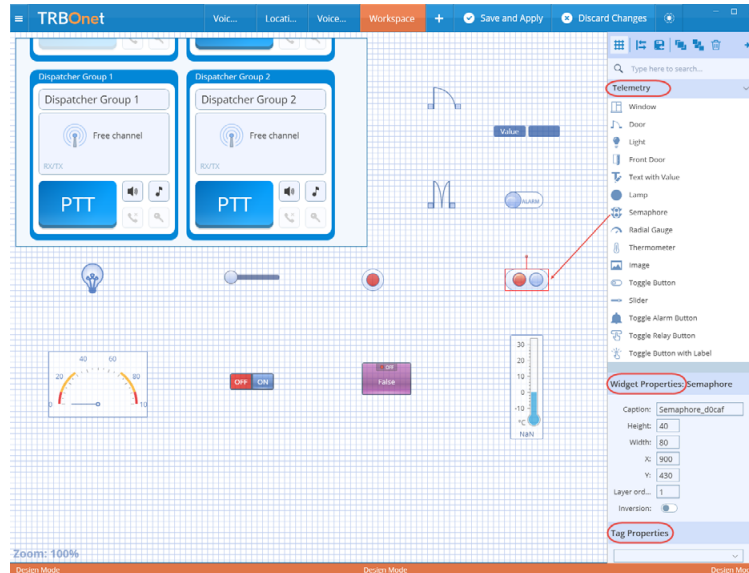- Select the required item and drag it to the left grid pane.

- In the **Widget Properties** panel, specify the required properties.

9.5   Adding Telemetry Elements

- In the right pane, pull down the **Telemetry** menu.
- Select the required item and drag it to the left grid pane.

- In the **Widget Properties** panel, specify the desired widget parameters (name, height, width, minimum, maximum, etc.).
- In the **Tag Properties** panel, click the arrow on the right, and from the drop-down list select the appropriate tag.

> Note: Telemetry tags must be previously created (see section 5.11.2, Tags).

9.6 Adding Functional Modules

- In the right pane, pull down the **Functional Modules** menu.
- Select the required item and drag it to the left grid pane.
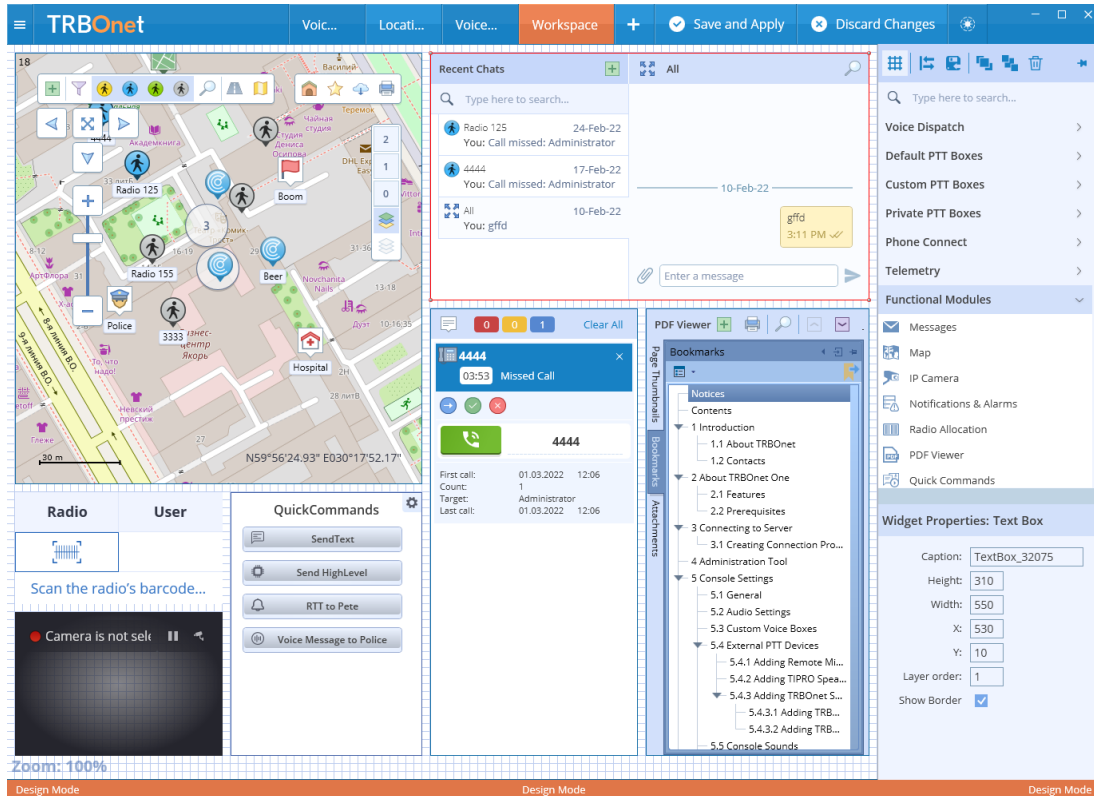
- In the **Widget Properties** panel, specify the required properties.

9.6.1 Chat panel

This panel will display text conversations with other TRBOnet users. From within this panel, you can send/receive text messages as well as attachments.

- In the right pane, pull down the **Functional Modules** menu.
- Select the **Messages** widget and drag it to the left grid pane.
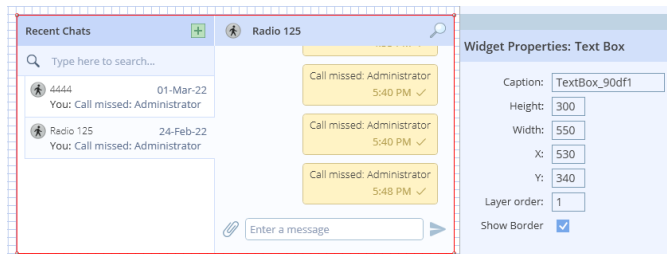
In the **Widget Properties** panel, specify the following panel properties:

- **Caption**
  Enter the name of the panel.
- **Height/Width**
  These are the dimensions, in pixels, of the element.

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- **X/Y**
  These are the screen coordinates of the upper-left corner of the element.
- **Layer order**
  Specify the order in which the element will be drawn.

Once you have configured a **Text Chat** panel on your workspace, you will see a panel like this:
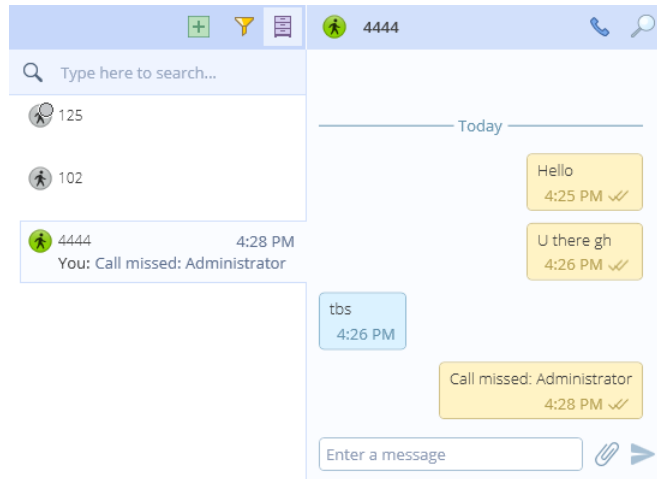
In this panel, you can send/receive text messages as well as attachments. When a new text message arrives, you will hear a sound notification. To view an attached image, just click on it in the right pane.

9.6.2 Map panel

This panel will display the map on which the dispatcher can track location of radios. In addition, from within this panel, the dispatcher can view and edit the following objects: beacons, map objects, map regions, map routes, and indoor container layers. See also section 7.1, Map Tools.

- In the right pane, pull down the **Functional Modules** menu.
- Select the **Map** widget and drag it to the left grid pane.

- In the **Widget Properties** panel, specify the desired properties.

9.6.3   IP Camera panel

This panel will display the live video from the connected IP camera. For how to add cameras, refer to section 5.10, IP Cameras.

In the right pane, pull down the **Functional Modules** menu.

- Select the **IP Camera** widget and drag it to the left grid pane.
- In the **Widget Properties** panel, specify the desired properties.

9.6.4   Notifications and Alarms panel

This panel will display alarms, requests to talk and missed calls received from radios and dispatchers. From within this panel, you can answer, queue or redirect requests to talk or missed calls.

- In the right pane, pull down the **Functional Modules** menu.
- Select the **Notification and Alarms** widget and drag it to the left grid pane.
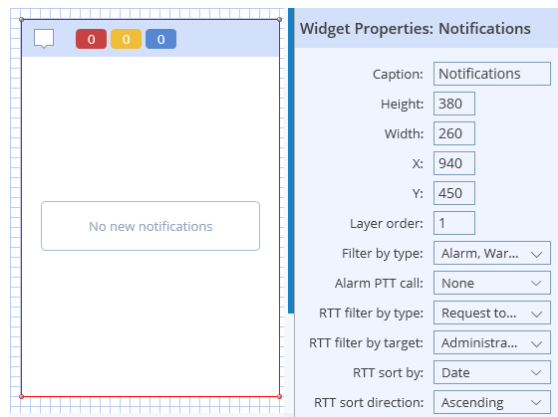

In the **Widget Properties** panel, specify the following panel properties:

- ▪ **Caption**
  Enter the name of the panel.
- ▪ **Height/Width**
  These are the dimensions, in pixels, of the element.
- ▪ **X/Y**
  These are the screen coordinates of the upper-left corner of the element.
- ▪ **Layer order**
  Specify the order in which the element will be drawn.
- ▪ **Filter by type**
  In the list, select one or all of the following items: Alarm, Warning, and/or RTT.
- ▪ **Alarm PTT call**
  From the drop-down list, select the call destination when the PTT button is pressed in the alarm panel.

- **RTT filter by type**
  In the list, select how to filter RTT calls by the type (Request to talk, and or Missed call).

- **RTT filter by target**
  In the list, select how to filter RTT calls by the target (All, Dispatchers, and/or Dispatcher Groups).

- **RTT sort by**
  From the list, select how to sort records in the panel.

- **RTT sort direction**
  From the list, select the sort direction, Ascending or Descending.

Once you have configured a **Notifications and Alarms** panel on your workspace, you will see incoming alarms, requests to talk, and/or missed calls in this panel.

When, for example, a request to talk arrives, this panel may look like this:
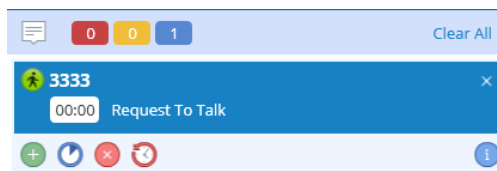
9.6.5 Radio Allocation panel

This panel is used to automate checking out/checking in (allocating/reallocating) radios using 'Honeywell Xenon 1900' barcode scanners. For how to appropriately configure the Radio Allocation module, see *TRBOnet Enterprise/PLUS Radio Allocation User Guide*.

9.6.6 PDF Viewer panel

The PDF Viewer panel allows you to open (if allowed) and view PDF files.
- In the right pane, pull down the **Functional Modules** menu.
- Select the **PDF Viewer** widget and drag it to the left grid pane.
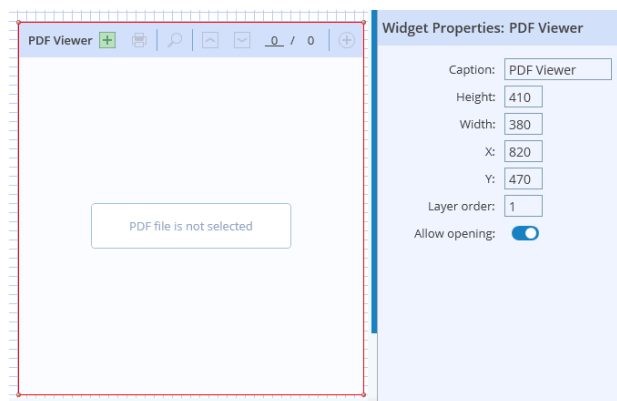
- In the **Widget Properties** panel, specify the desired properties.

9.6.7 Quick Commands Panel

This panel will display Quick Commands (Text Messages, Send Telemetry, Request Location, Send Voice Message, and some other commands) previously configured in Console Settings (see section 5.8, Quick Commands). With these commands, the dispatcher can quickly send Text Message, Telemetry, Location Request, Voice Message, and some other commands to a radio by clicking the appropriate Quick Command button located in the Quick Commands Panel.

- In the right pane, pull down the **Functional Modules** menu.
- Select the **Quick Commands** widget and drag it to the left grid pane.
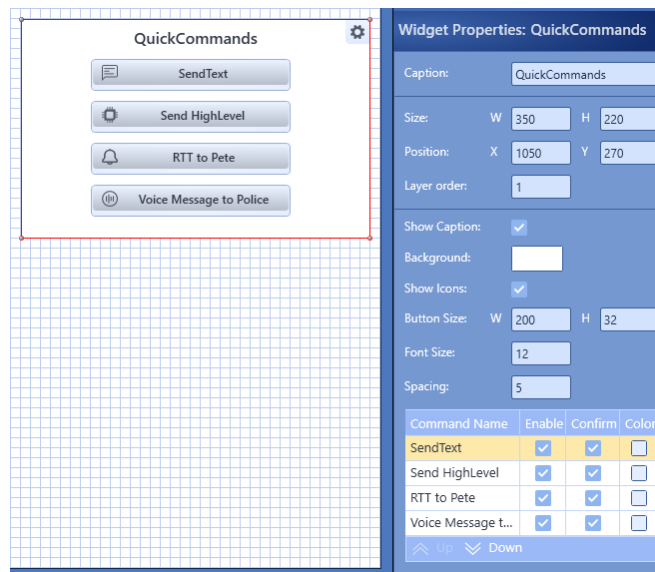
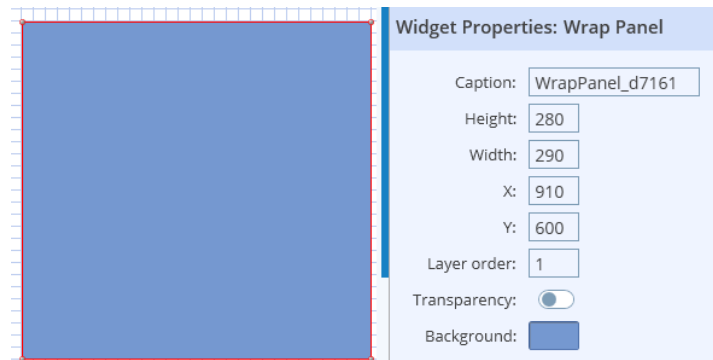In the **Widget Properties** panel, specify the following panel properties:

- ▪ **Caption**
  Enter the name of the panel.

- ▪ **Size**
  These are the dimensions, in pixels, of the element.

- ▪ **Position**
  These are the screen coordinates of the upper-left corner of the element.

- ▪ **Layer order**
  Specify the order in which the element will be drawn.

- ▪ **Show Caption**
  Select this option so that the panel's cation will be shown.

- ▪ **Background**
  Click the box and select the background color for the panel.

- ▪ **Show Icons**
  Select this option so that the appropriate icons will be shown in the buttons.

- **Button Size**
  These are the button dimensions, in pixels.

- **Font Size**
  Enter the font size for the button text.

- **Spacing**
  Enter the letter spacing for the button text.

- In the table below, specify the button parameters:

  - **Enable**
    If selected, the button will be shown on the panel.

  - **Confirm**
    If selected, a confirmation dialog will appear when you click the button.

  - **Color**
    Click the box and select the background color of the button.

9.7　Adding Layout Design Elements

This section describes how to add Layout Design to your workspace. The Layout Design elements include Wrap Panel, Canvas, Rectangular Panel, Text Box, and Clock.

- In the right pane, pull down the **Layout Design** menu.
- Select the required item and drag it to the left grid pane.

In the **Widget Properties** panel, specify the following properties:

- **Name**
  Enter the name of the UI element.

- **Height/Width**
  These are the dimensions, in pixels, of the element.

- **X/Y**
  These are the screen coordinates of the upper-left corner of the element.

- **Layer order**
  Specify the order in which the element will be drawn.

- **Transparency**
  Select 'Yes' to make the element transparent.

- **Background**
  Click and select the background color of the element. In addition, you can select a background image for the element.
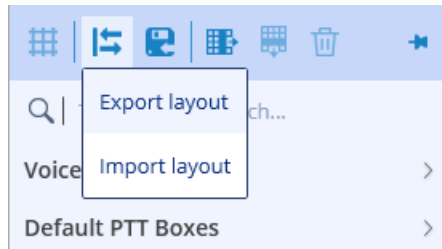
9.8   Exporting/Importing Layout

This section describes how to export and import TRBOnet One layouts.

9.8.1   Exporting Layout

You can export the current layout to an *.xml file. To do this:

- While in the Design mode, click the ⇅ button on the right pane toolbar, and on the drop-down menu click **Export layout**.


- In the **Save As** dialog box, locate the folder where you want to save the layout file (*.xml), type a filename, and click **Save**.

This file can later be used, for example, to import the required layout to TRBOnet One running on a different PC.

9.8.2   Importing Layout

You can import a previously exported layout to TRBOnet One. To do this:

- While in the Design mode, click the ⇅ button on the right pane toolbar, and on the drop-down menu click **Import layout**.
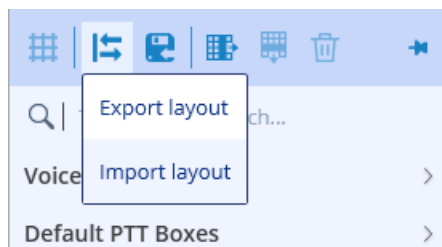
- In the **Open** dialog box, locate the desired file (*.xml) and click **Open**.

    As a result, the imported layout will be used in TRBOnet One.