



X-618 Public Address System

Commissioning Manual

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Preface

Thank you for purchasing the X-618 Public Address System. Please carefully read this manual prior to product use to ensure correct use of the system.

Brief Introduction

This manual describes the basic operations and settings for the X-618 Config software, contained in the following sections:

Chapter 1: Overview

This section introduces the basic functions, runtime environment, and the necessary preparation required before operating or configuring the software.

Chapter 2: Software Installation

This section describes the runtime environment and the installation and uninstallation procedures for the X-618 Config software.

Chapter 3: Basic Operations

This section describes the basic operations of the X-618 Config software.

Chapter 4: Configuration Guide

This section describes various details regarding the settings and operations for the X-618 Config software.

Chapter 5: Additional Functions

This section describes special functions and operations of the X-618 Config software.

Intended Reader

This manual is mainly for personnel who need to install, operate, maintain, and understand the X-618 Config software.

Relevant Documents

The following documents can be used as a reference when reading this manual:

- X-618 Public Address System Product Description
- X-618 Public Address System Installation Manual
- X-618 Public Address System Operation Manual

Use Instructions

- All contents including figures in this manual are to be used only for reference.
- The product may be subject to change without notice.
- We recommend users carefully read all warnings and precautions in this manual.
- Carefully read this manual before using the product and keep it as a reference for future use.
- This manual has been reviewed for accuracy. In case of any doubt or dispute of the product description, the final interpretation given by Life Safety A/V (Guangzhou) Co., Ltd. shall prevail.
- Life Safety A/V (Guangzhou) Co., Ltd is not liable for any consequences caused by user mistakes when using the product or user misunderstandings of the manual content.

1 Overview

The X-618 provides a series of complete multiple audio source, and public audio management solutions. The system allows users to customize the configuration to meet their own requirements.

The X-618 Config software is a specialized tool for configuring the system. The user-friendly UI allows users to understand and operate the system, as well as configure complex settings.

The X-618 Config software can be configured online or offline. If the software is configured offline, the configuration data is saved as a project file. The project file (configuration data) is then uploaded to the system the device is connected to. After the system receives the configuration data, the system reboots automatically to allow the configuration settings to take effect.

Software Features

The X-618 Config software has the following features:

- Project File Management

This feature includes the following functions:

- The ability to create new projects, save projects, and open projects
- Manages configuration settings and audio files

- System Configuration

The configuration settings include basic property settings and broadcast function configurations.

- Basic property settings include the system component and parameter settings, such as the device type, device name, network IP address, time, partitions, and troubleshooting.
- The broadcast configuration settings are mainly for broadcast operations, such as the broadcast function triggered by the dry contact inputs, timed broadcasts, and other key operations.

- Output Settings

These settings specify how configuration project files are generated, as well as related settings that include error checking and compiling settings for generating the final configuration file.

- Audio Source Conversion

Audio source files can be converted to the format specified by system in terms of the audio sampling rate, digitalizing bit, and channel numbers.

- Network Communication

The configuration software oversees uploading configuration files, audio files and timing data to devices such as the DCS and NPM through the network. The system reboots to allow new configurations to take effect upon successfully receiving and processing the configuration files.

2 Software Installation

This chapter describes the runtime environment and installation and uninstallation procedures of the X-618 Config software.

Run Environment

The X-618 Config software sends configuration data to devices within the system through the network. The computer on which the software is installed must meet the following requirements:

- Windows 7, Windows 8 and Windows 10 operating system
(The software is untested in other Windows operating systems.)
- 1GHz or higher CPU
- At least 512MB RAM
- At least 1GB of available disk space
- 10M/100M Ethernet interface
- Running at 1024X768 resolution or higher
- The software should be granted network access by firewall.

Software Installation

The X-618 Config software is easy to install by following an installation wizard.

1. Put the X-618 system CD into the CD-ROM drive, click X-618 System Commissioning Tool in the Autorun view or double-click the installation program X-618 Config.exe, and the X-618 Config installation wizard window displays as shown in Figure 1.

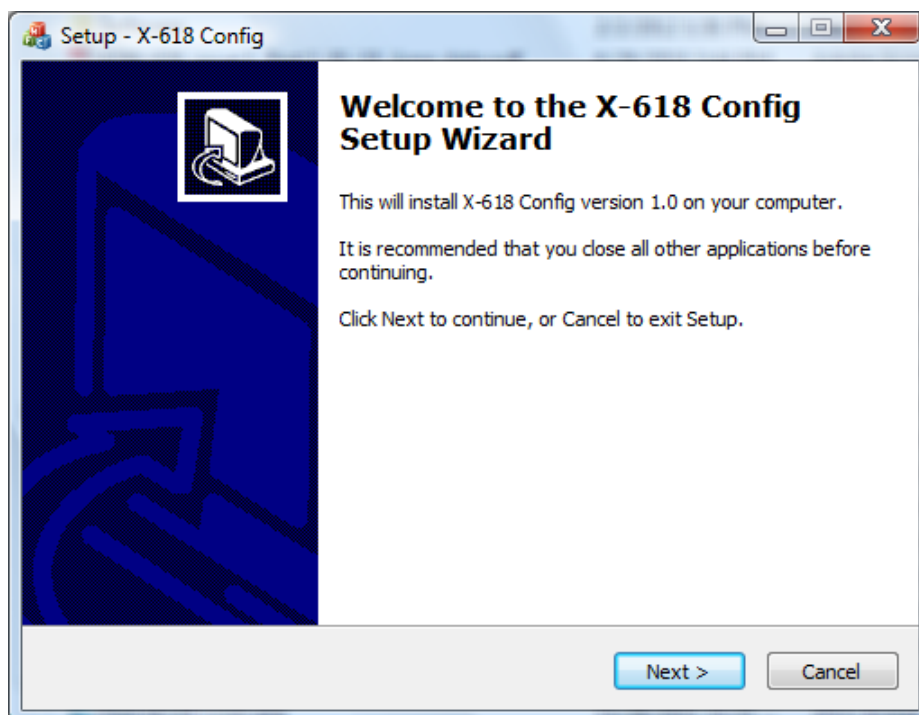


Figure 1 X-618 Config Installation Wizard Page

2. Click **Next**. The License Agreement page is displayed.
3. Select **I Agree** on the page.
4. Click **Next**. The information page is displayed.
Read the important information on this page before proceeding to the next step.

5. Click **Next**. The page shown in Figure 2 is displayed.
The default installation directory is *C:\Program Files\X-618 Config*. If this directory must be changed, click **Browse** to choose a different destination location.

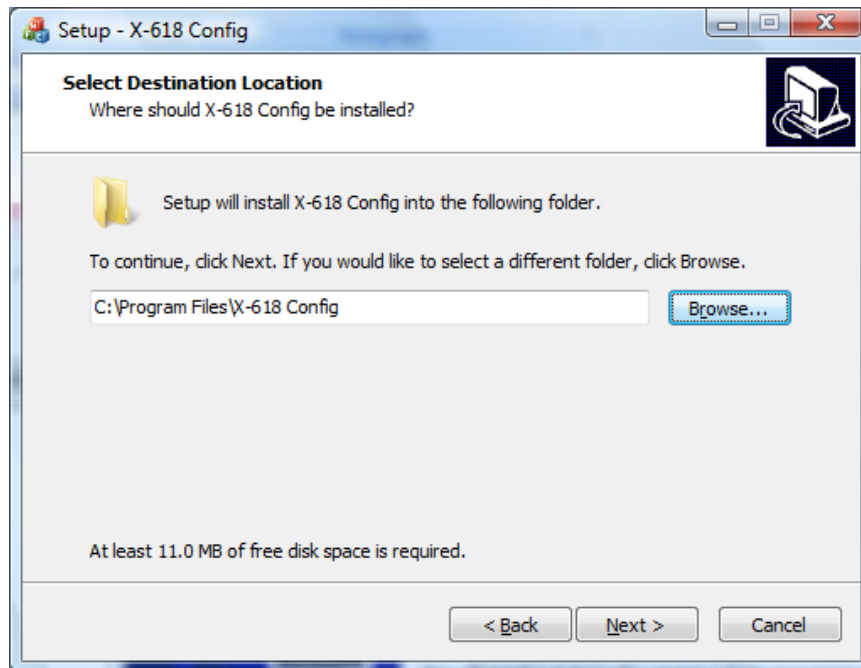


Figure 2 Select Destination Location

6. Click **Next**. The Additional Tasks page is displayed.
7. To create a desktop shortcut for running the software, select *Create a desktop shortcut* option.
8. Click **Next**. The Ready to install page is displayed.
9. Click **Install**. The Installing page is displayed.
The X-618 Config software is then installed on the computer. The installation progress is displayed.
10. Click **Next**. The information page is displayed.
Read the information carefully on this page before proceeding with the installation.
11. Click **Next**. The X-618 Config Completion page is displayed.
12. If you need to start the X-618 Config software immediately, select the option *Launch X-618 Config*. Finally, click **Finish** to complete the software installation.

Software Uninstallation

To uninstall the X-618 Config software, follow the steps below:

1. Click **Start** at the lower left of your computer desktop, and select *Program → X-618 Config → Uninstall X-618 Config*. A prompt dialog appears with the message “Are you sure to remove the X-618 Config and its all components?”
2. Click **Yes** to uninstall the X-618 Config software and all of its components. The prompt dialog “Some content cannot be deleted, you can manually remove them” is displayed.
3. Click **OK**.



Note:

If you want to delete the remaining files manually, you can find and delete the X-618 Config software folder within the installation directory.

3 Basic Operations

This chapter describes the basic operations of the X-618 Config software.

Running the Software

**Note:**

Make sure X-SMART software and the X-618 Config software are not running at the same time. If the X-SMART software is running, the X-618 Config software cannot be run.

The steps for running the software are as follows:

1. Click **Start** at the lower left of your computer desktop, and select *Program* → *X-618 Config* → *X-618 Config*.
2. Select the menu commands *Tools* → *Select Language*, the *Select Language* window is displayed. The user can select the appropriate language. Click **OK**. The main window which is shown in English is displayed as shown in Figure 3.

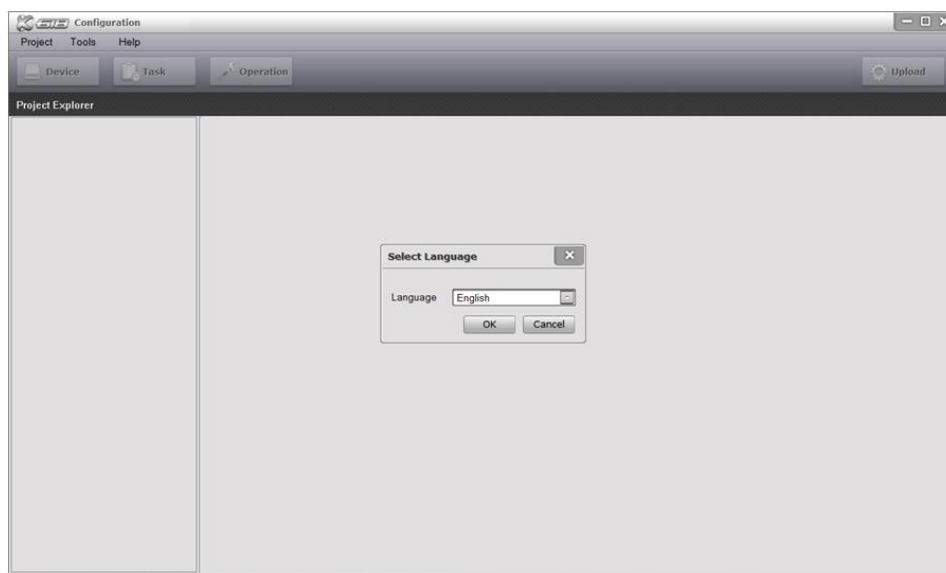


Figure 3 X-618 Config Software Initial Window

Exiting the Software

Select the menu commands *Project* → *Exit* or click the “X” icon on the upper right corner, a prompt dialogue displays. Click **Yes** in this prompt dialogue to exit the software.

Main Window

The identifiers of the various views in the Config software main window are shown in Figure 4.

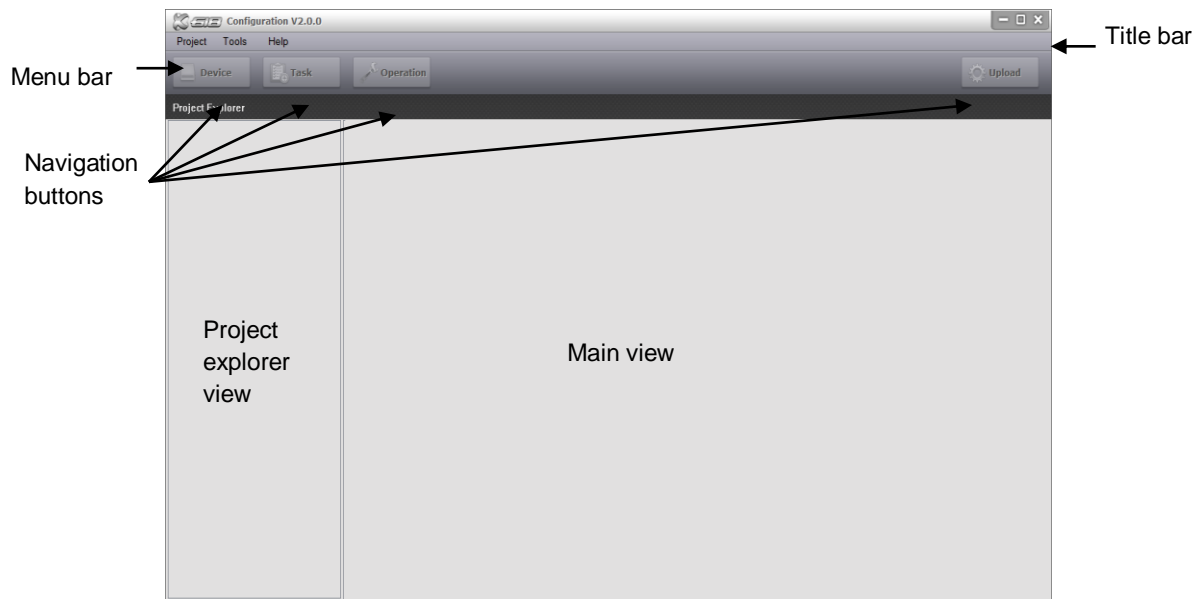


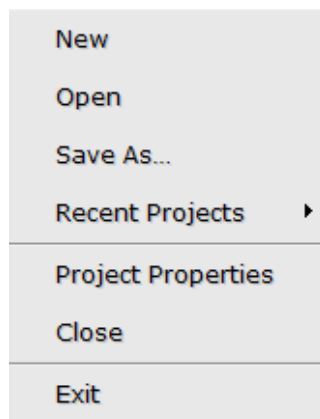
Figure 4 Main Window

Menu Bar

Menu bar includes Project, Tools and Help, and provides some basic operations.

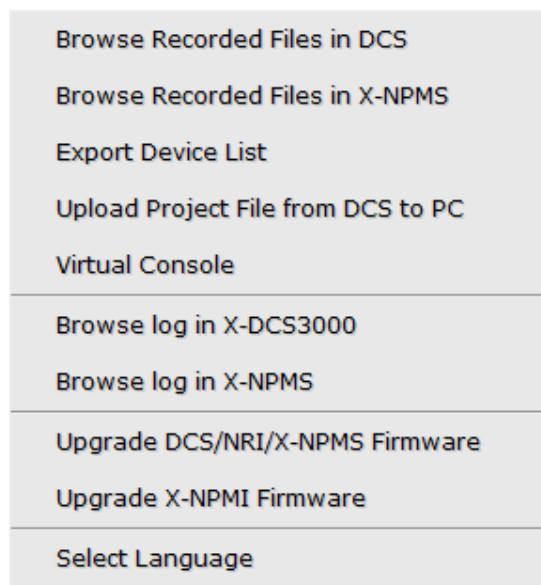
- Project

Users can do the operations through the Project menu as follows: "New", "Open", "Save as", "Recent projects", "Project Properties", "Close", and "Exit".



- Tools

The Tools menu provides some special operations, such as: "Browse Recorded Files in DCS", "Browse Recorded Files in X-NPMS", "Export Device List", "Upload Project File from DCS to PC", "Virtual Console", "Browse log in X-DCS3000", "Browse log in X-NPMS", "Upgrade DCS/NRI/X-NPMS Firmware" and "Select Language" etc.



- Help

The Help menu of the X-618 Config software provides the software version information and the help information for the operation of the software.

Navigation Buttons

For making system configuration convenient, there are 4 navigation buttons in the top of the view, so the users can find the specific setting subjects quickly.

- Device

The Device button leads to set the basic function parameters of the devices. The setting items which depend on the device type mainly include: Properties, Time, Supervision and so on.

- Task

Click the Task button to set broadcast task. The users can set the various broadcast operations as the X-618 system needed. Mainly include: Play List, Task and Task Serial.

- Operation

Click the Operation button to set the various operation functions, such as the keys and the appointed tasks for them, contact input, timing.

- Download

Click the Download button to verify that configurations are correct or not. If errors are found, an error list will be shown. If all the configurations are correct, it will enter the configuration download window.

Project Explorer View

The project explorer view shows all devices and groups in the system. It is necessary to select the devices to make the relevant configurations one by one.

- **Project Explorer**

The Project explorer is shown in a tree like structure. The first level shows the project name, the second level shows the groups, and the third level shows all the detailed devices. Just as shown in Figure 5.

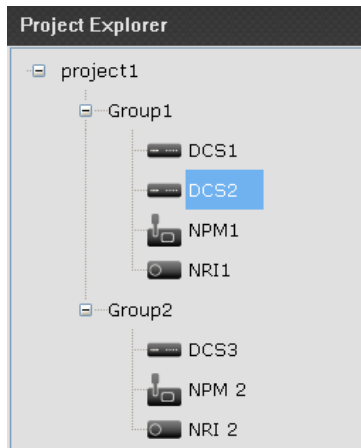


Figure 5 Project Explorer Structure

- **Device and Group**

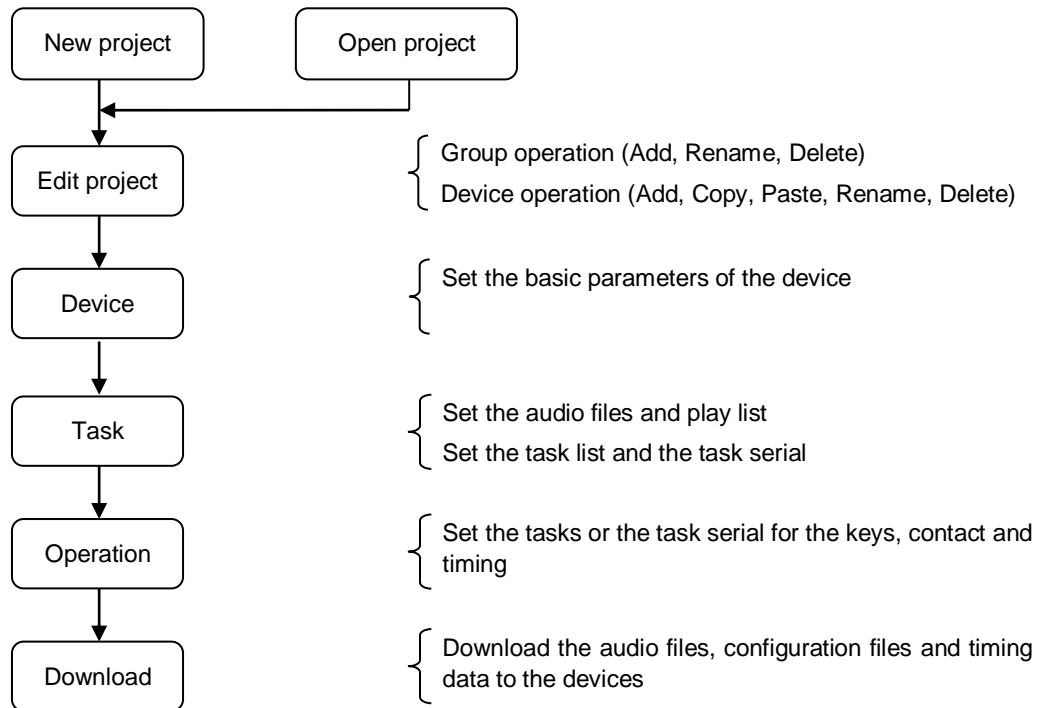
The devices may be classified into different groups according to different project structures and building's characteristics. When signals are detected through dry contacts, the devices in the same group will connect with each other and respond at the same time. Users can set the group as Central Group. A device from the Central Group can execute broadcast operation on the all the groups, however, the device from the local group can only operate on the device from the same group. Similarly, the audio source from the Central Group can be played to all groups, but the audio source from local group can be only played in the same group. Broadcasts in the groups can be only valid in the same group, and the emergency broadcast can't be played.

- Right-click allows the users to add, delete or rename the devices and groups.

4 Configuration Guide

The X-DCS3000, X-NPMS, NRI can be configured through the X-618 Config software.

X-Config Configurations Flow Chart:



The configuration content is different, according to the device type.

1. The X-DCS3000 enables configuring the following settings:

- Device
 - Properties
 - Modules
 - Amplifier
 - Time
 - Supervision
 - AVC
- Task
 - Play List
 - Task
 - Task serial
- Operation
 - Operation
 - Timing

2. The X-NPMS enables configuring the following settings:

- Device
 - Properties
 - Time
 - Language
 - Supervision
 - Devices
 - Groups
- Task
 - Play List
 - Task
- Operation
 - Physical Keys
 - One-Click Buttons
 - Manually Broadcast
 - Speech Synthesis
 - Volume Setting
 - User Setting

3. The NRI enables configuring the following settings:

- Device
 - Properties
 - Supervision
- Task
 - Play List
 - Task
 - Groups

Preparation

Before configuring the system, the following must be done:

- Identify clearly the types and the number of the devices to form the system.
- Identify the functions the system needs for broadcast.
- Ensure the IP address and the device IP address are in the same segment if you want to download the configuration file.

Project Settings

All the settings for the X-618 system are based on the concept of a “project”. A project comprises of many groups which form from DCS subsystems, NRI, and X-NPMS. Each subsystem is a system unit that has a DCS with a power amplifier and corresponding speaker circuits.

Every new project has a unique folder which is created in a specified storage path, for storing the related project files. The project folder name and the project *.gpa file name are by default the project name. The project folder contains the project file, audio files and the other temporary files.

The project settings include following operations:

- New
- Open
- Save as
- Recent Projects

- Project Properties
- Close

New

The New icon in the menu bar is used for creating a project. The steps are as follows:

1. Select the menu command *Project* → *New* in the X-618 Config software window. The New Project window is displayed, as shown in Figure 6.
2. Refer to the example shown in Figure 6 to set the Project name, Location, Device Group Name and if set as the Central. The default directory for the project file is “My Documents”.

This direct path can be changed. Click the  icon at the right side of the Location path field to select a different directory.

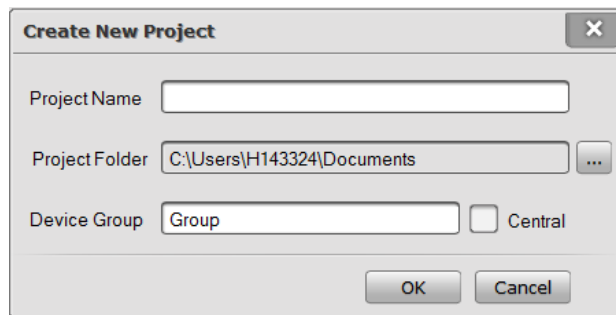


Figure 6 New Project Window

3. Click the OK button to create the project. The window as shown in Figure 7 is displayed.

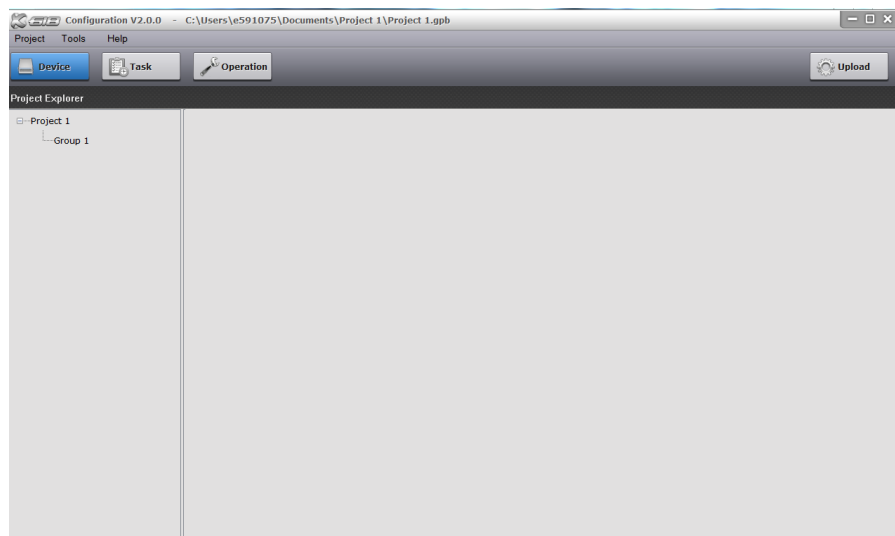


Figure 7 Project Created Sample

4. Right-clicking the mouse in the Project explorer view causes a menu to pop-up to add, rename, or delete Group, and also to add, copy, paste, rename or delete Device.
 - Right-click Project Name, the Group can be added;
 - Right-click a Group, the devices of the Group can be added, pasted, renamed or deleted;
 - Right-click a device, the device can be copied, renamed or deleted, and another device can be added or pasted.

Open

1. Select the menu command *Project → Open* in the X-618 Config software window. The Open window is displayed.
2. Find and open the project file.
3. Click the Open button. The selected project is opened.

Save as

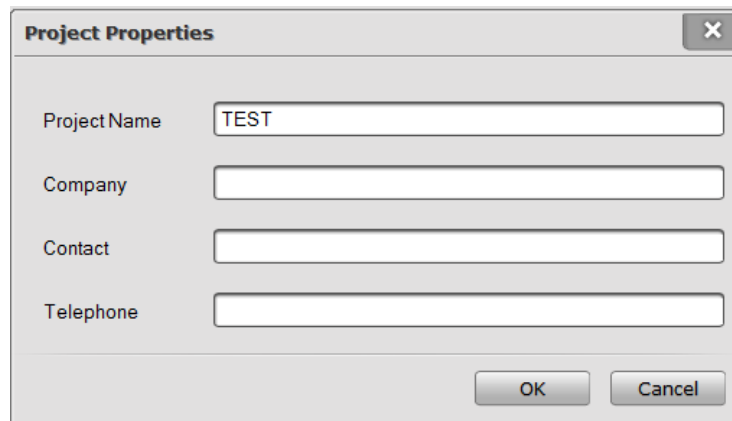
1. Select the menu command *Project → Save as* in the X-618 Config software window. The Save as window is displayed.
2. Enter the new project name and select the storage directory for the project file.
3. Click the OK button. Then the project is saved as another file.

Recent projects

1. Select the menu command *Project → Recent projects* in the X-618 Config software window.
2. The menu will show 5 projects recently opened. Click the project item as necessary to open it.

Project Properties

Select the menu command *Project → Project Properties* in the X-618 Config software window, the basic information, such as project name, company, contact and telephone can be displayed to help the users manage the files.



1. Compatibility is used to set the audio parameter to make the X-NRI/EN work normally with the X-DCS3000 in the same system. If it is necessary to use X-NRI/EN in the system, users need to select "Compatible with X-DCS2000/EN".
2. The net package sizes of X-DCS3000 and X-NPMS are 2KB or 4KB. The network broadcast delay of 2KB size is 50msec; however, the broadcast delay of 4KB size is 100msec. X-NRI only supports 4KB net package size. Therefore, choose the 4KB net package size when using above devices, or some audio will not be broadcasted normally. On the other hand, 2KB net package size is better for X-DCS3000 and X-NPMS.
3. Information like the project name, company, contact and telephone need to be filled in according to your requirements, these will not affect system performance. If X-NPMS is used in the system, the project name will be displayed in the X-NPMS standby screen.

Close

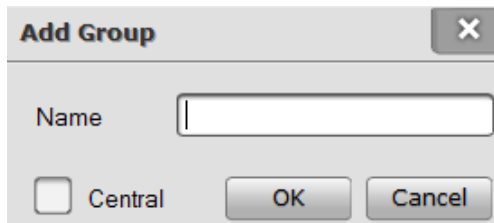
Clicking "Close" will close project items, but not exit the software.

Project Saving Setting

There is no separate save menu or button in the software. As project setting, the software will save it automatically.

Group and Device Management

After creating and setting the project, the default group is displayed in the window. Right-click the project name at the top of "Project Explorer", and then click the item "add" to add new groups. The window is shown as follows.



Enter a group name and set it as the central group according to the internal system relationship. Click "OK" to add into project. Click cancel if you do not wish to save the settings. Users can add many groups for project files this way, and can only use default groups.



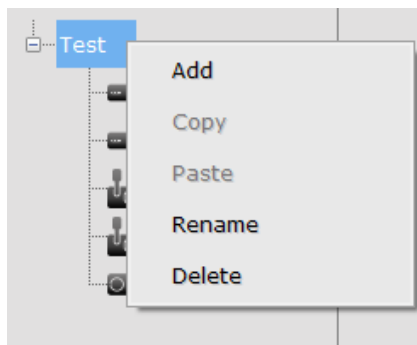
Note:

Each group can be configurable with up to 32 X-DCS3000. In emergency mode, only the devices in the same group can be linked to X-NRI.

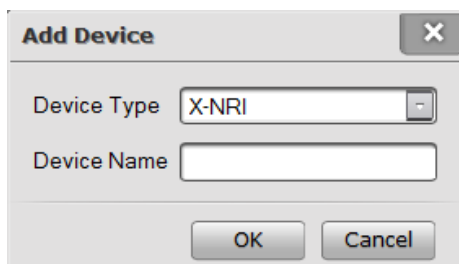
A maximum of 8 NRI devices can be configured in a group. Audio sources of NRI can be broadcasted in the same local group. If NRI is in a central group, the audio sources of NRI can be broadcasted to all devices in system, but it can be linked to DCS of the same central group for emergency purpose.

Up to 20 X-NPMS can be included in a group which is used to operate the devices in the group. If X-NPMS is in a central group, it can be used to control the devices in the whole system.

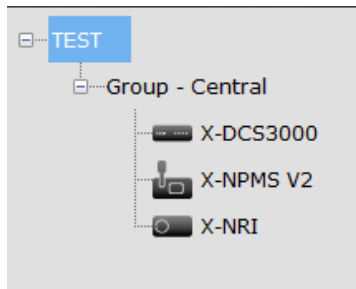
Right-click a group and the window is shown as:



1. Click the item "Add" to add device, as shown below:

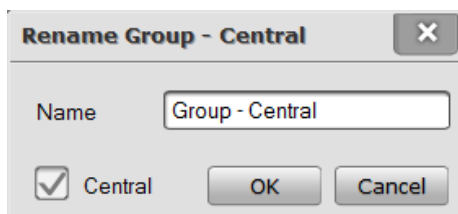


In this window, we can choose the type of device we need to add to, such as X-DCS3000, X-NPMS V2 or X-NRI, and set a device name. Click "OK" to save settings and close the window. All the added devices will be displayed under the group, which is shown as follows:



Right-click the device name, you can now add, copy, paste, rename, and delete. The copy and paste function can create a copy device, which has the same settings as the original. Click "Rename" to set device name, and "Delete" to remove device from the group.

2. We can set the group name through clicking "Rename", and click "OK" to save settings and close window.



3. Clicking "delete" will remove all groups from project file.

X-DCS3000 Settings

Select the DCS in the Project explorer view, users can configure the following settings by the three navigation buttons in the top left of the view.

- Device
 - Properties
 - Modules
 - Amplifier
 - Time
 - Supervision
 - AVC
- Task
 - Play List
 - Task
 - Task serial
- Operation
 - Operation
 - Timing

Device Settings

The basic function parameters for the X-DCS3000 can be set under this tab. These items such as Properties, Modules, Amplifier, Time, Supervision, and AVC will be set in turn.

1. Properties

“Properties” is used to set the requisite parameters for the X-DCS3000, as shown below:

The screenshot shows the 'Properties' tab of the X-DCS3000 configuration interface. It is divided into several sections:

- Basic Setting:**
 - Device ID: 1 (range 1-999)
 - Device Name: X-DCS3000
 - Device Type: X-DCS3000
 - Emergency Button: ☒ (checked)
 - Enable Buzzer: ☐ (unchecked)
- Integration Interface:**
 - Interface: Disabled
- Network Setting:**
 - Old IP: 192 . 168 . 2 . 200
 - New IP: 192 . 168 . 2 . 200
 - Subnet Mask: 255 . 255 . 255 . 0
 - Default Gateway: 192 . 168 . 2 . 1
 - Buttons: Get, Update
- Zone List:**

| No. | Zone Name | Power(W) | Emergen... |
|----------------------------|-----------|----------|------------|
| <input type="checkbox"/> 1 | zone 1 | 0 | 0 |
| <input type="checkbox"/> 2 | zone 2 | 0 | 0 |
| <input type="checkbox"/> 3 | zone 3 | 0 | 0 |
| <input type="checkbox"/> 4 | zone 4 | 0 | 0 |
| <input type="checkbox"/> 5 | zone 5 | 0 | 0 |
| <input type="checkbox"/> 6 | zone 6 | 0 | 0 |
| <input type="checkbox"/> 7 | zone 7 | 0 | 0 |
| <input type="checkbox"/> 8 | zone 8 | 0 | 0 |
- Audio Input Setting:**
 - Audio Format: ADPCM

| No. | Multicast IP | Description | Input Sen... |
|----------------------------|--------------|-------------|--------------|
| <input type="checkbox"/> 1 | 0.0.0.0 | | |
| <input type="checkbox"/> 2 | 0.0.0.0 | | -40 |
| <input type="checkbox"/> 3 | 0.0.0.0 | | -40 |
- Storage:**
 - Flash: 0.0MB(0.0%) / 600MB

- Basic Setting

Basic Setting includes Device ID, Device Name, Device Type, Emergency Button and Emergency Buzzer. Device ID is the only device identification in the system, which is in the range of 1~999.

The option “Emergency Button” is to enable or disable emergency button on X-DCS3000 front panel. The checkbox shown as ☒ means enabled.

- Integration Interface

This item is used to set the interface type, which includes Disabled and Dry Contact. The default setting is disabled.

- Network Setting

Use to set the X-DCS3000 network parameter. Old IP is the IP address before setting, and New IP is the IP address after setting. For updating the network parameters of the system devices, it shall be connected to computer whose IP should be in the same segment with the old IP of DCS. Click the Update button for setting the IP of DCS, the two IP address would be the same after updating successfully. The default IP address is 192.168.2.200. If the specified IP address has been forgotten, the default IP address can be obtained by pressing the appropriate button to reset the IP address.


Note: Network parameter is excluded in configuration files. Downloading configuration won't change network configuration, which can be only changed by updating. While operating, please make sure device is connected to the network and the network settings are correct.

- Zone List

The Zone List setting function allows users to enable/disable the zones and set the Zone Name and Power. Check the check box shown as ☒ to enable the corresponding zone.



And ☐ shows the zone is disabled. Click directly one zone name or power in the zone list to edit it. The power setting value is only used to determine if the amplifiers are appropriate. The output

volume corresponding to loudspeaker lines in emergency can be set, and the ranges are from -10dB to 0dB. Zones' default broadcast volume can be set in "Emergency Volume", which ranges from -10dB~0dB. The minimum volume is -10dB to avoid the audio volume from too low while emergency broadcasting. Power value in the zone list can't represent anything and only record the actual power rate.

Select one zone, and click the  icon in the right of the Zone List, the rest of power can be set as the same as the selected zone's. So the same power value will be set for all the zones quickly.

- Audio Input Setting

Audio Input Setting is used to set the parameter of auxiliary input audio, such as enable/disable input, multicast IP, description and input sensitivity. Each row represents one audio channel.

Check the check box shown as  to enable the audio channel, and  shows the channel is disabled. After initiating, it will assign multicast IP address for each audio channel automatically, and the audio signal will be broadcasted in the network. Users can also change the multicast address according to requirements. Default address is recommended. Relevant information of audio can be input in the "Description" column. Auxiliary input 2 and 3 are the balance input interface of XLR. Users can set balance or non-balance signal. Input sensitivity can be adjusted from -40dBV~0dBV.



Note:

If audio inputs of X-DCS3000 are enabled, device will broadcast input audio source to network. To avoid network jam, it is recommended not to enable this function if local audio inputs haven't been used.

- Storage

Storage is used to set storage location of audio files, including flash memory or SD card. Flash memory of 606MB and 4GB SD card are provided. Users can also check the current status of storage space.

2. Modules

External modules on DCL buses can be configured, such as digital noise detector or end-of-line module, which should be completely the same as the actual connected modules.

| Properties | Modules | Amplifier | Time | Supervision | AVC |
|----------------|--------------------|----------------|---------|-------------|---------|
| Module Setting | | | | | |
| Ports | Addr: 1 | Addr: 2 | Addr: 3 | Addr: 4 | Addr: 5 |
| 1 | End of Line Module | Noise Detector | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |

The ports should be matched the DCL ports on the rear panel of X-DCS3000. The module types, such as noise detector or line detector are needed to be set according to actual address of every input channel.

3. Amplifier

“Amplifier” is used to set the backup amplifier function.

Backup Amplifier Setup

☒ Disabled
 ☐ Single Mode
 ☐ Double Mode

Spare Channel 1:

Spare Channel 2:

Main Amplifier Setting

| Channel | Main Amplifier | Power(W) | Backup | Resume | Rotate |
|---------|----------------|----------|--------------------------|--------------------------|--------------------------|
| CH1 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH2 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH3 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH4 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH5 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH6 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH7 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CH8 | None | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Rotate Interval: 60 ~ 1440Minute

- **Backup Amplifier Setup**

Includes disable, single mode and double mode, the default is disable.

- Disable: No backup function.

- Single mode: Only one amplifier channel which is connected with SPARE1 can back up 8 amplifiers at most.

- Double mode: Two amplifier channels can be connected for backup. The first channel is used to backup CH1 CH3, CH5 and CH7 main amplifiers, and the second is used to backup CH2, CH4, CH6 and CH8 main amplifiers.

Spare Channel: set the spare amplifier model at spare CH1 and CH2.

- **Main Amplifier Setting**

It is used to set the main amplifier model, backup, resume and rotate. The amplifier supervision should be enabled, otherwise the backup function won't work normally.

4. Time

"Time" is used to set the time parameters of X-DCS3000, as shown below:

- "Synchronization Mode" is to set the parameters of time synchronization for DCS through NTP protocol. Default setting is off.
 - If NTP Server is enabled, DCS will work as a time server, all devices synchronize the time with it. In other words, all devices' time would be in conformance with the DCS's.
 - If NTP Client is enabled, DCS automatically synchronizes the time via a time server, the server IP address and synchronization period should be set.
- "Time Zone Setting" is used to set internal time zone of X-DCS3000. Choose the time zone of current location, and click "Update" button to change the time zone of X-DCS3000, if "All Devices" is selected, click "Update" will change the time zone of all devices. If the device time zone is different from the local time zone, the time and date will be wrong while time synchronization.
- "Date & Time Setting" is used to view and manually update the device's date and time. Click "Get" button to read the device's date & date. If only click "Update" button, the time and date of current DCS will be changed. If select "All Devices" and click "Update" button, the time and date of all device, such as X-DCS2000/EN, X-DCS3000, X-NPMS, X-NRI, will be changed.

5. Supervision

“Supervision” is used to enable or disable the supervision functions, and the requisite parameter for check as shown below:

Supervision Options

☐ AC Power ☐ DC Power
☐ Communication ☐ Speaker Line

Line Supervision Setting

| No. | Groun... | Line D... | Lower limi... | Upper limi... | Monitoring Type |
|-----|-------------------------------------|--------------------------|---------------|---------------|-----------------|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 5 | <input type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 6 | <input type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 7 | <input type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |
| 8 | <input type="checkbox"/> | <input type="checkbox"/> | 50 | 50 | Line Impedan... |

Modules Supervision

| Ports | Addr. 1 | Addr. 2 | Addr. 3 | Addr. 4 | Addr. 5 |
|-------|--------------------------|--------------------------|---------|---------|---------|
| 1 | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 2 | <input type="checkbox"/> | <input type="checkbox"/> | | | |

Dry Contact Input Supervision

☐ Port1 ☐ Port5
☐ Port2 ☐ Port6
☐ Port3 ☐ Port7
☐ Port4 ☐ Port8

Amplifier Supervision


| No. | Amplifier Type | Loop Fault | Device Fault |
|-----|----------------|--------------------------|--------------------------|
| 1 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | None | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | None | <input type="checkbox"/> | <input type="checkbox"/> |

- Supervision Options



Through the software, users can set the fault supervision for the AC Power, DC Power, Communication and Speaker Line as enabled or disabled.

- Line Supervision Setting

If Line impedance is enabled, users can respectively enable/disable the line supervision function of speaker lines and set the line tolerance parameters. When the line impedance is lower than the lower limit, a short circuit will be found in the speaker line. When the impedance is higher than upper limit, an open circuit will be found in the speaker line. Here the unit of impedance tolerance is shown with percentage. The default monitor type is line impedance. If using end-of-line modules, EOL monitoring should be selected.

Select a line, and click the  icon in the right of the Line Supervision Setting list, the rest of parameters can be set as the same as the selected one's.

- Modules Supervision

The modules connected with X-EOL or digital noise detector X-ND100 can be supervised. The check-boxes are used to enable or disable line supervision. Check box which shown as  means enable, and  means disable.

- Line Check Interval Time

This item is used to set the measurement period of speaker line impedance. The value ranges from 10~1800s.

- Dry Contact Input Supervision

If the dry contact inputs are connected with the third-party devices, the transmission line can be supervised. This function can be configurable. Every line of the device should be installed with 10K ohmic resistances to make sure the detection correct.

- Amplifier Supervision

Device fault and loop fault of amplifier can be set separately. Device fault means the fault of amplifier device, such as power fault or protection. Loop fault describes audio signal transit to

amplifier from DCS, and back to DCS after amplifying, the audio can't be played due to the loop or device fault. Check box which shown as ☒ means enable, and ☐ means disable. If the actual use of amplifier is two channels or four channels, channel number in odd, such as No. 1, 3, 5, etc should be enabled during the device fault setting. Channel number in even can't be selected, otherwise the supervision will be incorrect.

6. AVC

The AVC Setting function allows users to set the parameters for the AVC, as shown below:

The screenshot shows the 'AVC' tab in a software interface. At the top, there are tabs for 'Properties', 'Modules', 'Amplifier', 'Time', 'Supervision', and 'AVC'. The 'AVC' tab is selected. Below the tabs, there are several settings:

- AVC Input:** A dropdown menu showing 'AVC Input 1' and a checkbox to its right.
- Calculation:** Two radio buttons, 'Average' (selected) and 'Maximum'.
- Sampling Period:** A vertical slider ranging from 300ms to 20000ms, currently set at 20000ms.
- Sensor Deviation:** A vertical slider ranging from -100dB to 100dB, currently set at 100dB.
- Reaction Level:** A vertical slider ranging from 0dB to 100dB, currently set at 100dB.
- Level Deviation (Min):** A vertical slider ranging from -50dB to 0dB, currently set at 0dB.
- Level Deviation (Max):** A vertical slider ranging from -50dB to 0dB, currently set at 0dB.
- Factor:** A vertical slider ranging from 0.1 to 6, currently set at 6.
- Action Threshold:** A vertical slider ranging from 0 to 20, currently set at 20.
- SNR:** A vertical slider ranging from 0 to 8, currently set at 8.
- Controlled Lines:** Eight checkboxes labeled 'Zone 1' through 'Zone 8'. All are currently unchecked.
- Calib. AVC Module:** A button with a text input field next to it.
- Calib. Reaction Level:** A button with a text input field next to it.
- Read Data:** A checkbox at the bottom left.

- **AVC Input**

Select the AVC input channel, which should be matched with that in supervision module, and check the box to enable the AVC function of the selected channel. If channel is not equipped with noise detector, it can't be selected.

"Calculation" describes when there are many noise detectors in one line, the device can automatically volume control (AVC) according to average or maximum value.

- **AVC Parameter Setting**

- "Sampling Period" is the supervision cycle of ambient noise. Its setting range is related to the No. of connected modules of device.
- "Sensor Deviation" means the deviation between the actual sound pressure level and the one measured by noise detector. Actual sound pressure can be measured by the sound pressure meter. Constant audio signal, such as white noise and sine wave can be played during the commissioning. Then the deviation can be got through measuring by the device and sound pressure meter. Any interference is forbidden during the measurement.
- "Reaction Level" with the unit of dB is the bound value to enable the AVC function. When the sound pressure is equal or greater than this value, AVC function is enabled to adjust output volume automatically. When it is less than the bound value, the output volume is the minimum value.
- "Level deviation (min)" is used to set the minimum volume of the adjusting range.
- "Level deviation (max)" is used to set the maximum volume can be adjusted through the AVC.
- "Factor" provides the function to set the volume adjusting ratio, same kind of sound change, the bigger the adjusted ratio, the bigger the volume change.

- “Action Threshold” is the variation value more than last ambient noise collection. Only the current collection value is greater than last, volume can be adjusted. The smaller the parameter is, the more sensitive AVC is.
- “SNR” means the lowest signal noise ratio between the broadcast and the ambient noise.

Broadcast volume calculation formula:

Output Volume= (Ambient Noise+ Sensor Deviation- Reaction Level) X Factor+ Level deviation (min)

- Controlled Lines

“Controlled Lines Setting” means the zones that controlled by AVC, select the zone through the check box.

- “Calib. AVC Module” and “Calib. Reaction Level” Button

“Calib. AVC Module” is used to calibrate broadcast signal from digital noise detector X-ND100 under on-line condition. During calibration, X-DCS3000 will automatically broadcast periodic pulse signal, therefore, digital noise detector can compare the signal from loudspeaker lines with the signal from microphone to improve accuracy of noise measurement.

“Calib. Reaction Level” is to automatically set parameter of “Reaction Level”. When it is enabled, device-DCS3000 will automatically broadcast noise signal at maximum volume and collect noise signal through digital noise detector. It will calculate recommended “Reaction Level” for users according to “minimum volume” and “SNR”. During this procedure, configuration software will broadcast noise signal to targeted zones, users shall select the network adaptor which is connected with X-618 system.

- Read Data

During the AVC settings, enable the read data function by selecting the check box. Information like measured value of ambient noise, actual value of ambient noise, adjustment bound value, reaction level, broadcast output volume, working status, last action time and module data can be shown.

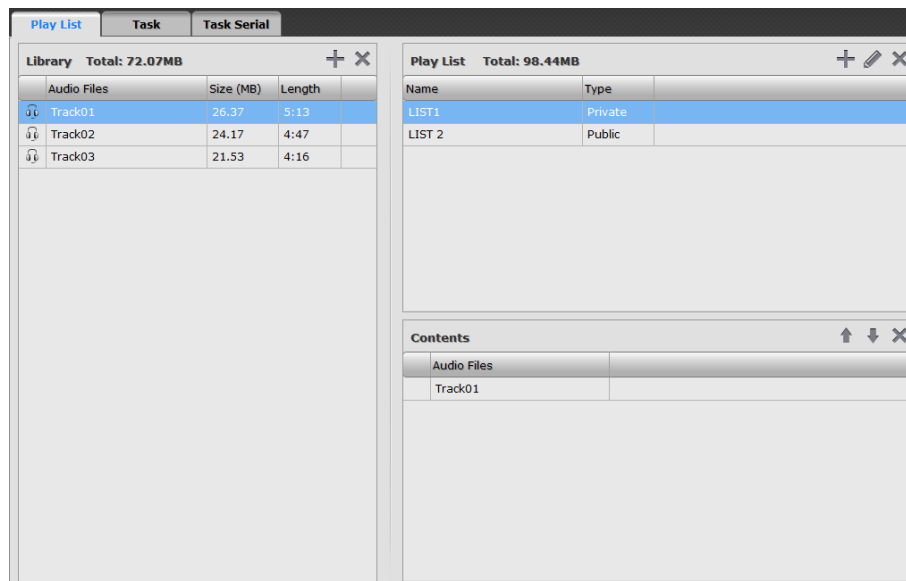
Task Settings

Task mainly used to set the necessary task for the broadcast by the X-DCS3000. Each task includes audio library, play policy, zone setting and dry contact to fulfill all the play operations.

Task setting includes Play List, Task and Task serial.


1. Play List


Play List is used to set the audio source and the play lists for the play tasks, as shown below:



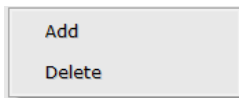
- Library

The users have to configure the audio library first, if they want to play the audio files in the system. All the audio files' basic messages, such as file name, size and length, would be shown in the audio library. And the total size can be gotten in the top of the Library. X-DCS3000 would share the audio library with X-DCS2000/EN, X-NPMI, X-NPMS and NRI during configuration. And the required audio files can be downloaded to the devices through the system.

Click  icon, the Open window is displayed. And the users can find and select one or more audio files from PC to add the audio file library. This software supports MP3 and WAV audio formats. And the other audio formats can be converted automatically to the audio format as system needed.

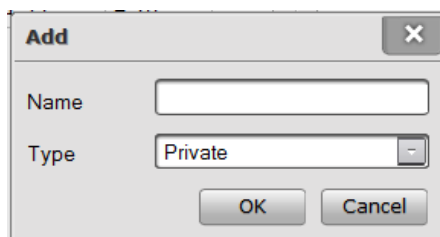
Select one or more audio files, click  icon, the selected ones can be deleted from the library list. If the audio file wants to be deleted has added into some play list, the information window would be displayed to show that the file has been used, cannot be deleted.


Right click in the list for Add and Delete menu also can do the audio files addition or deletion operation.




- Play List

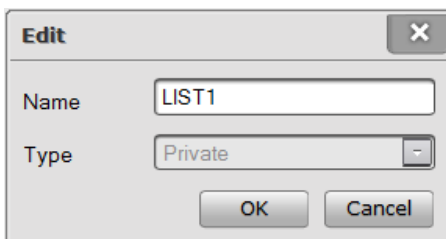
After finishing the library setting, the play list can be created, and classified into two types: Public and Private. The public play lists can be used by all the X-DCS2000/EN, X-DCS3000, X-NPMI and X-NPMS. And the private ones just for current X-DCS3000.




Click the  icon in the Play List view, the Add window is displayed as below:

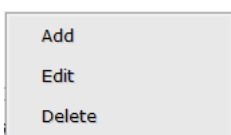
Enter the play list name, select the type from the drop - down menu, and click OK to create a new play list.

Select one play list and click  icon or double-click the list, the Edit window for editing the play list name as needed, is displayed as below:



Select some playlists in the Play List view click  icon to delete them.




Right click in the list for Add Edit and Delete menu also can do the play list addition, edit or deletion operation.



- Contents

Select some play list, the all the audio files of that list would be displayed in the Contents view. Left click and drag the audio files in the library into the Contents view, and the audio files have been added in the play list.

The user can reorder the audio files as needed:

- Click  icon to move forward the selected audio file.
- Click  icon to move backward the selected audio file.
- Click  icon to delete the selected audio file.

2. Task


Task is used to view, add, modify or delete broadcast task, as shown below:

| Task List | | | | | | | | | | | | |
|-----------|--------|--------------|---------------|-----------------|----------|------|-------|--------|----------|----------|------|--------|
| Task Name | Type | Audio Source | Speaker Lines | Dry Contact ... | Priority | Loop | Delay | Resume | Previ... | Busy ... | Full | Record |
| TASK 1 | Normal | LIST 1 | 1,2 | 1,2,3 | 200 | 1 | | | Y | Y | | |
| TASK 2 | Normal | LIST 2 | 1 | 2,3 | 200 | 1 | | Y | | | | |

- Task List

There are many parameters of the all tasks displayed in the task list, such as task name, type, audio source, speaker lines, dry contact output, priority, loop, delay, resume, audition, busy wait, full and record.

- Adding Play Task

Click  icon in the upper right corner of the task list, and the window is displayed as below:

Add

Task Name

Type

Normal

Audio Type

☒ Play List

☐ Net Audio

Policy

Delay

0

(0 - 600 sec.)

Priority

200

(56 - 255)

Loop

1

Forever

Preview

Busy Wait

Resume

Full

Speaker Lines

Zone Name

☐ zone 1
 ☐ zone 2
 ☐ zone 3
 ☐ zone 4

Dry Contact Output

Dry Contact Output

☐ Port 1
 ☐ Port 2
 ☐ Port 3
 ☐ Port 4
 ☐ Port 5
 ☐ Port 6
 ☐ Port 7
 ☐ Port 8

Extend ...

OK

Cancel

Set the following parameters as needed:

- Task name: enter the task's name to identify the task's effect.
- Type: Normal or Emergency.
 - Normal is used for the public address such as the normal background music, operation broadcast, voice broadcast etc. The priority range is 56~255.
 - Emergency is used for the fire emergency broadcast. The priority range is 1~55.



Audio Type: Play List and Net Audio.

- Play List: usually used for voice broadcast, background music etc. The users also can add the prompt tone files into the play list as needed.
- Net Audio: Mainly external audio sources connected through NRI or X-DCS3000 inner or external voice, which can be selected through the drop - down menu.

c. Policy:

- Delay: Edit this field to specify a time in the range of 0~600 second for which the audio is delayed before being played.
- Priority: The range of the value is different based on different task type. The Normal and Emergency task values must be between 56 ~ 255 and 1 ~ 55 respectively. If many play tasks are set to broadcast to the same zones simultaneously, the highest priority one would be played. And the smaller the value is, the higher the priority.
- Loop: This item is available only to that selected audio type being play list or record file. It is used to set the play times in the range is 1~65535.
- Forever: Enable/disable forever loop playback.
- Preview: Check the check box or not to enable/disable the function which supports confirming the play contents according to auditioning them by the device's built-in speakers in advance.
- Busy wait: check the check box to enable the lower priority task which was in conflict with a higher priority one plays when the running task finished. Otherwise the task would be canceled automatically.
- Resume: Enable or disable the shortcut task which was be broken off by the higher priority task resumes automatically when the insert task finished.
- Full: Mainly used in emergency broadcast to keeps integrality of the new added task that comes the same audio source and play policy. If the check box is selected, the two combined tasks will be broadcasted from the beginning after the waiting audio and vice versa.

d. Speaker Lines: Select the appropriate broadcast zones. Because of the tasks configured for X-DCS3000 can be only broadcasted in the local zones, the most 8 zones can be


selected. Click  to select all, and click  to cancel all.

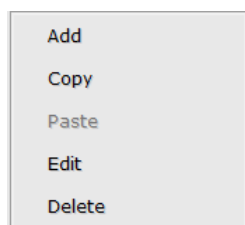
e. Dry Contact Output: Check the dry contact match zones check box, and the dry port output corresponds one-to-one with the zones. For example, the Zone 1 runs the Port 1 enables. The function is used for volume controller.

- Editing Play Task

Select one play task in the task list, and click  icon in the upper right corner of the task list or double left click, the Edit window is displayed. The user can edit the parameters like those above as needed.

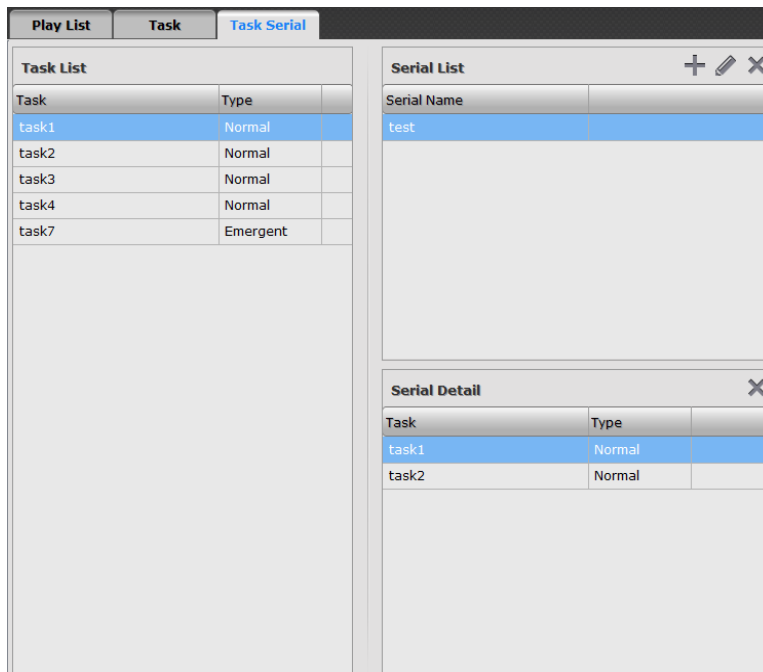
- Deleting Play Task

Select one play task in the task list, and click  icon in the upper right corner of the task list, the deleting confirmation window is displayed, and click YES to delete that task.



3. Task Serial

When the more complex operation, which enables multiple tasks to play with one trigger, through the dry contacts, is needed, the users can set the task serial. The task serial contains many tasks is triggered, the tasks will follow respective play policies to run. As shown below:



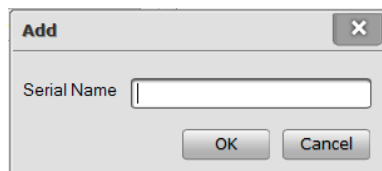
- Task List

The task list displays all of the tasks in current setting, includes task name and type.

- Serial List

The serial list displays the task serials have already existed, and provides the Add, Edit and Delete operation.

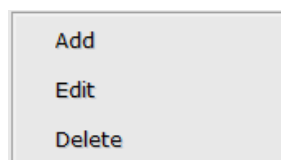
Click icon in the upper right corner of the serial list, and the Add window is displayed as below:



Enter the serial name and click OK button.

Select one task serial in the serial list, and click icon in the upper right corner of the task list or double left click, the Edit window is displayed. The user can edit the serial name as needed.

Select one task serial in the serial list, and click icon in the upper right corner of the task list, the deleting confirmation window is displayed, and click YES to delete it.



- Serial Detail

Select some task serial, all the tasks of that serial list would be displayed in the Serial Detail view. Left click and drag the tasks in the Task List into the Serial Detail view, and the tasks have been added in the serial list.

If the users want to delete the tasks, select them can click icon or right-click them and click Delete from the pop-up menu.

Operation Setting

Operation setting is used to set the tasks for the X-DCS3000 keys, contact inputs and timing operation.

1. Operation

| Operation | | Timing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|-------------|--|----------|---------------|-------------|----------------------|--------|--------------------|------|--------------------|------|---|---|--|---|--|---|---|---|--|---|--|--|---|--|--|---|--|--|
| Key List (Zone in tasks is unavailable for key operation) <table border="1"> <thead> <tr> <th>Key Name</th> <th>Task Name</th> </tr> </thead> <tbody> <tr> <td>Key1</td> <td>TASK 1</td> </tr> <tr> <td>Key2</td> <td>TASK 2</td> </tr> <tr> <td>Key3</td> <td></td> </tr> <tr> <td>Key4</td> <td></td> </tr> </tbody> </table> | | | | Key Name | Task Name | Key1 | TASK 1 | Key2 | TASK 2 | Key3 | | Key4 | | | | | | | | | | | | | | | | | | |
| Key Name | Task Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key1 | TASK 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key2 | TASK 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Key4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Physical Contact Input List (The tasks with zones can be selected.) <table border="1"> <thead> <tr> <th>Port</th> <th>Task Name</th> <th>Task Serial</th> </tr> </thead> <tbody> <tr><td>1</td><td>TASK 1</td><td></td></tr> <tr><td>2</td><td>TASK 1</td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> </tbody> </table> | | | | Port | Task Name | Task Serial | 1 | TASK 1 | | 2 | TASK 1 | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 | | |
| Port | Task Name | Task Serial | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | TASK 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | TASK 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Device Status Output(Dry Contacts) <table border="1"> <thead> <tr> <th>Ports</th> <th>Output Signal</th> </tr> </thead> <tbody> <tr><td>1</td><td>General Fault Output</td></tr> <tr><td>2</td><td>Fire Status Output</td></tr> <tr><td>3</td><td>Fire Status Output</td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> <tr><td>8</td><td></td></tr> </tbody> </table> | | | | Ports | Output Signal | 1 | General Fault Output | 2 | Fire Status Output | 3 | Fire Status Output | 4 | | 5 | | 6 | | 7 | | 8 | | | | | | | | | | |
| Ports | Output Signal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | General Fault Output | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Fire Status Output | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Fire Status Output | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Virtual Contact Input List (The tasks with zones can be selected.) <table border="1"> <thead> <tr> <th>Port</th> <th>Task Name</th> <th>Task Serial</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> </tbody> </table> | | | | Port | Task Name | Task Serial | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | 7 | | | 8 | | |
| Port | Task Name | Task Serial | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- Key List

Key List is used to set the tasks for manual operation by the X-DCS3000 keys.

- Key 1~Key 4 respectively correspond to the 4 sound source selection buttons on the X-DCS3000 front panel.

Click the Key1~Key4 respectively corresponding task cells, and select the tasks have been configured in the phase of Task.

- Contact Input List

There are two types of dry contact input on the DCS: Physical and Virtual.

- Physical dry contact input is the signal which is sent from corresponding physical ports on the device.
- Virtual dry contact input is the signal which is set through the system inner software for operation convenience, and it can be applied to linkage control, for example links with FAS system according to LPI-ModBus. If the fire alarm interface is Net-NRI, the evacuation tasks and alert tasks of the each X-DCS3000 corresponding virtual dry contacts can be set in the section of NRI Task Setting.

Only one task or task serial can be selected for each contact input port. The steps are following:

- Check the Enable check box as needed.
- Each port respectively corresponding task cell, when click, provides a drop-down menu with a list of selectable task or task serial options.
- Select one task or task serial as needed.

- Device Status Output

Dry contact output can be set as "General Fault Output" or "Fire Status Output".

When a dry contact output is set as "General Fault Output", usually the port is in open status. If the DCS finds any fault, this port will be closed to transit the fault status to the third-party device.

When a dry contact output is set as "Fire Status Output", usually the port is in open status. If DCS enters emergency mode, this port will be closed to transit the fire alarm signal to the third device.

2. Timing

The timing broadcast function can be set through the configuration software, and X-DCS3000 can broadcast automatically according to the timing setting. The timing setting includes Daily, Weekly and Special. The daily timing is the foundation of the timing function, but it can't be executed directly. Before configuring any timing schedule, create a daily schedule first. Then use the daily schedule to configure the weekly and special schedules as needed.

| Day Timing List | | Day Timing Contents | | | |
|-----------------|------|---------------------|------------|----------|------|
| No. | Name | No. | Start Time | End Time | Task |
| 1 | | 1 | 00:00:00 | 00:00:00 | |
| 2 | | 2 | 00:00:00 | 00:00:00 | |
| 3 | | 3 | 00:00:00 | 00:00:00 | |
| 4 | | 4 | 00:00:00 | 00:00:00 | |
| 5 | | 5 | 00:00:00 | 00:00:00 | |
| 6 | | 6 | 00:00:00 | 00:00:00 | |
| 7 | | 7 | 00:00:00 | 00:00:00 | |
| 8 | | 8 | 00:00:00 | 00:00:00 | |
| 9 | | 9 | 00:00:00 | 00:00:00 | |
| 10 | | 10 | 00:00:00 | 00:00:00 | |
| 11 | | 11 | 00:00:00 | 00:00:00 | |
| 12 | | 12 | 00:00:00 | 00:00:00 | |
| 13 | | 13 | 00:00:00 | 00:00:00 | |
| 14 | Rest | 14 | 00:00:00 | 00:00:00 | |
| | | 15 | 00:00:00 | 00:00:00 | |
| | | 16 | 00:00:00 | 00:00:00 | |
| | | 17 | 00:00:00 | 00:00:00 | |
| | | 18 | 00:00:00 | 00:00:00 | |

- Daily

Each X-DCS3000 can set up to 14 daily schedules. Click one cell of the Day Timing List, and enter the schedule name. And then click the corresponding Start Time, End Time and Task to set the detailed contents of the timing in the Day Timing Contents. Each daily schedule can set 40 timing contents at most.



Note:


Make sure the daily timing was set within 24 hours, and the End time must be at least 5 seconds after start time.

- Weekly

Click Weekly and the setting view would be displayed. Select a daily timing for everyday within a week. If the content of one day is empty, means that day has no timing schedule.

| Day | Timing |
|-----------|----------|
| Sunday | |
| Monday | workday1 |
| Tuesday | workday1 |
| Wednesday | workday1 |
| Thursday | workday1 |
| Friday | workday1 |
| Saturday | |

- Special

Special timing is the schedule beyond the weekly timing. For example, set a special play task suits the festival atmosphere or rest in a holiday. The setting steps are simply: select the Start Date, End Date and Day Program one by one. If want to delete one item, just need to select it and click  icon.

| Operation | | | |
|----------------------|------------|------------|-------------|
| Timing | | | |
| Daily | | | |
| Weekly | | | |
| Special | | | |
| Special Program List | | | |
| | Start Date | End Date | Day Program |
| 1 | 2013-07-10 | 2013-07-10 | Rest |
| 2 | 2013-07-25 | 2013-07-31 | workday1 |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |



Note:

This timing setting is used in the internal timing broadcast for only one DCS. For many DCS in system, voice that out of sync will occur when broadcast DCS internal audio due to time difference of devices.

X-NPMS Settings

Select the "X-NPMS V2" in the Project explorer view, the three navigation buttons in the top left of the view will refer users to configure the following settings:

- Device
 - Properties
 - Time
 - Language
 - Supervision
 - Devices
 - Groups
- Task
 - Play List
 - Task
- Operation
 - Physical keys
 - One-Click Buttons
 - Manually Broadcast
 - Speech Synthesis
 - Volume Setting
 - User Setting

Device Settings

The basic function parameters for the X-NPMS can be set under this tab. These items such as Properties, Time, Language, Supervision, Devices and Groups will be set in turn.

1. Properties

“Properties” is used to set the requisite parameters for the X-NPMS working normally, as shown below:

Properties | Time | Language | Supervision | Devices | Groups

Basic Setting

Device ID: 5000 (5000 - 6000)

Device Name: X-NPMS V2

Device Type: X-NPMS V2

Emergency Button: ☒ Priority: 10

Eme. Button Task: None

Pre-signal: None

End-signal: None

Voice Detection: ☐ Period: 10 Sec.

Line Output: Disabled

Multicast Channels: 20

First Multicast IP: 224 . 0 . 6 . 1

Standby Time: Never

Picture (339 x 40): [Image Icon]

AOD Server IP: 0 . 0 . 0 . 0

Enable Buzzer: ☒ Enable General Fault: ☒

Show Time & Date: ☐ Enable Key Beep: ☐

Delete Temp. Rec. Files: ☐ Delete Auto. Rec. Files: ☐

Extended Key Module Setting

| ID | Module Type |
|----|-------------|
| 1 | None |
| 2 | None |
| 3 | None |
| 4 | None |
| 5 | None |
| 6 | None |
| 7 | None |
| 8 | None |

Network Setting

Old IP: 192 . 168 . 2 . 100

New IP: 192 . 168 . 2 . 201

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 192 . 168 . 2 . 1

Update


Storage: Flash 0.0MB(0.0%) 500MB

REC FTP: ...

- Basic Setting

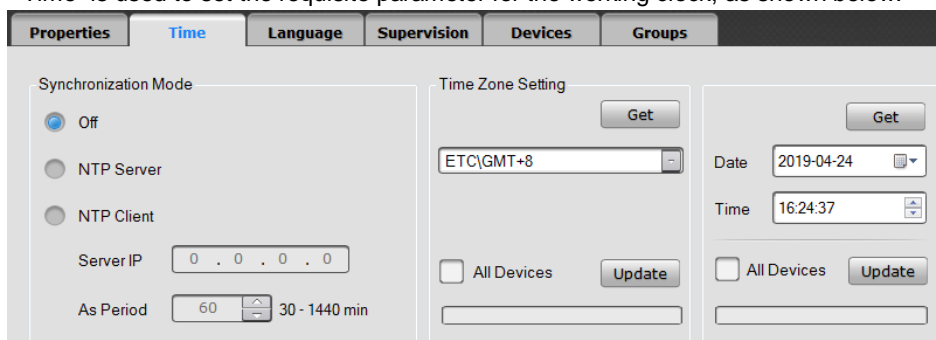
Basic Setting includes device ID, device name, priority of emergency button, pre-signal, end-signal, voice detection and period, line output, multicast channels, first multicast IP, standby time, etc.

- Device ID is the only device identification in the system, which is in the range of 5000~6000.
- Device name is to identify devices.
- The emergency button can be enabled or disabled. Select the check box to enable emergency button, if it is enabled, the priority of manual emergency operation can be set. During the manually emergency broadcast on many devices, the device with high priority can cancel the manual emergency mode of the system.
- The Eme. Button Task is used to automatically activate the manual emergency task when the manual emergency button is pressed. First, users need to add this task in task settings, then select it in the dropdown list.
- The pre-signal and end-signal of microphone paging can be set separately, and the default setting is no signal. Only the audio files within 60s in audio library can be displayed in the drop down.
- During the broadcast, device can detect microphone signal. If there is no sound for a period, the broadcast will be stopped automatically. Select the check box of voice detection can enable this function, and the period can be set meanwhile.
- Line output is used to set the signal type, such as disable, monitor signal and output of microphone. The default setting is disabled.
- Multicast channels mean the number of audio channels that can be played at the same time. It can't be edited and only allows 20 channels at most, in which 5 channels are specified to play audio files of USB disk, recording broadcast, voice synthesis, line input signal and microphone paging.

- First multicast IP allows to set the first multicast IP address for the network audio broadcast. Software automatically distribute the address and default is 224.0.6.*. The multicast IP addresses can neither be the same or conflicted with the address of X-SMART.
- Standby time means the time device automatically shut down the screen and get into standby status during which there is not any operation. There are 8 options like 10s, 20s and 30s, etc. can be selected. Default setting is never.
- Picture will be shown in the standby window of X-NPMS. The maximum pixel is 339*40. Click the button  to select the picture.
- AOD Server IP is used to set the X-SMART server IP address when enable the AOD function.
- Enable Buzzer and Enable General Fault are used to set warning and display the system fault status.
- Show Time & Date is used to display current time.
- Delete Temp. Rec. Files and Delete Auto. Rec. Files are used to enable or disable this function button on the interface.
- Extended Key Module Setting
If extended key module X-K4 or X-K8 is used, the type of extend key modules can be chosen from here. Make sure it must be the same with the actual use. Default setting is none.
- Network Setting
Use to set the X-NPMS network parameter. Old IP is the IP address before setting, and New IP is the IP address after setting. For updating the network parameters of the system devices, it shall be connected to computer whose IP should be in the same segment with the old IP of X-NPMS. Click the Update button for setting the IP of X-NPMS, the two IP address would be the same after updating successfully.
The default IP address is 192.168.2.100. If the specified IP address has been forgotten, the default IP address can be obtained from device window.
- Note:** Network parameter is excluded in configuration files. Downloading configuration can't change network configuration. It can be only changed by updating. While operating, please make sure device is connected to the network and the network settings are correct.
- Storage
Storage status is shown at the bottom of widow to help users understand the space that current audio files take up. The maximum available capability is 500MB.
- REC FTP
This function is unavailable now.

2. Time

"Time" is used to set the requisite parameter for the working clock, as shown below:

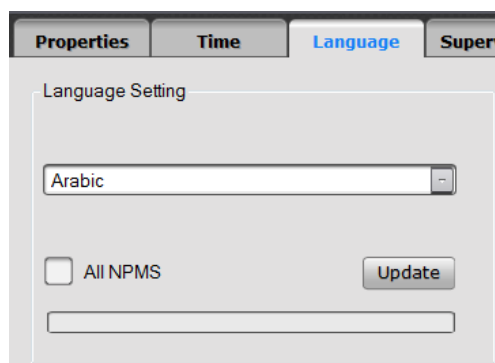


- Synchronization Mode
"Synchronization Mode" is the function to synchronize the time for X-NPMS through NTP protocol. Default setting is off.

- If select NTP Server, X-NPMS will be set as a time server, the all other devices synchronize the time with it. In other words, the all other devices' time would be in conformance with this X-NPMS's.
- If select NTP Client, X-NPMS automatically synchronize the time with time server. And need to set the Server IP address and Period.
- "Time Zone Setting" is used to set time zone of X-NPMS. Choose the time zone of current location, and click "Update" button to change the time zone of X-NPMS, if "All Devices" is selected, click "Update" will change the time zone of all devices. If the device time zone is different from the local time zone, the time and date displayed on device will be wrong.
- "Date & Time Setting" is used to view and manually update the device's date and time. Click "Get" button to read the device's date & date. If only click "Update" button, the time and date of current X-NPMS will be changed. If select "All Devices" and click "Update" button, the time and date of all devices, such as X-DCS2000/EN, X-DCS3000, X-NPMS and X-NRI, will be changed.

3. Language

Users can set the language displayed in X-NPMS interface as follows:



Select the language in the dropdown list and click Update.





Note:

The default language is English and Simplified Chinese. If users want to set other languages, first please open the excel npms_language.xls in the folder translation from the installation directory, then insert a column beside the existed language and translate into your target language. Finally set the language from the dropdown list.

4. Supervision

The supervision of microphone and network communication can be set, which is shown as below:



Select the corresponding check box for the supervision function. The icon  means enabled and  means disabled.

5. Devices

“Devices” is used to set the devices can be operated by X-NPMS. Select DCS for broadcast operation and X-NPMS for full duplex intercom, as shown below:

The screenshot shows the 'Devices' configuration window with two tabs: 'DCS List' and 'Devices for Intercom'.

| ID | DCS Name | IP Address |
|---------------------------------------|-------------|---------------|
| <input checked="" type="checkbox"/> 1 | X-DCS3000 | 192.168.2.200 |
| <input type="checkbox"/> 2 | X-DCS3000 M | 192.168.2.205 |

| ID | Device Name | IP Address |
|-------------------------------|-------------|---------------|
| <input type="checkbox"/> 5001 | X-NPMS V2 M | 192.168.2.203 |
| <input type="checkbox"/> 5002 | X-NPMS V2 L | 192.168.2.204 |

- DCS List

The DCS List displays all the DCS in the system. Check the check box to enable the corresponding DCS can be operated through X-NPMS. And then, another click the selected box to cancel it.

- Devices for Intercom

It displays all the NPMS in the system. Check the checkbox to select the corresponding X-NPMS which need to initiate this function.

6. Groups

Zone groups can be set for X-NPMS through configuration software. Each group can contain many zones. The Groups window is displayed as shown below:

The screenshot shows the 'Groups' configuration window with four panels:

- DCS List:**

| DCS ID | Name |
|--------|-----------|
| 2 | X-DCS3000 |
- Group List:**

| Group Name | Category |
|------------|----------|
| Group 1 | |
- Speaker Line List:**


| Line ID | Line Name |
|---------|-----------|
| 1 | zone 1 |
| 2 | zone 2 |
- Group Contents:**

| DCS ID | Line ID | Line Name |
|--------|---------|-----------|
| 2 | 1 | zone 1 |
| 2 | 2 | zone 2 |

- DCS List & Speaker Line List

After finishing the DCS List setting in the step of Devices, all of the selected DCS would be displayed in the DCS List in this step. Select one DCS, and all zones connected to it would be displayed in the Speaker Line List.


- Group List

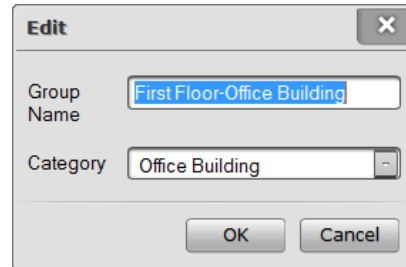
- User has to create a group in the Group List. Click the  icon in the Group List view, the Add window is displayed as below:

The 'Add' dialog box has the following fields and buttons:


- Group Name:** A text input field.
- Category:** A dropdown menu.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

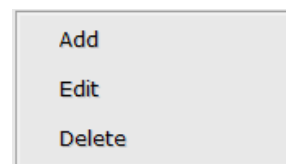
Enter the Group Name, and select the category if it is necessary. The group will be displayed as the subdirectory under the category. Then click OK.

- b. Select one group and click  icon or double-click the list, the Edit window for editing the play list name as needed, is displayed as below:



The 'Edit' dialog box has a title bar with 'Edit' and a close button. It contains two input fields: 'Group Name' with the text 'First Floor-Office Building' and 'Category' with a dropdown menu showing 'Office Building'. At the bottom are 'OK' and 'Cancel' buttons.


- c. Select one or more groups in the Group List, and then click  icon to delete them. Right click in the list for Add Edit and Delete menu also can do the play list addition, edit or deletion operation.



A context menu with three options: 'Add', 'Edit', and 'Delete'.

- Group Contents

Select one group, the all the zones of that group would be displayed in the Zone Detail view. Left click and drag the zones into the Group Detail view. And the zones have been added. If left click and drag the DCS in the DCS List, all the zones belong to that DCS would be added into the Group Detail.

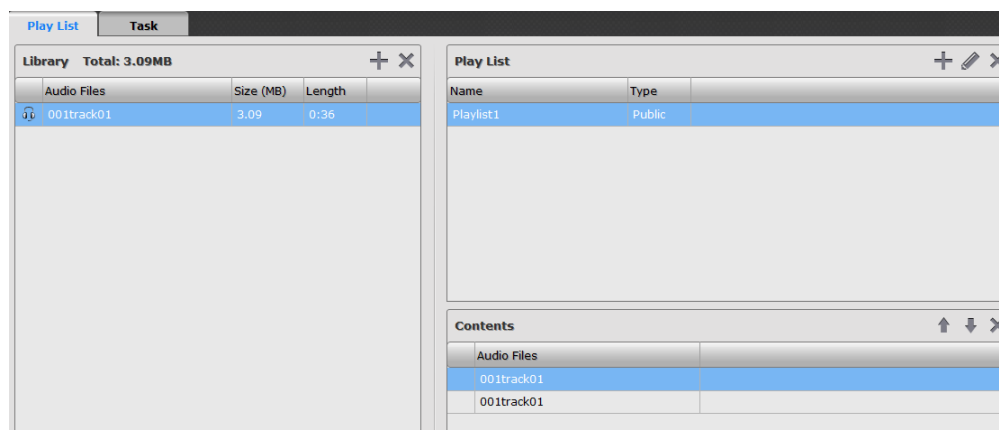
If users want to delete some zones, only need to select the zones and click  icon to delete them.

Task Settings

Task mainly used to set the necessary tasks for the broadcast by the X-NPMS. Each task includes audio source, play policy, zone setting and dry contact to fulfill all the play operations. Task setting includes Play List and Task.

1. Play List

Play List is used to set the audio source and the play lists for the play tasks, as shown below:



The screenshot shows a software interface with two main panels. The left panel is titled 'Play List' and 'Task'. It contains a 'Library' section with a table of audio files. The right panel is titled 'Play List' and contains a table of playlists. Below the playlist table is a 'Contents' section with a table of audio files.

| Audio Files | Size (MB) | Length |
|-------------|-----------|--------|
| 001track01 | 3.09 | 0:36 |

| Name | Type |
|-----------|--------|
| Playlist1 | Public |

| Audio Files |
|-------------|
| 001track01 |
| 001track01 |

- Library

X-NPMS, X-NPMI, NRI would share the audio library with X-DCS2000/EN, X-DCS3000 during configuration. The operation of adding and deleting library is the same as X-DCS3000.



- Play List


After finishing the library setting, the play list can be created, and classified into two types: Public and Private, which are shown as below. Please refer to chapter X-DCS3000 for the operation of add, edit and delete.

- Contents

Select some play list, the all the audio files of that list would be displayed in the Contents view. Left click and drag the audio files in the library into the Contents view, and the audio files have been added in the play list.

The user can reorder the audio files as needed:

- Click  icon to move forward the selected audio file.
- Click  icon to move backward the selected audio file.

Click  icon to delete the selected audio file.

2. Task


Task is used to view, add, modify or delete broadcast task, as shown below:

| Task Name | Type | Audio Source | Priority | Delay | Loop | Resume | Play Full | Busy ... | Output Dry Cont... |
|---------------------|------------|----------------------|----------|-------|------|--------|-----------|----------|--------------------|
| Normal PTT task | Normal | PTT | 200 | | Loop | | | | |
| Recording file task | Normal | Recorded File | 200 | | Loop | | | | |
| USB disk task | Normal | External Files (USB) | 200 | | Loop | | | | |
| Emergency PTT t... | Emergen... | PTT | 10 | | Loop | | | | |

- Task List

The Play List displays all the task name, type, audio source, priority, delay, loop, recovery, play full, busy wait and output dry contacts.

- Add Task

Click the icon  at the top right corner, the add task window will be displayed as below:

Users need to enter task name, select audio type, set broadcast policy, select target and dry contact outputs.

Task function and type can be clarified by the task name.

There are normal and emergency type for the task, which means different priority. The less the value it is, the higher priority it has.

- Normal task means the BGM, business broadcast and voice broadcast, etc., which ranges from 56~255.
- Emergency task means the fire emergency broadcast, which ranges from 1~55.



Audio type includes play list, net audio (e.g. line in of DCS or NRI), line in, microphone, external files and recorded files. The line in here means the line in port of the X-NPMS.



- Play list can be used for voice broadcast, BGM, etc. Users can add audio files in the play list.
- Net audio means the external and internal audio accessed by the NRI and X-DCS3000, which can be selected from the dropdown list.
- Line in means the external audio source can be connected to access the X-NPMS.
- Microphone of X-NPMS can be used for live announcement.
- Users need to configure a task named as external files (USB) in X-NPMS if there is a need to broadcast audio from USB.
- Users need to configure a task named as recorded file in X-NPMS if there is a need to broadcast recorded audio.
- Users need to configure a task named as speech synthetic in X-NPMS if there is a need to broadcast speech synthetic.

Policy is mainly used to set the importance for the task.

- Priority is used to set the priority for broadcast. During the broadcast, the task with higher priority will be first broadcasted among many tasks. The smaller the value is, the higher the priority has.
- Loop is only valid for play list. It shows the broadcast times and ranges from 1~65534.
- Forever is used to set the broadcast non-stop.
- Resume is used to stop playing the task and broadcast other task with higher priority when there are different tasks in one zone. After that, it will continually play the interrupted task. Check the checkbox to enable the function, if not, the interrupted task will not be recovered.

- When the audio type is microphone, users can enable the record function to record during the broadcast by microphone.
- Rep. interval is the interval time of repeats of the playlist, the range is from 0 to 3600s. The task will not be stopped within the interval time.
- Song interval is the interval time between two audio files, the range is from 0 to 3600s. The task will not be stopped within the interval time.

Target is used to select the desired zones for the task. Click the checkbox can select or click the icon  to select all, the icon  is to cancel all.

The item of dry contact outputs is used to select the dry contact output which need to be activated by the task. Click the checkbox can select or click the icon  to select all, the icon  is to cancel all. If the checkbox of "Match speaker lines" is enabled, the dry contact outputs will be activated with following speaker lines. For example, dry contact output 1 will be activated when zone 1 is broadcasting. This function can be used to control the volume controllers on each speaker lines. Here the dry contact output means the zone related output during the broadcast, it cannot control the contact outputs of other device without broadcasting.

There is an "Extend" at the left bottom, which can set some additional attributes used for the third system integration.

Users can click "Description" and add some description for the task, which will be displayed in X-NPMS.


After setting, click "OK" to save.

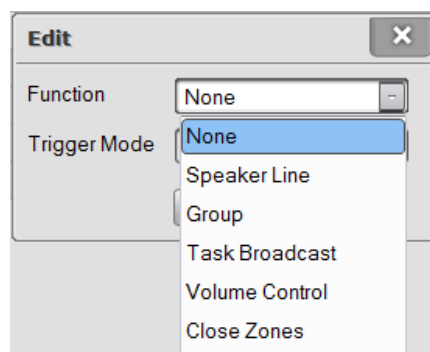
Operation Settings

Operation settings are used to set following contents:

- Key function, trigger mode and content.
- Set the name, function, and trigger mode and content of one-click button of X-NPMS.
- Set manually broadcast function.
- Category, voice segments of speech synthesis.
- Users and permission.

1. Physical Keys

All equipped extend key modules, such as X-K4 or X-K8 will be displayed in key list. Users can double click the item or click  at the option to set function and trigger mode.



Task broadcast, volume control, speaker line, group and close zones can be specified to a key. The default function is none. Two trigger modes can be chosen for task broadcast, such as press and toggle. Only toggle option can be selected for other functions.

- Speaker Line

It is used to select target zone to conduct full broadcast. Users need to set zones if speaker line is selected for function. Enable the front check box to set zones.

The 'Edit' dialog box shows the 'Function' set to 'Speaker Line' and 'Trigger Mode' set to 'Toggle'. Below these are two rows of data:

| | DCS ID | Zone Name |
|-----------------------|--------|-----------|
| <input type="radio"/> | 2 | zone 1 |
| <input type="radio"/> | 2 | zone 2 |

At the bottom are 'OK' and 'Cancel' buttons.

- Group

Click the front check box to select groups, which is shown as below.

The 'Edit' dialog box shows the 'Function' set to 'Group' and 'Trigger Mode' set to 'Toggle'. Below these is a table with one row:

| | Group Name |
|-----------------------|------------|
| <input type="radio"/> | Group 1 |

At the bottom are 'OK' and 'Cancel' buttons.

- Task Broadcast

Toggle or press can be selected in task broadcast function. Toggle means click once to start task and one more click to stop. Press means task is started after pressing, and button should be kept pressing during broadcast. Once release, broadcast is stopped. Choose corresponding task in task name.

The 'Edit' dialog box shows the 'Function' set to 'Task Broadcast' and 'Trigger Mode' set to 'Toggle'. There is a 'Task Name' field at the bottom. At the bottom are 'OK' and 'Cancel' buttons.

- Volume Control

If volume control is selected for the function, users can set volume step and target zone or group. Press the button can increase or reduce the volume.

Edit

Function: Volume Control

Trigger Mode: Toggle

Vol. Step: 1 (-20 ~ 20)

| Zone List | | | Group List |
|-----------------------|--------|-----------|------------|
| | DCS ID | Zone Name | Group Name |
| <input type="radio"/> | 1 | zone 1 | |
| <input type="radio"/> | 1 | zone 2 | |
| <input type="radio"/> | 1 | zone 3 | |
| <input type="radio"/> | 1 | zone 4 | |
| <input type="radio"/> | 1 | zone 5 | |
| <input type="radio"/> | 1 | zone 6 | |
| <input type="radio"/> | 1 | zone 7 | |
| <input type="radio"/> | 1 | zone 8 | |

OK Cancel

- Close Zones

It is used to close the selected zones. Keys can be set to close zones by settings.


Edit

Function: Close Zones

Trigger Mode: Toggle

OK Cancel

2. One-Click Buttons

One-Click buttons correspond the One-Click operation in X-NPMS. Users double click the options in window or click  can set name, function of relevant options.

Edit

Button Name:

Function: None

Trigger Mode: Toggle

Task Name:

OK Cancel

If users select task broadcast as button name. Click trigger mode to choose toggle or press, and choose specific task by clicking task name.

Edit

Button Name: Task 2

Function: Task Broadcast

Trigger Mode: Toggle

Task Name:



OK Cancel

3. Manually Broadcast

The zones and tasks can be set to be controlled by manually broadcast.

| Physical Keys | | One-Click Buttons | | Manually Broadcast | | Speech Synthesis | | Volume Setting | | User Setting | |
|-----------------------------------|--|-------------------|--|--------------------|--|--------------------|--|----------------|--|--------------|--|
| Available Groups or Speaker Lines | | | | | | Available Tasks | | | | | |
| Group & Speaker Line Name | | | | | | Task Name | | | | | |
| X-DCS3000 - zone 3 | | | | | | Emergency PTT task | | | | | |
| Selected Groups or Speaker Lines | | | | | | Selected Tasks | | | | | |
| No. Group & Speaker Line Name | | | | | | No. Task Name | | | | | |
| 1 X-DCS3000 - zone 2 | | | | | | 1 Normal PTT task | | | | | |
| 2 X-DCS3000 - zone 1 | | | | | | | | | | | |

In above two lists, one list shows the zones and groups can be controlled by X-NPMS, another shows the task list can be used in manually broadcast window. Choose zones in left upper window, and left click to drag them to left bottom list. Each zone and group is corresponding to the buttons

in manually broadcast. Click  or  button to adjust their positions. Then choose some or all tasks in the right upper list, keep left clicking and drag them to Selected Tasks.

4. Speech Synthesis




Broadcast operation of speech synthesis can be conducted by X-NPMS. Relevant settings, such as task setting and content setting should be configured before operation. Please refer to the chapter task setting of X-NPMS for setting speech synthesis task. Content settings of speech synthesis are languages, audio files and synthesis.

- Languages

Use to set broadcast language, which is shown as follows:






| Physical Keys | | One-Click Buttons | | Manually Broadcast | | Speech Synthesis | | Volume Setting | | User Setting | |
|---------------------------------|---------|-------------------|--|--------------------|--|------------------|--|----------------|--|--------------|--|
| Languages Audio Files Synthesis | | | | | | | | | | | |
| Languages List | | | | | | | | | | | |
| Ena... | Name | | | | | | | | | | |
| <input type="checkbox"/> | Chinese | | | | | | | | | | |
| <input type="checkbox"/> | English | | | | | | | | | | |
| <input type="checkbox"/> | Spanish | | | | | | | | | | |


Select the check box to enable the language. Click  can add new languages and input names.

Choose a language and click  can delete it. The order of the language in list is also the broadcast order in X-NPMS. Click  and  to adjust the order. In the same system, every X-NPMS can have different languages, but broadcast order is the same.

- Audio Files

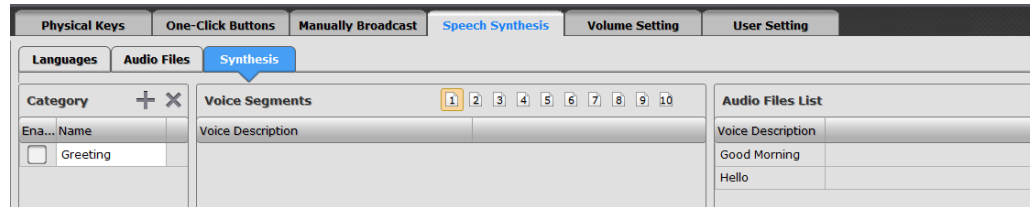
Users can set the basic elements for speech synthesis, which are speech segments. Speech segments, including description and audio files can be added here.



| Physical Keys | | One-Click Buttons | | Manually Broadcast | | Speech Synthesis | | Volume Setting | | User Setting | |
|---------------------------------|---|---|---|--------------------|--|------------------|--|----------------|--|--------------|--|
| Languages Audio Files Synthesis | | | | | | | | | | | |
| Audio Files List | | | | | | | | | | | |
| Voice Description | Chinese | English | Spanish | | | | | | | | |
| Good Morning |  |  |  | | | | | | | | |
| Hello |  |  |  | | | | | | | | |

Voice description means the word contents, which can be input directly and will be displayed in the operation menu of X-NPMS. Click  to select audio files. Every speech segment should include some corresponding audio files, otherwise broadcast may occur error.

- Synthesis


Synthesis rules, category and its corresponding speech included can be set in this window.



Category list shows the all speech types. Click  to add new categories, and click  to delete. Name of category can be input directly. Select the front check box to enable the category in the X-NPMS.

After selecting a category, the voice segments can be set. Each category can include 10 segments at most, and each segment can have up to 255 optional audio files. Users can pick audio files to synthesize a completed sentence. Audio files list displays all the configured files. Users can first choose a category, and select segment number, then click required files and drag to voice segments list.

Note that the segments should be continued and started from 1, otherwise software will display error message when downloading configuration.

Choose one audio file, and click  to delete.

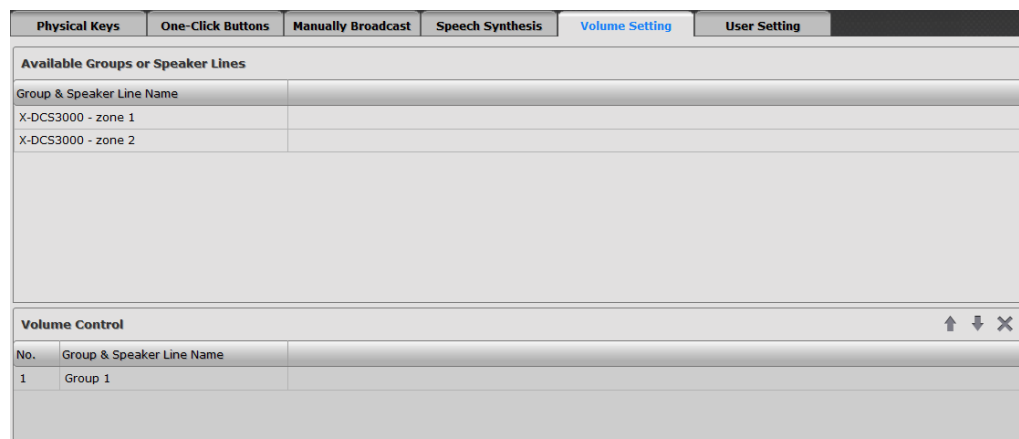


Note:



When there are many X-NPMS devices in system, the relative contents of “Speech Synthesis” such as “Languages”, “Audio Files” and “Speech Category” can be shared at all X-NPMS devices. Users can choose language type and speech category as required. Different languages will be broadcasted according to the sequence in language list when there are multiple languages enabled in speech synthesis.

5. Volume Setting

Volume zones is used to set the zones or groups which volume can be adjusted by X-NPMS.



Available Groups or Speaker Lines displays the groups or zones, of which volume can be adjusted.

Users choose one or more zones, then left click and drag it into below list. Click the icon  and  can adjust the displaying order. Please note that zone volume and group volume will be displayed in two interfaces in X-NPMS.

6. User Setting

Users can set user name, password and operation permissions.

| Physical Keys | | One-Click Buttons | | Manually Broadcast | | Speech Synthesis | | Volume Setting | | User Setting | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------------------|--|--------------------|--|------------------|--|----------------|--|--------------|--|-----------|--|-------|--|-----------|--|--|--|---|--|---|--|---|--|----------------------------------|--|------------------------------|--|--|--|
| <div> <div> <div>User List</div> <div> <div>+</div> <div>✎</div> <div>✕</div> </div> </div> <table> <thead> <tr> <th>User Name</th> <th></th> </tr> </thead> <tbody> <tr> <td>admin</td> <td></td> </tr> </tbody> </table> </div> <div> <div>Operator Permissions</div> <table> <thead> <tr> <th>Functions</th> <th></th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> Manually Broadcast</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> One-Click Broadcast</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Timing Broadcast</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Internal Communication</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Monitor</td> <td></td> </tr> <tr> <td><input type="checkbox"/> AOD</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Adjust Volume</td> <td></td> </tr> </tbody> </table> </div> | | | | | | | | | | | | User Name | | admin | | Functions | | <input checked="" type="checkbox"/> Manually Broadcast | | <input checked="" type="checkbox"/> One-Click Broadcast | | <input type="checkbox"/> Timing Broadcast | | <input type="checkbox"/> Internal Communication | | <input type="checkbox"/> Monitor | | <input type="checkbox"/> AOD | | <input type="checkbox"/> Adjust Volume | |
| User Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| admin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Functions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Manually Broadcast | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> One-Click Broadcast | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Timing Broadcast | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Internal Communication | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Monitor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> AOD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Adjust Volume | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

• User List

Click to add a new user, input name and password. Select one user, click to edit its name and password, click to delete it.

Add

✕

User Name

Password

OK

Cancel

• Operator Permissions

After selecting one user, functions are listed. Functions without permissions won't be displayed.

Choose the check box to enable the permission. Click to select all, and to cancel all.



Note:

If there is only one user configured in X-NPMS whose password is empty, the login screen won't be shown and user can directly enter the main interface. User's permission can be still set through configuration software.

X-NRI Setting

Select the NRI in the Project explorer view, the three available navigation buttons in the top left of the view allows users to configure the following settings:

- Device
 - Properties
 - Supervision
- Task
 - Play List
 - Task
 - Groups

Device Settings

The basic function parameters for the NRI can be set under this tab, such as properties and supervision.

1. Properties

“Properties” is used to set the requisite parameters for the NRI, including Base Setting, Network Setting, Date & Time, Audio Source Setting and Device Status Output, as shown below:

| Basic Setting | |
|---------------|--------------------------|
| Device ID | 7000 (7000 - 8000) |
| Device Name | X-NRI |
| Device Type | X-NRI |
| Storage | Flash |
| Master | <input type="checkbox"/> |

| Network Setting | |
|-----------------|---------------------|
| Old IP | 192 . 168 . 2 . 200 |
| New IP | 192 . 168 . 2 . 202 |
| Subnet Mask | 255 . 255 . 255 . 0 |
| Default Gateway | 192 . 168 . 2 . 1 |

| Audio Source Setting | | | |
|-------------------------------------|-------------------|--------------|-----------------|
| Enable | Source Name | Multicast IP | Audio Source |
| <input checked="" type="checkbox"/> | 1 Auxiliary Input | 224.0.4.1 | Auxiliary Input |
| <input checked="" type="checkbox"/> | 2 Auxiliary Input | 224.0.4.2 | Auxiliary Input |
| <input checked="" type="checkbox"/> | 3 Auxiliary Input | 224.0.4.3 | Auxiliary Input |
| <input checked="" type="checkbox"/> | 4 Auxiliary Input | 224.0.4.4 | Auxiliary Input |
| <input type="checkbox"/> | 5 None | 224.0.4.5 | None |

| Device Status Output(Dry Conta... | |
|-----------------------------------|---------------|
| Ports | Output Signal |
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

- Base Setting

Base Setting includes the Device ID, Device Name, Device Type, Storage and Master. Device ID is the only device identification in the system, which is in the range of 7000~8000. Enter a name to mark the device for the convenience of the user's identification. Storage is used to select the audio files' storage position. The built-in 500MB flash (Max. 96 minutes) and 4GB SD card are selectable. The master setting is used to set the current NRI as a master. If the NRI is set to be a master, the fault status of all the equipment in the same device group will be sent to the master NRI. When the system has any fault, the NRI will send out an acousto-optic warning and the fault relay will open to indicate a fault on the system.

Only one NRI can be set as a master in each device group.

- Network Setting

Used to set the NRI network parameters. Old IP is the IP address before setting, and New IP is the IP address after setting. For updating the network parameters of the system devices, it should be connected to computer whose IP should be in the same segment with the old IP of NRI. Click the Update button for setting the IP of NRI, the two IP address would be the same after updating successfully. The default IP address is 192.168.2.200. If the upload of settings to the devices failed, or if the specified IP address has been forgotten, the default IP address can be obtained by pressing the number button to reset the IP address.

Note: The network parameter is excluded in the configuration files. If there is a problem with the network configuration, the only way to correct it is to update the network. While operating, please make sure the device is connected to the network and the network settings are correct.

- **Date & Time**

"Date & Time" is used to view and manually update the device's date and time. Click on the Get icon to get the device's date & time. Clicking on the update button will synchronize the devices' date and time with the PC. If you check the "conform all devices date and time" it will synchronize all devices on the system with the PC date and time.

- **Used Space**

The storage status bar is shown at the bottom of the screen, which helps users to know the space that current files take up. The maximum space is 500MB.

- **Audio Source Setting**

The Audio Source Setting is mainly used to set the parameters for 5 audio sources which are sent from the NRI to the Network. The setting contents include: enable/disable, source name, multi-case IP and audio source. There are 5 audio sources through an Ethernet network, 4 inputs that can connect to external audio sources, and 1 built-in audio source. The external audio source interfaces have 2 types: auxiliary input and balance input.

Check the check box or not to enable/ disable the audio source.

Set the source name, so the correct audio source can be selected when the play task is set.

Use the drop-down menu to choose Auxiliary input, balance input, and the play list of the NRI.

The interface for the external audio sources need to be consistent with the configuration.



Note:

When the NRI audio source is enabled, the device will broadcast the input audio source to the network continuously, except when the audio source is the emergency broadcast. To avoid a network jam, It is recommended to keep the unused audio sources disabled.

- **Device Status Output**

The general fault status of the system can be sent to a third-party system through the dry contact outputs of the NRI, select a dry contact output port, and set it to be a general fault output in the function list.

| Output Dryport | |
|----------------|----------------------|
| Ports | Function |
| 1 | General Fault Output |
| 2 | General Fault Output |
| 3 | General Fault Output |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

2. Supervision

“Supervision” is used to enable or disable the supervision functions, and the parameter for check as shown below:

The screenshot shows the 'Supervision' tab of a software window. It contains three checkboxes under 'Supervision Options': 'AC Power', 'DC Power', and 'Communication'. Below this is a 'Contact Input Monitoring' section with a table of 17 input ports. Each port has an 'Enable' checkbox and a corresponding 'Input Ports' label.

| Enable | Input Ports |
|--------------------------|-------------|
| <input type="checkbox"/> | Port 01 |
| <input type="checkbox"/> | Port 02 |
| <input type="checkbox"/> | Port 03 |
| <input type="checkbox"/> | Port 04 |
| <input type="checkbox"/> | Port 05 |
| <input type="checkbox"/> | Port 06 |
| <input type="checkbox"/> | Port 07 |
| <input type="checkbox"/> | Port 08 |
| <input type="checkbox"/> | Port 09 |
| <input type="checkbox"/> | Port 10 |
| <input type="checkbox"/> | Port 11 |
| <input type="checkbox"/> | Port 12 |
| <input type="checkbox"/> | Port 13 |
| <input type="checkbox"/> | Port 14 |
| <input type="checkbox"/> | Port 15 |
| <input type="checkbox"/> | Port 16 |
| <input type="checkbox"/> | Port 17 |

Through the software, users can enable or disable fault supervisions for the AC power, DC power, and Communication. To enable check the check box, to disable uncheck the check box.

Task Settings

Task setting is used to set the NRI play list.

1. Play List

Use to set the audio resource, including library, play list and contents.

The screenshot shows the 'Play List' tab of a software window. It is divided into two main sections: 'Library' and 'Play List'. The 'Library' section shows a table of audio files with columns for Name, Size (MB), and Length. The 'Play List' section shows a table with columns for Name and Type. Below the 'Play List' table is a 'Contents' section with a table of audio files.

| Name | Size (MB) | Length |
|------------|-----------|--------|
| crizeWorld | 17.96 | 3:33 |
| end-chime | 0.39 | 0:04 |
| pre-chime | 0.45 | 0:05 |

| Name | Type |
|--------|---------|
| LIST 1 | Private |
| LIST 2 | Private |

| Audio Files |
|-------------|
| crizeWorld |
| end-chime |

- Library

The NPM and the NRI share the library with the DCS, the way to add and delete is the same as operation on DCS.



- Play List


The ways and means for setting are almost as the same as DCS's, except that the play list type has to be Private always.

- Contents

Select some play list, the all the audio files of that list would be displayed in the Contents view. Left click and drag the audio files in the library into the Contents view, and the audio files have been added in the play list.




The user can reorder the audio files as needed:


- Click  icon to move forward the selected audio file.
- Click  icon to move backward the selected audio file.

Click  icon to delete the selected audio file.

2. Task

The task types include: Evacuation, Alert and Telephone, as shown below:

| Task List | | | | | | | | |
|---|------------|-------------------------|--------------------|----------|-------|------|-----------|--|
| Task Name | Type | Audio Source | Output Dry Cont... | Priority | Delay | Loop | Play Full | |
|  Alarm | Evacuation | NRI1 - Alarm, 4 | 1,2,3,4,5,6,7,8 | 10 | | Loop | | |
|  Alert | Alert | NRI1 - Alert, 5 | 1,2,3,4,5,6,7,8 | 20 | | Loop | | |
|  Telephone | Telephone | NRI1 - Auxiliary Inp... | 1,2,3,4,5,6,7,8 | 200 | | Loop | | |


Click the  icon to display the add window.

Add

×

Task Name

Type

 Evacuation

Audio Type

☒ Play List

(Public playlists in all DCS)

☐ NetAudio

(Current NRI net audio)

Policy

Delay

0

(0 - 600 sec.)

Priority

10

(1 - 55)

Loop

1

☒ Forever

☐ Busy Wait

☐ Resume

☐ Play Full

Dry Contact List (DCS)

☒ Match Zones

| Dry Contact Output | |
|---------------------------------|--|
| <input type="checkbox"/> Port 1 | |
| <input type="checkbox"/> Port 2 | |
| <input type="checkbox"/> Port 3 | |
| <input type="checkbox"/> Port 4 | |
| <input type="checkbox"/> Port 5 | |
| <input type="checkbox"/> Port 6 | |
| <input type="checkbox"/> Port 7 | |
| <input type="checkbox"/> Port 8 | |

OK

Cancel

The ways and means for setting are analogous to DCS, except the following contents:

The task types include: Evacuation, Alert and Telephone. For Evacuation task and Alert task, the play list (DCS inner audio source) and the Net audio (NRI audio source) can be selected; for Telephone task, only the external audio source of the NRI can be selected.

3. Groups

Zone groups can be set for X-NRI through configuration software. Each group can contain many zones. The Groups window is displayed as shown below:

The Groups window displays the following data:

| DCS ID | Name |
|--------|-------------|
| 1 | X-DCS3000 |
| 2 | X-DCS3000 M |

| Line ID | Line Name |
|---------|-----------|
| 1 | zone 1 |
| 2 | zone 2 |
| 3 | zone 3 |


| Phone No. | Remark |
|-----------|---------|
| 1 | Group 1 |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |

| DCS ID | Line ID | Line Name |
|--------|---------|-----------|
| 1 | 1 | zone 1 |
| 1 | 2 | zone 2 |

- DCS List & Speaker Line List

After finishing the DCS List setting in the step of Devices, all of the selected DCS would be displayed in the DCS List in this step. Select one DCS, and all zones connected to it would be displayed in the Speaker Line List.


- Group List

- User has to create a group in the Group List. Click the  icon in the Group List view, the Add window is displayed as below:

The Add window contains the following fields:


- Group Name:
- Category:
- Buttons: OK, Cancel

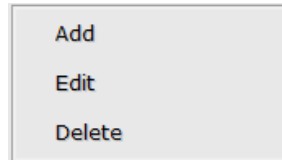
Enter the Group Name, and select the category if it is necessary. The group will be displayed as the subdirectory under the category. Then click OK.

- Select one group and click  icon or double-click the list, the Edit window for editing the play list name as needed, is displayed as below:

The Edit window contains the following fields:


- Group Name:
- Category:
- Buttons: OK, Cancel

- Select one or more groups in the Group List, and then click  icon to delete them. Right click in the list for Add Edit and Delete menu also can do the play list addition, edit or deletion operation.



- Group Contents

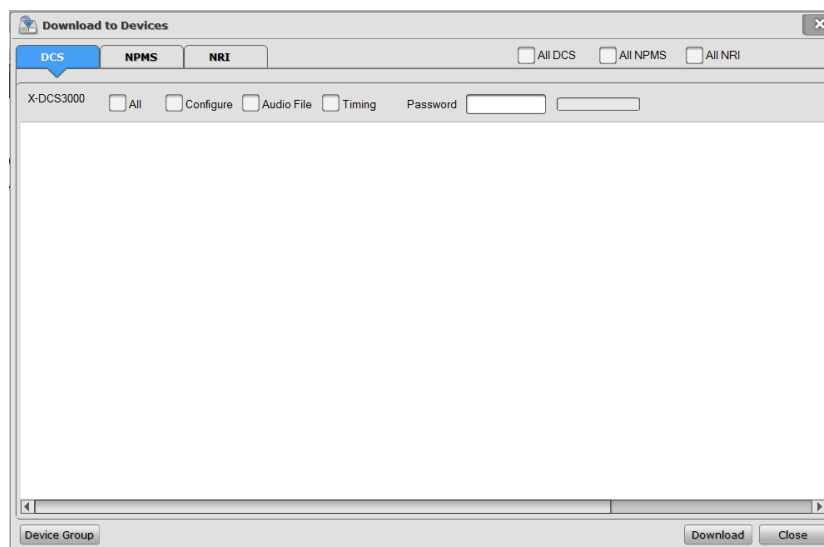
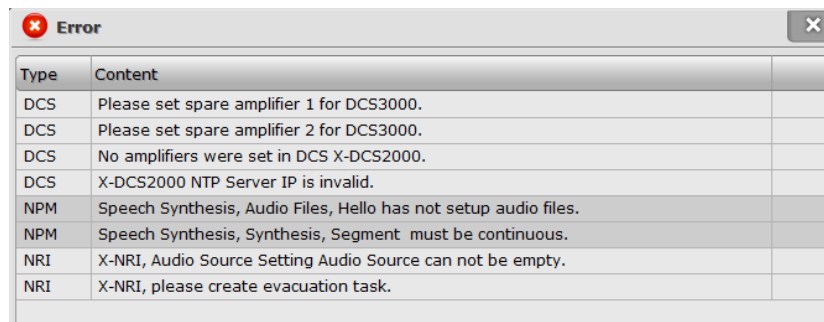
Select one group, the all the zones of that group would be displayed in the Zone Detail view. Left click and drag the zones into the Group Detail view. And the zones have been added. If left click and drag the DCS in the DCS List, all the zones belong to that DCS would be added into the Group Detail.

If users want to delete some zones, only need to select the zones and click  icon to delete them.

Download Setting

Please confirm all the configuration items have been set before downloading the settings, confirm the PC has been connected to the X-618 system through an Ethernet network and the IP address of PC and devices is set to be in the same segment.

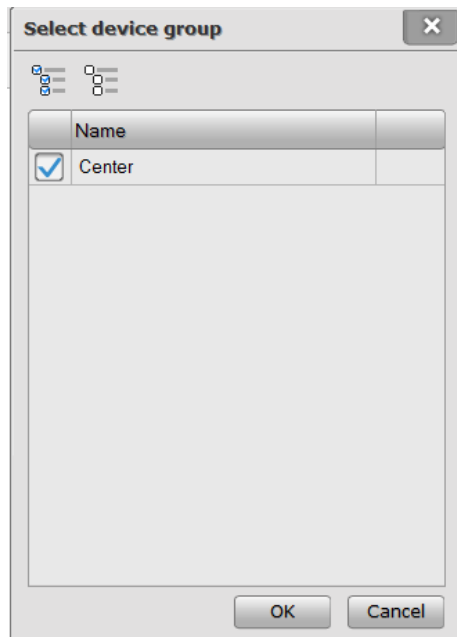
By clicking the download button, the software will check the configuration contents automatically. If any errors exist, the Error window will display all the errors.





The DCS, NPMS, and NRI are located in separate tabs for convenient downloading.

Checking ALL will select all devices in the corresponding screen.

When there are many device groups, click the device group button in the bottom left to select the groups that need a download configuration.



Select the check box or click on the  icon to choose all devices. Clicking the  icon will cancel all. Click OK to save the settings and close the window.

Click the Download button to download the data through an Ethernet network. If a DCS's configuration file has been selected for download, the whole project's configuration file (not including the audio file) will be downloaded to the corresponding DCS automatically. The device progress bar indicates upload status.



Note:

If the data cannot be uploaded normally, the user can correct the errors as following:

Check the connection between the PC and device.

Check the IP address setting of the PC and devices.

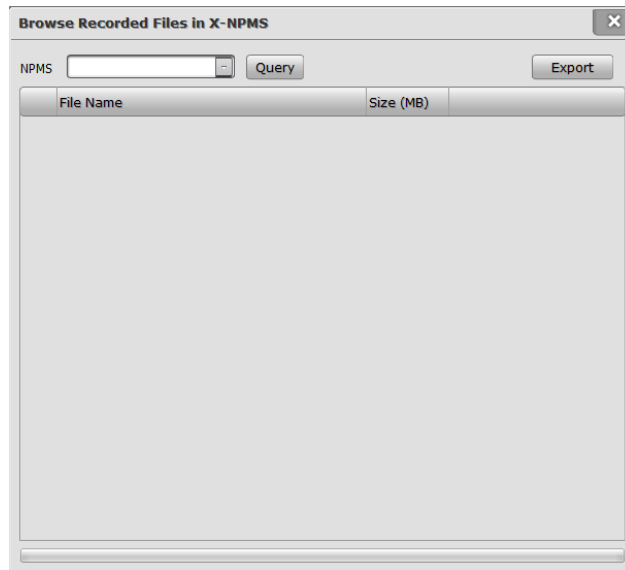
Make sure the PC's firewall is not blocking the software.


5 Additional Functions

This section describes special functions and operations of the X-618 Config software, such as Browse Record Files, Upgrade firmware, Export Device List, Download Project File and Select Language. This software also provides the function that the software language can be customized as needed.

Browse Recorded Files in X-NPMS

Click the software menu "Tools --- > Browse Recorded Files in X-NPMS", the window is displayed as shown below:

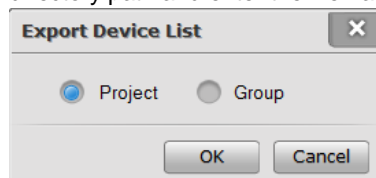


Select the X-NPMS device in the drop down, and click the query button, then all the record files in the device are shown. Click the icon  to play the record. Select recorded files and then click the export button to save the recorded files to the local disk.

Export Device List

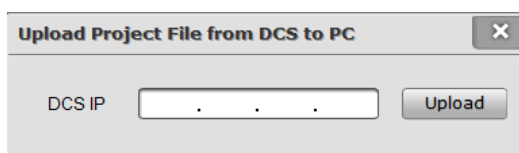
This software provides device list exporting function. It supports that the all devices' data, including device type and quantity, configured in the project file, can be exported to a *.xls form sheet file, according to a prescribed list form.

Click software menu: "Tools --- > Export Device List", the Save window is displayed. Select the directory path and enter the file name, and then click the "Save" button to export a device list.



Upload Project File from DCS to PC

Each DCS will automatically saves all configuration files of the system, audio files are excluded. The user is able to upload project files from any DCS through the configuration software. Click software menu: "Tools --- > Upload Project File from DCS to PC", the following window will be displayed:



Enter the IP address of any DCS, and click upload. The configuration files (with audio files excluded) will be uploaded.

Virtual Console

Use to query device working status of a certain IP to make it convenient for commissioning.

| Zone No. | Status |
|----------|--------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |

| Amp. No. | Status |
|----------|--------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

Browse Log in X-DCS3000

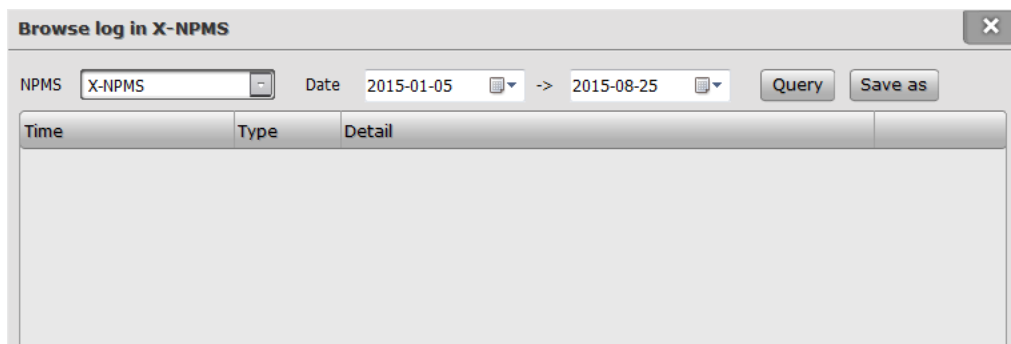
The X-DCS3000 log can be queried through this software. Click the menu: "Tools --- >Browse Log in X-DCS3000", the following window is displayed:

| Time | Type | Detail | Source | Module |
|------|------|--------|--------|--------|
|------|------|--------|--------|--------|

Functions include "DCS", "date", "query" and "save as" button. Only the X-DCS3000 can be selected in the DCS list. When query a log, first select name of DCS, and set the start date and end date. Click query and log contents will be displayed. For more contents, drag the slide bar to review. If there is a need to save logs in local place, click "save as" button, and select the saving path in window, input a name to save as txt version.

Browse log in X-NPMS

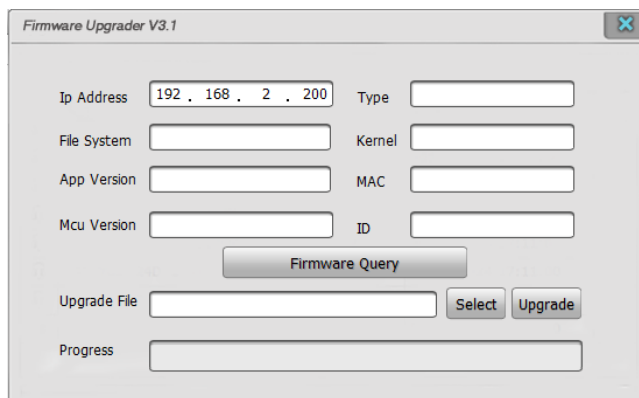
X-NPMS log can be queried through this software. Click software menu: “Tools --- > Browse Log in X-NPMS”, the following window is displayed:



Functions include “X-NPMS”, “date”, “query” and “save as” button. To query a log, select the name of the X-NPMS, and set the start date and the end date. Click query and the log contents will be displayed. For more contents, drag the slide bar to review. Clicking the “save as” button will save the logs in local position, and select the saving path in window, input a name to save as text file.

Upgrade DCS/NRI/X-NPMS Firmware

The DCS, NRI, and X-NPMS can be upgraded through the following steps: Click software menu: “Tools--- >Upgrade DCS/NRI/X-NPMS Firmware”, the following window is displayed:



A firmware query will display the software version along with the IP address, device type, file system version, kernel version, app version, MAC address, MCU version and device ID.

To upgrade the firmware click select, select the object program file (*.bin format) and click the upgrade button.

Select Language

This software supports multiple languages.

Click software menu: “Tools--- >Select Language”, the following window is shown:



The users are able to select the language from the drop-down menu, and click OK to change the UI language.

The software only provides 2 default language options: Simplified Chinese and English. Additional language options can be added, for details see the following

Adding New Languages

To add new languages, do the following:

- Open the **language_cfg.xls** file in the installation directory of the software. The language file contents are shown as below:

| A | B | C | D | E | F |
|---------------------|--------|----------------|--------------------|---|---|
| Objects | Remark | English | Simplified Chinese | | |
| X618 Main Form | | | | | |
| MAIN_TITLE | | Configuration | 配置软件 | | |
| MAIN_PROJECT_NAME | | Project Name | 项目名称 | | |
| MAIN_PROJECT_FOLDER | | Project Folder | 项目目录 | | |
| MAIN_DEVICE_GROUP | | Device Group | 设备组 | | |
| MAIN_BT_DEVICE | | Device | 设备配置 | | |
| MAIN_BT_TASK | | Task | 任务配置 | | |

- To add a new language in column E, delete the column of the language, and then save the file.
- Restart the Configuration software. The new language is displayed in the language dropdown list.



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