



TerraServerTM

Integrated Management Software

User Manual

Music Streaming • Recording Streaming
Bell Schedules • Control • Monitoring

Revision History

v5.03

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1 About this manual

This user manual will explicitly describe the software configuration, and provides installers and users the necessary information to setup and configure the TerraServer.

❖ Software version:

Version
X.XX

1.1 System requirements

❖ CPU: at least i5, recommend i7

❖ Memory: at least 8GB RAM

❖ Hard-Disk: > 500GB

 Reserve 150GB for TerraServer application and log.

 There are 8 types of log in total:

When the log storage size is up to 100MB, it will turn to a file format, and for each type of log file when there are 180 files in the storage space, and then the oldest file will be deleted automatically for the space of new log storage(FIFO).

❖ Java Runtime: Java 8 update 201

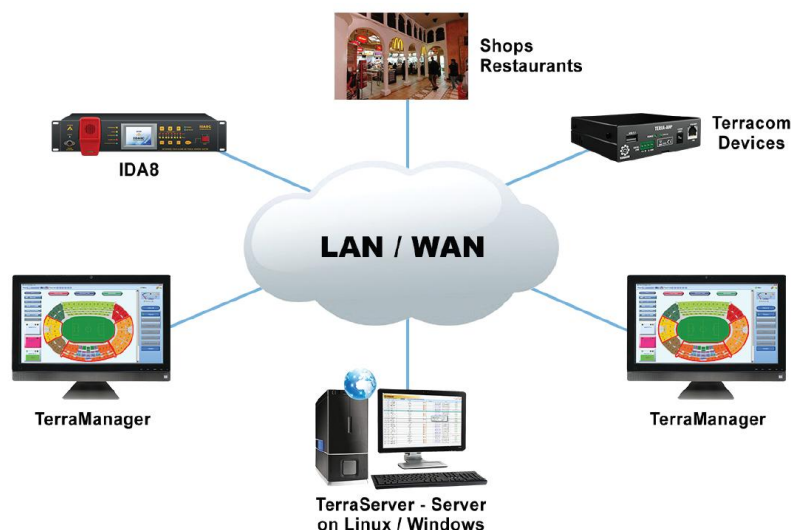
❖ 64-Bit OS: Windows 7 SP1/8.1/10

❖ Others

- Network Card
- Network bandwidth: > 100Mbps

1.2 System overview

The TerraServer combines the integrated software and operation management together. The TerraServer handles multi-channel media streaming, recording streaming, manages numerous audio files and playlists, device management, device firmware update, monitoring, file synchronization with TerraManager etc.. The TerraServer also has an advanced scheduler for playing prerecorded messages and playing priority announcements.



Features:

- Multiple devices management & monitoring for TERRACOM, TerraManager, TerraServer and

ATEiS products, including IDA8, BOUTIQUE, ECS, UAP

- Music streaming
- Recording streams from IDA8, BOUTIQUE, TERRACOM devices etc.. or other streams via RTP protocol
- Scheduler management for BGM and pre-recorded messages
- Ethernet, TCP/IP, VLAN compliant
- File synchronization including text, MP3, WAV etc. with TerraManager
- Support to remotely update the configuration file or firmware of TERRACOM devices
- Record logs for the whole system
- The Central Log function can record the logs of IDA8/BOUTIQUE system, and display the real-time information on TerraServer

1.3 Notice signs

❖ Explanation of Graphical Symbols:



Note: Containing additional information.



Caution: Equipment or property can be damaged, or persons can be injured if the alert is not observed.


1.4 Copyright

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2 Quick start

2.1 Step 1: installation

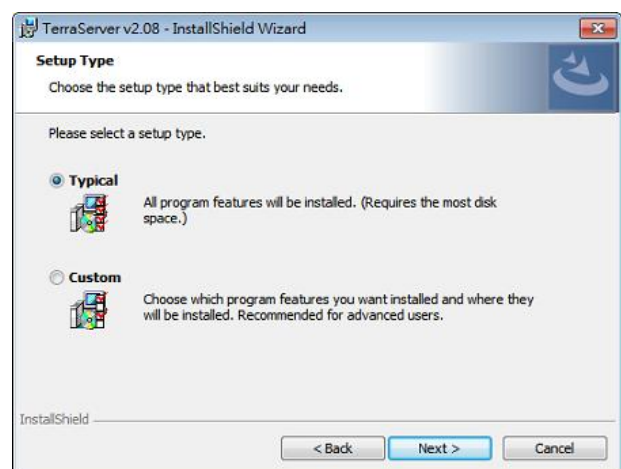
Please follow the steps below to install TerraServer software.


 If an updated software is required, please contact your retailer for the new version.

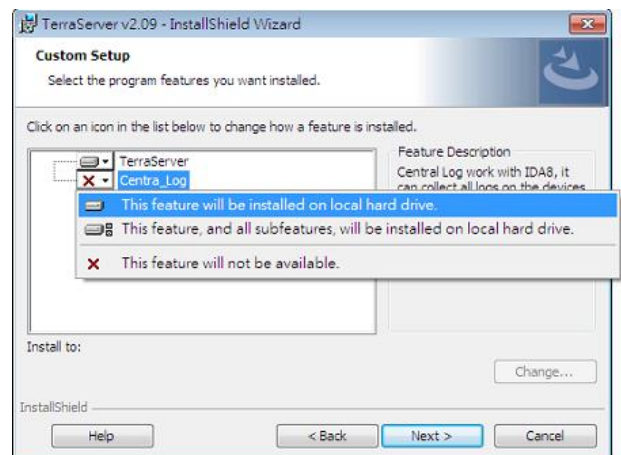
1. Install 'TerraServer vx.x-setup' by double clicking its software icon.



2. Choose the setup type: [Typical] or [Custom], then click [Next].




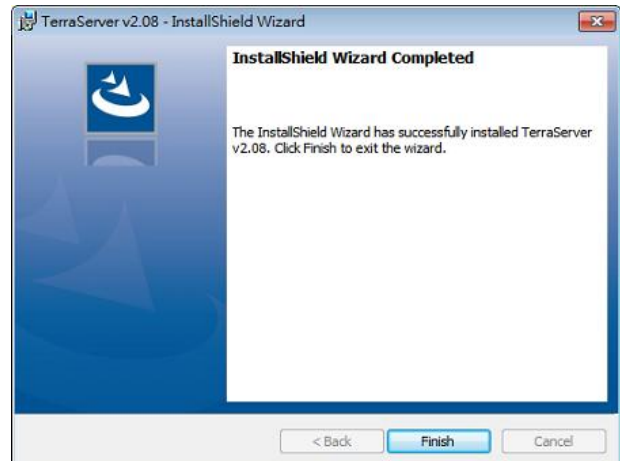
 If users wish to install the [Central Log] function within the TerraServer software, click [Custom] type, see the picture on the right.



3. The software will be installed under the path "C:\Program Files\TERRACOM\TerraServer.x.x.x" by default.

4. After the installation have been successfully completed, click [Finish] to exit the wizard.

 Please find "readme" file under the path "C:\Program Files\TERRACOM\TerraServer. It contains the links to Java Virtual Machine, basic system requirement and network IP port usage.



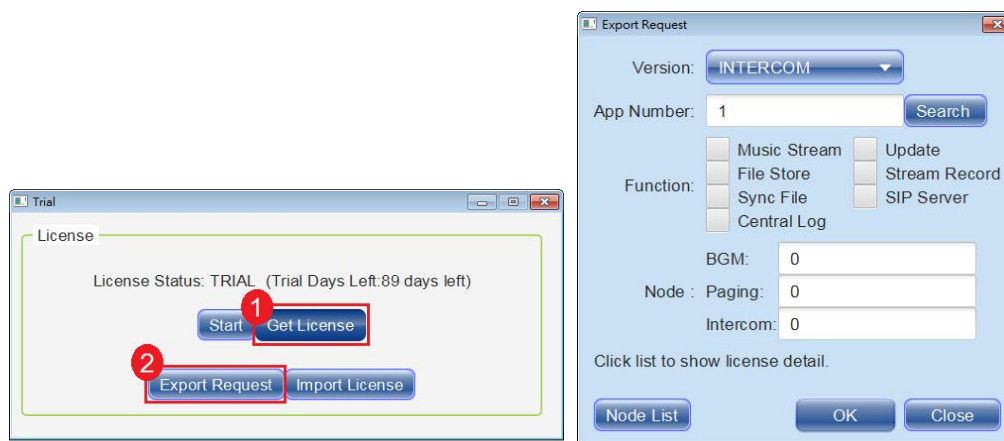
5. The installation will create a shortcut to the "TerraServer vx.x.exe" on your "Desktop".

2.2 Step 2: use trial/basic version or get license



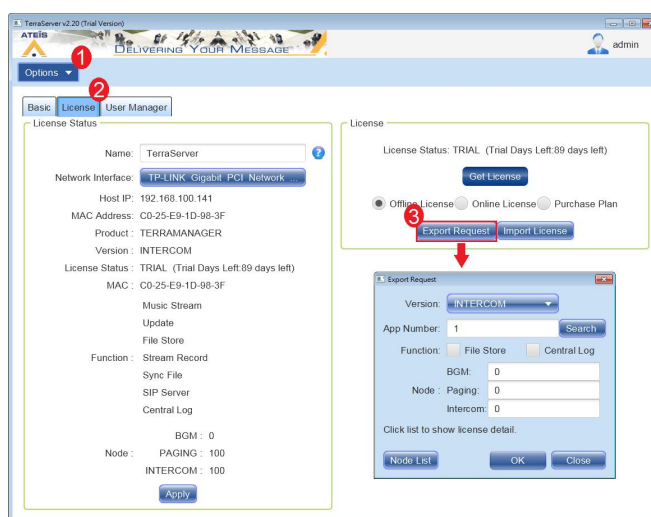
- ❖ Using Basic Version: Click this button to run the TerraServer application under Basic Version. After the 90 days trial period on TerraServer, you will be asked to import a license or continue using the Basic Version. Please note limited functions and nodes can be operated under Basic Version.
- ❖ Using Trial Version: Click this button to run the TerraServer application under Trial Version. The TerraServer is available for 90 days trial.
- ❖ Get License: Click this button to export the license request or import the license, the official license does not have time limit. There are two paths to generate the license request:
 - Path-1:


Firstly, click [Get License] button on License window, then click [Export Request] button. Then a [Export Request] window shall be displayed. To know how to fill in the [Export Request] form, see [Export Request](#) for details.



- Path-2:

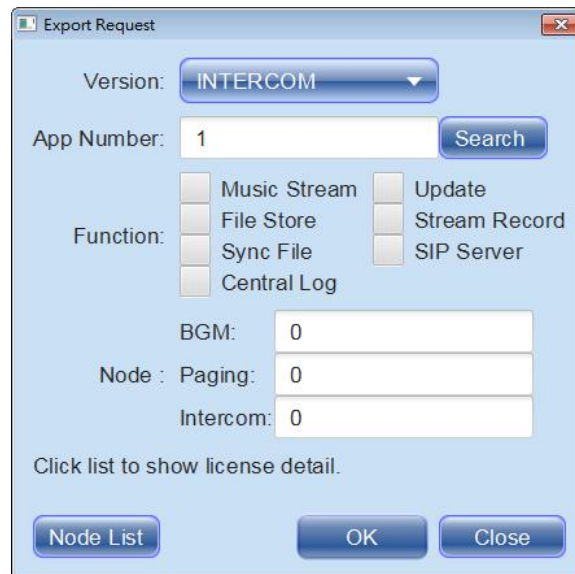
Please run the TerraServer application, and go to Options > License > Get License window, then click [Export Request] button. See the picture below.



 If you do not have the Internet connection to activate TerraServer, please provide your Mac address to your dealer, and we will generate a license file afterwards. Please refer to [Import License](#) ⁹.

2.2.1 Export request

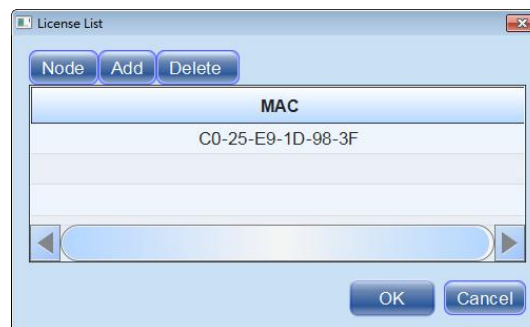
Please see the following steps to complete the license request file, and click [OK] button to generate a "Terra License Request" file (*.req), then please send this file to your local dealer.



The 'Export Request' dialog box contains the following fields and controls:

- Version:** A dropdown menu currently set to 'INTERCOM'.
- App Number:** A text input field containing '1', followed by a 'Search' button.
- Function:** A group of checkboxes for 'Music Stream', 'File Store', 'Sync File', 'Central Log', 'Update', 'Stream Record', and 'SIP Server'.
- BGM:** A text input field containing '0'.
- Node : Paging:** A text input field containing '0'.
- Intercom:** A text input field containing '0'.
- A link: 'Click list to show license detail.'
- Buttons at the bottom: 'Node List', 'OK', and 'Close'.

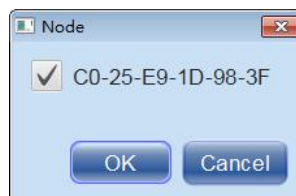
- **Version:** Choose the version you would like to purchase.
 - **BGM:** The BGM version includes in the basic operational function and the background message playing function.
 - **Paging:** The Paging version includes in all the function of BGM version and the additional paging function.
 - **Intercom:** The Intercom version includes in all the function of Paging version and the additional intercom function.
- **App Number:** Set the number of PC/laptop which will install the TerraServer. Click [Search] button and open [License List] window. All the MAC address of TerraServer will be listed on this window.



The 'License List' dialog box contains the following elements:

- Buttons at the top: 'Node', 'Add', and 'Delete'.
- A table with a header 'MAC' and one row containing the value 'C0-25-E9-1D-98-3F'.
- A horizontal scrollbar below the table.
- Buttons at the bottom: 'OK' and 'Cancel'.

- **Node:** Click this button to add the listed MAC address of TerraServer into the license request file (*.req).




The 'Node' dialog box contains the following elements:

- A checked checkbox next to the MAC address 'C0-25-E9-1D-98-3F'.
- Buttons at the bottom: 'OK' and 'Cancel'.

- **Add:** Click this button to create a MAC address of TerraServer.
- **Delete:** Click this button to delete the chosen MAC address from [License List] window.
- **Function:** Choose the functions you would like to purchase (Music Stream/File Store/Sync File/Update/Stream Record/Central Log/SIP Server) or none.
- **Node:** Choose the number of device node for each BGM/Paging/Intercom version.

- Node List: Click this button to know the current device nodes users have added in the [Device] window.

 For [Stream Record] function, up to 50 devices can be added for one TerraServer. If the number of devices is more than 50, please purchase a second TerraServer.


At last, click [OK] button to generate a "Terra License Request" file (*.req), and please send this file to your local dealer, we shall contact you for further notice.

After the license has been imported in TerraServer, please restart the TerraServer software, so that this license will be applied.

2.2.2 Import license

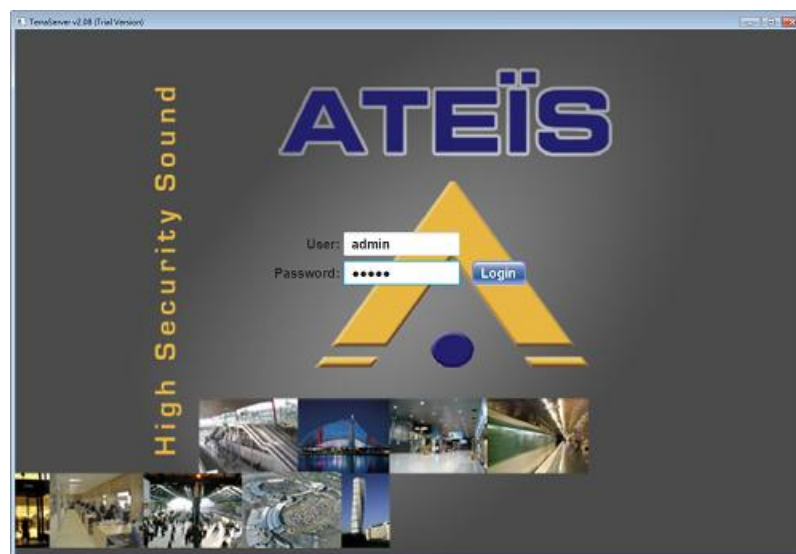
If you have purchased the license already, click [Import License] to import the license file (*.lic3) into the TerraServer software.




 When reinstalling TerraServer in the same PC/laptop, the license is still valid.

2.3 Step 3: login/logout

1. Enter admin on [User].
2. If you haven't set the password for login yet, please leave it blank first.
3. Click [Login] button to enter the main window of TerraServer. After login, you shall see the main window of TerraServer.



4. To logout, click  button.



3 Functions

3.1 Device

The Device window will list all the ATEIS devices, TERRACOM devices, TerraManager and TerraServer in the LAN.

❖ Device window

Node License	Name	Function	IP	Status	Priority	Product	MAC
BGM	14		192.168.101.14	ONLINE	10	TERRA-K	00-9F-A4-EA-6E-13
BGM	FXO_198		192.168.101.198	ONLINE	10	TERRA-FXO	00-AA-EE-22-44-98
INTERCOM	Machine		192.168.102.80	ONLINE	-	BTQ_VM	00-22-13-FF-66-50
PAGING	TERRA_SAP		192.168.101.12	ONLINE	20	TERRA-SAP	00-22-13-FF-B4-9A
INTERCOM	TerraManager		192.168.100.147	ONLINE	10	TerraManager	50-E5-49-CB-CA-15
INTERCOM	TerraManager		192.168.100.51	ONLINE	10	TerraManager	80-86-F2-42-1B-CF
BGM	215		192.168.101.215	OFFLINE	12	TERRA-IT5	00-AA-EE-22-44-A5
Microphone	PPMK		192.168.101.19	OFFLINE	10	TERRA-K	00-AA-EE-22-44-19
PAGING	TERRA_SAP		192.168.100.1	OFFLINE	20	TERRA-SAP	00-22-13-00-A7-BB

- Filter: Click this drop-down box to set the device filter by the product type (All/Terracom/Ateis/Other).
 - Check device: Click this button to check whether the IP address of all the listed device(s) has conflict.
 - Refresh: Click to refresh the device list.
 - Status (Active/License Nodes): Display the current node license which have been added from [Node License] window, as well as display the supported max. node license.
 - Node license: Click to open the [Node License] window. Users can add the devices on [Node License] window. See [How to Add Node License](#)^[12] chapter for details.
 - Name: Display the name of device.
 - : Currently the device does not have license.
 - Warning
 - Load Device structure failed: The device data cannot be loaded by TerraServer, please click to reboot the device.
 - Invalid Name: The device name is invalid, the supported format is a~z, A~Z, 0~9, _, -.
 - Suggest F/W Version: vx.x.xx, current F/W Version: vx.x.xx
 - Function:
 - Reset: Reset the global-net communication between TerraServer and IDA8.
 - Reboot Device: Reboot the Terracom device.
 - Central Log: Click to open the [Central Log] window. The Central Log function will record the logs of IDA8 system, and display the real-time information on Central Log Service software.
-
- Please make sure that the Centrol Log Service software is operating first.
-
- Log: Click to show the device log.
 - Device information: Display the information of device including display name of device,

license, IP address, product type, priority, MAC address, firmware version, internal/external USB memory storage, system ID etc..



This system ID is for the Ateis device which supports Global-Net such as IDA8 processor.

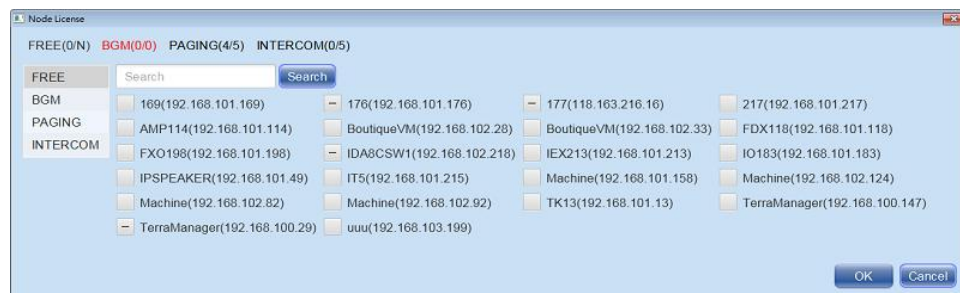
- IP: Display the IP address of device. Click its IP address link to open its own Terracom web browser interface.
- Status: The current status (ONLINE/OFFLINE) of device.
 - Online/Offline: Indicate the ON/OFFLINE status of device.
 - Unstable: Indicate the unstable Internet connection. The TerraServer itself will try to solve this problem, if the status doesn't recover back to ONLINE, please contact your system administrator.
 - Unit disconnect: Indicate the IDA8 device has been connected to Internet, but the communication is disconnected. If this status is shown, please contact your system administrator.
 - SYSID not match: When the setting of device deployment in IDA8/BTQ system have been modified, the [SYSID not match] status will be shown, and inform users to click [🔄 Refresh] button to refresh the device list.
 - Detected: Indicate the TerraServer has detected the device in the LAN.
- Priority: The global priority of device. This priority setting can be changed from the Terracom web browser interface > Steup1 > Basic Setting > SIP > Global Setting. For more information, please refer to the Terracom User Manual.
- Product: Display the type of device.
- MAC: Display the MAC address of device.

3.1.1 How to add node license

1. First, click [Edit] button to open the [Node License] window. Users can add the devices on [Node License] window.



2. Tick the checkbox to select the devices. Only the selected devices will be monitored, later we call them as "Active Device". After selecting the devices, click [OK].



Please note the Terracom node (FREE/BGM/PAGING/INTERCOM) will be based on the authorized level you purchased.

The selected devices will be displayed on Device window, see the picture below.

Node License	Name	Function	IP	Status	Priority	Product	MAC
BGM	14		192.168.101.14	ONLINE	10	TERRA-K	00-9F-A4-EA-6E-13
BGM	FXO_198		192.168.101.198	ONLINE	10	TERRA-FXO	00-AA-EE-22-44-98
INTERCOM	Machine		192.168.102.80	ONLINE	-	BTQ_VM	00-22-13-FF-66-50
PAGING	TERRA_SAP		192.168.101.12	ONLINE	20	TERRA-SAP	00-22-13-FF-B4-9A
INTERCOM	TerraManager		192.168.100.147	ONLINE	10	TerraManager	50-E5-49-CB-CA-15
INTERCOM	TerraManager		192.168.100.51	ONLINE	10	TerraManager	80-86-F2-42-1B-CF
BGM	215		192.168.101.215	OFFLINE	12	TERRA-IT5	00-AA-EE-22-44-A5
Microphone	PPMK		192.168.101.19	OFFLINE	10	TERRA-K	00-AA-EE-22-44-19
PAGING	TERRA_SAP		192.168.100.1	OFFLINE	20	TERRA-SAP	00-22-13-00-A7-BB

Device window

- Filter: Click [Filter] button to set the device filter by the product type.



- All: List all the devices.
- Terracom: List all the Terracom devices.
- Ateis: List all the Ateis processors.
- Other: List other devices such as ECS, UAP, MESSENGER etc..

- Node license:

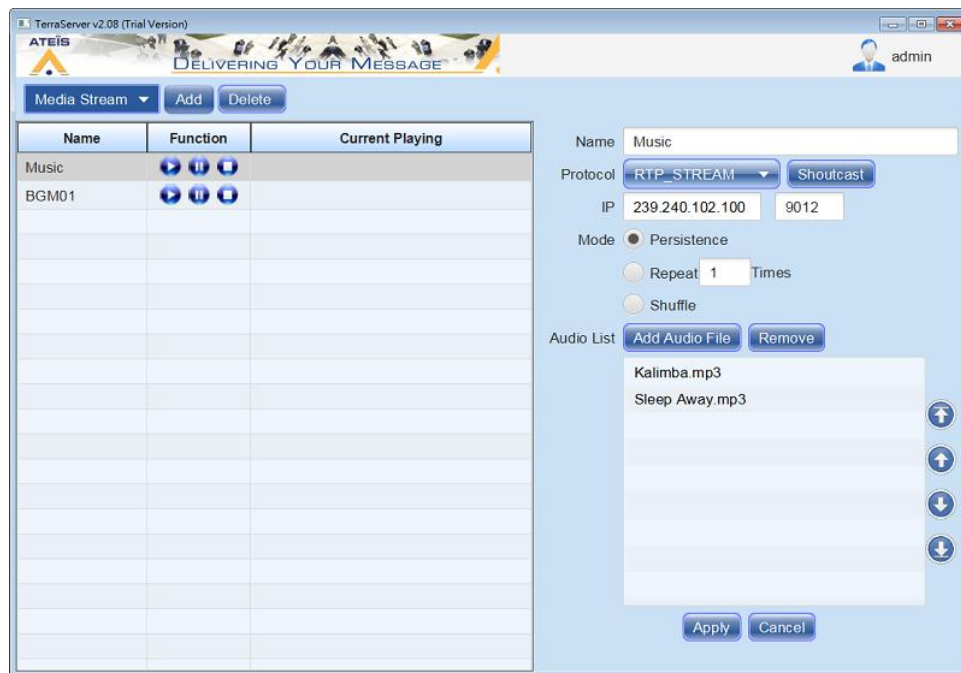


A. Indicate the node which users have selected on [Node License] window.

B. Indicate the node which users are authorized to use.

3.2 Media stream

The Media Stream function allows to broadcast audio to TERRACOM devices through the Internet.



❖ Add/delete: Click [Add] to create a new audio playlist. Click [Delete] to delete the selected audio playlist.

❖ Name: The name of the audio playlist.

❖ Function: Play / Pause / Stop

❖ Current playing: Display the name of audio file which is currently playing. When pausing the audio file, it shall display [Pause] status.

1. Name: Set the name of the audio playlist.

2. Protocol: Send the audio streaming by using either the RTP Stream or Shoutcast.

- RTP stream:

- IP: Set the IP address (224.0.0.3" to "239.255.255.254) which TerraServer streams out the audio to network.
- Port: Set the network port for RTP protocol for transmitting audio.

- Shoutcast:





- Password: Enter the password which users have registered from Shoutcast server (Shoutcast software).
- Streaming URL: Enter the URL which users have registered from Shoutcast server (Shoutcast software).

3. Mode:


- Persistence: Play the audio files in the selected audio list continuously.
- Repeat: Set the repeat time of the selected audio list (max. 254).
- Shuffle: Play the audio files in a random order.

4. Add audio file: Add an audio file (.mp3 format only) in the audio list.

5. Remove: Remove the selected audio file from the list.

6. Move up/down: Click [ ] to move up/down the selected audio file.
7. Move to the top/Move to the bottom: Click [ ] to move the selected file to the top/to the bottom.
8. Apply/cancel: Click [Apply] to save the settings. Click [Cancel] to not save the current settings and go back to the previous setting.

3.2.1 How to add stream

1. First, click  to create a new audio playlist, and set the name of the audio playlist in [Add] window.



2. Choose the streaming protocol by using either the RTP Stream or Shoutcast/Shoutcast 2.

- RTP stream

Set the IP address and RTP port which TerraServer streams out the audio to network.

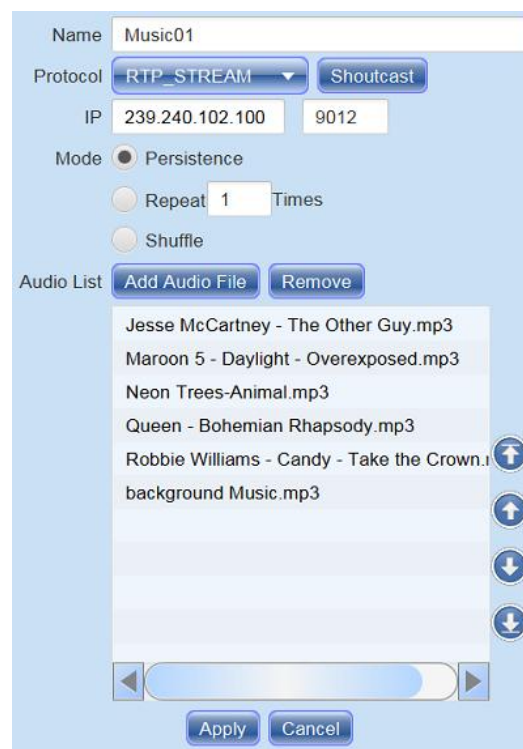
- Shoutcast

Click [Shoutcast] to open its setting window, and enter the password and streaming URL which users have registered from Shoutcast server (Shoutcast software).



Shoutcast setting window

3. Click [Add Audio File] to add an audio file (.mp3 format only) in the audio list.
4. Click [Apply] to save the settings.



3.2.2 How to receive stream

Enter the IP address of the Terracom device on your web browser, after logging in the Terracom web browser interface, click "Setup1 > Audio Matrix".

1. Select either [Stream Multicast] or [SHOUTcast/Icecast] mode to receive streaming through network.
2. Shoutcast type: If using the SHOUTCAST/ICECAST protocol, enter the same URL on both "Terracom web browser and "TerraServer > Media Stream".
3. RTP type: If using the RTP protocol, set the same IGMP IP address and port on both "Terracom web browser and "TerraServer > Media Stream".
4. Click [Save] to save the settings on Terracom web browser.

Version 3.0.4.1, 2019/04/19 13:54:38
TERRA-FDX, 176@192.168.101.176
OUT-1: N/A / OUT-2: N/A

SIP-based audio and control over local network and internet

TERRACOM™

Setup1 Setup2 Update Status About Logout

Basic Setting Device Function Libraries Audio Matrix I/O Control Media Setting Output Volume

N/W IN	MODE	SHOUTCAST/ICECAST		STREAM MULTICAST		NET1		NET2	
		URL	IGMP IP	PORT					
SOURCE 1	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 2	SHOUTcast/Icecast ▼	http://192.168.101.176:9999			Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 3	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 4	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 5	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 6	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 7	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	
SOURCE 8	Stream Multicast ▼		239.240.100.1	9012	Fix ▼	-- ▼	Fix ▼	-- ▼	

* Port 8000~9000 has been used by system, DO NOT use these ports on your design.

Save Cancel

3.3 Stream record

The Stream Record function is used for recording streams from the assigned devices (IDA8, BOUTIQUE, Terracom device etc..) or other streams via RTP protocol.

❖ Control window

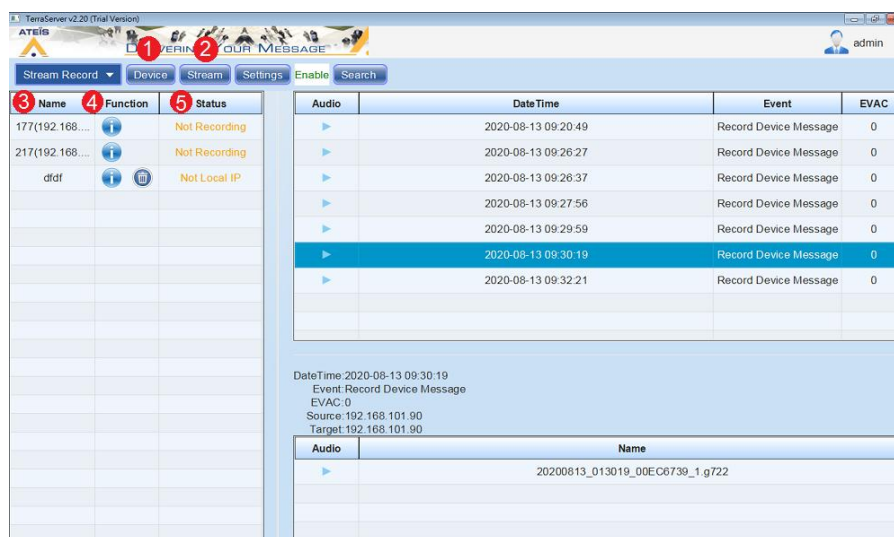
The screenshot shows the 'Stream Record' window with the following components:

- Top Bar:** Includes 'Stream Record', 'Device', 'Stream', 'Settings', 'Enable', and 'Search' buttons.
- Left Table (Device/Stream):** Contains columns for Name, Function, and Status. It lists three entries: '177(192.168.101.176)', '217(192.168.101.176)', and 'dtdf'. The status for the first two is 'Not Recording' and for the third is 'Not Local IP'.
- Right Table (Log list):** Contains columns for Audio, Date Time, Event, and EVAC. It shows a list of recorded events with timestamps and event descriptions.
- Bottom Section:** Displays detailed information for a selected event, including 'DateTime', 'Event', 'EVAC', 'Source', and 'Target'.

1. [Device/Stream](#)^[17]: Display the devices which users have added on Device window, and used for recording streams from the device(s).
2. [Log list](#)^[20]: Display the log list of recorded audio file, including the date/time, the type of recorded event and whether the recorded audio file is under EVAC mode or not.
3. [Audio list](#)^[21]: If the size of the recorded file is beyond the maximum size of a recorded file, the system will automatically split the recorded file to another one, then display the files in this audio list.
4. [Setting](#)^[19]: Click this button to modify the recording setting.

3.3.1 Device list

Display the devices which users have added on Device window, and used for recording streams from the device(s).

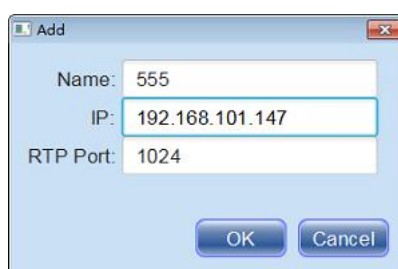


1. Device: Select/deselect the assigned device(s) from the list which users have added on [Device List] window.



[Device] window

2. Stream: Click this button to create a new streaming device, and used for recording streams from network. Set its streaming name, RTP IP address and RTP port. Up to 50 streaming devices can be added in the list.



[Add Stream] window

- Multicast: TerraServer records the audio packets which contains the IGMP IP address and IGMP port from multiple devices.

- For Multicast setting, please set the IGMP IP address from "224.0.0.3" to "239.255.255.254".
- Make sure the IGMP IP address and IGMP port are different among the devices, otherwise, TerraServer will record the streams which have been mixed together with more than 2 kinds of audio.

- Unicast: TerraServer records the audio packets from a specific local IP address and port.



For Unicast setting, please set the IP address which is the same as the network card of TerraServer.



Please set the port the same as the port of network card which the TerraServer software is using.

3. Name: Display the assigned device name which users have added on [Device List] window and [Stream] window. The device name can be user-defined.

- Assigned device: Display the name of device (IDA8/TERRACOM etc.) and its IP address which users have added from Device List window.
- Streaming device: Display [--] on the streaming device which is created from [Stream] window.

4. Function:

- Product: Display the type of device model.
- RTP IP: Display the device's RTP IP address and its port.
 - For Multicast setting, set the IP address (224.0.0.3" to "239.255.255.254) which TerraServer receives the audio through the Internet.
 - For Unicast setting, set the IP address which is the same as the network card of TerraServer.
- RTP port: Set the network port for RTP protocol for receiving audio.



Please note the RTP packets sent from the assigned device (IDA8, BOUTIQUE, Terracom device etc.) may face the issue of packet loss or not receiving the incoming audio streaming from device, resulting in the RTP packets will be received later. Therefore, the RTP IP/RTP port of the streaming device will be shown dynamically.s

- Delete: Delete the selected streaming device from the Device list.

5. Status:

- Offline: The device is currently in offline status.
- Not local IP: The IP address of device is not the same as TerraServer's. This status is applicable for Unicast setting only.
- Recording: TerraServer has recorded the streams via RTP protocol.
- Not recording: TerraServer does not record the streams via RTP protocol.
- Unauthorized: The device has not been added into the Device window of TerraServer.
- Unsupported: TerraServer has received unsupported audio format. Only G722 and WAV 16KHz/16Bit audio format can be accepted to be received by TerraServer.
- Active: The streaming device has multiple streaming output.

3.3.2 Setting

Setting

Search

Start Record ☒

Record Identification

Auto Stop(sec)

Split recording(MB)

Disk Reserve(MB)

Audio Folder

EVAC ☐

Record Target

Device Media Format

Record Paging ☒

Record Intercom ☒

Record Message ☒

Record Max Port

Record Min Port

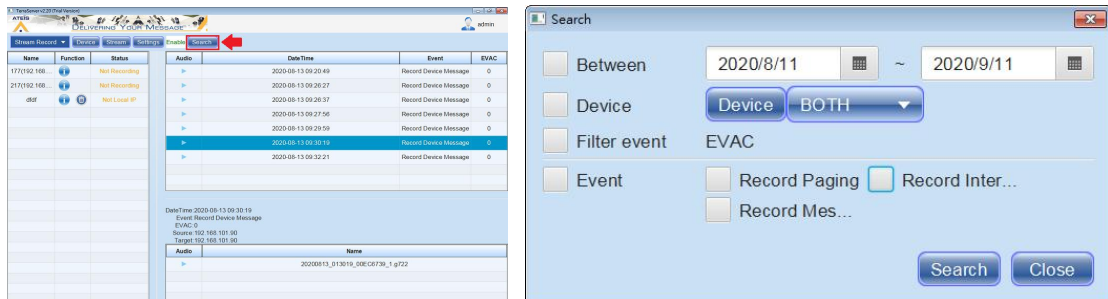
Save Close

- Record status:
 - Enable: The streaming recording function is currently activated. The [Start Record] option needs to be enabled.
 - Disable: The streaming recording function is currently not activated.
 - Out of storage: The file path of recorded file is currently out of memory storage. Please edit the memory storage setting on [Disk Reserve] option.
- Audio stop (sec): Set the wait time interval (max. 60 sec) when not constantly receiving the stream packet within the time users have set here, the recorded file which are being stored currently will be separated from another new recorded file.
- Split recording (MB): Set the limit to the maximum size of a recorded file (max. 1024MB). The system will automatically split the file to another one when its file size is beyond the limit.
- Disk reserve (MB): Set the disk capacity which users wish to remain after storing all the recorded files. If the capacity is full, the record status will show "Out of storage" on window and stop recording.
- Audio folder: Click [Browse] to choose the file path of recorded file.
- EVAC: If this option is enabled, the TerraServer will **ONLY** record the audio files which has triggered the paging event with [EVAC] option.
- Record target
 - Both: Record the audio file which comes from both source device and target device.
 - Source: Record the audio file which comes from the source device.
 - Target: Record the audio file which comes from the target device.
- Media format: Define which type of audio codec will be recorded (G722 or WAV).
- Record Paging / Record Intercom / Record Device Message: Choose to record which type of event **ONLY**.
- Save/Close: Click [Save] to save the settings. Click [Close] to not save the current settings and close this setting window.


3.3.3 Log list

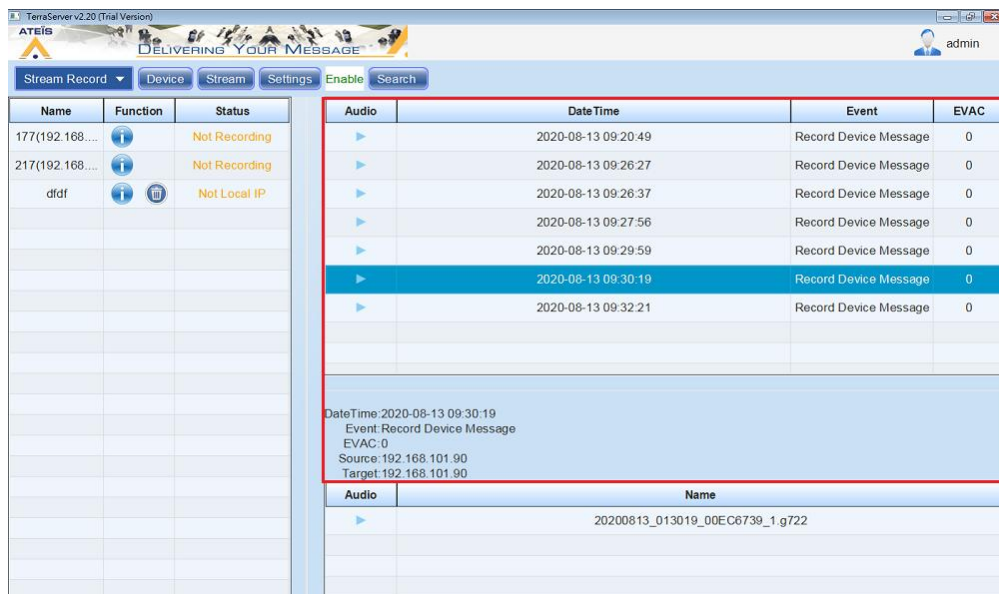
Display the logs of recorded audio files, including the date/time, the type of recorded event and whether the recorded audio file is under [EVAC] option or not. To see the logs, please see the following steps:

1. Click [Search] button, and set the filter option on the setting window.



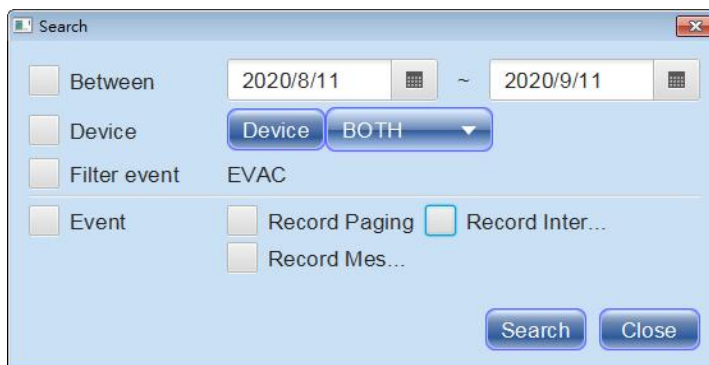
2. Then click [Search] button to list the logs. The logs will not be shown again after restarting TerraServer.

 Please note the Log List function is applicable for device(s) which users have added on [Device] window only, the streaming device is not available.



- Audio: Click ▶ button to play the recorded audio file.
- Date/time: Display the date/time of the recorded audio file.
- Event: Display the event type of recorded audio file.
- EVAC: If the [EVAC] option is enabled, the TerraServer will **ONLY** record the audio files which has triggered the paging event with [EVAC] option.


Click [Search] button to search the logs of recorded audio file. This setting window allows users to filter multiple options and devices (specific device, all the devices, source device only, target device only), and the devices listed in the table will be based on the filter option.





- **Between:** Select a time interval of log list.
- **Device:**
 - **Device:** Choose to list the logs of specific device(s) only.
 - **Both/source/target:** List all the logs of source/target devices, or list the logs of source device(s)/target device(s) only.
- **EVAC:** If this option is enabled, the Log List will **ONLY record** the audio files which has triggered the paging event with [EVAC] option.
- **Event:** Choose to list all types of events (Record Paging/Record Intercom/Record Device Message) or specific type of event only.
- **Search:** Click this button to start searching the logs based on the filter option, and list the logs on Log List.

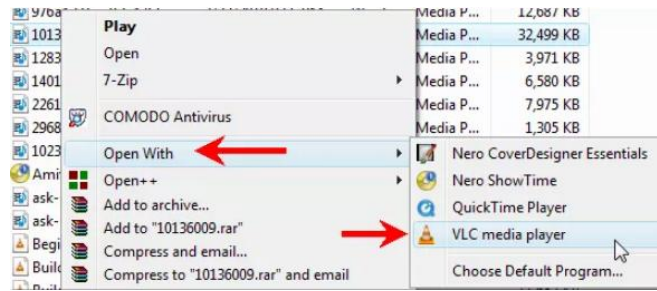
3.3.4 Audio list

Users can set the limit to the maximum size of a recorded file on [Setting](#)^[19] window. And the system will automatically split the file to another one when its file size is beyond the limit. If the recorded audio file has been split into multiple files, each recorded file will be listed in this [Audio List].

Audio	Name
	20200813_013019_00EC6739_1.g722

- **Audio:** Click  button to play the recorded audio file.

 We recommend to use VLC media player as the default player program. For example, if the audio codec of recorded file is G.722, and this file is not recognized by Windows Media Player. In such cases, please switch to VLC media player by right clicking on the file, going to “open with” and selecting VLC media player application.



- Name: The name of recorded audio file.

3.4 Sync file

The Sync File function allows the files stored in TerraManager to be synchronized with the files in TerraServer.

1. Click [Create Folder] button to create a new folder, this folder will be used for synchronizing the files stored in TerraManager with the files in TerraServer (figure 1).
2. Enter the name of folder, and click [Browse] to choose the path of folder directory from your PC/ laptop (figure 1).
3. Click [OK] to save the settings (figure 1).

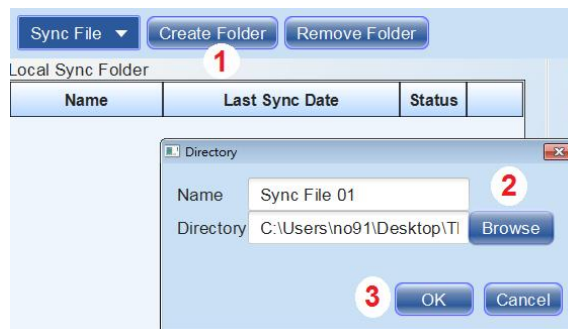

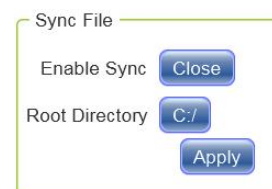


Figure 1

4. Click [+] button to add a TerraManager device into the sync list (figure 2).
5. Click [Device] button to select a TerraManager by its IP address. Please note users require to add the TerraManager device(s) on Device window first (figure 2).
6. Click [Browse] to choose the path of folder directory in TerraManager. If the selected folder is with multiple layers, users can also assign the layer as the path of folder directory (figure 2).

 Please go to TerraManager > Options > File Sync, and set enable on [Enable Sync] setting, then assign an individual folder on [Root Directory] for synchronizing the files with TerraServer.



7. Click [OK] to save the settings (figure 2).

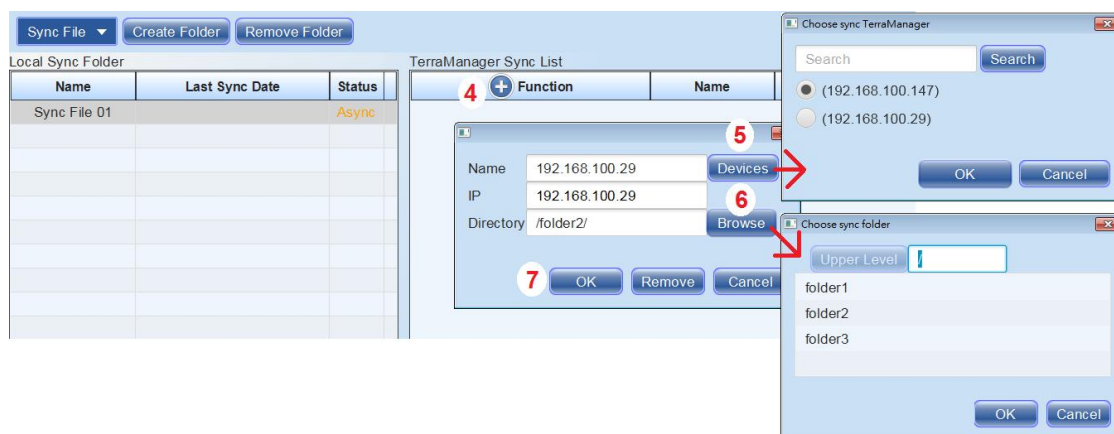


Figure 2

8. Set the sync settings (see the setting details as below), and click [Sync] to start the synchronization (figure 3).

9. Then the synchronization status shall be displayed on both [Status] field (figure 3).

Status	Async	Success	Sync Error	Directory Missing	Connect Error	Error
Meaning	asynchronous	synchronized successfully	synchronization has failed	The folder directory may be deleted or cannot search the chosen path due to the name of folder has been modified.	The [File Sync > Sync Enable] setting on TerraManager is not enabled. <div> Sync File Enable Sync <input type="button" value="Close"/> Root Directory C:/ <input type="button" value="Apply"/> </div>	Other Errors

❖ Sync setting

- Sync directory: Display the chosen path of the folder directory in your PC/Laptop to synchronize with TerraManager.
- Sync level:
 - Single: Synchronize the files located in the first layer in the folder of TerraManager.
 - Multiple: Synchronize the files located on all the layers in the folder of TerraManager.
 - Set: Synchronize the files based on which layers you set here.
- Sync way:
 - Update: Update the files which are already existed in both TerraServer and TerraManager, but the last modified date and the size of the files are not the same.
 - Add: Add the files which does not exist in TerraManager, but TerraServer does.
 - Remove: Remove the files which does not exist in TerraServer, but TerraManager does.
- Sync format: Enter the format of file you wish to synchronize under the chosen layer and folder with TerraManager. If there are more than two types of format you wish to synchronize, put a comma symbol (,) between two kinds of format. If you wish to synchronize all the files, please leave it blank.
- Sync: Click [Sync] button to start the synchronization.

Sync Directory: C:\Users\no91\Desktop\TM log

Sync Level: ☐ Single ☒ Multiple ☐ Set 1

Sync Way: ☒ Update ☒ Add ☒ Remove

Sync Format: txt,mp3,wav

Sync 9

8

Figure 3

3.5 Update

The Update function allows to upgrade the configuration file or firmware of TERRACOM devices.



1. Click [Select Config/Firmware] button to browse and choose the firmware update file (.ptu) or configuration file (.tra).
2. The system will automatically detect which type of devices that is applicable for the update file, and display the devices on list.
3. Select the device(s) users wish to update, and click [Start] button.
4. Once the update has completed, you shall see the update result on [Status].



❖ How to get the configuration file of TERRACOM device.

Go to TERRACOM web browser > Update > Configuration, and click [Reverse] button to download the config. file of a TERRACOM device, and upload this config file (.tra) on the TERRACOM devices by using the Update function.



3.6 File store

File Store function allows users to remotely upload the audio files which are stored in your PC/Laptop into the selected IDA8 processor(s), it can also download the audio files which are stored in IDA8 processors to your PC/Laptop remotely.

1. Go to Device window, and select the IDA8 processors which you wish their audio files to be uploaded from TerraServer or download the files to your local PC/Laptop.

See [Device](#) chapter to know the how-to of adding the devices on TerraServer.

2. Click File Store function to open its setting window.

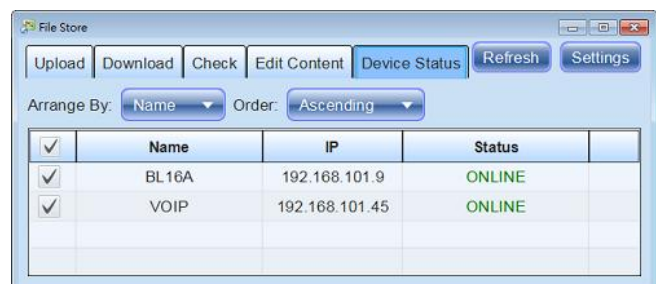
❖ Device Status tab

3. Click [Device Status] tab on File Store window, and check if the IDA8 processors you have added on Device window are displayed in ONLINE status, see the picture at the right.


If the devices do not displayed in [Device Status] tab, click [Refresh] button.

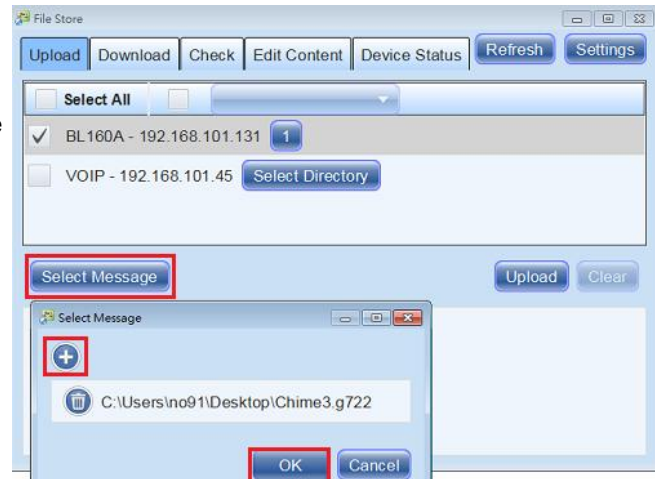
❖ Upload tab

1. To upload the audio files which are stored in your PC/Laptop into the selected IDA8 processor(s), select the processor(s) and the directory of folder, see the picture at the right.




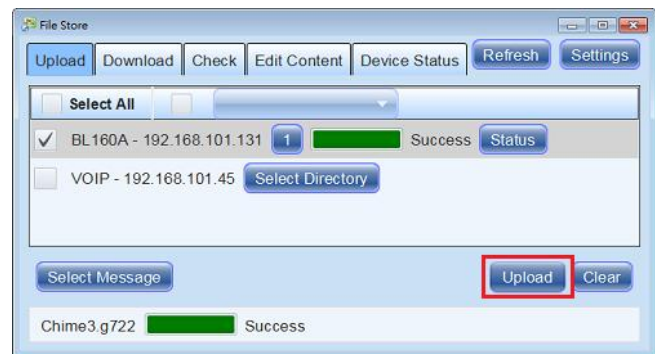
- Click [Select Message] button to open its setting window, and click [+] button to browse the audio file(s) from your local PC/Laptop, then click [OK] to store the settings.

 The File Store function supports to upload the G722 audio codec only.



- Click [Upload] button to upload the audio file. After the file has been successfully uploaded into the assigned IDA8 processor, it will show [Success] indication on the window.

 Please note the name of chosen file cannot be the same as any file stored in IDA8 processor, even the file path stored in the PC/laptop is different, otherwise there will be a conflict.

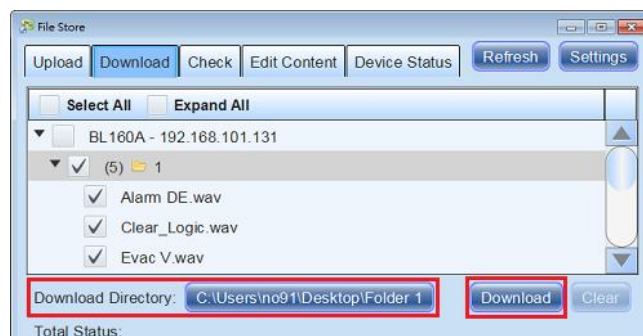


- Click [Refresh] button. And the new audio file will be added in the assigned folder, see the picture at the right.



❖ Download tab

1. To download the audio files from the selected folder to your local PC/Laptop, select the entire folder or the audio file(s) first, then set the path of [Download Directory] on your computer. Click [Download] button to start downloading the audio files, see the picture at the right.



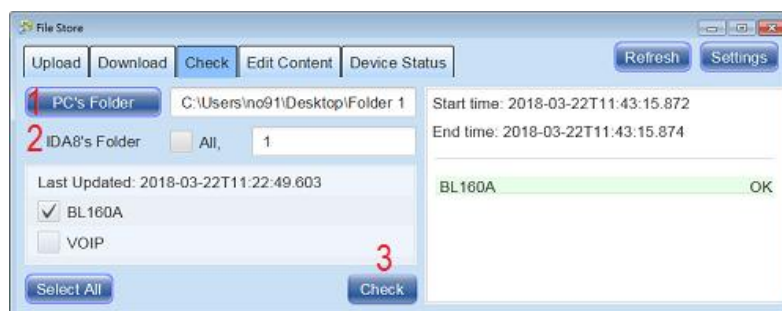
2. After the audio files have been successfully downloaded in your PC/ Laptop, it will show [Success] indication on the window, see the picture at the right.



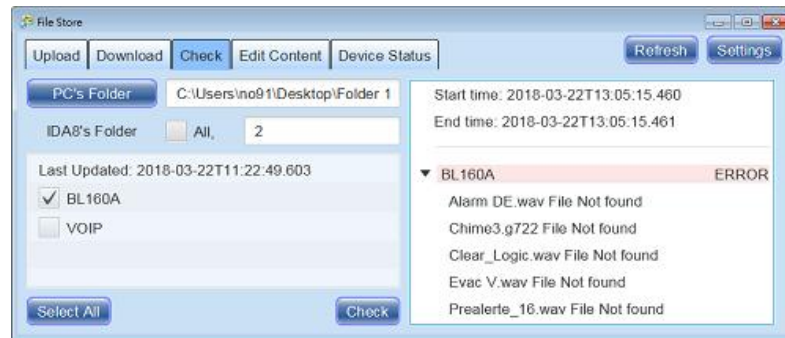
❖ Check tab

This tab is used for checking whether the selected audio files are both stored in your PC/Laptop and IDA8 processor.

1. Click [PC's Folder] button to browse the folder path in your PC/Laptop which you wish the existed files are the same as the selected folder on IDA8 processor.
2. Select the IDA8 processor(s) by ticking its checkbox, and choose [All] folders or specific folder by entering its folder name.
3. Then click [Check] button, it will show the checking result on the right field. See the example picture below.



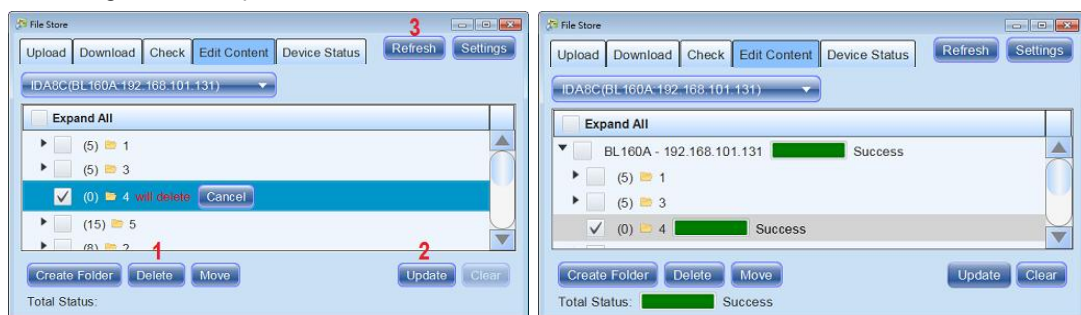
If the audio files stored in the assigned folders in your PC/Laptop and IDA8 processor are not the same, it will show ERROR indication on the right field, and list the missing files which are not being found. See the example picture below.



❖ Edit Content tab



- IDA8 processor: Click the drop-down box to select a IDA8 processor and manage its audio files.
- Create folder: Add a new folder in the assigned folder of IDA8 processor. Please select the folder by ticking its checkbox first.
- Delete: Click [Delete] to delete the selected folder of IDA8 processor, then click [Update] button to start this action. Remember to click [Refresh] button to refresh and apply the new settings, see the pictures below.



- Move: Move the selected audio file(s) to a folder which you choose on [Select Directory] window, then click [Update] button to start this action. Remember to click [Refresh] button to refresh and apply the new settings, see the pictures below.



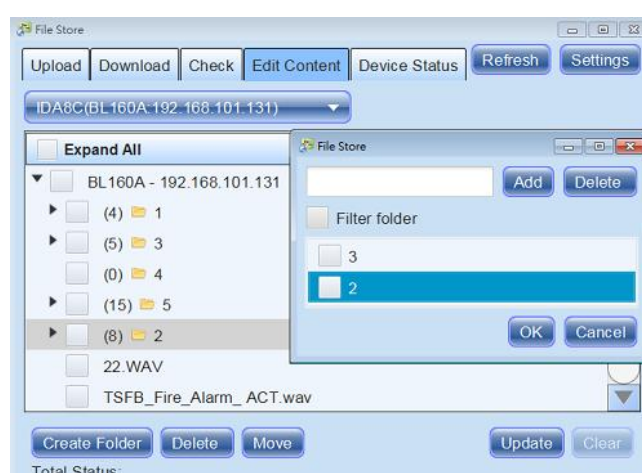
3.6.1 How to: upload files in multiple IDA8

❖ How to upload the audio files into "multiple" IDA8 processors.

1. Click [Setting] button and create a new folder by entering the text of folder name on the input field, then click [Add] button.
2. Click [OK] to store the settings.



3. If users wish to upload the audio files into the existing folder which the IDA8 processors have already, go to [Edit Content] tab to check which folder(s) has already existed in the processors first, then create the folder(s) with the "same name" as the existing folder on [File Store] window.
4. Then follow the steps on [Upload Tab] to upload the audio files, see [File Store > Upload Tab](#)^[25] for details.



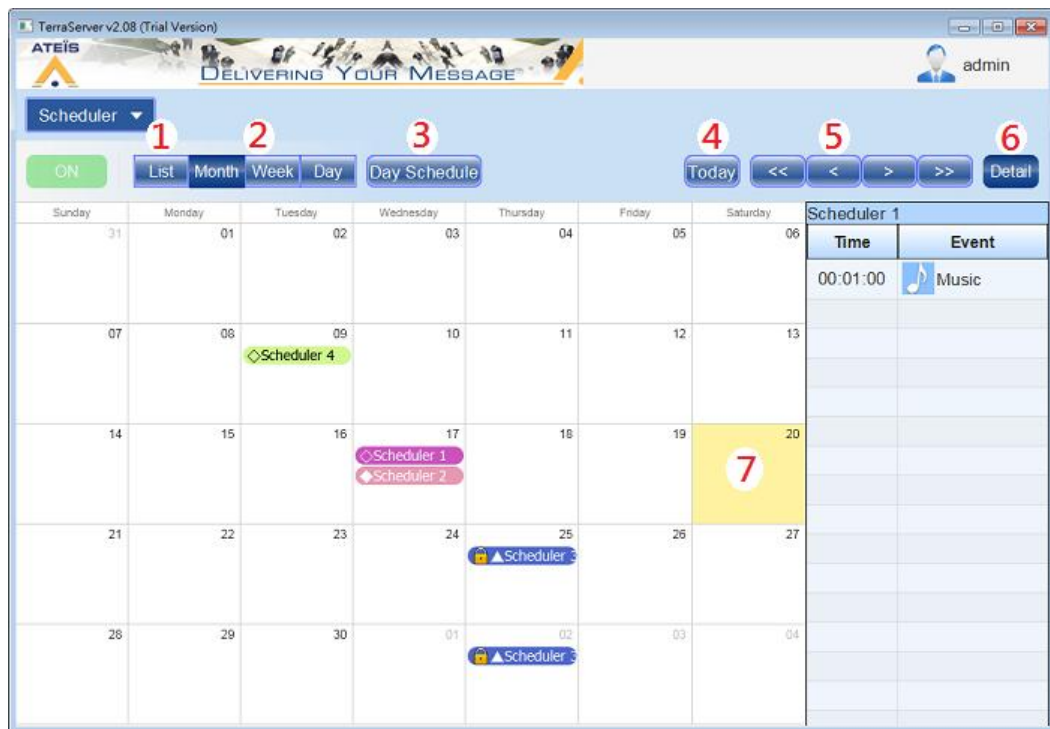
- Filter folder: Tick the checkbox to only manage the folder(s) which have the same name as the existing folder of IDA8 processors on [Edit Content] tab. See the example picture at the right, the "Folder 2" and "Folder 3" can only be managed on [Edit Content] tab.



3.7 Scheduler

The Scheduler function allows to schedule the events such as messages playing in an assigned time, and these events can be auto triggered in the assigned time schedules.

❖ Control Window







1. List: Click to display all the events in a list grid.
2. Month/Week/Day: Choose from the three types of day template on scheduler. The default window is Month.
3. Day schedule: Click to choose which event with which scheduled time for each day.



Users require to create the events on [Day Schedule] first, then apply them to the Scheduler setting. See [How to add new schedule](#) ³¹ for details.

4. Today: Click to go back to the Function Area which displays the today's schedule.
5. Users can freely switch to each date by clicking and buttons along with the date template you select on Month/Week/Day date template. If selecting the Month as the date

template, click   button to switch to a former/latter "year" from the current date; and click   button to switch to a former/latter "month" from the current date.

6. Detail: Click to open/close the event list.

7. Function area: The area of scheduling/editing/displaying the events.

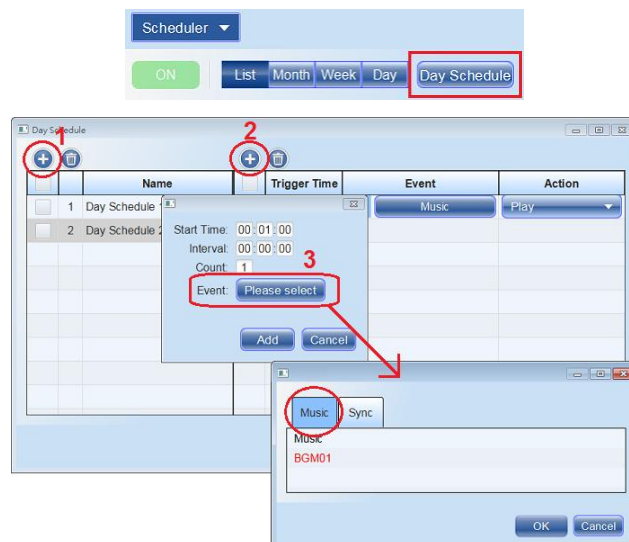
8. Resolution (minutes): Choose which interval parameter displayed on Scheduler window. This function is applicable for Day/Week scheduler template only. See the picture below.




3.7.1 How to add new schedule

1. Create an event first.







Go to the control window of Scheduler, and click [Day Schedule] button to add a new audio event by the following steps on the right.

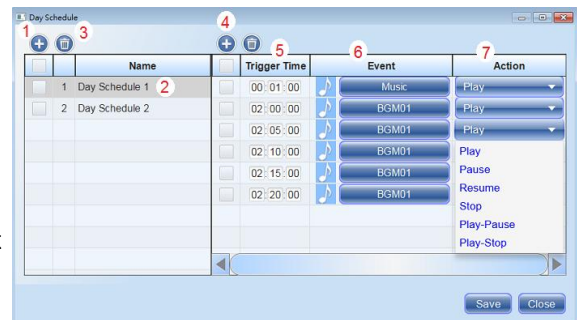


[Day Schedule] window

 The audio playlists on [Event > Music] tab needs to be created on [Music Stream] function first, see the picture below.

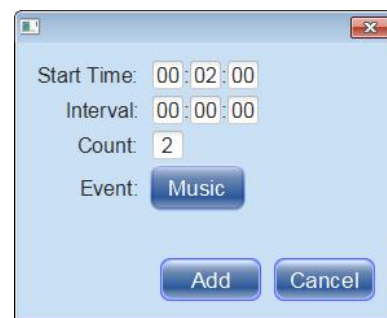
Media Stream 			Add	Delete
Name	Function	Current Playing		
Music	  			
BGM01	  			

- 1)  Add event: Click  to create a new event for each day. The name of event can be changed by user.
- 2) Name: To change the name of event, double click the name field and modify it.
- 3)  Delete event: Select the event(s) you wish to delete first, and click  to delete it.
- 4)  Add sub-event: Click  to add the sub-event(s) which belongs to the selected event on the left side.
- 5) Trigger time (hour:minute:second): Set the triggering time of the sub-event(s). The trigger time for each sub-event(s) cannot be repeated.



[Day Schedule] window


- 6) Event:
 - Start time (hour:minute:second): Set the start time of the sub-event(s).
 - Interval (hour:minute:second): Set the time interval among the sub-event(s).
 - Count: Set the repeat count (times) of the sub-event(s).
 - Event: Choose an event which is created on [Music Stream] function.



[Day Schedule > Event] window

- 7) Action:
 - Play: Play the audio playlist.
 - Pause: Pause the audio playlist.
 - Resume: Resume playing the audio playlist. If not choosing the [Resume] action to continue playing after the [Pause] action, instead of choosing [Play] action, the playlist will restart.
 - Stop: Stop the audio playlist.
 - Play-pause: Execute an action group (Play -> Pause -> Resume).
 - Play-stop: Execute an action group (Play -> Stop).



 Please note the action to execute under the [Play-Pause] or [Play-Stop] action group will be based on the current play/pause/resume action of the event on Media Stream function (see Figure 1).

For example, see Figure 1, if the [Music] event is currently executed with [Play] action on Media Stream window at 8:30am, the next [Play-Pause] action will execute the event with [Pause] action at 8:40am (Figure 2), and continue to execute the [Resume] action at 8:50am and [Play] action at 9:00am, and so on.



Figure 1-Media Stream function

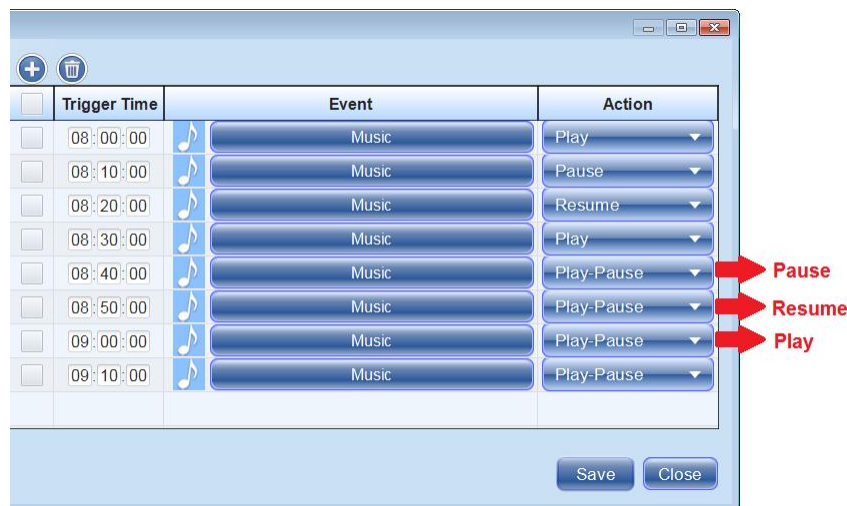
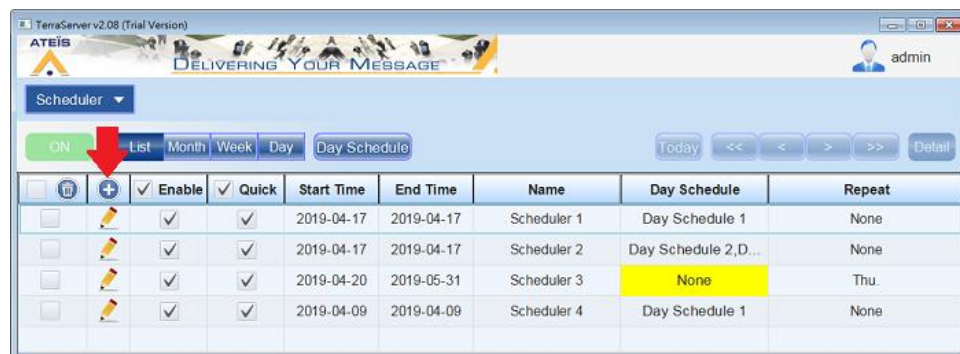


Figure 2-play pause

2. Then create a new schedule either from the [List] window or [Scheduler] control window. Click button to open the schedule setting window.



- 1) Add: Click to add a new schedule, its setting window will be opened.
 - 2) Delete: Select the schedule(s) you wish to delete first, and click to delete it.
 - 3) Edit: Click on the selected schedule to modify its parameters.
 - 4) Enable: Enable/disable the selected schedule.
3. Edit the schedule settings.

The screenshot shows a 'Scheduler' dialog box with the following elements labeled:

- A:** Name field containing 'Scheduler 5'.
- B:** Color and icon selection dropdown.
- C:** 'Enable' checkbox, which is checked.
- D:** 'Replace' dropdown menu, currently set to 'All'.
- E:** Priority field set to '25'.
- F:** Period field showing '2019/4/22' with a calendar icon.
- G:** Repeat type section with radio buttons for 'Daily', 'Weekly' (selected), 'Monthly', and 'Yearly'.
- H:** Occurrence section with radio buttons for 'No End Date', 'Repeat 1 count' (selected), and 'End by 2019/4/23'.
- I:** 'Set' button in the Day Schedule section.
- J:** Memo text area.

Buttons at the bottom include 'Save', 'Cancel', and 'Delete'.

A. Name: The name of the scheduler.

B. Color & icon: Choose the color and the display icon for this schedule.

C. Enable: Enable/disable this schedule.

D. Replace: When multiple events are required to scheduled in one day, users can use [Replace] function, allowing the current schedule event to be replaced with all the events or single event from the drop-down box.

E. Priority: Users can define the priority of the current schedule. This function will be activated when [Replace] function is enabled.



Users will not be informed if the schedule event fails due to the low priority of the audio messages.

F. Period: Click the calendar icon to select a date to start this schedule.

G. Repeat type: Assign the settings of the repeat duration for triggering this scheduler setting.

The event can be repeatable by daily, monthly, weekly and yearly.

H. Occurrence:

- No end date: This scheduler will be activated after the start date you set on [Period], and be valid forever.
- Repeat: The scheduler will be invalid after it has repeated N counts (times).
- End by: The scheduler is only valid between the start date and the end date you set.

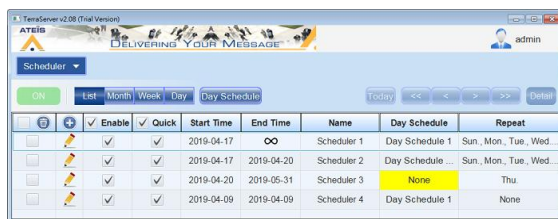
I. Day schedule: Click to choose which existed event(s) for which scheduled dates.



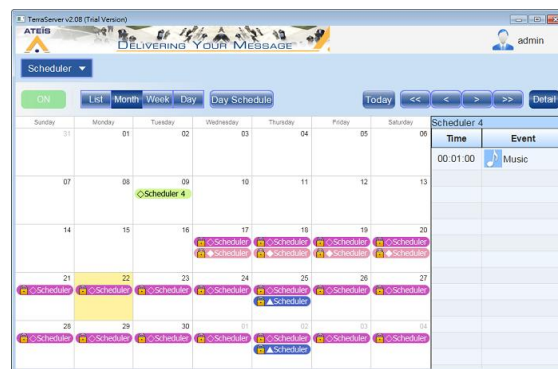
Users require to create the events on [Day Schedule] first, then apply them to the Scheduler setting.

J. Memo: Memo area.

- Click [Save] button to save the settings, then the schedule events will be listed on the [List] window and [Scheduler] control window.



[List] window




[Scheduler] control window

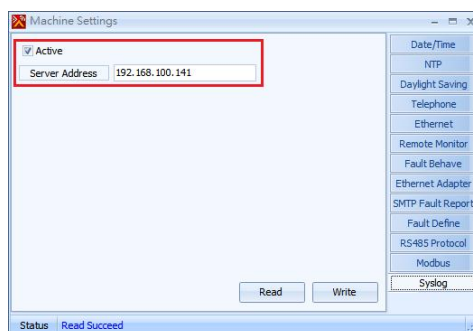
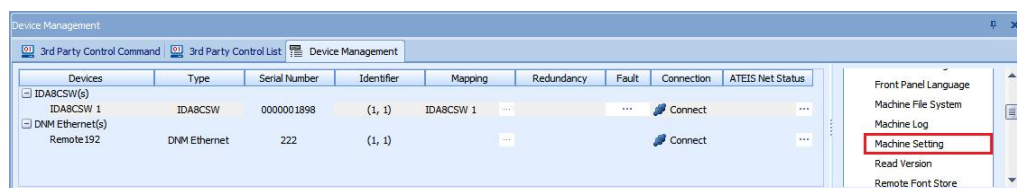
3.8 Central log

The Central Log function can record the incident logs of IDA8 system, and display the real-time information on TerraServer.

1. Users need to enable the Central Log and set the server IP address on corresponded system software first.

 For IDA8 system: Ateis Studio software (newer than V3.1.1.0) and updated the IDA8 firmware (newer than V1.0.1.66).

- For IDA8 system using Ateis Studio software:





❖ Control Window



The Central Log will automatically activate once the TerraServer has operated. The window will


display the time and record the incident of log.

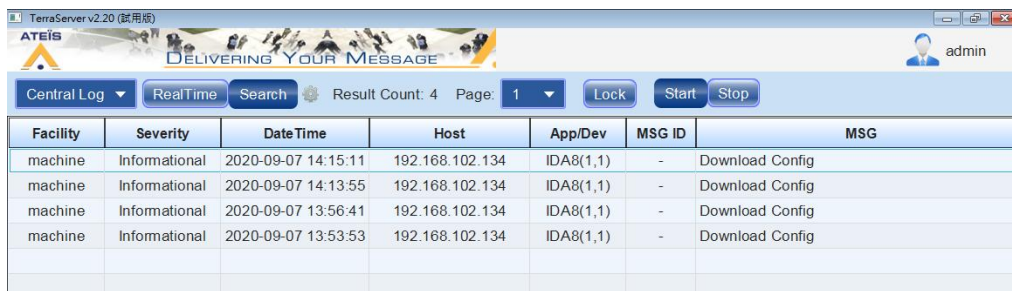
- Realtime (default): The system will receive the latest information from device in realtime.
 - See the how-to of [Search] mode from [How-to: realtime mode](#)^[36].
- Search: Search mode. Use this mode to filter the history information based on the custom filter settings (debug, error, informational etc.), then display the logs. In this mode, the system will not show any realtime information.
 - : Click  button to open the filter setting. This button will be activated only when [Search] mode is enabled.
 - See the how-to of [Search] mode from [How-to: search mode](#)^[36].
- Lock/Unlock: The table will be locked and not update any information under [Lock] mode. Press this button again to return to [Unlock] mode, and the system will resume to continue inserting/updating the real time information in the table.
- Start/Stop: Click [Start] to enable the Central Log function, click [Stop] to disable the Central Log function.

3.8.1 How-to: Realtime mode

❖ Read the realtime information of devices from TerraServer:

The Central Log window will display all the devices with realtime information and the latest updates from the table top. See the picture as below.


 The Central Log window is set as activate by default.

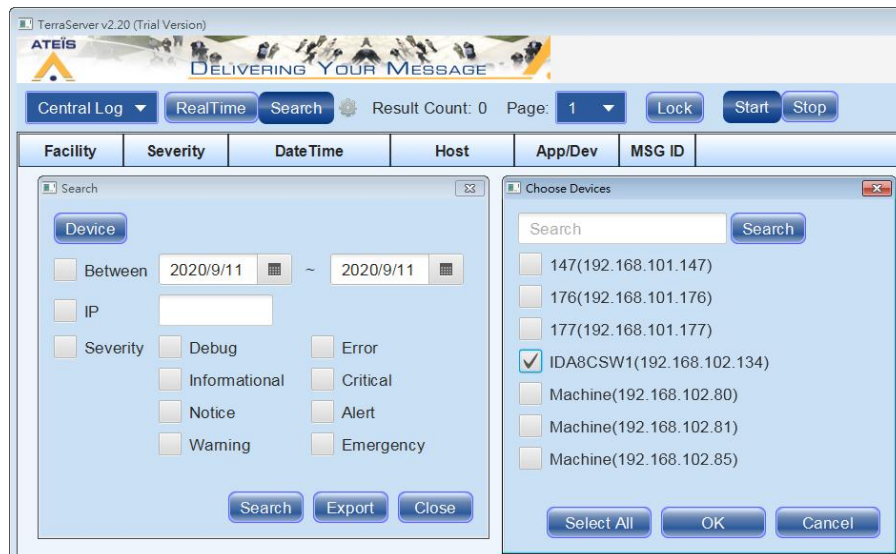


Facility	Severity	DateTime	Host	App/Dev	MSG ID	MSG
machine	Informational	2020-09-07 14:15:11	192.168.102.134	IDA8(1,1)	-	Download Config
machine	Informational	2020-09-07 14:13:55	192.168.102.134	IDA8(1,1)	-	Download Config
machine	Informational	2020-09-07 13:56:41	192.168.102.134	IDA8(1,1)	-	Download Config
machine	Informational	2020-09-07 13:53:53	192.168.102.134	IDA8(1,1)	-	Download Config

3.8.2 How-to: search mode

❖ Read the device log from history file:

1. Search Mode: Click [Search] button on Central Log window, then click  icon next to the [Search] button, the [Search] setting window will appear. Set the searching filters such as choose the device, set the interval of logs, severity setting etc., then click [Search] button.



- Device: Choose the history log file of device(s) on [Choose Devices] window.
- Between: Filter the log file entries based on the range of date.
- IP: Enter the IP address of a specific device.
- Severity: Filter the log file entries based on the severity (debug, error, informational etc.).
- Export: Export the device logs to a text file (.csv).

2. Then the incident log will appear as the picture below,

The screenshot shows the TerraServer v2.20 (試用版) interface with the incident log table displayed. The table has columns for Facility, Severity, DateTime, Host, App/Dev, MSG ID, and MSG. The log shows four entries for 'machine' with 'Informational' severity, all from '192.168.102.134' and 'IDA8(1,1)', with the message 'Download Config'.

Facility	Severity	DateTime	Host	App/Dev	MSG ID	MSG
machine	Informational	2020-09-07 14:15:11	192.168.102.134	IDA8(1,1)	-	Download Config
machine	Informational	2020-09-07 14:13:55	192.168.102.134	IDA8(1,1)	-	Download Config
machine	Informational	2020-09-07 13:56:41	192.168.102.134	IDA8(1,1)	-	Download Config
machine	Informational	2020-09-07 13:53:53	192.168.102.134	IDA8(1,1)	-	Download Config

3.9 Log

Record and display the logs which is operated on TerraServer. The logs will not be shown after restarting the TerraServer.

To see the previous logs, go to the folder path C:\Terracom\LocalData\TerraServer\log



❖ Filter

- All: Record and display all the logs including the sync logs which is operated on TerraServer.
- System: Record and display the logs which is operated on TerraServer.
- Sync: Display the synchronized log with TerraManager on TerraServer > Sync File.

❖ Log list

Time	Type	Message
2019-02-19 04:19:40.657	Info	[admin]Cannot edit when playing music
2019-02-19 11:23:37.300	Warn	[admin]Not Support VBR format of MP3. C:\Users\mo20\Videos\Desktop\music\Greek Fire - Top Of The World (V. Kruznilo).mp3
2019-02-19 11:13:10.995	Info	[admin]Failed to Reload (Machine Offline)
2019-02-19 10:50:04.616	Info	[admin]Day Schedule SAVE
2019-02-19 10:48:01.711	Info	[admin]Please select correct event
2019-02-19 10:19:59.074	Info	[admin]Failed to Reload (Machine Offline)
2019-02-19 09:51:34.485	Info	[admin]Day Schedule SAVE
2019-02-19 09:51:31.690	Info	[admin]Create day schedule success
2019-02-19 09:47:25.169	Info	[admin]Failed to Opened Log (142 Offline)
2019-02-18 03:23:40.832	Info	[admin]Reboot142

3.10 File

3.10.1 New

New: Click [New] button to clear the configuration and go back to the default editing.

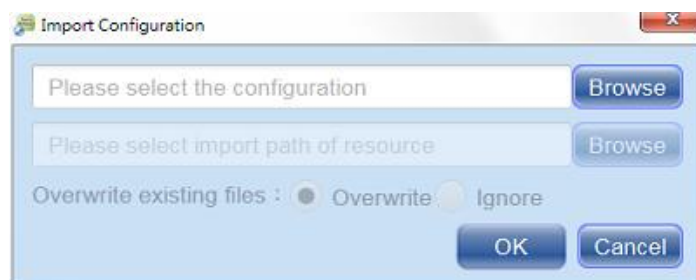
3.10.2 Import/export

❖ Import: Import a configuration file to the current layout.



Once users import a new configuration, the previous one will be replaced.

1. Click [Browse] button on the first field to choose a configuration file.
2. Then click [Browse] button on the second field to choose the path of putting the imported resource such as audio files. When the system is facing the existing files or files using the same file name, this will cause a file conflict, then choose to overwrite with the new imported file or ignore the new one.



❖ Export: Export the current configuration file, and select whether to include/exclude the audio files which contains in this configuration, too.



3.11 Options

3.11.1 Basic

❖ Multi-Language

Language: Choose the language (English, Traditional Chinese, Simplified Chinese, French, German, Spanish, Japanese, Korean, Dutch, Arabic and Hebrew for TerraServer, then click

[Refresh] button to activate the setting.

- Edit: Click to edit the language setting from [Language Tool](#)^[43] window.
- Refresh: Click to activate the language setting on TerraServer.
- Factory setting: Click to reset all the edited languages.



3.11.2 License

❖ License status

- Name: The name which is displayed on [Device] window.
- Network interface: Choose the correct network interface card, this field must be filled in.



If you have the license already, please choose the licensed network interface card.

- Host IP: The IP depends on the network interface you choose.
- MAC address: The MAC address of your PC/laptop.
- Product: The name of this application, TerraServer by default.
- Version: Display the licensed status (BASIC / TRIAL / EXPIRED / BGM / PAGING / INTERCOM) of TerraServer.
 - Trial: Display how many days you have left in your free trial.
- MAC: The MAC address of your PC/laptop after imported the license file.
- Function: Display the licensed functions you are able to access.



Please note the active functions will be based on the licensed items you purchase.

- Node: Display the device node which you have added from [Device > Node License]. There are four kinds of device node on TerraServer, FREE, BGM, PAGING, INTERCOM.

License Status

Name: ?

Network Interface:

Host IP: 192.168.100.141

MAC Address: C0-25-E9-1D-98-3F

Product : TERRAMANAGER

Version : INTERCOM

License Status : TRIAL (Trial Days Left:85 days left)

MAC : C0-25-E9-1D-98-3F

Music Stream

Update

File Store

Function : Stream Record

Sync File

SIP Server

Central Log

BGM : 0

Node : PAGING : 100

INTERCOM : 100


❖ License

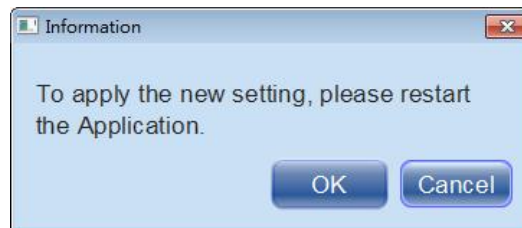
- Import License: If you have purchased the license already, click [Import License] to import the license file (*.lic or *.ctx) into the TerraServer software.
- Get License: Refer to [Get License](#) chapter.

License

☒ Import License

Functionality according to license purchased.

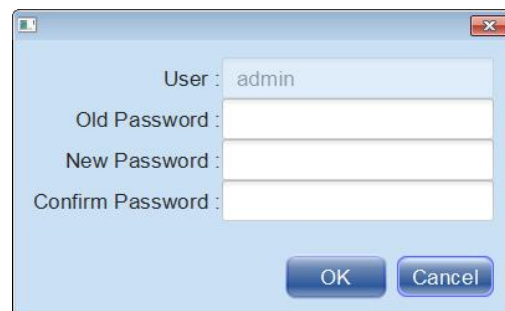
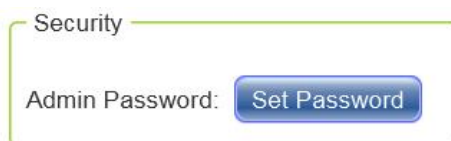
 Please restart the TerraServer after changing the License settings, so that this setting will be applied.



3.11.3 User manager

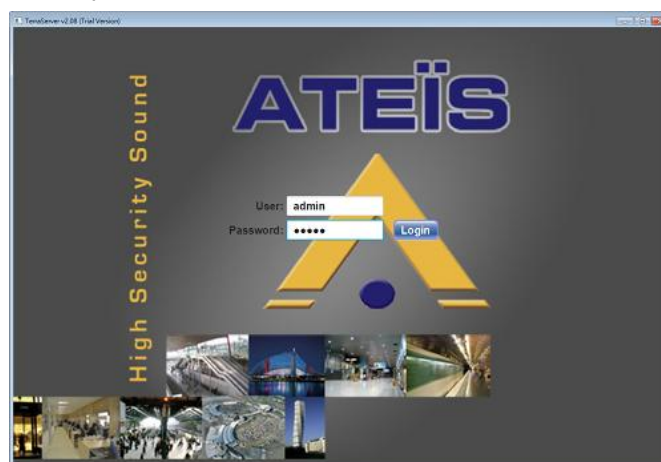
❖ Security

- Admin password: Set the password for administrator level, this level will have the authority to control, modify the functions such as Media Stream, Sync File File Store etc.. Click [Set Password] button to set a password.
 - User: admin by default, it can be changed by user.
 - Old password: Enter your old password. If this is the first time to set a new password, please set the blank password here.
 - New password: Enter your new password.
 - Confirm password: Enter your new password again for confirmation.




⚠ Please DO NOT forget the password of ADMIN user account, otherwise, you cannot login the TerraServer.

📝 Once the password is enabled, users need to login with the password when accessing the TerraServer, see the picture below.



Login window

❖ User manager

- Enable multiple users: Tick the checkbox to add multiple users on TerraServer.
- Edit user: Click  button to open the [Edit User] window, and set the user name, user password and move the [Viewer] function displayed on the list from the left to the right. The functions including Scheduler/Log/File-New/File-Import & Export/Options can be access under [Viewer] function, the rest of advanced functions can only be viewed under this user account, see figure 1.



Name	Device	RTP IP	RTP Port	Record Status
555	--	192.168.101.147	1024	Not Recording
IDA8CSW1(192.168.10...	IDA8CSW1(192.168.102.218)			Not Recording
176(192.168.101.176)	176(192.168.101.176)			Unauthorized
177(118.163.216.16)	177(118.163.216.16)			Not Recording
uuu(192.168.103.199)	uuu(192.168.103.199)	239.240.100.10	6000	Recording

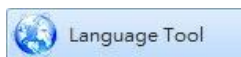
Figure 1

4 Tools

4.1 Language tool

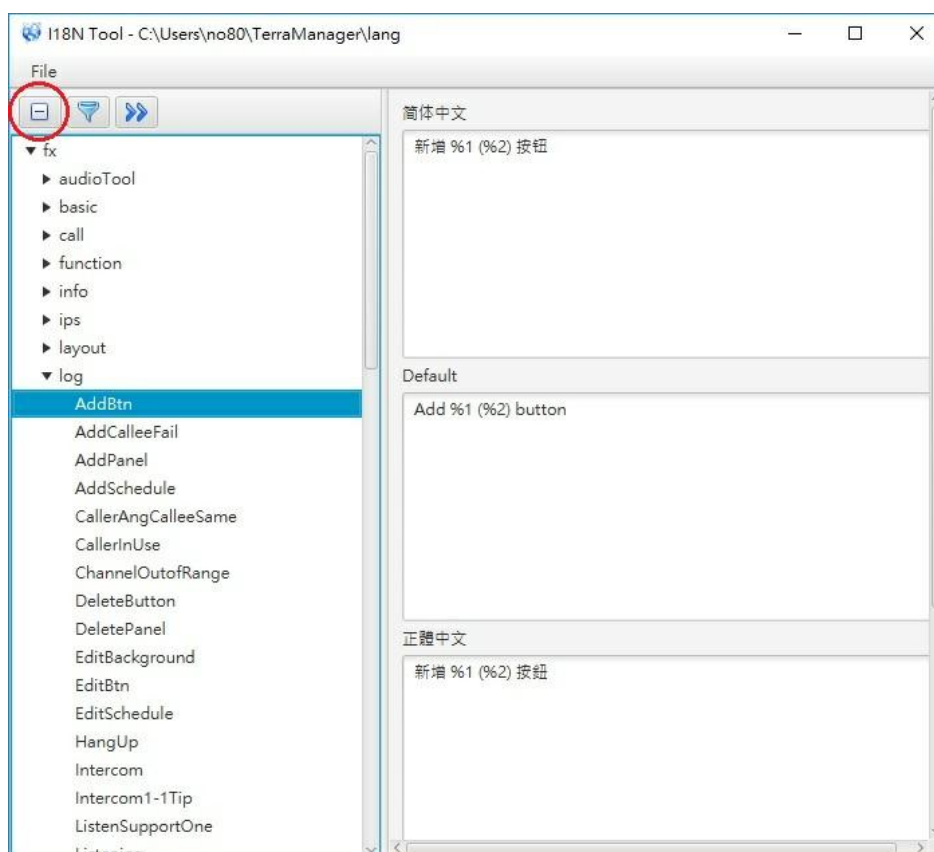
❖ The Language Tool function allows to switch to different language display on TerraServer.

- Go to "Start Menu" and search "Language Tool" under the TerraServer.

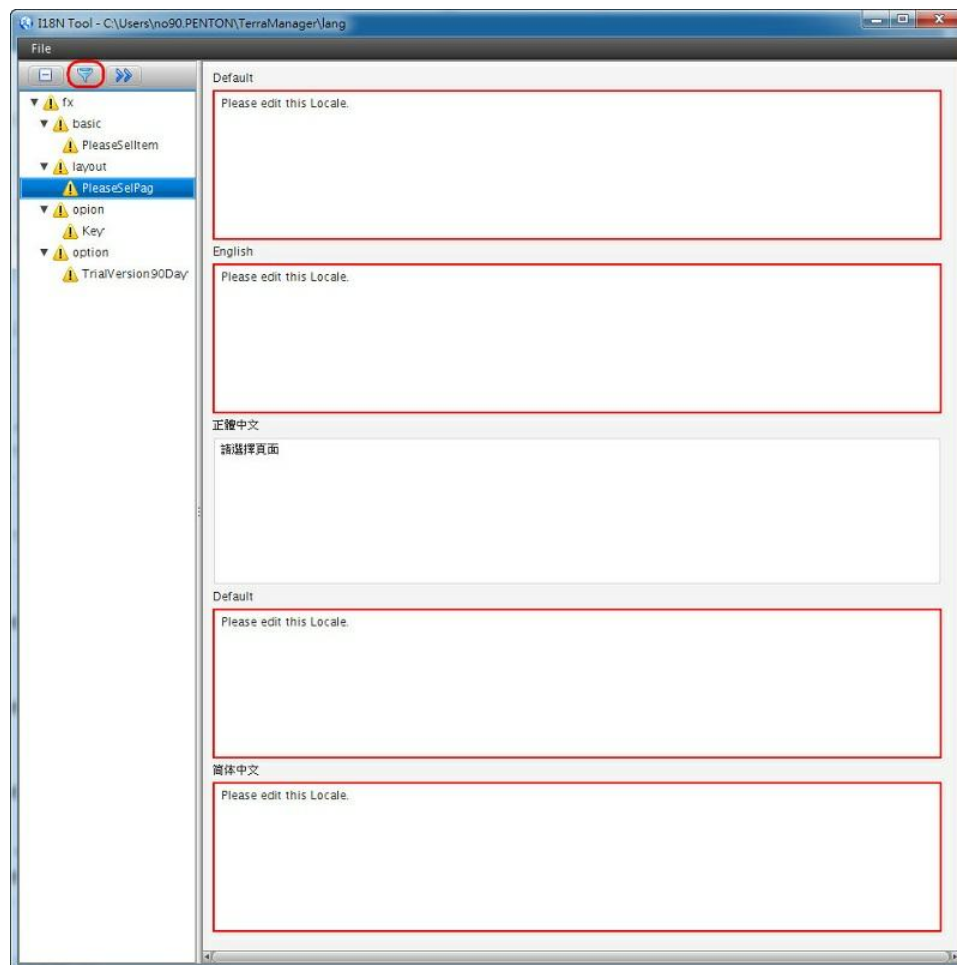


Users are also edit the languages setting from Edit mode > Options > Basic Setting > Multi-Language > Edit.

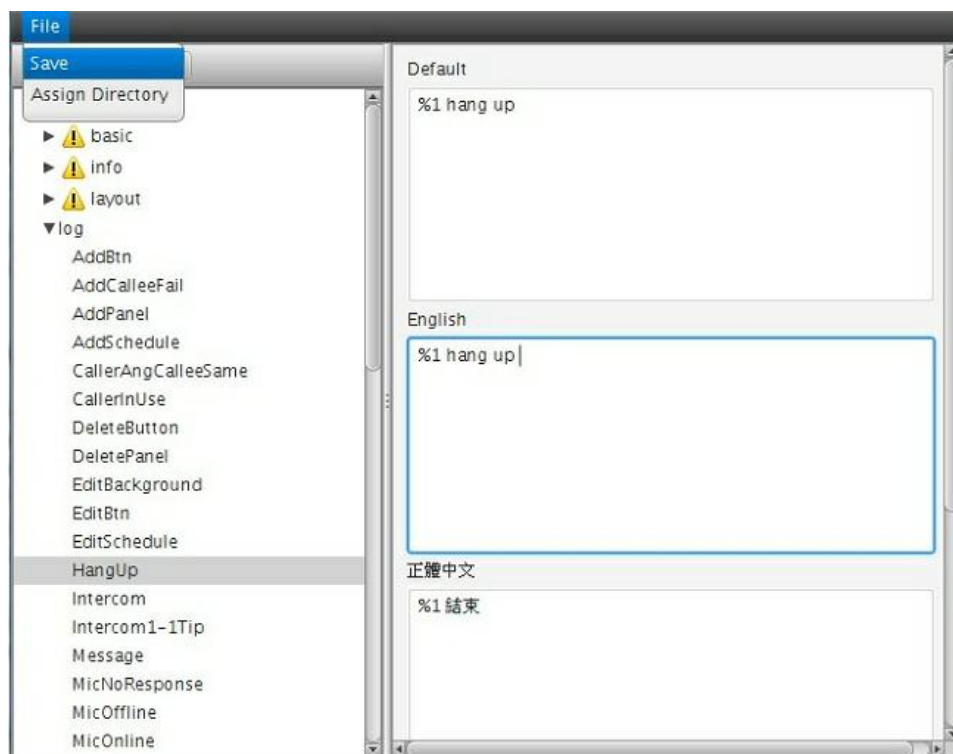
- The multi-languages display will be shown at the right side of window.



- In the page, the red columns indicates that the empty multi-languages display are not edited. Users allows to edit in the red columns.



- After editing, go to "File" on the upper left corner and click [Save] to save the editing.



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