SOFTWARE SPECIFICATION 1/4



Sennheiser Control Cockpit Control Software (Version 4.1.0)

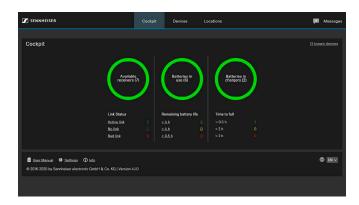
KEY FEATURES

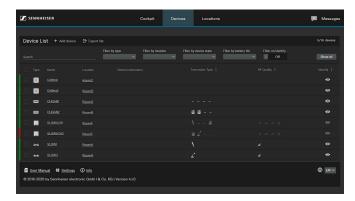
- Global system statistics overview of the system status with key information at a glance
- Easy device identification naming, localization and paging function for all devices
- Status monitoring of all microphones within a network (audio, wireless link quality, battery, network, settings)
- Search and filter functions fast identification and detection of devices and settings
- Device view for seamless management and overview of many devices
- Mixed multi selection of devices of different product families
- Location view for clear overview of big installations
- Monitoring view for high level overview and control about all microphones in one location
- SMS / Email Push Notification on events or system warnings
- Event log Easy tracking of past notifications and alerts
- Responsive Design outstanding usability on any mobile device running iOS, Android or Windows
- Localized in multiple languages
- Seamless software and firmware updates
- Built-in interactive manual with search function for detailed information
- Global password protection and SSL encryption ensure a secure access and data transfer
- Notification profiles with notification and subscription preferences
- Out of range detection for SpeechLine Digital Wireless transmitters with email and SMS notification
- Advanced beam configuration for TeamConnect Ceiling 2

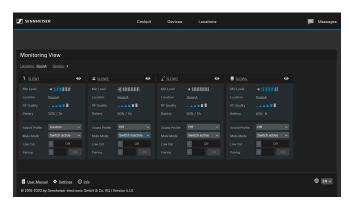
Sennheiser Control Cockpit is the central software for easy handling, control and maintenance of the entire SpeechLine Digital Wireless, evolution wireless G3/G4 and Digital 6000 portfolio as well as the TeamConnect Ceiling 2. The easy-to-use Sennheiser Control Cockpit provides a global overview of all network-enabled devices at all times. It shows all status information at a glance and makes setting adjustments for one or multiple devices at the same time very easy. The locations overview connects the locations of all components to their repective status information, so the user always knows the location and status of a specific device.

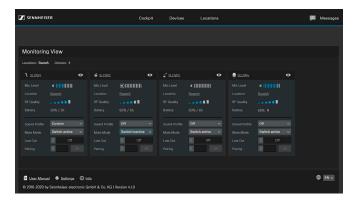
The software is accessible everywhere in the intranet via web browser across all platforms.

As a result, the software allows you to manage even huge setups with hundreds of devices with very low efforts.











download at

www.sennheiser.com/control-cockpit-software



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WORKFLOWS

KEY WORKFLOW AREAS	WORKFLOWS	
SETUP	Language selection via browser setting or language selector	
	Password settings for secured access to Sennheiser Control Cockpit	
	Adding device automatically (discovery via mDNS)	
	Adding device manually via IP address, IP range or listed in CSV file	
	Configure location settings such as location name	
	RF: Multi-Room-Mode Setup	
	RF: Adjust RF power settings	
	RF: Walk test mode to test & verify RF robustness	
	Audio: Choose sound profile or adjust custom EQ	
	Audio: Adjust output level and gain settings	
	Audio Mix: Adjust input level and sensitivity of audio channels	
	Audio: Configure exclusion zones with the beamforming technology	
	Audio: Automatic AEC Reference Input Gain: automatically adjusts Dante input gain according to level and noise floor of far-end audio	
	Network: Configure IP mode and address	
	Network: Configure device discovery mode (mDNS)	
	Notification: Define recipients and way of communication (Email/SMS)	
	Notification: Subscription profiles to type of alerts or notifications, time range and locations of interest	
	Notification: Setup of messaging services for email and SMS distribution via provider	
	Device: LED configuration (color and brightness)	
MONITORING	Device: Access to all information on any devices via the web browser from any location	
	Battery management: Filtering and sorting battery status information such as remaining battery life, time-to-full charge or battery health	
	Searching and filtering for fast access to devices or status information	
	Global dashboard statistics of RF devices and batteries in use, batteries being charged	
	Location based operation: Sortable and searchable location list with device overview	
	Location based operation: Operator's view for easy monitoring and control of relevant key properties during events	
	Status information of live values such as audio, RF, battery and meta information such as name, location and serial information	
	Permanent monitoring of battery status indication while operation and charging	
	Easy identification of devices, locations and status information	
	Software based device list filtering on hardware identification	
	Display of on-screen and push notification or alerts in case of events	
	Email and/or SMS notification (configurable) in case of relevant events or alerts	
	Battery management: Indication of wireless charging process	
	Management and monitoring of SpeechLine Digital Wireless, evolution wireless G3 and G4, Digital 6000 devices as well as TeamConnect Ceiling 2 simultaneously	
	Messages overview as log of alerts, notifications and events with time stamp, device and location flag	
	Search and sort function for messages	
	Monitoring of beam position (horizontal and vertical vector)	
	Customized display of values and status information in the Device List	



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WORKFLOWS

KEY WORKFLOW AREAS	WORKFLOWS	
CONTROL	Two-way device identification via button-press on device or remotely via software	
	Full remote access to all hardware settings via software	
	Single or multi device selection to change common properties	
	Location based Mute: Easy un/muting of transmitter groups within definded locations	
	Remote reset of audio settings	
	Remote reset to device factory defaults	
	Remote device restart trigger	
	Remote trigger of pairing process	
ASSISTANCE	Easy to follow workflow assistance to quickly solve problems	
	Integrated and searchable online manual	
	Contextual advice and assistive information to easily identify and perform assistance	
	Remote trouble shooting (e.g. unmuting a muted mic) instead of walking to every room for inspection	
	On-screen notification in case of events or updates providing contextual support recommendation	
	Email and/or SMS notification in case of relevant (configurable) events or alerts	
	Being informed and notified to prepare before failure instead of fixing when battery runs low	
	Remote initiation of pairing process to prepare a spare microphone in case of empty batteries	
	Integrated demo mode for seamless try-out of software functionality	
MAINTENANCE	Instant notification in case of available updates	
	Seamless update procedures of software and device firmware	
	Batch update of multiple devices at once	
	Service relevant information such as battery health for continuous reliable operation	

SERVER SYSTEM REQUIREMENTS

Recommended for Host PC	Client	
Intel i5 Dual Core processor or similar	Browser:	
• 4 GB RAM	 Google Chrome (latest version) 	
 at least 1 GB hard disk space 	 Mozilla Firefox (latest version) 	
Gigabit LAN interface	 JavaScript must be activated 	
Windows 7 or higher		

PORT REQUIREMENTS

IPv4 network

Port	Protocol	Service	Product
8181	HTTP	Web UI	Control Cockpit
80	HTTP	Control Cockpit update service	Control Cockpit
45	UDP TCP	SSC (Sennheiser Sound Control Protocol)	TeamConnect Ceiling 2
69	UDP	tftp (only temporary during firmware update)	TeamConnect Ceiling 2
5353	UDP	mDNS via Multicast 224.0.0.251	TeamConnect Ceiling 2



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SPECIFICATIONS

Language support	Compatible Sennheiser products	
• English	SpeechLine Digital Wireless	
• German	TeamConnect Ceiling 2	
French	 evolution wireless G3 	
• Spanish	 evolution wireless G4 	
• Chinese	Digital 6000	

ARCHITECT'S SPECIFICATION

A software shall enable the user to set up, control and monitor all components of wireless microphone systems like SpeechLine Digital Wireless, evolution wireless G3 & G4, Digital 6000 as well as the TeamConnect Ceiling 2 ceiling microphone array via a network, thus allowing to manage even large installations with hundreds of devices.

The software shall be installed and running on a server with Windows 7 or higher. The user interface shall be browser-based and shall be accessible across all platforms from any device (e.g. smartphone, tablet, and computer) in the intranet using a web browser. The software shall have a responsive design so that the layout and sizing automatically adapts to any smartphone, tablet or computer screen size. Password protection shall be available in order to protect the system from unauthorized access.

The user interface shall provide a dashboard view that displays the number of available microphone links together with link status information, the number of the devices in use together with battery status information.

The user interface shall feature a device list view, which displays all devices in the network in list form with key information. For easy asset management, each row in the list shall provide detailed device information such as device type and name, location, link activity, last online status, battery health, battery status, charging cycles, firmware version, product family, serial number, and shall feature "Identify", "Pairing" and "Delete" buttons for identifying the paired device within the network, pairing new devices or deleting devices from the network. It shall also feature check boxes for selecting and editing multiple devices of one or several product families at a time. The device list shall feature different filtering possibilities including a live search with instant filtering.

The software shall allow the user to edit audio settings, system settings and network settings of one device or multiple devices at a time. Audio settings shall include at minimum the following functions: Sound Profile selection or EQ setting, Low Cut, audio level indication, XLR audio output level setting, audio beam configuration and Audio Reset. System settings shall include but not be limited to: Firmware Info (with possibility of firmware update and firmware upload), Display Brightness, Mute Switch, Auto Lock, RF Sync, RF Power, Out of Range Detection with email and SMS notification, Walk Test, LED color and brightness configuration and Factory Reset. Network settings shall include at minimum the following: IP Settings.

The user interface shall also feature a locations list view which provides an overview of locations and shows the locations of all devices in the network, the number of devices per room as well as device type information. Via the locations list the user interface shall feature a clearly structured monitoring view for each location, which allows the user to monitor the most important status information of all devices in that location at a glance.

A message and notification system with user-definable notification profiles shall inform the user about relevant updates or critical events, such as battery warnings or newly discovered devices, for designated locations and time ranges. Multiple SMS and/or email recipients shall be configurable.

The software shall be the Sennheiser Control Cockpit.