



## Description

It is a comprehensive management system applied to classroom audiovisual and lighting services. The system fundamentally changes the traditional control mode of classroom equipment and builds an intelligent and collaborative teaching environment.

## Feature

- \* Support account protection function. If no operation is performed on the web side for a long time, it will automatically log out to protect account security.
- \* Support multi-level management mode, support different users to log in for management, and support administrators to assign permissions to enable different users to control different classrooms. Administrators can modify basic information such as account number, username, gender, etc., and support the password remembering function.
- \* The platform software controls classroom terminals and peripheral equipment to realize functions such as audio broadcasting, video push, live video, teacher attendance, classroom management, classroom inspection, platform resources, power consumption statistics, and environmental monitoring.
- \* The system adopts B/S architecture and C/S architecture, and supports 8 control terminals including teacher web terminal, admin web terminal, Android APP, Apple APP, control panel, H5, WeChat applet, DingTalk applet, and more, realizing multi-channel interaction, unified and convenient operation, and real-time status synchronization.
- \* The system supports connecting with high-precision GPS-based timing systems, and can independently perform broadcast system timing services without the Internet, making the system time error less than 1/300,000 of a second per year.
- \* The system supports global display of server time.
- \* Provide full-duplex voice data exchange, respond to calls and call requests from various intercom terminals, support call modes such as one-key call, one-key intercom, one-key help, one-key alarm, support auto answering, manual answering, and support custom answering tone.
- \* Support the task prompt function. When the system is executing audio broadcast, video broadcast, educational affairs announcement, and scheduled tasks, it will prompt that the task exists and give a prompt for the number of tasks. At the same time, when there are audio broadcasting and video broadcasting tasks, there is a floating window globally in the background, and the task can be controlled at any time.



- \* Support viewing the current video/live push task status, and can cancel task playback, control playback progress, adjust volume, etc.
- \* Support viewing the current audio broadcast task, and can delete and stop the current task.
- \* Support viewing media files and previewing/listening to video broadcast task materials.
- \* Support account memory function, you can switch accounts freely to log in, and can switch between 3 accounts at the same time; support automatic logout if no operation is performed for a long time to prevent password loss.
- \* Support administrators to reset ordinary user passwords, and users to change passwords after logging in for the first time to ensure account and password security.
- \* Support an overview of the number of all terminals in the classroom, including the total number, the number of online terminals, and the number of offline terminals.
- \* Support viewing all 6 scheduled tasks that are currently not executed according to audio, video, and scene.
- \* Support viewing the 6 immediate tasks currently being executed according to audio and video.
- \* Support viewing the on/off status and quantity of classroom computers, lights, air conditioners, and projection equipment.
- \* Support viewing the ranking of classroom power consumption according to the time dimensions of yesterday, this week, and this month.
- \* Support quick entrance to jump to classroom control management, scheduled scene tasks, scheduled video broadcasts, recording and broadcasting terminal configuration pages, and customized quick entrances.
- \* Support viewing secondary pages of historical operations and jumping quickly.
- \* Support viewing classrooms with permissions and controlling the classroom's audio, video sources, projectors, curtains, recording and broadcasting, ceiling mics and other equipment. Support control scene mode, supports viewing device status, supports remote control of classroom computer equipment with ops computers, checks host status, supports batch restart of central control host, and realizes remote operation and maintenance functions.
- \* Support broadcasting to classrooms with permissions.
- \* Support viewing the monitoring screen of classrooms that have permission.
- \* Support one-click muting of authorized classroom microphones and desktop microphones, and adjustment of all-in-one audio sources and remote recording and broadcasting sources.
- \* Support single/batch control of classroom video sources, scene modes, various audio equipment, charging base unlocking, desktop microphone switches and other equipment.
- \* Support batch viewing of the early warning status of classroom terminals, desktop microphones, U-segment microphones and other equipment to prevent terminal high temperature failures and provide anti-lost early warnings.
- \* Support starting and ending voice transcription in batches according to classrooms, and uniformly configuring LED display subtitles to transcribe the classroom lecturer's voice in real time.
- \* Support administrators to configure the front-end device control permissions of each role through centralized control permission management.
- \* Support automatic detection of terminal devices, adapts to various control functions of the terminal, and provides volume adjustment bars and mute options for HDMI, broadcast, microphone, desktop microphone, hanging microphone, intelligent interactive flat panel, and remote recording.
- \* Support management and configuration of parameters of multiple audio modes. The module automatically displays the corresponding audio configuration page according to the functions of the central control terminal device. It also supports editing and enabling the mode.
- \* Support previewing videos and live streaming playback screens, and supports pushing the video to the classroom LED display.
- \* Support uploading (preview/download/delete) personal teaching resources, and support uploading files in all types of formats. Support previewing public teaching resources on campus to implement U disk courseware-free teaching methods.
- \* Support batch configuration, and apply configuration information such as device binding, scene mode, trigger linkage, and startup initialization to other terminals to achieve rapid debugging.
- \* Support remote batch firmware and classroom computer housekeeper client upgrades for terminals.
- \* Support multiple trigger linkage modes. Through triggering methods such as terminal interfaces, sensors, and user IC card, functions such as automatically turning on the projector, automatically adjusting the temperature and humidity of the classroom environment, teachers swiping cards to enter exclusive scenes, and network commands triggering scene modes can be realized, and support real-time viewing of the usage duration of the currently detected device and batch export of duration tables.
- \* Support configuring initial boot commands and customizing terminal boot commands.
- \* Support viewing the terminal name, IP address, device model, serial number, online status, bound classroom, and scene mode, etc. Support searching for devices by filtering the above information.
- \* Support viewing the device information and running status of the terminal's built-in computer, including IP address, on/off status, CPU usage, memory usage, CPU temperature, cumulative boot time, system disk space, MAC address, upgrade logs, etc. Support the control of the built-in computer on/off.
- \* Support remote control of a single terminal to achieve classroom volume control, video switching, scene calling and other functions, support viewing the device status and control logs.
- \* Support viewing classroom monitoring screen, classroom equipment control, computer operating status, teacher class screen and other information on the same interface to grasp detailed classroom dynamics.
- \* Support adding/editing the recording and broadcasting controller, and "pause/continue recording", "end recording", "start recording" on the recording and broadcasting controller and display the recording time. The recording and broadcasting controller supports linkage control.
- \* Support adding/editing mic, obtain mic status, and control on/off mic. The mic supports linkage control.
- \* Support real-time detection of classroom environment temperature and humidity, PM2.5, smoke, door and window opening/closing, and whether there are people.



- \* Support batch management of multiple cloud-controlled classroom terminals to enter the Class begins or Class ends mode; support disabling cloud-controlled classroom terminals to facilitate maintenance by operation and maintenance personnel.
- \* Support classroom inspection function. For classrooms where monitoring equipment is installed, school managers or teachers can access the server background to view the situation in the classroom.
- \* Support configuration of various exclusive scene customization, each scene supports multi-device linkage and multi-independent command combination, and 300+ custom icons.
- \* Support control of classroom audio, video sources, scene modes, projectors, screens, smart blackboards, lights, curtains, computers, power switches and other equipment, and supports viewing device status and control logs.
- \* Support adding (editing/closing/disabling/deleting) scheduled scene tasks. By setting the task execution time and cycle period, the classroom equipment can be scheduled to perform specified scene tasks; support setting the start and end times of the class according to the class schedule to perform tasks; Support intelligent identification of task conflicts and prevention of task conflicts.
- \* Support viewing historical scheduled scene tasks and starting them again with one click.
- \* Support the automatic creation of a terminal list in the cloud-controlled terminal list by plugging in the cloud-controlled classroom terminal network cable, and displays information such as terminal name, terminal IP, device model, serial number, online/offline status, etc. Support filtering and searching for devices through the above information. ;Support deletion/batch deletion of terminals.
- \* Support the simulation of running the programmable control interface project file of the cloud-controlled terminal. The control interface can be flexibly customized, and the equipment can be visually controlled through the engineering interface.
- \* Support automatic generation of control QR codes for scloud-controlled terminals; support export of control QR codes in batches; scans through WeChat or a browser to control with mobile phone.
- \* Support modifying the corresponding terminal control instructions by upgrading the programmable project files of the cloud-controlled terminal.
- \* Support a variety of classroom control panel setting strategies, and uses a combination of card swiping and control panel keys to control the terminal to avoid operations by unrelated personnel.
- \* Support selecting any card reader of the central control terminal for card entry, and can bind it to a user, giving the user the classroom control permissions and validity period of the card; support viewing the card swiping records of the specified card.
- \* Built-in infrared file database, users can configure it for terminal use, or manually add general infrared code instructions, and the terminal device can receive and process the infrared instruction control after learning.
- \* Support upload/download/preview/delete interface project files.
- \* Support docking with Aqara server and adding/configuring Aqara gateway and Aqara sensors, and support Aqara sensor linkage scenarios or control instructions.
- \* Support terminal audiovisual encoding function. With a live video terminal, it can realize the function of video live broadcast in the school.
- \* Support video push function. You can choose video files or video streams to push to designated classrooms in groups; it supports message reminder, preview, forced push and other functions. Supports video push function, you can select video files or video streams to be pushed to designated classrooms in groups, and supports push reminders, push previews, and forced push functions; Support setting up LED display push linkage, which can automatically turn on classroom equipment and automatically switch signal sources while pushing videos to achieve unattended video broadcasting.
- \* Support viewing historical video broadcast tasks and executing them again with one click.
- \* Support new (edit/close/disable/delete) scheduled video broadcast tasks. You can set the task execution time and cycle period to regularly make the classroom equipment perform specified scene tasks; support setting the start and end time of the class according to the class schedule to execute the task. ;Support intelligent identification of task conflicts and prevent task conflicts.
- \* Support viewing historical scheduled video broadcast tasks and starting them again with one click.
- \* Support audio broadcasting function, choose from music library files or upload voice files locally for broadcasting, support list loop, loop playback, shuffle playback and other play modes.
- \* Support pushing audio to each classroom, prompting the classroom whether to perform tasks, and you can choose whether to force the task to be pushed.
- \* Support text broadcast function, input text or upload text files to convert text into speech; the system automatically recognizes Chinese or English text and reads and broadcasts it; support setting the number of cycles; support adjusting the speed of speech for broadcast.
- \* Support viewing historical audio broadcast tasks and executing them again with one click.
- \* Support new (edit/close/disable/delete) scheduled audio broadcast tasks. Broadcast tasks can be executed regularly by setting the task start date, end date, cycle period, priority, and task volume; Support three types of audio source broadcasting: music playback, terminal collection, and sound card collection. Music playback supports multiple selection of music files and setting of loop playback, duration, playback tracks, etc. Terminal collection supports selecting the terminal, setting the end time and collection sound quality for terminal collection and broadcasting. Sound card collection supports selecting the sound card, setting the duration and collection sound quality for sound card collection and broadcasting.
- \* Support the creation of new scheduled ringing task plans, time attributes, and new ringing tasks under the plan. And view the name of the task, execution time, time attributes, type, preview media files/media folders, and audition, When viewing terminal grouping, disabling, editing tasks, deleting tasks, editing/creating ringing tasks, it supports setting task priority, time attributes, audio sources, terminals, etc.



- \* Support creating new holiday mode. When holiday mode is enabled, all scheduled audio broadcast tasks will not be executed during the period. Holiday tasks are allowed to be created, edited, deleted, and deleted in batches.
- \* Support creating/editing/deleting/batch deleting one-click alarm tasks, viewing alarm track files or folders, auditioning alarm tasks, and viewing terminal and classroom groupings.
- \* Support new examination mode strategy, select the time period for examination mode activation and application terminal and classroom grouping.
- \* Support new remote control tasks and remote microphone tasks, view tasks and remote control names, buttons, task volume and priority, view media files and folders, audition remote control tasks, and view terminal and classroom groupings.
- \* Support the terminal audio collection and broadcasting function to realize the collection and broadcasting of listening test voice files.
- \* Support terminal anti-dismantling alarm, terminal disassembly trigger alarm or other terminal linkage trigger alarm; support alarm task to automatically cancel the alarm function.
- \* Support fire linkage in the whole district and partition, support N±N mode of fire protection, and support manual alarm and digital alarm. Support configuring alarms to trigger terminal collection tasks.
- \* Support viewing the terminal's location on the map based on online maps/local pictures.
- \* Support the management of intercom policies, support the creation of new classroom intercom policies, edits policy names and application terminals, and selects intercom transfer modes.
- \* Support the management of alarm policies, create/edit alarm policies, select the alarm terminal and port, and select the classroom execution terminal, view the abnormal status of the current alarm task, and export the alarm configuration.
- \* Support educational publicity function, push pictures, video files, video streams and other information to educational publicity terminals or large screens; support adding multiple pictures or video materials from local files or resource libraries; support drag-and-drop sorting of materials; support setting the material carousel time. Support multiple playback modes such as timed playback, interstitial playback, immediate start, specified time start, and idle playback.
- \* Support adding (filtering/deleting) broadcast terminals, and can bind broadcast terminals to classrooms/spaces; support list viewing of terminal device name, IP address, device model, bound classroom, online and offline information, etc.
- \* Support viewing, creating, and exporting broadcast terminals, batch editing of volume, and the ability to jump to classrooms to bind broadcast terminals in batches. Support list viewing of terminal device names, IP addresses, device models, and other information.
- \* Support adding (editing/deleting) academic affairs publicity and distribution terminals, obtaining the online/offline status of the terminal, and setting the screen saver image of the terminal (the display content when there are no tasks) through local file upload and resource library file selection. Support setting date and weather to be displayed on screensaver.
- \* Support video broadcast push mode setting, you can choose full video push mode (video upload and transcoding speed is faster) and video and audio mixed push mode (enable terminals that cannot decode video files to play the sound in the video)
- \* Support turning on and off the test mode. When the start mode is turned on, the broadcast can continue to be used normally after the broadcast is disconnected. For example, during the listening test, even if the network is disconnected, the broadcast can still be performed normally.
- \* Support video file management function, support uploading files in various video formats such as wmv, mpeg, mpg, avi, mov, ram, mp4, mkv, etc., and perform automatic transcoding, which can be pushed to classroom terminals or large screens as video broadcast materials and educational publicity materials.
- \* Support video stream management function, support adding rtsp, rtmp, flv and other types of stream addresses, which can be pushed to classroom terminals or large screens as video broadcast materials and educational publicity materials.
- \* Support audio file management function, support adding mp3 audio files, support classifying folders according to folders, support downloading/auditing/deleting audio files, and support audio push to classroom terminals as audio broadcasting materials.
- \* Support the teaching resources management function, and support uploading files in various formats such as xls, xlsx, doc, docx, ppt, pptx, pdf, etc. Teachers can view them through the mobile app or web terminal to realize collaborative lesson preparation.
- \* Support viewing the operation guide for instant recording tasks/scheduled recording tasks.
- \* After the classroom recording controller performs recording, it supports viewing the recording task list, viewing the start and end time of the recording corresponding to the classroom, the recording duration, deleting the record or batch deletion, and jumping to view/download the recording file.
- \* Support viewing patrol images according to classrooms and classroom groups. When there are multiple recording and broadcasting cameras, support viewing and switching of the corresponding single-screen images or multi-screen images. Support direction control of cameras with adjustable camera directions, and support custom evaluation and custom label evaluation of the classroom
- \* Support patrol records for on-demand patrol classrooms, and checks the start and end patrol time and duration of the classroom, view classroom inspection evaluations and perform search, reset, delete, and export operations on the feedback list
- \* Support adding, deleting or batch deleting recording and broadcasting controller individually or in batches, checking the online status of recording and broadcasting controller, support operations of editing device names, IPs, binding classrooms, and exporting lists.
- \* Support the power consumption statistics function, support the statistics of the equipment power consumption, equipment dynamics, equipment total power trend, equipment real-time status, equipment usage time and other information in the classroom by day, week, and month, and support exporting details in excel form.
- \* Support the environmental detection function, support the statistics of the temperature trend, humidity trend and PM2.5 trend in the classroom by day, week and month, and support exporting the details in excel form.



- \* Support teacher attendance management function. Each teacher has an IC card, and only needs to swipe the card before class, and the server background will automatically generate attendance records. The user name, card number, role, swiping time, classroom, equipment and other swiping attendance records can be viewed in the background.
- \* Support viewing the total number of fixed assets, total assets, damaged number, lost number, unused number, in-use number, and scrapped number by year in the form of line charts and tables, and the respective percentages can be viewed by day.
- \* Support account management function, you can view and manage information such as username, gender, login account, login password, phone number, role permissions, valid time, login time, and login times; support importing excel sheet to create users in batches, and provide imported templates; support exporting user information in batches. Users can modify their account and basic information such as username and gender.
- \* Support role management function. Administrators assign corresponding permissions by assigning roles to users so that users cannot perform functions higher than their own permissions. The system has administrator, teacher, ordinary user and other roles by default to facilitate user use.
- \* Support the creation of new (filtering/editing/delete/batch import/batch delete) classrooms; support template files for batch import; support display of devices currently bound to the classroom.
- \* Support the creation of new (filtering/editing/delete/batch delete) classroom groups; support the establishment of 2-level group levels; Support adding classrooms to classroom groups and viewing the classroom list; Support selecting table files to import grouping information in batches, and creating a list of groups and their corresponding classrooms at once; Support batch export of classroom groups and their classrooms; provides template files for batch import of tables.
- \* Support the creation of classroom schedules by importing excel table schedules and provides imported templates; Support the creation of class schedules based on class hours, courses, and teacher information; Support exporting classroom schedules and teacher schedules in excel tables; Support searching for class schedules based on teacher or classroom name; Support docking with school classroom schedules, and supports clearing classroom schedules in batches.
- \* Support automatically generating teacher timetables based on classroom timetables;
- \* Support setting class hours based on get out of class time, and tasks can be performed based on class hours.
- \* Support setting courses, and you can filter whether tasks are executed based on whether there are courses or not.
- \* Support the management of monitoring equipment, support viewing the name, model, bound classroom, stream address, activation and deactivation status and other information of the monitoring equipment, and support connecting to third-party monitoring platforms.
- \* Support asset management function: add assets and automatically generate asset QR codes, record information such as requisition, loan, repair, total assets, and damage, and graphically display and export in the form of line charts and tables.
- \* Support statistics on server memory usage, CPU usage, memory space, disk space, etc. Support synchronizing server time.
- \* Support management of the priority of the audio broadcast system, system configuration, view registration information, view, export, clear log information, backup and restore of broadcast database and media library, support password input for firmware upgrade
- \* Support viewing server serial number, remaining service time, upper limit of mobile terminal users, mobile terminal version and other information; support upgrading system service functions through value-added service registration code.
- \* Support configuring DingTalk interface parameters to connect the platform and DingTalk data to achieve DingTalk login and management.
- \* Support APP download QR code settings (login page).
- \* Support manual backup and automatic data backup. The backup time, file size, and backup information of the backup file can be viewed; support scheduled backup according to the execution time or cycle.
- \* Support the recycle bin function, which can perform secondary recycling disposal on deleted resources.