



Release 3

v.3.2

**Desktop
Application**

TR.PRO DISPATCHER FOR DAMM TETRAFLEX

PRODUCT DESCRIPTION



CONTACT US

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TASSTA Technologies FZE

DSO-THUB-G-D-FLEX-G118,
Dubai Silicon Oasis, Dubai,
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H

VERSION HISTORY

Version	Amendment Date	Author	Remarks
3.0	09.11.2017	akh	Release
3.1	09.01.2018	akh	chapter 4 bridge settings changed
3.2	11.01.2018	akh	minor text fixes

A

LIST OF ABBREVIATIONS

E2EE	End-To-End Encryption
EMC	Enterprise Management and Control
GPS	Global Positioning System
GPRS	General Packet Radio Service
GUI	Graphical User Interface
HTTPS	HyperText Transfer Protocol Secure
IP	Internet Protocol
LPS	Local Positioning System
LTE	Long Term Evolution - a telephone and mobile broadband communication standard
LWP	Lone Worker Protection
MPT	MPT 1327 is an industry standard for trunked radio communications networks
NFC	Near Field Communication
iOS	IPhone OS developed and distributed by Apple Inc.
OS	Operating System
PMR	Professional Mobile Radio
PTT	Push-To-Talk
TETRA	Trans-European Trunked Radio
VoIP	Voice over IP
WLAN	Wireless Local Area Network

C

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1

TASSTA AT A GLANCE

TASSTA is an IP-based technology with a sub-second performance which offers fast and reliable communication all over the world. TASSTA is a series of integrated technologies to offer a single solution: to enable a more effective communication through well-known features like push-to-talk, messaging, data service and GPS location tracking.

TASSTA includes over 9 years of engineering, experience in design, construction, and maintenance of PMR networks like MPT, TETRA DMR. TASSTA is designed to meet any potential customer demands since it allows you to create a business environment right away, using its data services. Depending on the customer requirements, it can easily turn the mobile devices into a cost effective, portable communication terminal, with an unlimited coverage area which includes a GPS tracking function ability and much more.

TASSTA solution is based on mobile clients (Android, iOS), desktop clients (Windows, Mac, Linux OS) and TASSTA server applications with a great number of features and services. Furthermore, all TASSTA components are designed in a modular approach which can be easily integrated with other PMR and communication networks or data services.

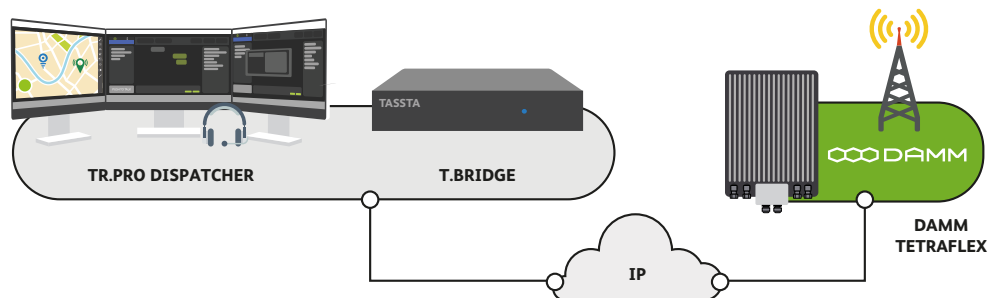
The application range of TASSTA is quite varied. It can be used in public security services, transportation, traffic control systems, public transportation services, construction projects, public or special events, etc.

2 INTRODUCTION

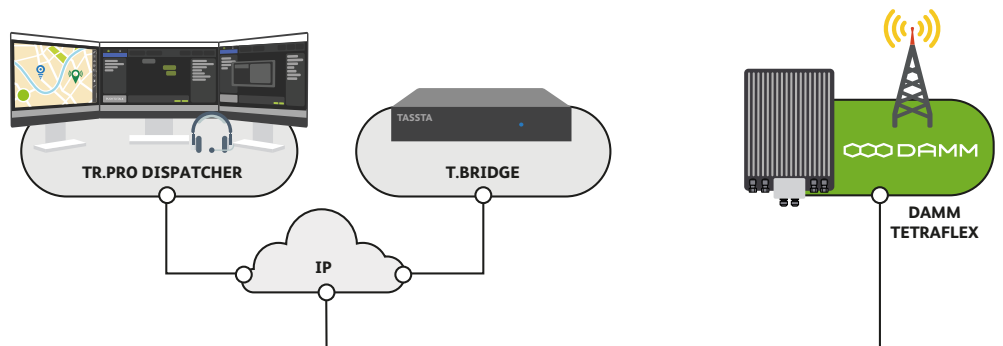
TR.Pro provides a dispatching solution including all PMR system features. The TR.Pro application is based on T.Bridge middleware technology that securely connects the enterprise. Easy-to-use and easy-to-scale. TR.Pro is designed to integrate TASSTA TR.Pro client possibilities with a PMR radio network over voice (group and individual calls) and message communication. Furthermore, it is created as a supplementary part of TR.Pro's Command and Control Center Solution.

TR.Pro has a friendly graphical user interface (GUI) and provides better map overview and visualization. TR.PRO and T.Bridge can be installed on one or separate hosts.

One host installation



Two hosts installation



TR.Pro allows communicating to PMR users. The voice communication PMR-to-TASSTA and vice versa is possible via TASSTA BRIDGE (T.Bridge). The T.Bridge is connected to PMR via radio from one side while from other is connected to TASSTA. The voice communication is done via special allocated groups by standard group call. All users have a usual way of communication in group – push PTT and talk.

Thanks to TR.Pro, users have a great opportunity for a fast deployment of centralized workplaces whether it is dispatcher, manager or watchman. By TR.Pro functionality operator is able to communicate with fleets and control their overall activity on the map. The Application can be installed on a Desktop PC or Laptop and is compatible with Windows 7 / 8 / 10.

3

BENEFITS AND KEY FEATURES

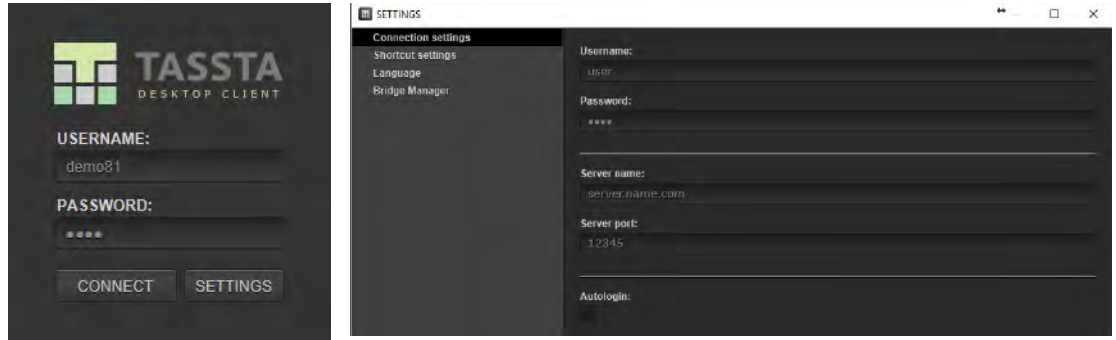
Available features for TR.Pro user:

- Group Call
- Individual Call from TR.Pro
- Messages
- Map (check GPS-position)
- Mute
- Online/Offline Status (RSS) (depends on radio station)
- Local Voice Recording
- Emergency
- Local History
- Talkgroup Scan
- Favorite PTT

TR.Pro can make Group Call, Individual Call, send and receive messages and see the location of PMR users providing that they support this feature.

4 SETTINGS

Click on the SETTINGS button. The Settings Menu will be opened.



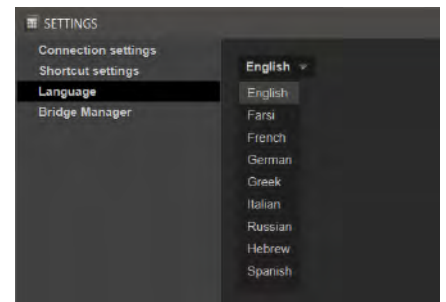
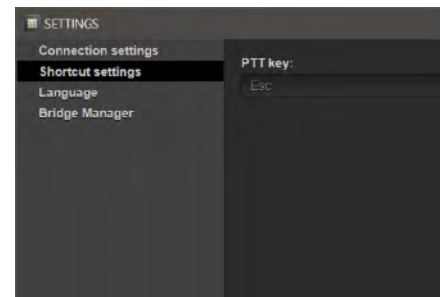
Four types of settings at program start:

CONNECTION SETTINGS - connect to the TASSTA (LOGIN, PASSWORD, SERVER NAME, SERVER PORT) and also allow to enable or disable automatically login when you start the application (Autologin);

SHORTCUT SETTINGS - includes only one item - PTT key. Select the hotkey on the keyboard that would make a PTT (Esc for default);

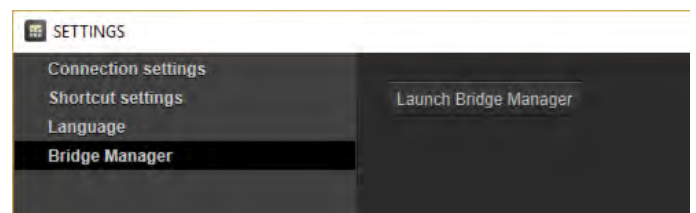
LANGUAGE - Selection of TR.Pro language;

BRIDGE MANAGER - Configure the bridge that provides the connectivity to PMR network in case that bridge is installed on the same computer as TR.Pro. Please note that you need to run TR.Pro as administrator to be able to change the configuration of the bridge in this section. This setting section is only available before logging in to the TR.Pro and is not a part of settings menu inside the application.



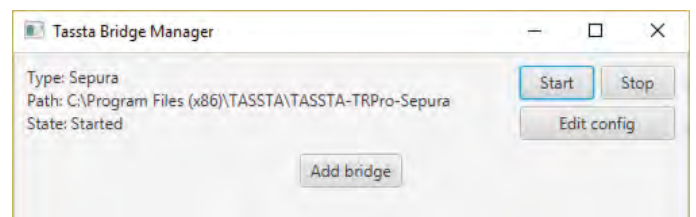
Bridge manager - standalone application for bridge setup. It runs from T.Rodon Pro settings or by using a shortcut on the desktop.

TRPro settings. Contains the Launch button for the Bridge manager. Also you can start Manager by clicking on icon on the Desktop.



Bridge Manager main screen.

You can start, stop and edit current bridge config. Also you can add new bridge that is located in a non-standard folder.



Edit Config

- User name
- Password
- Bridge IP
- Bridge port settings

User ID.

This is ISSI (Individual Short Subscriber Identity). The ISSI parameter is invented to support individual call from TR.Pro to the radio without GPS data. The bridge can collect ISSIs in the network automatically in case the Radios in the network are configured to send GPS data to the Bridge's Radio. In case the radio has no GPS module or has no applicable configuration the TR.Pro GUI can not provide a user in the list automatically and will rely on configuration details in "User ID's". For the significant amount of radio subscribers, the "User IDs pattern" tool can be used. It allows administrator setup the range of subscriber's pool. Any additional range will be added to the end of the "User IDs" list.

Selector of a serial port for PEI connection.

Selection of audio devices for bridge audio stream.

List of status messages for fast sending of messages.

To save settings, click on SAVE.

To see all Settings you need to click on CONNECT and then open the SETTINGS in right top corner.

If you are connected to TASSTA server you will see the next settings:

There are two settings menu available in TR.Pro. One before logging in to the system and the other one after the login. Connection and Radio Manager settings are only available in setting menu before the login. In addition to the previous settings, there will be available Map and Plugin management.

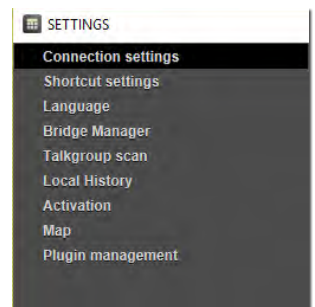
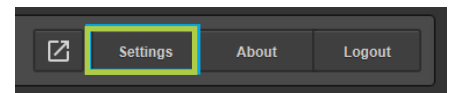
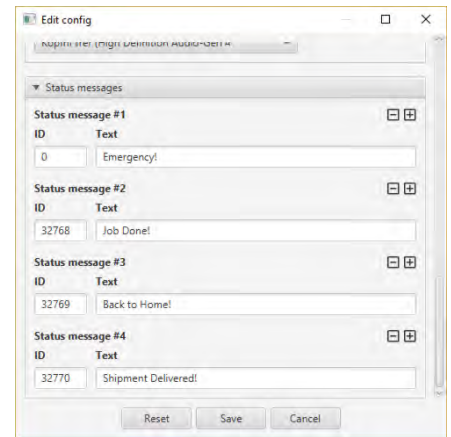
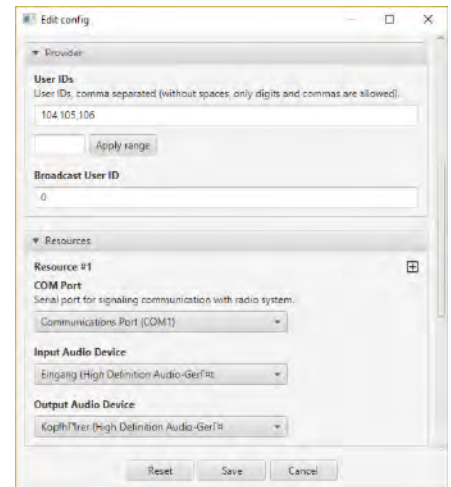
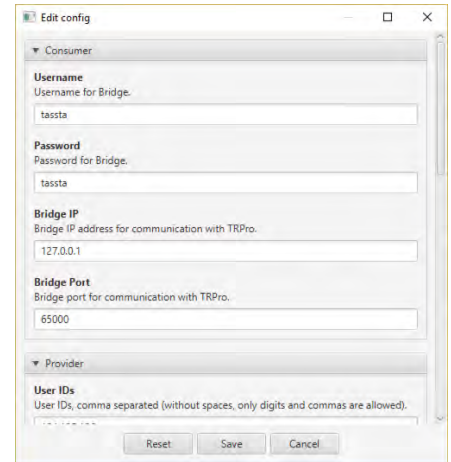
TALKGROUP SCAN - allows automatically jump to the channel in which someone says and allows you to listen to all channels on the application start;

LOCAL HISTORY - saves audio recordings of negotiations on the local machine with the ability to play later;

ACTIVATION - allows you to use all the possibilities without restrictions;

MAP - change a number tiles and enable saving tiles to disk;

PLUGIN MANAGEMENT - allows you to enable or disable plugins from the list.



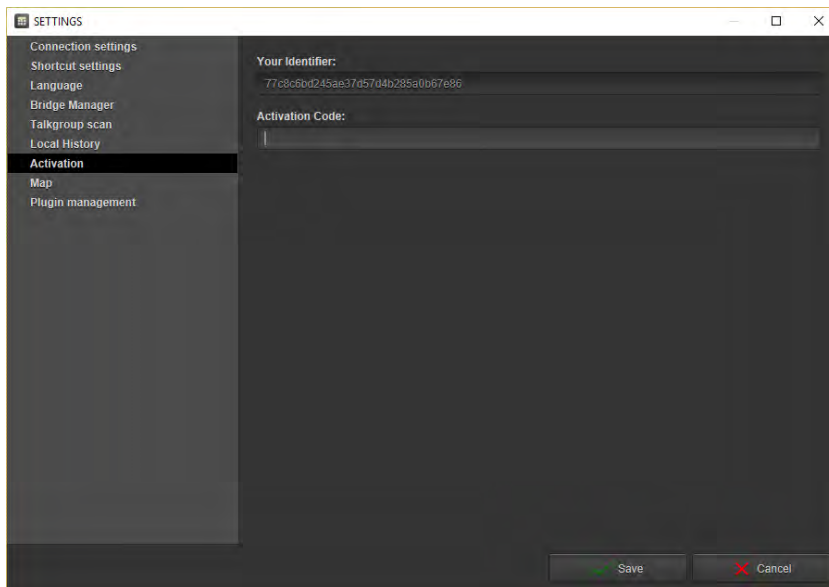
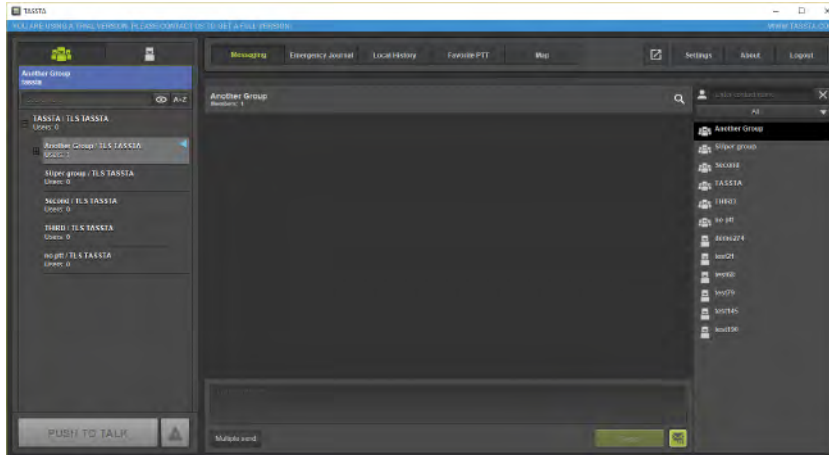
From v.0.86.08 TR.Pro has the default connection settings for connecting to the T.Bridge. For default TR.Pro has the following connection settings:

port: 65000
 server: 127.0.0.1
 username: tassta
 password: demo
 autologin: false

5 LICENSE AND ACTIVATION

TR.Pro can work only with 5 users without activation. For full access to all features, contact the our sales and get a unique activation code by clicking on blue notification on main screen.

Contact our sales: mail@tassta.com



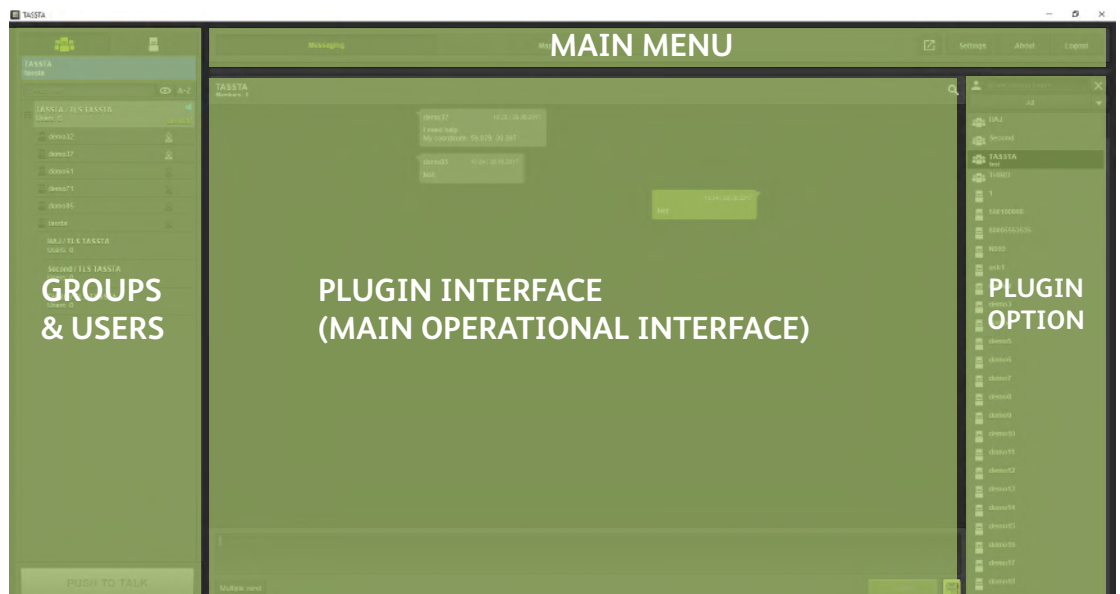
6 USER INTERFACE

TR.Pro user interface is designed with having efficiency and usability in mind. The TR.Pro GUI is designed for multi-screen applications. There are the following benefits and features we can highlight below:

- Logical, friendly and intuitive GUI organization
- Multi functional interfaces and intuitive settings
- Multilanguage support
- Multi-screen operation, touch screen support and custom window sizes
- Secure access and communication
- External devices and accessories

6.1 LOGICAL, FRIENDLY AND INTUITIVE GUI ORGANIZATION

The usage of TR.Pro is simple and intuitive. By default, the main TR.Pro window consists of Groups and User list/tree on the left side, Main Menu on the top and Plug-in Interface area with their own interfaces and features. The selection of the appropriate interface/plugin can be done via Main Menu.



The Group and User list/tree represents all available groups and users with their activity status. Two top icons Groups and Users are used to select the list/tree of the configured available Groups or Users.

On the bottom side of the Groups and Users area there is the PUSH TO TALK button to allow group and individual communication at any time. The group call setup is available from any active interface. It can be pushed by left click of the mouse, tapping on touchscreen, pushing the programmed shortcut key on keyboard or by any external PTT device connected to TR.Pro.

The MAIN MENU has several functional buttons (Undock, Settings, About and Logout) and a number of interface buttons which represent all available TR.Pro plugins. The fully featured TR.Pro version consists of the following plugins listed below:

- Messaging (Message exchange interface);
- Map (Basic map features and visualizations);

The PLUG-IN INTERFACE area provides the user with specific interfaces associated with main menu buttons. It is important to note that TR.Pro operator is free to operate with several interfaces at one time. Furthermore, the voice communication in group is possible at any time from any open/active interface.

6.2 MULTI-FUNCTIONAL INTERFACES

Additionally to the Main menu functions, each plug-in can have its own specific menu with their specific functionalities. The detailed description of interfaces with its specific menu buttons and functions are described in the appropriate chapters of this document. Below is given only a general description of functional and interface buttons available in the main menu.



Interface	Description
MESSAGING	Transfers the user to the messaging interface. This interface provides users with the ability to send/receive a text messages. The interface supports messaging for offline users.
EMERGENCY JOURNAL	Allows viewing all of Emergency events
MAP	An interface for definition of GPS location. Provides to the operator the mobile user location on the map in real time. Thus, the operator can see all available users marked with the appropriate user name and marker icon on the map.
UNDOCK	One of the function buttons. The Undock button provides users with the opportunity to customize the GUI interface for a better visualization and view. By pressing this button an active interface will appear in a floated window. Useful for multi-screen applications.
SETTINGS	An interface button to TR.Pro settings.
ABOUT	Provides the Information about the current TR.Pro version.
LOGOUT	Moves an operator out of TR.Pro operational interface.

6.3 MULTI-SCREEN OPERATION TOUCH SCREEN SUPPORT AND CUSTOM WINDOW SIZES

The Multi-screen facility is the most important excellence of the TR.Pro user interface in the multi display applications like command and control centers on standard PC environments. It is important to note here that TR.Pro Graphical User Interface is not limited to a number of screens or their resolution.

The number of monitors and interface window sizes is free to change and subject to any possible user requirements. Additionally, if the TR.Pro station is equipped with touch screen monitors, the TR.Pro operator can dial with the application by his hand.

Important to note, that the TR.Pro is memorizing the window sizes and their order on logout. Therefore, when you start the TR.Pro again, it will open all the windows in the same order and with the same sizes.

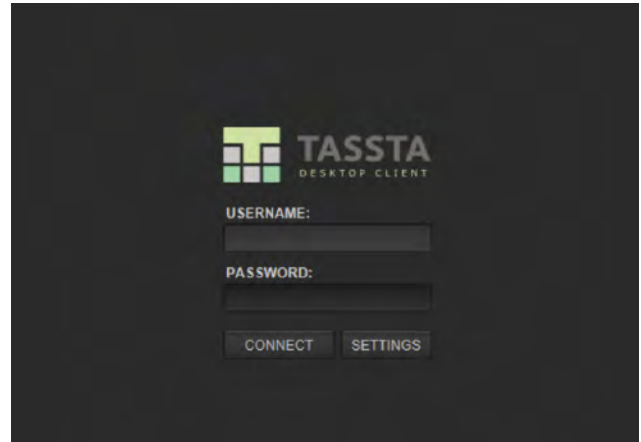
6.4 MULTILANGUAGE SUPPORT

TR.Pro supports different languages. To change the language of TR.Pro, simply go to the Settings, then choose an option Language, and there you can change the language to one of the proposed: English, Farsi, French, German, Greek, Italian, Russian, Hebrew, Spanish.

Input fields supported including the entry of complex characters, like Japanese, Korean, etc.

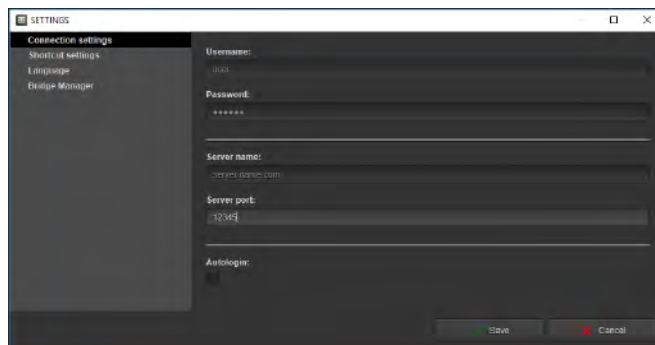
6.5 SECURE ACCESS AND COMMUNICATION

In general, the TASSTA security concept is based on the ACL (Access Control List) security model which provides flexible access control to the TASSTA infrastructure and TASSTA resources. It is a more comprehensive solution than just asking for user and password. The ACL provides the ability to selectively manage and administrate access to a variety of TASSTA services and features, manage and administrate rights of each user and each group.



In other words, TASSTA provides a variety of engineering solutions together with well-known mechanisms like authentication and authorization to prevent misuse and malicious behavior. All the TASSTA clients (mobile or desktop) have the access rights and permissions defined by the TASSTA administrator. Therefore, the TR.Pro Client must be configured with right connection settings before attempting to login.

The important connection settings can be set in the Settings Interface. The interface access buttons are available on the login interface (the user is able to set the settings on the first installation or before the user logged in) and in the main menu (the user is logged in and is only able to see the current settings). Therefore, to access the TR.Pro you need User name, Password, Server domain name (or IP address) and Server Port configured on the TASSTA Server.



ENCRYPTION METHOD

By default, TASSTA Signaling flow is encrypted with TLS using 256-bit AES-SHA, client and the server authenticates to each other using digital certificates. Voice is not encrypted by default and encryption methods could be used on demand. TASSTA is offering the Authenticated-Encryption Algorithm with blockcipher: AES128, AES192, and AES256 specified in ISO/IEC 19772:2009.

6.6 EXTERNAL DEVICES AND ACCESSORIES

TR.Pro is designed as a functional solution, aimed at dispatching systems or/and data centers.

Following the Command and Control Center workplace concept the TR.Pro can be extended with a Desktop Microphone, Speaker and external PTT devices (there are also the options for foot PTT and headset). Anyhow, the PTT button can be configured to be on a foot pedal, headset, on your keyboard, or on a touch screen.

The operation of external PTT device, speaker and microphone bring TR.Pro on the highest professional level of operation and provides users with great communication facilities; makes communication more comfortable and easier. The Headset can be connected to standard audio interfaces on the TR.Pro client station. The Fist PTT can be connected via standard audio interfaces or via Bluetooth.

The Goose Microphone with PTT button can be connected to the station via USB adapter. Usually, this plug and play device does not require any additional settings on TR.Pro.

7 VOICE COMMUNICATION

TR.Pro supports the following voice communication:

- Group call
- Individual call
- Group and individual call setup from any interface
- Emergency call
- Talkgroup scan
- Silent mode

7.1 GROUP CALL

TR.Pro keeps Push-to-talk (PTT) approach of group calls communications that allows a single person to reach users in groups with pushing a single button.

Communication in a group via TR.Pro can be done at any time regardless of currently active (open) interface. Thus, an operator can immediately react and communicate with a selected group and perform a multi task on a desktop.

See the login of last speaking user in the Channel list.

Also it is possible to move between the channels (if you do not have any restrictions) by clicking on the desired channel or by using the hardware button on the radio-system.

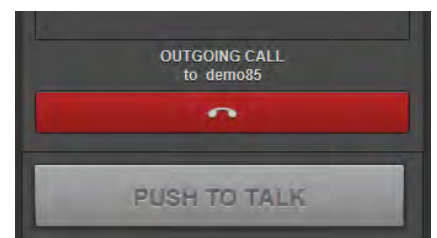
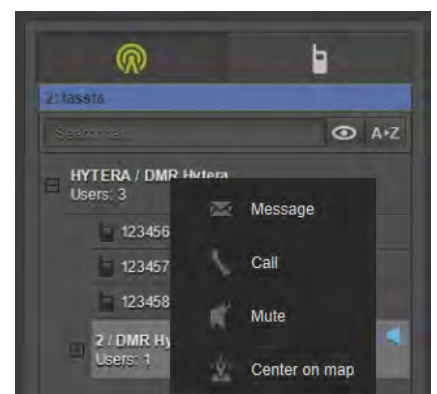


7.2 INDIVIDUAL CALL

The individual call via TR.Pro is a one-to-one simplex call with a simple approach - select a user and make a call. The TR.Pro provides a secure point-to-point communication by the use of the PTT button.

To set up the call select a user from User List. By clicking the right mouse button, a popup menu opens. Click the Call setup icon to start the call. When an incoming call is accepted, both parties can communicate. Click on Push-to-talk button to talk or press on a red handset to release call.

The Group and User interfaces have embedded filtering options which allow users to sort all groups and users in the list. The SEARCH TEXT field and filters are located on the top of the user or group list which might be useful especially for large and medium groups.



Individual calls to TR.Pro are not possible.

7.3 GROUP AND INDIVIDUAL CALL SETUP FROM ANY INTERFACE

One main basic function of the TASSTA system is the group call. The group call can be initiated at any time from any active interface by the PTT function. Even if you are focused on the map interface the PTT button is always at hand. The PTT can be pressed by soft key (on GUI interface), hot key (on a keyboard) and by external PTT (on accessories).

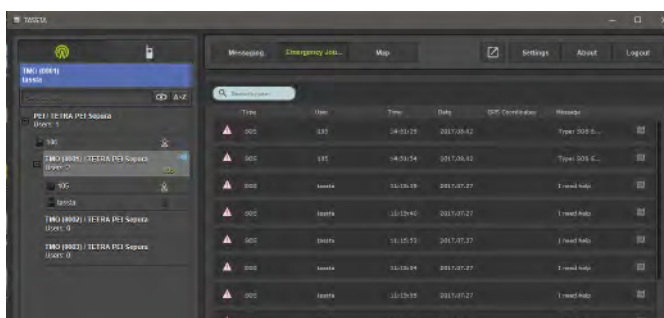
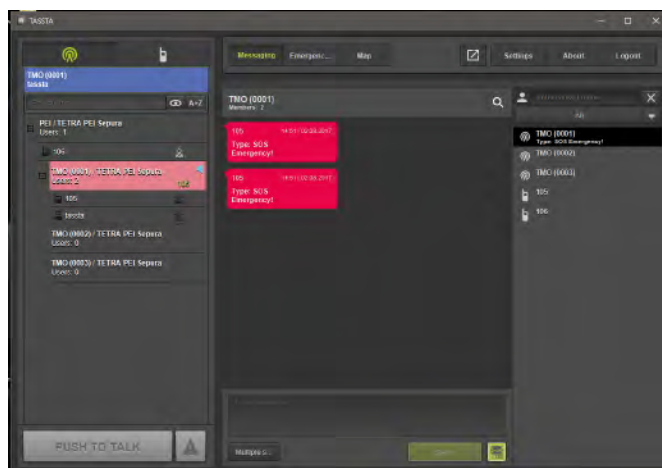
Alternatively, to make an individual call from the map interface click on the particular TASSTA user on the map by right mouse button and select CALL. On CALL selection the individual call will start and the called party will receive the ringing tone. Both parties can communicate when a call is accepted by called party.

7.4 EMERGENCY CALL

TR.Pro is capable of making and receiving an Emergency Call from the DAMM radio network. When initiating, the call is transferred to DAMM radio with priority 15 (emergency) and the radio will react to the initiated Emergency Call from TR.Pro in a way that it is programmed to react to such calls.

From the other side when an Emergency Call is initiated from DAMM radio side, the call will be received in TR.Pro with highest available preemptive priority. Furthermore, the group background color will turn to red to emphasize the emergency situation.

All incoming and outgoing emergency calls will be saved along with their time-stamp and GPS coordinates of the call initiator (provided that the initiating radios support GPS feature) in a journal available from favorite tabs for future easy reference.



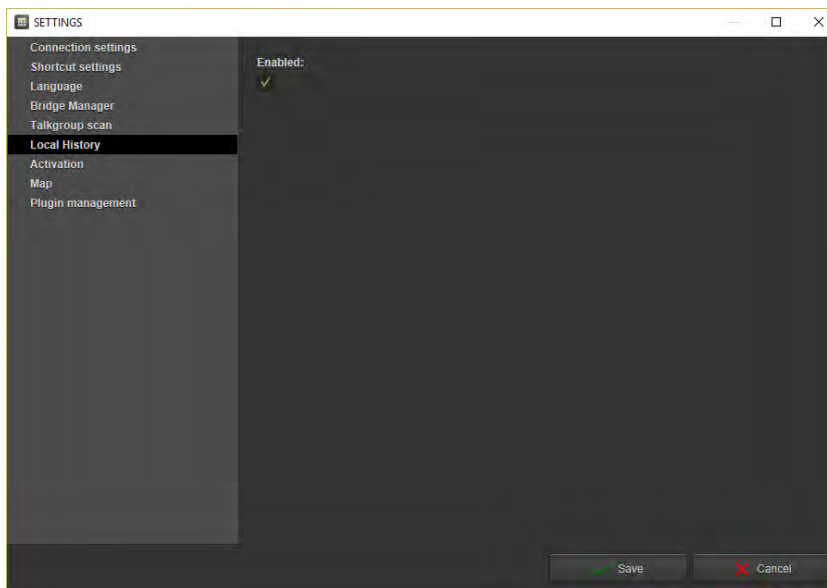
7.5 TALKGROUP SCAN

TR.Pro user can be the need to listen and respond to all channels in which other users are saying.

Watch groups independently and constantly switch manually between the channels may not always be convenient. To solve this problem has a function Talkgroup scan.

This feature allows TR.Pro user automatically jump to the channel in which someone speak. Unlike function of Listen group, you can not only listen but immediately respond to this channel by pressing the PTT.

In order to activate this feature, go to the settings Talkgrup scan and tick the checkbox Enable Talkgroup scan for regular channels. The desirable channels must be listened - right click on group and click on Listen.



If you need to use talkgroup for emergency channels - tick Enable Talkgroup scan for emergency channels. This feature only applies to those channels that you can listen to.

All channels are available for listening after start of TR.Pro. To do this, open the settings, select Talkgroup scan and tick the checkbox Listen all channels on start.

7.6 SILENT MODE – MUTES USER OR GROUP

In some circumstances, you may need to mute a user. To do so, select a user by right click on him and then choose the MUTE option in the popup menu. Selected user is muted. On the Group and User Interface will appear the crossed red loudspeaker icon.

It is also possible to mute the group with the appropriate function MUTE (right mouse click button on the desired group). The red loudspeaker icon is indicating the muted group.

The muted user or group is not a subject of any functional restriction when a user is muted on the TR.Pro interface, only you (TR.Pro Operator) are not listening to the muted user/group.

Choose the MUTE option again in the popup menu to unmute user or group.

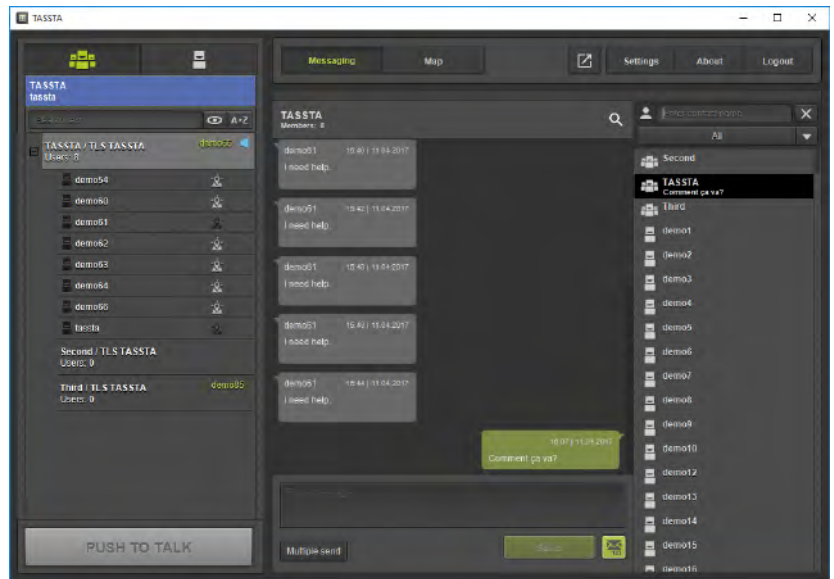
8 MESSAGING PLUGIN

The TR.Pro has an integrated messaging transferring service which allows to send/receive text messages in a group or individually. The TR.Pro messaging interface supports the following features:

- Text exchange
- Multiple send
- Status messages

8.1 TEXT EXCHANGE

To access the text messages exchange interface click on MESSAGING in the Main Menu of TR.Pro. On click, you will be able to see the recent history, write a text to a person/group. The Messages background color hints the direction of the message. Green means the message is sent by remote party and gray means sent by TR.Pro operator.



To send a text type your message in the appropriate text field and press the Send button. The message will immediately appear in the recent messages window.



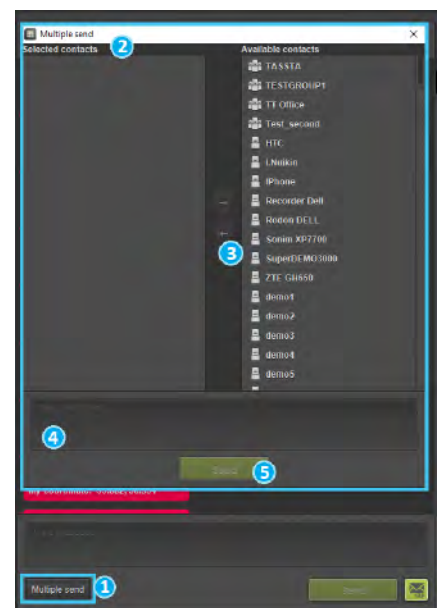
Not possible to send any message to the bridge root group. It is possible to the nested group only.

8.2 MULTIPLE SEND

Also you can send message to multiple users. To make it you need to:

1. Click on Multiple Send button;
2. You will see the popup Multiple Send;
3. Select users (by click on user and click on left-arrow or by double click on user);
4. Enter the message;
5. Click on Send.

After this selected users will receive your message.



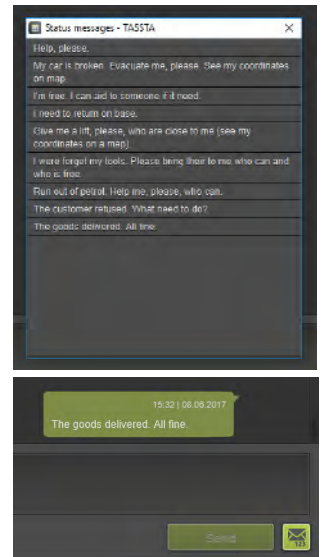
8.3 STATUS MESSAGES

Status messages are predefined messages that are popular to send. They will save time by preventing the typing time and also saving the data transfer volume in radio networks by sending only a digit that is associated with the message in both network and radio and not the whole text message. It can be as a message like “OK”, “Call me” or “Help, a critical situation,” etc.

To use it in TR.Pro, you need to open Messaging, select a channel or single user, click on Status messages button and select the desired message by double-clicking. The message will be sent immediately.

Or you can do this by using the hash (#) and the short name of the desired Status message in the text box and then click on Send.

After that, the selected User or Channel will receive a Status message.



9 EMERGENCY JOURNAL PLUGIN

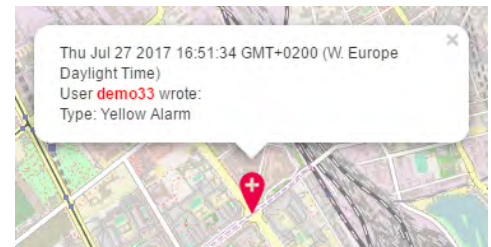
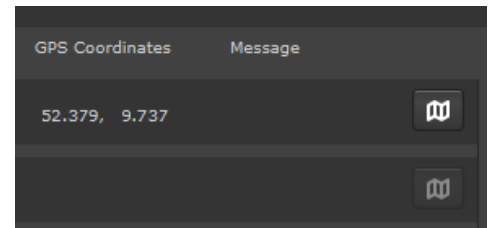
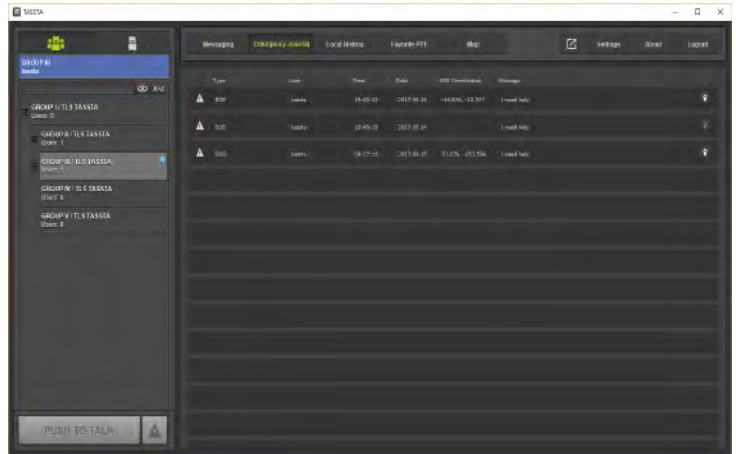
All emergency messages are displayed in Emergency Journal.

This is very convenient since it allows you to get together all the emergency messages, regardless of the channel and type in one place.

Click on Emergency Journal in the main menu and you will see the table with six columns:

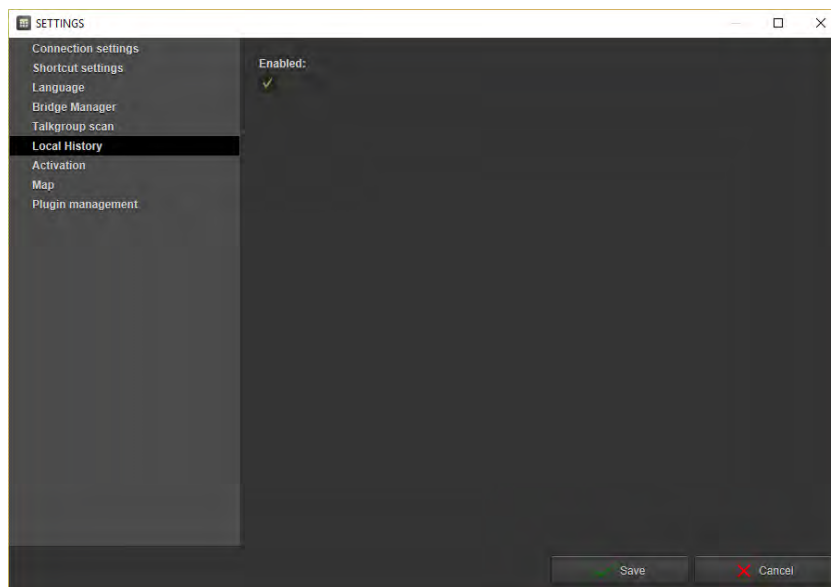
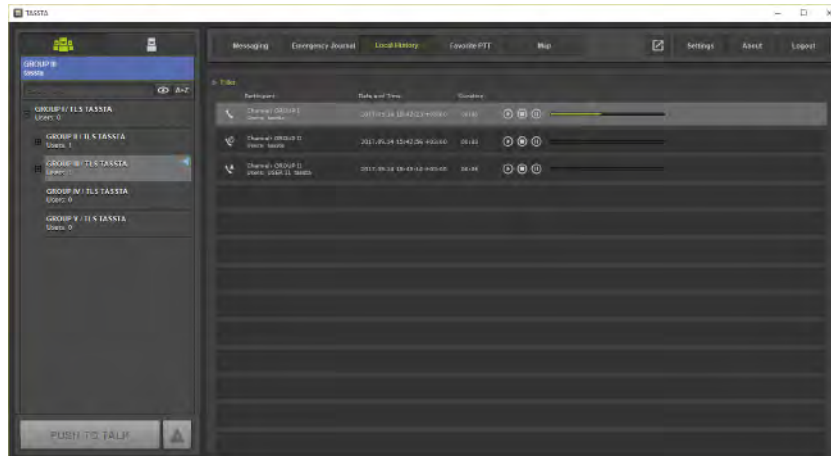
- **TYPE** - a type of what caused the emergency message (it can be simple emergency call (SOS), some LWP features or Zone notifications). Depending on the type of emergency message, the corresponding icon is displayed in front of it.
- **USER** - a user in a state of emergency.
- **TIME** - a time when the emergency message was sent.
- **DATE** - a date when the emergency message was sent.
- **GPS COORDINATES** - coordinates from which the emergency message was sent (if the user's device has GPS enabled).
- **MESSAGE** - message that is specified in the zone for a particular situation.

Also in each string displayed a special button to see where was made an emergency call/message. If an emergency message contains GPS coordinates then this button is highlighted and can be pressed. After pressing the button, TR.PRO opens the Map Tools and shows the location of where the emergency was made with emergency icon and information about this emergency.



10 LOCAL HISTORY PLUGIN

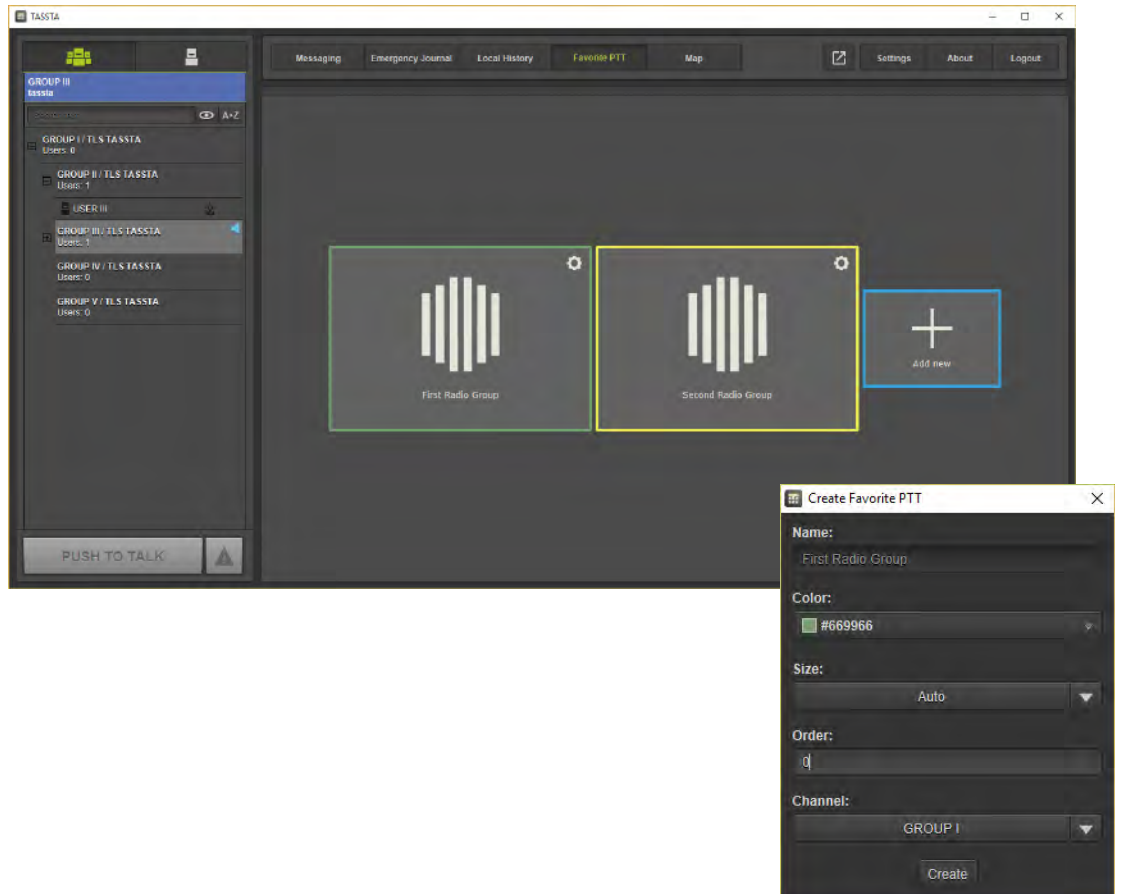
At work, it may be necessary to reproduce a previously occurring conversation. Thanks to the Local History function, you can save all conversations on the local computer and play them, if necessary, on the appropriate tab in a convenient player. First you need to activate this function in the settings. Now, group, individual and emergency calls are available for listening. Different types of calls have different icons to speed up the visual sorting.



11 FAVORITE PTT PLUGIN

If you have a large number of groups or users, you can create shortcuts for quick access to them on the Favorite PTT tab.

Simply create a template for the call by specifying the user or group, the size and color of the future shortcut and the order in which the list is displayed. Now the shortcut will work as a PTT button for a call to the selected user or group. At any time, you can edit or delete the shortcut by going to the settings (gear icon).



12 MAP PLUGIN

The TR.Pro has an integrated service to provide you with GPS tracking capabilities on the map. To access the GPS Location Interface use the MAP button in the Main Menu. It provides the following features and functions:

- Visualization of GPS enabled radio users on the map
- Map zoom in/out
- Detailed street view
- Customizable map window size (multi screen use)
- WHO IS TALKING status and user identification
- Real time positioning and precise location on the map
- Fast call setup from the map interface
- Integration with multiple interfaces (messaging, individual call, mute)

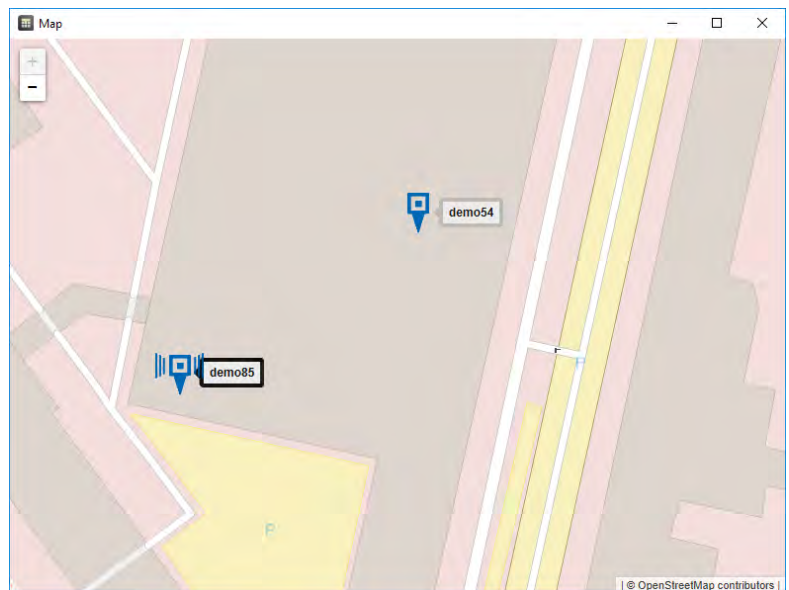
With T.BRIDGE it is possible to see the radio-users on map which can send GPS coordinates.

12.1 VISUALIZATION ON THE MAP

It is quite easy to use all of the GPS tracking advantages, expanding the map on large screens, managing and coordinating users in the groups, track the routes and communicate at the same time.

In order to save current location and zoom level of the map, you can press CTRL + SPACE buttons and return to the same location and zoom level anytime in the future by pressing SPACE button.

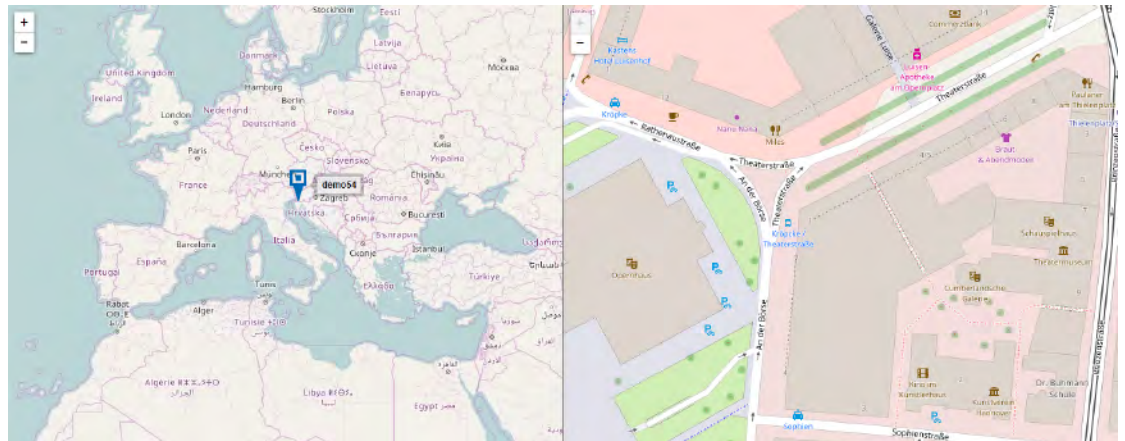
At the first launch the map shows Germany by default, but if the map has launched earlier and the location was saved, then when you start the map will show a saved location.



12.2 MAP ZOOM IN/OUT

The TR.Pro has the zoom in/out map capabilities to see the map in different scales. As an example, we may consider two extreme cases when you may need to see all active clients in the world (max zoom out) or see specific location of a particular user on the street (max zoom in).

There are several ways to zoom in/out the map. You can use “+” or “-” key on the keyboard, use “+” or “-” buttons on the map (the top left area on the map interface) or use your mouse. By mouse, you can use scrolling (the bigger zoom in/out step) and left mouse button (double click on the map - one step zoom in).



12.3 DETAILED STREET VIEW

It is important to have a detailed street view on the map for many companies and groups (e.g. taxi or delivery services). The integrated map provides the detailed street view with house numbers, road and street names and gives the advantage to see the address of any location.

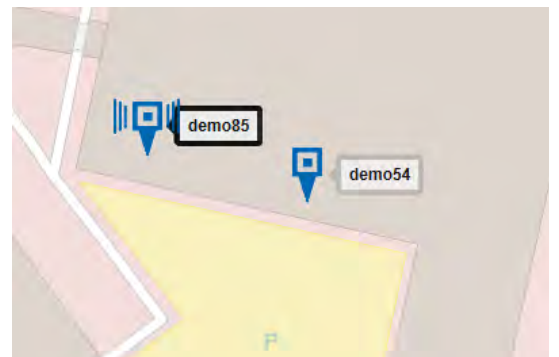
Furthermore, the map has colored lines, areas and other standard symbols to help read and interpret the map in different scales. Note there are different styles of maps which could be used and defined in accordance with the region.

12.4 WHO IS TALKING STATUS AND USER IDENTIFICATION

It is always good to know who is talking at the moment in large groups. Furthermore, it is convenient to choose the user and start communication with a particular user without leaving the map interface. All these functions are available on the TR.Pro map interface.

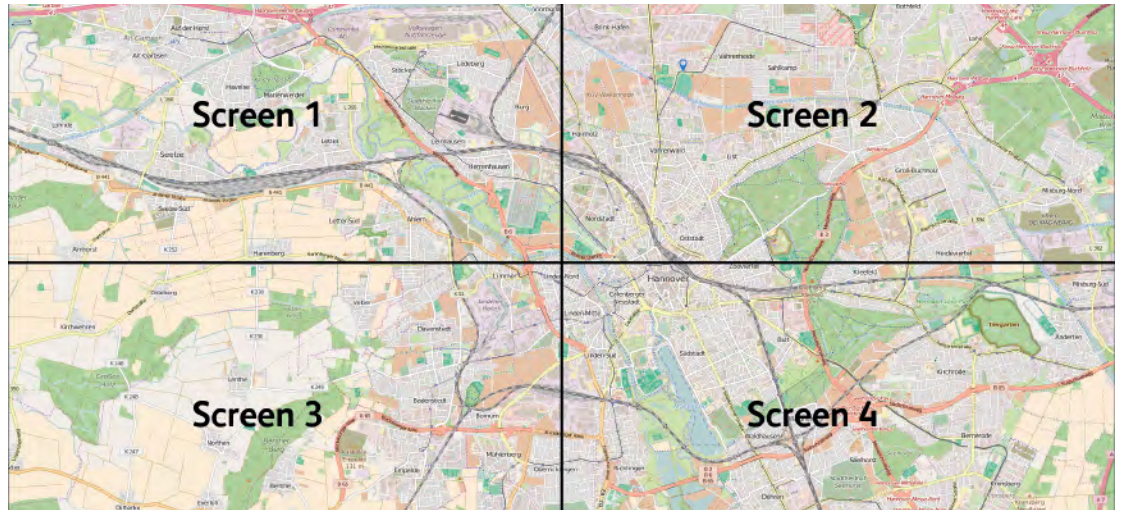
The position of each subscriber is marked by a special marker/icon on the map with appropriate label sign. The label represents the name of the user.

The user status is changing when the user is pressing the PTT and PTT is granted. All active talking users are highlighted on the map by a marker icon.



12.5 CUSTOMIZABLE MAP WINDOW SIZE (MULTISCREEN USE)

Nowadays, there are many types of screens and monitors with different sizes and resolutions. It is also common that dispatcher solutions in control centers are designed to be used with more than one screen. To follow the multi-screen concept, TR.Pro provides users with the opportunity to customize the GUI interface for better visualization. Thus, any plug-in interface can be toggled to floated window and stretched to any size.



By extension of window size operator have a flexibility to present their map either on one or several screens. Additionally, external map is also available from browser.

12.6 REAL TIME POSITIONING AND PRECISE LOCATION ON THE MAP

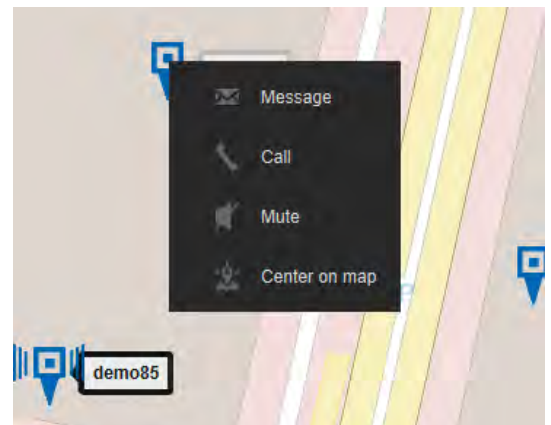
The TR.Pro has a feature that allows us to see user locations on the map. The map details can rely on the region, but in most cases on TR.Pro Map Interface you are able to see the Radio user's locations in real time with accuracy up to the street and house number.

12.7 INTEGRATION WITH MULTIPLE INTERFACES

The Map Interface is integrated with other interfaces.

If you select any user on the map and click on the right mouse button, you will be able to select required function in the popup menu:

- **MESSAGE** will forward you to the Messaging Interface where you are able to type a message to/from selected user on the map;
- **CALL** - The click on CALL will initiate an individual call;
- **MUTE** will mute a user.
- **CENTER ON MAP** centers the selected user to the middle of the map window;



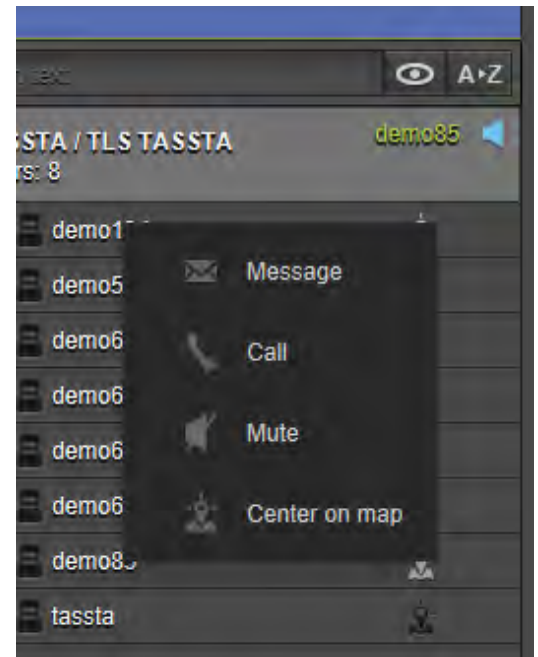
For more information on these functions, see the relevant chapters.

12.8 FAST CALL SETUP FROM THE MAP INTERFACE

One of the main functions of TR.Pro is the group call to Radio users. The group call can be initiated at any time from any active interface by the PTT function. Even if you are focused on the map interface the PTT button is always at hand. To make an individual call from the map interface click on the particular Radio user on the map by right mouse button and select CALL. On CALL selection the individual call will start and the called party will receive the ringing tone. Both parties can communicate when call is accepted.

12.9 CENTERING ON THE MAP

To center the user on map, you need to right click on its icon if the map is open or alternatively right click on the user's name in Users menu and choose CENTER ON MAP. You will immediately jump to the map interface with the appropriate user location in the center.



A INSTALLATION

A 1 OPERATING ENVIROMENTS

TR.Pro application can be installed on Desktop PC or Laptop compatible with Windows 7/8/10. To run this application, a computer must meet the recommended specifications detailed below:

Components	Recommended
Operating system	Windows 7 32/64 Windows 8 32/64 Windows 10 32/64
Processor	Processor with minimum 2 GHz clock frequency
Memory	8 GB RAM
Hard Drive Space	250 GB
Display	Standard colour display
Ethernet	Standard network card
USB Accessories	Optional. e.g. USB audio card, Desktop mic. with PTT button
Prerequisites	Java SE Runtime Environment 8 latest version

A 2 INSTALLATION OF TR.PRO

1. Install TR.Pro from file
2. Unzip and configure Bridge

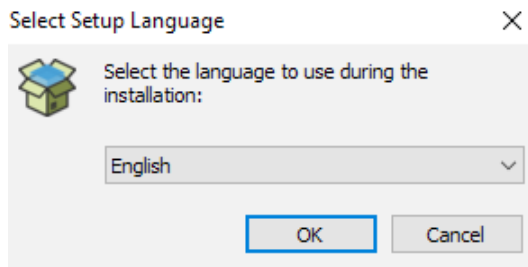
A 2.1 INSTALLATION FROM FILE

To install TR.Pro you need to have an installation file. It can be downloaded from TASSTA official website.

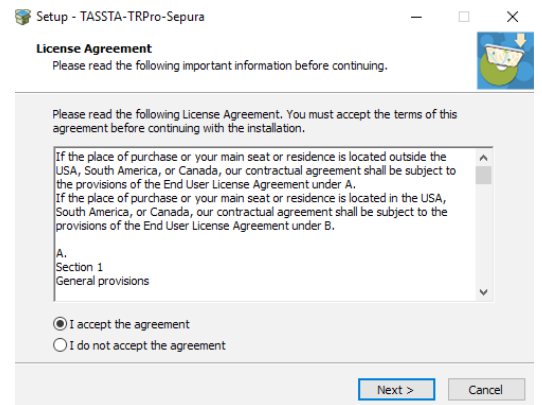
Run the installation file and follow the installation procedure.



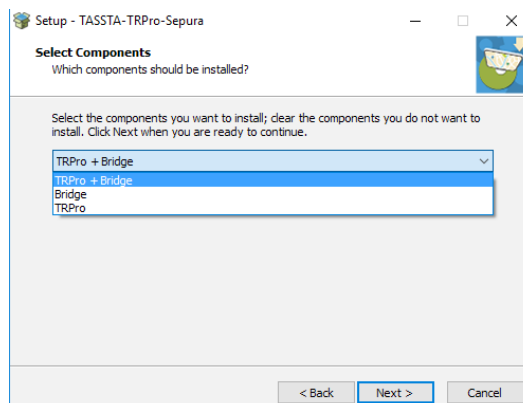
Installer Icon



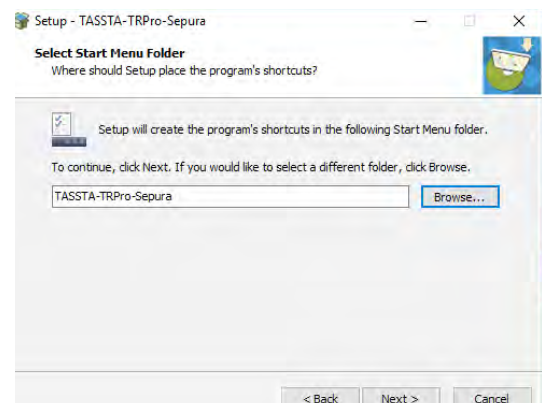
As the first step, the application offers you to select the language to use during the installation. Select language and click OK.



Continue the installation, agree with license agreement. Read the license agreement and tick "I accept the agreement" if agree and cancel if not.



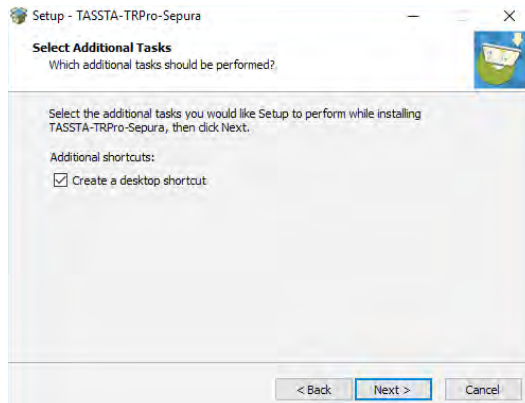
Select the components to install. Click NEXT when you are ready to continue.



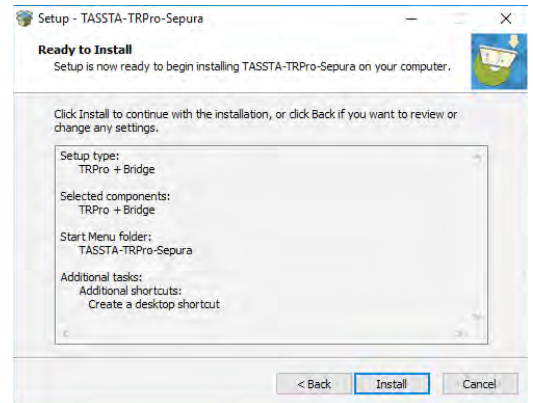
Select Start Menu folder. Skip this option with default settings and click the NEXT button, if you don't have any specific requirements. Click BROWSE if you would like to select a different folder.



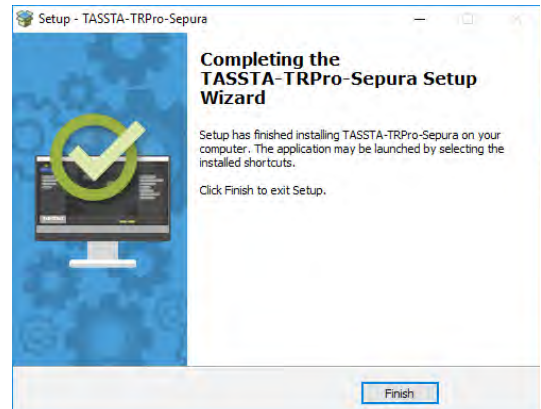
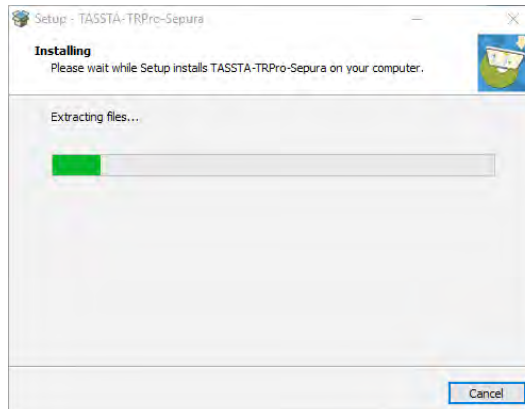
See Next Page



Mark the checkbox “Create a desktop shortcut” if you would like to have TR.PRO’s shortcut on the desktop.



Ready to install. Click INSTALL to continue with the installation, or click BACK if you would like to review or change any settings.



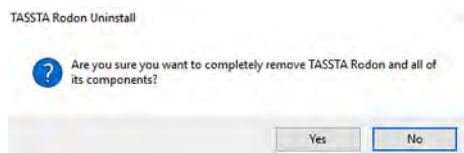
The installation process should be completed within a minute. Please wait until the application informs you about the end of installation process. Press Finish to exit the installation.

TR.Pro is installed on your computer and you can launch the application. Click on Shortcut on Desktop (if you selected action CREATE A DESKTOP SHORTCUT) or run the application from Start Menu (Programs). Also, if you decide not to install the program for any reason, abort the installation at any point before the installation is completed by clicking the CANCEL button.

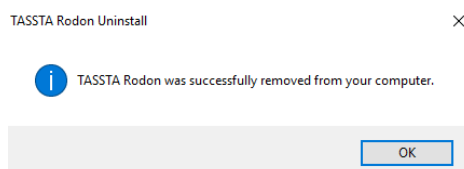
UNINSTALLATION

Uninstall TASSTA programs directly from the Control Panel. Right-click the START button and click Control Panel. Go to Programs and Features (if your Control Panel is in Category view, go to Uninstall a Program).

Find the TASSTA program you want to uninstall, click it to select it, and then click Uninstall. You’ll see a pop-up window asking if you’re sure you want to uninstall this program, click YES and click through the uninstall wizard, if applicable.



The alternative way - open the folder where installed TR.Pro and run the uninstaller. The system will ask your permission. Press YES to accept the action and the uninstall process will start.

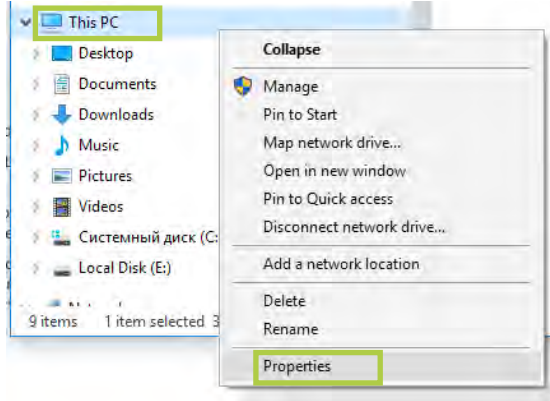


Once the installation process is completed, the system will inform you with an appropriate message: “TASSTA Rodon was successfully removed from your computer”.

Press OK to complete the action.

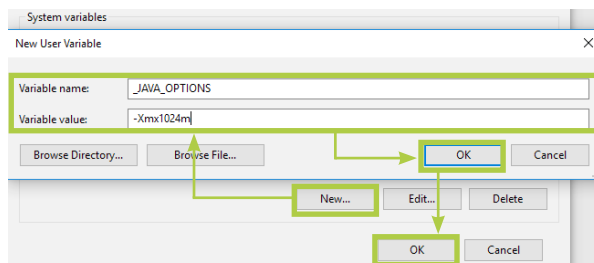
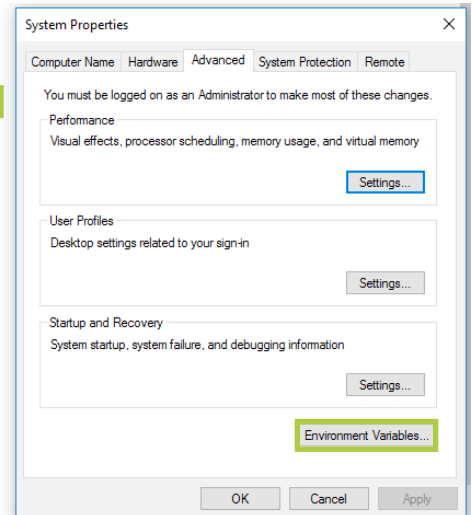
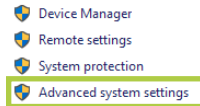
A 3 EXPANSION OF AVAILABLE MEMORY

To keep the operation of the application stable, you may need to expand the available memory. Create a new environment variable to expand the available memory.



Click right mouse button on My Computer, select Properties and then choose Advanced system settings.

Open Environment Variables on the Advanced tab.



Choose New... in the System Variables tab and type the following:

Variable name: `_JAVA_OPTIONS`

Variable value: `-Xmx1024m`

The environment variable is created and the available memory is expanded.

B DAMM TETRAFLEX

B 1 INTRODUCTION

TASSTA DAMM is a windows based application communicating with the DAMM TETRAFLEX system through IP network.

B 2 BRIDGE CONFIGURATION

Bridge is configured through a text configuration file in "json" format as below:

```
{
  "type": "dammm",
  "ProviderDriver": "tetra_flex", // "dammm" is the driver name for DAMM TetraFlex TETRA BS

  "ProviderConfig": {
    "root_channel_name": "TetraFlex", // name of the root group as we want to see it in list of
    groups
    "StatusTable": {
      "32770": "Shipment Delivered!", // defined statuses in TETRA Radio Terminals
      "32769": "Back to Home!",
      "32768": "Job Done!"
    }
  },
  "ConsumerDriver": "flex", // "flex" is the driver name for TASSTA client
  "ConsumerConfig": {
    "HostAdress": "0.0.0.0", // bridge host IP address to listen
    "Port": 65001, // bridge working port
    "CertFile": "cert.pem",
    "KeyFile": "key.pem",
    "Username": "tassta", // TASSTA client username
    "Pass": "tassta" // TASSTA client password
  }
}
```


B 3

TETRAFLEX API DLL CONFIGURATION

```

.*****
;
;*** TetraFlex API DLL Configuration ***
;*****
;
; DLL Version: 7.76 2015-12-14
; Date/time.: 2016-12-02 12:17:07

.***** 71 Common *****
71/IDPROMPT/-
71/USERNO/0000199
71/KEY/A/F2A68CCA86465710864D7193B1B02A13
71/KEY/DATIM/4304BE21
71/NWAUTH/-
71/PIN/PROMPT
71/OMPORT/42382
71/OMPIN/0000000365

.***** 72 Gateways *****
72/0/172.016.001.010/N001-BSC1
72/1/-
72/2/-
72/3/-
72/4/-
72/5/-
72/6/-
72/7/-
72/8/-
72/9/-
    
```

C SUPPORTING DEVICES

C 1 USB DESKTOP MICROPHONE



The TM3 is a USB desktop microphone with integrated speakers and push-to-talk button to connect to PCs

VENDOR / MODEL

- Imtradex
- TM3

KEY BENEFITS

- USB table microphone integrated high-performing speaker
- high stability
- flexible gooseneck microphone
- thanks to the Plug & Play function it doesn't require any special driver installation
- ability to connect an external speaker and an external PTT
- can be used with both Windows and Linux-based systems
- unique serial number for device identification
- high performance 24 bit audio resolution
- HID-Interface for Push-to-Talk processing
- no external sound card or driver needed

TECHNICAL DATA

- Frequency range: 60 Hz – 12 kHz
- Impedance: 8 Ohm (at 1W, 1 kHz)
- Sound pressure level: 84 dB (@ 1W/1m)
- Impedance: 1100 Ohm
- Sensivity: -44 dB V / Pa, 1 kHz
- Frequency range: 100 Hz - 8 kHz
- Pattern: electret
- Directional: non-directional
- Length USB-connecting cable: 3m (not to be extended)
- Power supply: over the USB-connection
- Bitrate / Samplingrate: 24 bit / 16 kHz
- Life cycle PTT: min. 500.000 cycles
- Dimensions (LxWxH): Underpart: 170 mm x 115 mm x 60 mm
- Length gooseneck: 32 cm
- Operating system: Windows XP,7,8,1,10, Linux Kernel 2.6, or later
- Processor: from Pentium 4 or similarly
- USB-connection: USB 2.0
- Temperature range: 0°C to +55°C

C 2 FOOT-USB



PTT-Foot-USB is a foot PTT for use in various situations

VENDOR / MODEL

- Imtradex
- PTT-Foot-USB

KEY BENEFITS

- Multifunctional footswitch
- Durable and reliable due to steel housing
- Secure rubber coating
- Emulates key press as a game controller in windows
- function with Win XP, Win 7, Win 8.1 and also Win 10

TECHNICAL DATA

- Tread surface: Black rubber
- Switch contact material: Silver
- Dimensions (LxWxH): 300 mm x 95 mm x 25 mm
- Material: Steel panel under aluminium profile, hammer scale
- Protection class: IP X2
- Weight: ca. 1 KG
- Operating system: Microsoft Windows 2000, XP, 7, 8
- Supply voltage: 4,5 – 5,5 V DC through USB-Port
- USB-connection: 2.0

C 3 HAND HELD MICROPHONE



Aurelis USB is a hand held microphone for connection to computer-based communication systems, especially for control centers

VENDOR / MODEL

- Imtradex
- Aurelis USB

KEY BENEFITS

- Plug and Play function
- rugged, splash proof housing
- spare button for special functions ex. emergency button
- three-step volume control
- available with car holder clip or option with rotating cloth clip

TECHNICAL DATA

- Sound pressure level: 88 dB at 1 mW / 1 kHz
- Frequency range: 200 Hz – 8 kHz
- Pattern: dynamic
- Impedance: 8 Ohm at 1 mW / 1 kHz
- Impedance: 1200 Ohm
- Sensivity: -38 dB V / Pa, 1 kHz
- Frequency range: 50 Hz – 16 kHz
- Pattern: electret
- Directional: omni-directional
- System requirement: USB 2.0 or later, Microsoft Windows XP, 7 or later, Linux 2.4
- Life cycle PTT: min. 250,000 cycles
- Protection class: IP 54 to IP 67
- Temperature range: -30 °C to +70 °C
- Weight: aprox 155 g (incl. cable)

C 4 USB DESKTOP DYNAMIC MICROPHONE



Desktop microphone with dynamic microphone and USB connection.

VENDOR / MODEL

- Pei Tel
- PS12 USB

KEY BENEFITS

- Dynamic unidirectional high noise canceling gooseneck microphone
- Device recognized as external sound card by the computer
- Buttons and LEDs recognized as HID (Human Interface Device)
- Compatible with Microsoft® Windows® Vista, Windows® 7 and Windows® 8

TECHNICAL DATA

- Microphone head: Brass, sand blasted chrome (matte)
- Gooseneck: Metal, matte silver coated
- Housing: Metal, matte silver coated
- Dimensions:
 1. Microphone head: Length 80 mm, Ø 24 mm
 2. Gooseneck: Length 200 mm, Ø 11 mm
 3. Housing: Height 32 mm, Width 105 mm, Depth 160 mm
- Weight: 770 g (27.1 oz)
- Connection: 2 m cable with USB-A plug
- Operating and 1 Button, black
- display elements: 1 LED, blue
- Storage temperature: -30 °C to +70 °C (-22 °F to +158 °F)
- Operation temperature: -10 °C to +55 °C (-14 °F to +131 °F)

C 5 USB DESKTOP MICROPHONE



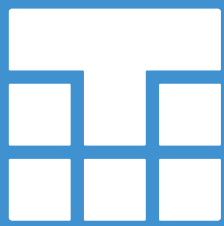
VENDOR / MODEL

- Plantronics
- SSP 2753-01

Desktop Microphone USB - PTT (Push-To-Talk) Provides USB audio and digital PTT signal.

TECHNICAL DATA

- Product Type: Microphone
- Type: Telescopic pole
- Connectivity: Technology Wired
- Remote control
- Commands Conversation: Push Button
- Connector: Type USB
- Cables Included: Microphone cable



TASSTA

SIMPLY PROFESSIONAL