



Description

The PA system management and control software is installed in the network broadcast control center or computer. It is a comprehensive management platform for PA system data exchange, system operation and functional operation. It integrates core technologies such as artificial intelligence, big data visualization, audio and video processing, electroacoustic design, and network technology to create a domestic broadcast system with AI intelligence, Hi-Fi sound quality, low latency and high reliability.

Features

- *The platform is the operating core of the entire system. It uniformly manages all audio terminals in the system, including voice control consoles, intercom terminals, broadcast terminals and fire interface equipment, and displays the IP address, online status, task status, volume and other operating status of the audio terminal in real time.
- *It supports the operation of each audio terminal, is responsible for audio stream transmission management, responds to playback requests from each audio terminal and audio full-duplex exchange, supports B/S architecture, and can perform terminal management, user management, program playback management, audio file management, recording storage, internal communication scheduling and processing and other functions through web login.
- *Provide full-duplex voice data exchange, respond to calls and talk requests from each intercom terminal, support one-key calling, one-key intercom, one-key help, one-key alarm and other talk modes, support automatic answering, manual answering, and support customized answering prompt tone.
- *Manage program library resources, provide scheduled playback and real-time on-demand media services for all audio terminals, respond to program playback requests from each terminal, and provide data interface services for each audio workstation.
- *It runs as a background system service, which is an enterprise-level standard server working mode. The system can run automatically when it is turned on. It has higher stability and reliability than software running in the foreground of the interface.
- *The system is compatible with routers, switches, bridge gateways, Modems, Internet, 3G, 4G, 5G and other network structures.
- *deployment on LINUX operating system based on ARM architecture .
- *There are multiple login methods in the background, including account password, PIN code, pattern password, you can set a limit on the number of incorrect login attempts, and you can customize the lock time.
- *The platform supports the creation of new users and the management of their permissions, including terminal and group permissions; supports advanced task priorities and role permission allocation; and supports disabling or enabling users. It supports account management operations for users and supports one-click control of management operations.
- *Supports multi-user, multi-level, specified permissions, specified functions, and specified terminals to classify the background management. Supports multi-user, any level of sub-control management to achieve remote program playback management.
- *Supports unified management of terminal login passwords, multi-level priority management, and easy automatic authorization. Supports customization of task priority, terminal priority, and user priority.
- *The terminal can be adjusted with 10 bands of equalizer in the background, which can be saved as a template for easy selection and applied to other terminals.
- *Supports terminal customized area division, realizes real-time terminal status area management, and supports playback and speech in any area.
- *It supports real-time monitoring of the online/offline status and occupancy status of the terminal, and real-time management of the terminal volume and current tasks. It can also customize terminal partitions and manage terminal status by area, which is convenient and intuitive.
- *Supports visual dynamic effect display, allowing users to view dynamic effects through an intuitive graphical interface.



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- *It has electronic map and online map functions, and can deploy terminals on the map. Terminal status can be viewed in real time on the map, and device status can be displayed in real time. It supports GIS map function and one-click broadcast.
- *Supports setting different lighting modes for the terminal, and can customize the red light on, red light off, green light/blue light on, green light/blue light off time 0-10S.
- *Supports external power management of audio terminals, supports timed opening and delayed closing; supports lighting control function and can configure lighting mode.
- *Supports setting time display configuration for the terminal, can set 1-6 levels of brightness value, can set the mode of not displaying time after disconnection, etc.
- *It supports remote control configuration function, you can check the remote control list, remote control tasks, remote control microphone tasks, support configuration of 20 button tasks, you can configure task volume, priority, mixing configuration, playback source information, the playback source supports the selection of microphone, quick sound source, and music playback.
- *It supports the terminal details export function and supports exporting the configuration details of the current system terminal in table format, which brings convenience to system management.
- *Supports background skin changing function, you can freely switch skin themes according to your preferences.
- *It has multi-language function and supports one-click switching of multiple languages. It supports switching between eight languages including Simplified Chinese, Traditional Chinese, English, Korean, Portuguese, Spanish, Russian, French and Arabic, and supports the use of languages from different countries.
- *The backend function modules can be customized; the homepage entrance can be freely configured to facilitate the use of high-frequency functions. The interface mode can be customized, including classic mode and simple mode.
- *Any terminal can be set as a monitor to monitor the program content being played by other terminals; it supports broadcasting, intercom, terminal collection, and terminal monitoring for recording.
- *Supports fire linkage for the entire area and each zone, supports fire N±N mode, supports manual alarm and digital alarm. Supports configuration of alarm trigger terminal collection tasks. Supports setting automatic alarm release.
- *Supports multiple call strategies, including no response transfer, busy transfer, power off transfer, support time strategy and transfer strategy customization. Supports setting intercom terminal call strategy, can customize the call time 0-180S or unlimited, can choose whether to answer automatically, support custom selection of incoming call ringtone and waiting ringtone.
- *It has a resource sharing function. Users can customize sharing permissions and can share group management, scheduled ringing, scheduled tasks, scheduled patrols, one-key alarm tasks, cloud broadcast studios, and media libraries. Users with permissions can perform editing collaboration.
- *It supports media file classification and user management, and can configure public/private folders. Private files can be used separately. It supports multi-level folder management and file search functions. It supports program library resource management, and supports music uploading in mainstream audio formats such as MP3, WAV, FLAC, OGG, AAC, OPUS, audio source transcoding, audition, and shared downloading.
- *It has the function of pushing pictures and texts on holidays, and provides users with the option of customizing the picture and text display of their devices, providing a richer and more personalized picture and text push function.
- *Supports the system's recording function and stores recorded data to meet users' needs for long-term storage and management of recorded data.
- *It has 4×100 levels of custom-configured task priorities (server priority, task priority, user priority, terminal priority) to meet the automatic scheduling of various priority tasks.
- *The log records the system operation status, records the system operation and terminal working status in real time, and records every call, conversation and broadcast operation.
- *Supports remote firmware upgrades for terminals, eliminating the need to upgrade locally on the terminal, reducing the workload of maintenance personnel.
- *It has system detection functions for system status (available hard disk, remaining memory, process detection, network detection), terminal status (CPU, memory, load balancing, playback status, sound card status, link crossing point, network packet loss rate, maximum frame interval, audio recognition), and supports one-click report export. (Screenshots of the function interface are provided for verification)
- *Supports viewing today's task list, easily managing all scheduled task information and execution status executed today.
- *It has a system assistant that allows quick viewing of operation manuals, module instructions, task reminders, and feedback.
- *Supports modification of system name/LOGO, which will be displayed uniformly on the three terminals after modification. Supports user-defined display slogans under the technology warehouse mode of the big data panel. The display slogans can be set to static or dynamic forms, for example: "100 days to the college entrance examination".
- *The system has anti-packet loss function and adopts data redundancy encoding and decoding algorithm to achieve smooth audio playback in a network environment with severe packet loss. It can support a packet loss rate of more than 37.5%, providing a highly reliable network audio transmission technology guarantee for the broadcasting system and comprehensively improving the stability and fluency of the audio.
- *Supports multiple sets of scheduled ringing schemes to be activated at the same time. Each set of scheduled ringing scheme supports multiple sets of tasks to be carried out at the same time, and supports one-click activation/deactivation of all schemes.



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- *Supports offline scheduled ringing function, which enables automatic playback of scheduled ringing when the terminal is disconnected from the Internet or power.
- *Scheduled ringing supports cloning of any number of scheduled tasks in the current plan or across plans, task execution and stop control, and scheduled task disabling and enabling functions. It supports one-click plan allocation function, which can realize one-click class adjustment function, supports batch one-click modification of ringing ringtones, and supports hour mode, day mode, week mode, month mode and year mode.
- *Programming of scheduled tasks, support for programming multiple sets of timing schemes, support for selecting any terminal and setting any time; support for scheduled task execution test, setting of repetition cycle. Support for multiple audio source selection for scheduled tasks (music playback, terminal collection).
- *Supports batch modification of the time, volume, and execution terminal of scheduled tasks, and supports batch import and export of scheduled tasks.
- *It supports terminal short-circuit input linkage triggering, and can arbitrarily set the linkage triggering scheme and the number of triggering terminals. The triggering schemes include short-circuit output, music playback, patrol alarm, etc.
- *Supports scheduled patrol function, supports customizing the execution time and repetition cycle of patrol tasks, and can customize the indicator light flashing interval from 0 to 30s.
- *Support setting holidays or special dates to disable all scheduled tasks at the specified time.
- *Users can select a specific terminal device and set a specific time point. The system will automatically perform volume balance adjustment on the selected terminal at that time point. The volume can be set proportionally to enhance the listening experience.
- *It has a timed insertion mode, which allows you to set the execution time range and interval time, and automatically generate ringing tasks in batches without the need to edit them one by one. It is simple and easy.
- *Supports terminal audio collection and playback functions to realize the collection and playback of listening test voice files.
- *It supports configuring a specified terminal to enable the examination mode within a specified time period. In the examination mode, the digital and analog backups can be switched between each other, and the examination mode of all devices can be ended with one click.
- *It has the function of enabling the test mode and supports the configuration of the terminal freezing time. The terminal is prohibited from executing tasks during the period when the terminal is frozen. It is suitable for scenarios such as examinations or rest. In the test mode, the digital and analog backups can be switched with each other. In the event of abnormal network or power outages, the system uses real-time system monitoring and equipment self-checking technology. The delay of the hearing backup switching is less than 0.03 seconds, truly achieving a test hearing backup effect without lag, missing words, or delay.
- *It has a one-key inspection function, supports picking up the sound status of the on-site speakers and transmitting it back to the system, and has audio similarity (DTW) detection technology, which can automatically compare the returned data with the task playback data terminal by terminal, and output the comparison results as a report, which is convenient and fast for operation and maintenance, ensuring normal on-site audio playback.
- *It has the functions of importing/exporting terminal lists, importing/exporting scheduled ringing, automatic terminal online, manual terminal addition and use, and batch volume editing.
- *It supports abnormal power off/network disconnection monitoring of the terminal. The background can display the abnormal status of the terminal, and can also display the device operation status, terminal resource utilization, external device status, and local on-demand status of the device.
- *Supports selecting the audiobook mode when setting the bell task and the timer task. In this mode, users can choose to play in a loop or randomly. The audiobook mode has a memory function, which can remember the progress of the last playback and continue playing from the last interruption. Allows users to define the last playback progress, timer settings and playback times, and task end time management functions.
- *It has a task recycling bin, which supports placing deleted scheduled ringing or scheduled tasks in this module, and can realize one-click recovery/deletion operations.
- *Supports terminal volume balance adjustment, and can customize the execution time and execution terminal. The system will automatically adjust the volume proportionally for the selected terminal at that time.
- *Support terminal anti-disassembly alarm, terminal disassembly trigger alarm or other terminal linkage trigger alarm; support alarm task automatic alarm release function.
- *It supports access to 6-channel video surveillance signals, and users can view the live images of the surveillance points bound to the device in real time. In addition, the platform also has the function of broadcasting to the broadcasting equipment associated with specific surveillance equipment, and provides monitoring functions including motion detection, cross-border detection, regional intrusion detection, target entry area, target exit area, occlusion alarm and wandering behavior detection, and can automatically trigger the preset audio alarm to achieve real-time alarm.
- *Built-in TTS text-to-speech function, supports text-to-speech, can adjust the speaking speed from 1 to 10, number of loops, select voice package, support uploading/downloading audio files and viewing TTS conversion logs.
- *Supports prompt tone for broadcast receivers. When the broadcast receiver responds to a broadcast task, a "ding dong" prompt tone is added.



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- *Supports extended telephone broadcasting function. Through the IP network telephone interface, it can access external telephones or program-controlled switches to realize the functions of telephone-initiated full-area broadcasting, zone broadcasting, and terminal intercom.
- *It supports docking with a high-precision GPS-based timing system, and can independently broadcast system timing without the Internet, making the system time error less than 1/300,000 second per year.
- *Supports the function of automatically hanging up after broadcasting timeout and automatically hanging up after intercom timeout. After setting, the task will be automatically ended at the specified time.
- *It has digital mixing function, supports task-defined mixing configuration, supports setting mixing configuration for broadcast/intercom/terminal on-demand tasks at each end. It supports configuration options for microphone foreground sound and background sound, and allows users to adjust the volume intensity of background sound.