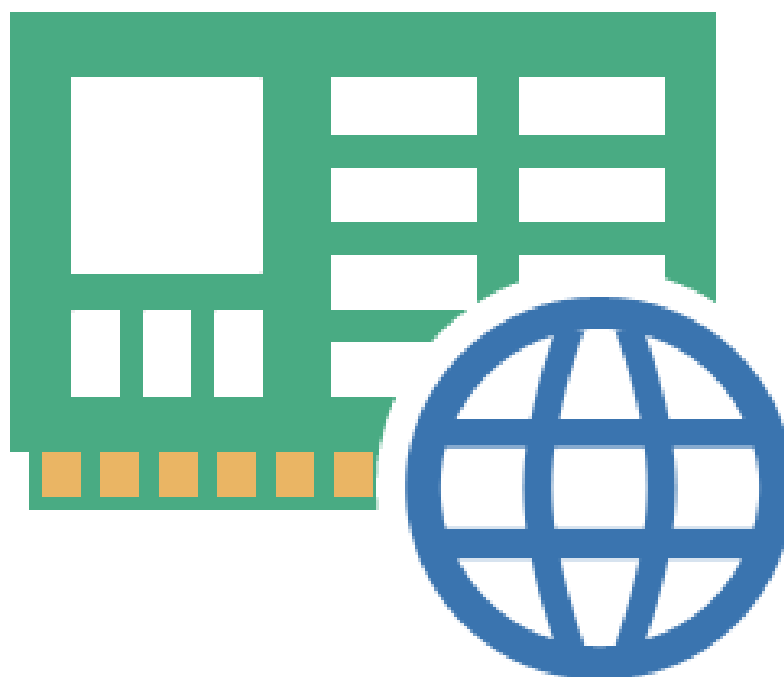


BroadsWord v 7.1

Unified broadcasting system user's manual



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1 Introduction

Artix BroadsWord system has been developed for mass notification of large number of subscribers. The main purpose of the system is to call, fax, SMS or email to everyone from a list and transmit voice, fax, SMS or email message.

1.1 Key features

- **Various line support.** The system supports analog, E1, ISDN PRI, BRI, SS7, SIP and H.323 phone lines.
- **Various equipment support.** The system supports Dialogic, Eicon, Brooktrout and Pika telephony boards.
- **A variety of notification methods.** The system is able to broadcast messages using phones, faxes, SMS and Email.
- **Reliability.** Long testing made the system very reliable to operate for months without restart.
- **Multiusers access.** The system allows simultaneous access for Windows clients.
- **Scalability.** The system is independent on the number of subscribers.
- **Easy to install and configure.** User-friendly interface makes it easy to tune the system according to the requirements.
- **Task management interface.** The system has intuitive mechanisms for task management and monitoring implemented on Windows.
- **Reporting.** A user can prepare various reports, including full report with all subscribers attempts and brief report with subscribers list.
- **Data export.** A user can export completed tasks or subscribers lists to a text or an HTML file with links to image or audio files.
- **Incoming and outgoing calls.** The system can either make outgoing or receive incoming calls and can handle them with flexible algorithms.
- **Lines control.** The system has a variety of methods to control the lines, including asynchronous listening and recording through the sound card.
- **Universal data import.** A user can import data from third-party data sources, including databases and text files.
- **Integrability.** The system can be easily integrated to any billing system using SQL queries.
- **Subscribers grouping.** A user has powerful tools to automate and simplify working with groups of subscribers.
- **Combined messages.** The system has built-in capabilities to create concatenated messages made of primitives that are sufficient for the vast majority of cases without using scripts.
- **Scripts.** The system is able to play simple and complex scenarios for outgoing and incoming calls.
- **Email support.** The system works transparently with any email protocol such as POP3, SMTP, IMAP and Extended MAPI.
- **SMS support.** The system is able to send and receive SMS messages through cell phones, GSM gateways and SMPP servers.
- **Text-to-Speech support.** The system can generate voice messages using text files, based on Microsoft SAPI engines.

1.2 Additional information

Additional information can be obtained from “Artix Line” by phones or emails.

Tel.: +7 (903) 711-6005

Fax: +7 (903) 711-6005

Web: www.artixline.com

2 BroadsWord installation

2.1 Server and client part installation

1) Download distributives (login and password can be obtained from artix@artix.ru)

Server distributives:

Server + client, 32 bit

<ftp://artix.ru/bw32.rar>

Server + client, 64 bit

<ftp://artix.ru/bw64.rar>

Client distributives:

Client only (to install on the remote PC, if needed), 32 bit

<ftp://artix.ru/bwclient32.rar>

Client only (to install on the remote PC, if needed), 64 bit

<ftp://artix.ru/bwclient64.rar>

2) If the server is installed on virtual PC the network must be *bridged*

3) Install 3rd party TTS engines if needed

4) For SIP and H.323 lines:

- Download drivers:

Windows XP/2003:

<http://www.dialogic.com/files/hmp/hmpWindows/hmp30/su361/hmp3.0SU361.zip>

or

Windows7 and higher:

<http://www.dialogic.com/files/hmp/hmpWindows/hmp30/su361/win7win2K8hmp3.0SU361.zip>

- Install drivers, "Core runtime package" is required, others - optional.
- "Program/Dialogic HMP" folder is appeared in the menu.
- Send MAC address to artix@artix.ru and you'll receive Dialogic license file, permanent if bought or temporary.
- Copy Dialogic lic file to:
"c:\Program files\dialogic\hmp\data" for 32 bits OS
or
"c:\Program files (x86)\dialogic\hmp\data" for 64 bits OS
- From Dialogic folder run "HMP license manager", open lic file, activate it, message box will be shown.
- From Dialogic folder run "Configuration Manager (DCM)", select board icon, select menu item "device/restore defaults", select the correct license file.
- In "Configuration Manager (DCM)" in the board properties, "Physical" find its serial and send it to artix@artix.ru.
- Start the board, at the end it should look as started.
- If board is started set select menu item "Settings/System device autostart/Start System" to start Dialogic drivers automatically.

5) Install Artix BroadsWord distributive

6) Copy BroadsWord license file "artix9.lic" to:

"c:\Program files\Artix BroadsWord\License" for 32 bits OS

or

"c:\Program files (x86)\Artix BroadsWord\License " for 64 bits OS

7) "Programs/Artix BroadsWord" folder is appeared.

8) Run "Administrator", login – "Administrator", password "Admin".

9) Installation is completed, start configuring

2.2 Text-To-Speech (TTS) engines installation

If you wish to use TTS for creating audio files from text files, in most cases it is necessary to install third party TTS engines for audio synthesis working with MS SAPI 5.1 and higher.

2.3 First start on the server

2.3.1 Database server selection

- **Internal database.** It could be either built-in Firebird SQL server 2.5 or external Microsoft SQL server 2008 or higher.
- **FB DB password.** “SYSDBA” password (default «masterkey»).
- **Architecture.** FB server architecture.
- **Server address (name).** MS SQL server name or IP address.
- **Transactions location.** MS SQL server transactions location, not used.
- **Isolation level.** MS SQL server isolation level, not used.
- **Authentication.** MS SQL server authentication method.
- **Logion, Password.** Login and password of “sa” user in case of the mixed authentication.

2.4 First start on the client

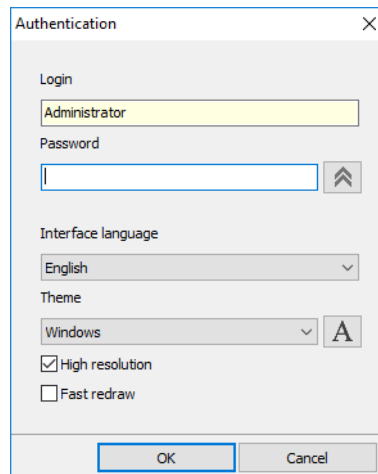
2.4.1 Search of the server

- **Server address (name).** BroadsWord server name or IP address. Call manager must be running on the server.
- **Search.** Tries to connect to the server and if succeeded allows going further.

3 Administrator

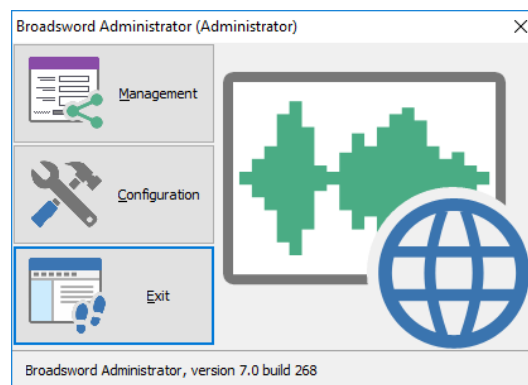
Administrator – server module for BroadsWord configuring and management.

3.1 Authentication



- **Login.** «Administrator» only.
- **Password.** Administrator password, case sensitive.
- **Interface language.** All dialog windows language.
- **Theme.** Program visual style
- **Font.** System font.
- **High resolution.** Monitor is of high dpi and have larger fonts.
- **Fast redraw.** When checked all lists are virtual, fast and no visual grouping.

3.2 Main window



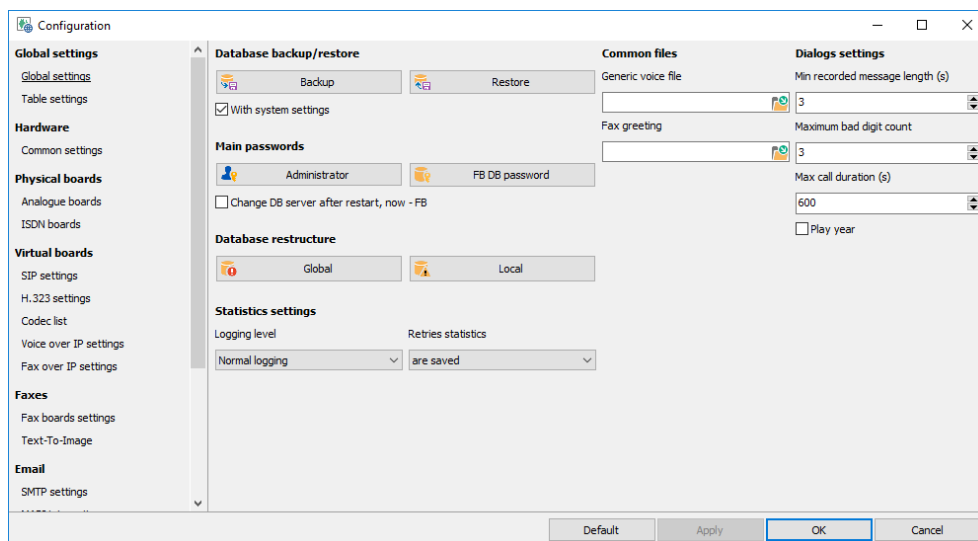
- **Management.** Opens client panels.
- **Configuration.** Opens configuration window.
- **Exit.** Closes the program.

3.3 Configuration

- **Default.** Sets all settings of the current panel to default value.
- **Apply.** Saves settings without closing window.

- **Ok.** Saves settings and closes window.
- **Cancel.** Cancels all changes

3.3.1 Global settings



Database backup/restore

- **Backup.** Back up the database along with user files
- **Restore.** Restores all data from archive including setting is “*with system settings*” is checked.

Main passwords

- **Administrator password.** Built-in *Administrator* password.
- **FB DB password.** Firebird «SYSDBA» account password

Database restructure

- **Global restructure.** Removes and create a new database, all data are lost.
- **Local restructure.** Removes and restores indexes and other data, all data are restored.
- **Change DB server after restart.** After restart the database select window appears.

Statistics settings

- **Logging level.** Affects the log files verbosity of the main log file *callman.log*.
- **Retry statistics.** Turns on/off storing of retry statistics required for preparing and exporting full reports.

Common files

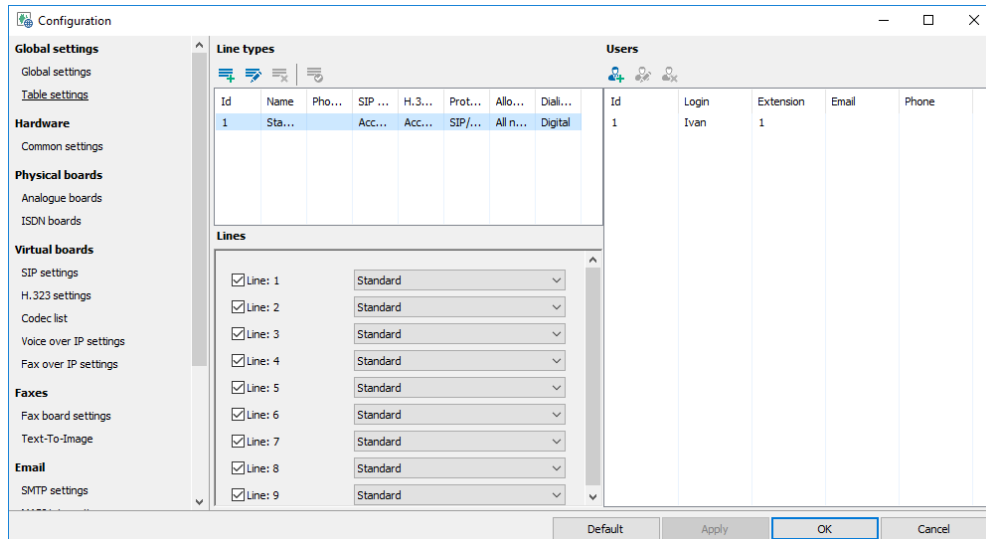
- **Generic voice file.** Specifies the voice file that is played before any voice message.
- **Fax greeting.** Specifies the voice file to play before fax transmission if a human is detected on the line.

Dialog settings

- **Min recorded message length (s).** Minimum allowable length of a recorded message (s).

- **Maximum bad digit count.** Maximum allowable number of bad digits entered by a subscriber.
- **Max call duration (s).** Maximum allowable call duration in seconds (0 - unlimited).
- **Play year.** Use a year when playing dates.

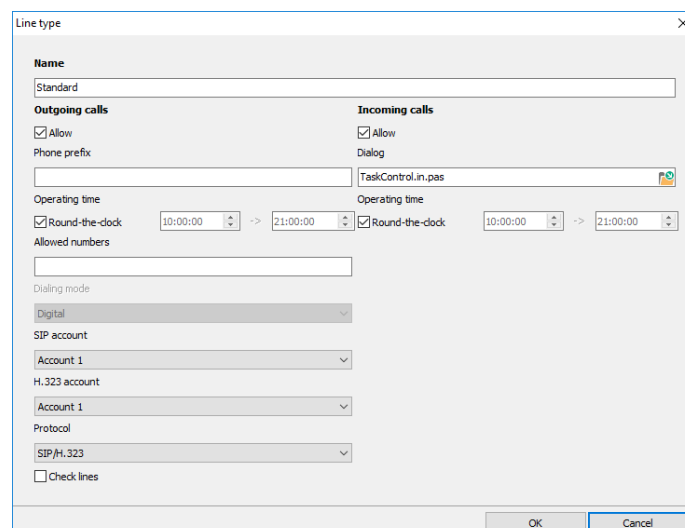
3.3.2 Table settings



Line types

- **Add.** Adds a new line type.
- **Modify.** Modifies the existing line type.
- **Delete.** Deletes selected line type.
- **Default.** Makes the current line type default.

Line type settings



- **Name.** Line type name.

Outgoing calls

- **Allow.** Specifies whether outgoing calls are allowed or not.
- **Phone prefix.** Specifies the phone prefix that is automatically added to any phone number.

- **Operating time.** Specifies the operating time for making calls, “Round-the-clock” means “24 hours”.
- **Allowed numbers.** Specifies the phone number templates allowed for calling by this line according to SQL LIKE statement. Empty value means that “all calls” are allowed.
- **Dialing mode.** Specifies whether the system should send pulse or tone digits while dialing. Obsolete, used for analogue lines only.
- **SIP account.** Specifies the SIP account that is used for dialing by SIP line assigned to this type.
- **H.323 account.** Specifies the H.323 account that is used for dialing by H.323 line assigned to this type.
- **Protocol.** Specifies the IP protocol to use for outgoing calls.
- **Check lines.** If checked the “Call Manager” regularly makes empty calls to check if the line is available. Obsolete, used for analogue lines only.

Incoming calls

- **Allow.** Specifies whether incoming calls are allowed or not.
- **Dialog.** Specifies the script used for incoming call handling. There are several predefined scripts:
 - 1) *AutoInformer.pas.* Asks for subscriber’s phone number and then informs him about his account balance.
 - 2) *ReceiveVoice.pas.* Records a voice or a fax file and sends it by email.
 - 3) *ReceiveFax.pas.* Receives a fax file and sends it by email.
 - 4) *TaskControl.pas.* Allows managing tasks through incoming phone calls.
- **Operating time.** Specifies the operating time for incoming calls, “Round-the-clock” means “24 hours”.

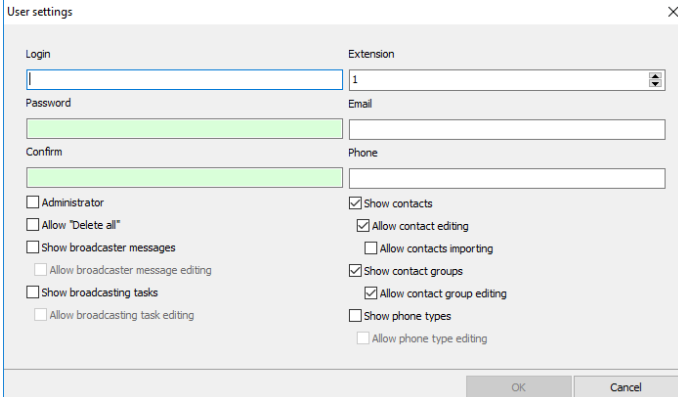
Lines

- **Enable line.** Enables line for incoming and outgoing calls.
- **Line type.** Line type of this line.

Users

- **Add.** Adds a new user.
- **Modify.** Modifies the existing user.
- **Delete.** Deletes selected users.

User settings



The image shows a 'User settings' dialog box with the following fields and options:

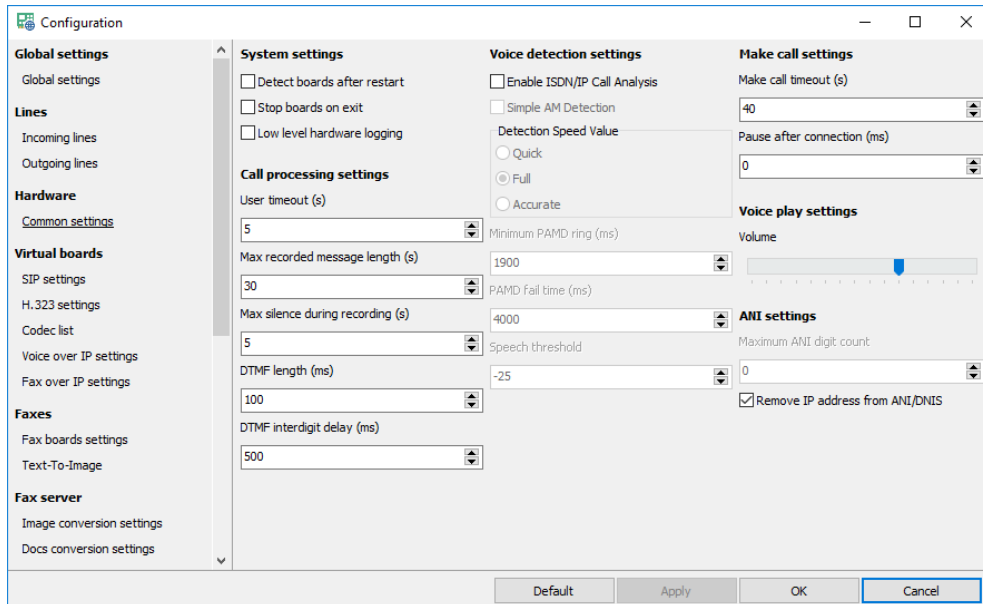
- Login:** A text input field.
- Extension:** A text input field with a dropdown arrow.
- Password:** A text input field.
- Email:** A text input field.
- Confirm:** A text input field.
- Phone:** A text input field.
- Permissions (checkboxes):**
 - ☐ Administrator
 - ☐ Allow "Delete all"
 - ☐ Show broadcaster messages
 - ☐ Allow broadcaster message editing
 - ☐ Show broadcasting tasks
 - ☐ Allow broadcasting task editing
 - ☒ Show contacts
 - ☒ Allow contact editing
 - ☐ Allow contacts importing
 - ☒ Show contact groups
 - ☒ Allow contact group editing
 - ☐ Show phone types
 - ☐ Allow phone type editing

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

- **Login.** Specifies the unique user login.
- **Extension.** Specifies the unique user digital extension.
- **Password, Confirm.** Specifies user password.
- **Email address.** Specifies the user primary email address.

- **Phone.** Specifies the user phone.
- **Allow «Delete all».** When checked the user has access to “Delete all” buttons.
- **Show/Allow....** Various option to configure the access right of the user.

3.3.3 Common board settings



System settings

- **Detect boards after restart.** Administrator will update lines configuration after restart.
- **Stop boards on exit.** Call Manager stops the boards before exiting, after restarting it starts the boards again.
- **Hardware logging (cmlib.log).** Turns on/off hardware and VoIP logging to the “cmlib.log” file.

Call processing settings

- **User timeout(s).** Specifies maximum time the system waits for a tone digit.
- **Max recorded message length (s).** Specifies maximum length of a recorded message.
- **Max silence during recording.** Specifies maximum length of silence to stop file recording.
- **DTMF length (ms).** Digits duration during DTMF playback (ms).
- **DTMF interdigit delay (ms).** Time between digits during DTMF playback (ms).

Voice detection settings

- **Enable ISDN/IP Call Analysis.** Turns on/off using call progress analysis on digital lines.
- **Detection Speed Value.** Specifies human and simple AM detection speed value (Dialogic and Brooktrout):
 - 1) **Quick.** Quick look at connect circumstances.
 - 2) **Full.** Full evaluation of response.
 - 3) **Accurate.** Recommended setting. Does the most accurate evaluation detecting live voice as accurately as “Full” but is more accurate than “Full” (although slightly slower) in detecting an answering machine. Use “Accurate” when accuracy is more important than speed.
- **Minimum PAMD ring (ms).** Specifies minimum allowable ring duration for positive answering machine detection (Dialogic).

- **PAMD fail time (ms)**. Specifies maximum time to wait for positive answering machine detection or positive voice detection after a cadence break (Dialogic).
- **Speech threshold**. Speech detection threshold (Pika).

Make call settings

- **Make call timeout (s)**. Specifies length of time to wait before deciding that the call is not answered.
- **Pause after connection (ms)**. Specifies length of time to wait before message play is started.

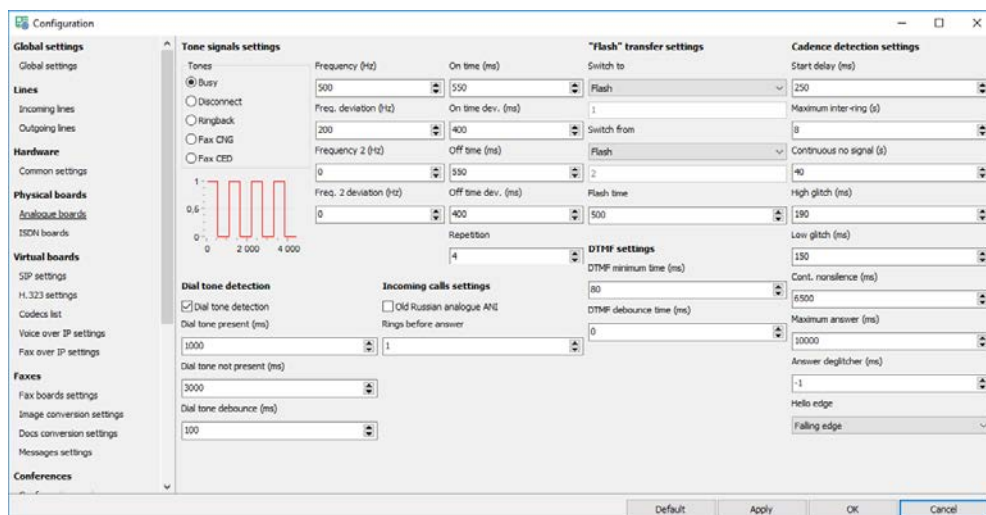
Voice play settings

- **Volume**. Audio files volume gain (Dialogic).

ANI settings

- **Maximum ANI digit count**. Specifies maximum digits of ANI to use in the dialogs.
- **Remove IP address**. Removes IP address from SIP and H.323 ANI data if present.

3.3.4 Analog boards



Tone signal settings

Tone

- **Busy**. Subscriber is busy (Dialogic, analogue).
- **Disconnect**. Subscriber hangs up (Dialogic, analogue).
- **Ringback**. Subscriber is being called (Dialogic, analogue).
- **Fax CNG**. Fax CNG on the line (Dialogic).
- **Fax CED**. Fax CED on the line (Dialogic).

Individual signal settings:

- **Frequency (Hz)**. Specifies the first frequency (in Hz) for the tone (Dialogic, analogue).
- **Freq. deviation (Hz)**. Specifies the allowable deviation (in Hz) for the first frequency (Dialogic, analogue).
- **Frequency 2 (Hz)**. Specifies the second frequency (in Hz) for the tone (Dialogic, analogue).

- **Freq. 2 deviation (Hz).** Specifies the allowable deviation (in Hz) for the second frequency (Dialogic, analogue).
- **On time (ms).** Specifies the length of time for which the cadence is on (Dialogic, analogue).
- **On time dev. (ms).** Specifies the allowable deviation for on time (Dialogic, analogue).
- **Off time (ms).** Specifies the length of time for which the cadence is off (Dialogic, analogue).
- **Off time dev. (ms).** Specifies the allowable deviation for off time (Dialogic, analogue).
- **Repetition.** Specifies the number of repetitions for the cadence (Dialogic, analogue).

Flash transfer settings

- **Switch to, Switch from.** Specify tone digits for direct and back transfer (analogue lines only).
- **Flash time.** Specifies length of the “flash” signal if required (analogue lines only).

DTMF settings

- **DTMF minimum time (ms).** Minimum time for DTMF to be present during playback to be considered valid (ms).
- **DTMF debounce time (ms).** Minimum time for DTMF to be present during recording to be considered valid (ms).

Dial tone detection settings

- **Enable dial tone detection.** Enables dial tone detection on the lines
- **Dial Tone Present (ms).** Specifies length of time that a dial tone must be continuously present (Dialogic, analogue).
- **Dial Tone Not Present (ms).** Specifies maximum length of time to wait before declaring dial tone failure (Dialogic, analogue).
- **Dial Tone Debounce (ms).** Specifies maximum gap allowed in an otherwise continuous dial tone before it is considered invalid (Dialogic, analogue).

Incoming call settings

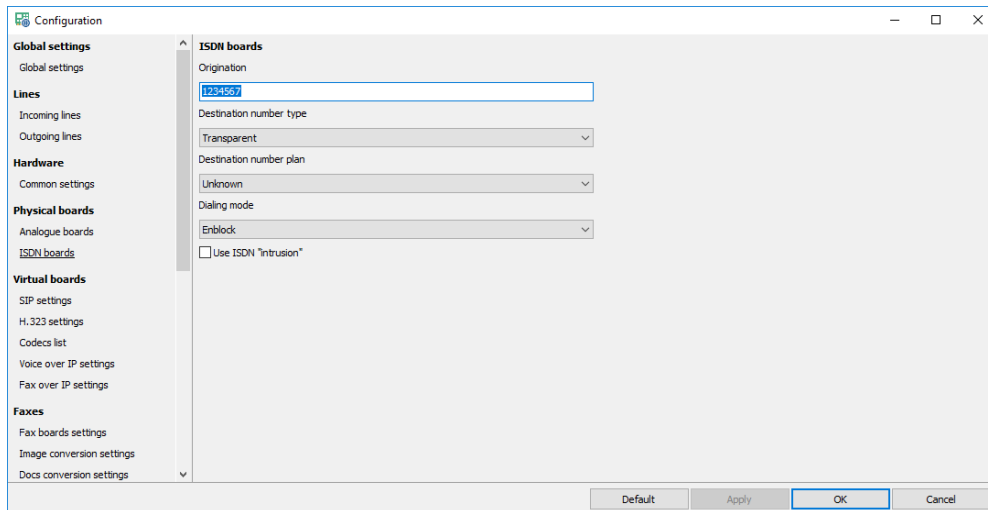
- **Old Russian analogue ANI.** Enables Russian old ANI on the line.
- **Rings before answer.** Specifies number of rings to wait before connection is established.

Cadence detection settings

- **Start delay (ms).** Specifies the delay after dialing has been completed and before starting analysis for cadence detection, frequency detection, and positive voice detection (Dialogic)
- **Maximum inter-ring (s).** Specifies maximum time to wait between consecutive ringback signals before deciding that the call has been connected (Dialogic, analogue).
- **Continuous No Signal (s).** Specifies the maximum time of silence (no signal), allowed immediately after cadence detection begins. If exceeded, a “no ringback” is returned (Dialogic, analogue).
- **High Glitch.** Specifies the maximum nonsilence period to ignore. Used to help eliminate spurious nonsilence intervals (Dialogic, analogue).
- **Low Glitch.** Specifies the maximum silence period to ignore. Used to help eliminate spurious silence intervals (Dialogic, analogue).
- **Continuous Non-silence.** Specifies the maximum length of the first or second period of non-silence allowed. If exceeded, a “no ringback” is returned (Dialogic, analogue).
- **Maximum Answer.** Specifies the maximum allowable length of answer size. When answer size exceeds this value, a “connect” is returned (Dialogic, analogue).

- **Answer Deglitcher.** Specifies the maximum silence period allowed between words in a salutation (Dialogic, analogue, obsolete, not used).
- **Hello Edge.** Specifies the point at which a “connect” will be returned (Dialogic, analogue):
 - 1) *Rising Edge.* Immediately when a “connect” is detected.
 - 2) *Falling Edge.* After the end of the salutation.

3.3.5 ISDN boards



- **Origination.** Specifies origination number that is used for outgoing calls.
- **Numbering type.** Specifies calling and origination number types:
 - 1) *Unknown.* Transparent number type
 - 2) *International.* International number for international call (verify availability with service provider).
 - 3) *National.* National number for call within national numbering plan (accepted by most networks).
 - 4) *Local.* Subscriber number for a local call (verify availability with service provider).
- **Numbering plan.** Specifies calling and origination number plans:
 - 1) *Unknown.* Unknown number plan.
 - 2) *ISDN (E.164/E.163).* International number for international call (verify availability with service provider).
 - 3) *Telephony (E.164).* Telephony numbering plan.
- **Dialing mode.** Specifies ISDN dialing mode:
 - 1) *Enblock.* Number is complete.
 - 2) *Overlap.* Number is not complete.
- **Use ISDN "intrusion".** Turns on/off using ISDN intrusion for outgoing calls.

3.3.6 SIP settings

The screenshot shows the 'Configuration' window for Artix BroadsWird 7.1. The 'SIP settings' tab is selected. On the left, a sidebar lists various configuration categories: Global settings, Lines, Hardware, Physical boards, Virtual boards, and Faxes. The 'SIP settings' section is expanded, showing 'Common settings' and 'Accounts'.

Common settings:

- ☒ Enable SIP
- Display:** Artix SIP phone
- ☒ Use proxy
- User Agent:** Artix User-Agent
- Proxy address:** 192.168.0.199
- DTMF signaling mode:** All types
- Proxy port:** 5060
- Local port:** 5060
- Transport protocol:** UDP
- ☐ Allow re-INVITE
- ☐ Allow session timers
- ☒ Enable fast start

Accounts:

- Accounts number:** 1
- Account 1:**
 - Connection type:** ☒ Proxy without registration, ☐ Proxy with registration, ☐ Proxy with separate Registrar
 - Phone (Extension):** 100
 - User alias:** 100
 - Destination number type:** Transparent
 - User password:** [empty]
 - Destination number plan:** Unknown
 - Realm:** [empty]
 - Registrar domain:** localhost
 - Registration lifetime:** 3600
 - Registrar port:** 5060

Buttons at the bottom: Default, Apply, OK, Cancel.

- **Enable SIP.** Turns on/off using SIP.

Common settings

- **Display.** SIP display name.
- **User Agent.** SIP user agent.
- **DTMF signaling mode.** Specifies how tone digits are sent and received.
 - 1) *All modes are available.* The system can use any mode.
 - 2) *Out-of-band (RFC 2833).* DTMF digits are sent and received in the RTP stream as defined in RFC 2833.
 - 3) *In-band.* DTMF digits are sent and received in-band via standard RTP transcoding.
- **Use proxy.** Turns on/off using SIP proxy.
- **Proxy address.** Specifies proxy address.
- **Proxy port.** Specifies proxy port.
- **Transport protocol.** Specifies SIP transport protocol.
 - 1) *UDP.* SIP messages use UDP protocol.
 - 2) *TCP.* SIP messages use TCP protocol.
 - 3) *TLS.* SIP messages use TLS protocol.
- **Local port.** Specifies local port.
- **Allow re-INVITE.** Allows using re-INVITE method for fax sessions.
- **Allow session timers.** Allows using session timers to remove hanged SIP connections.
- **Enable fast start.** Enables fast connection.

Accounts

- **Accounts number.** Specifies the number of SIP accounts.

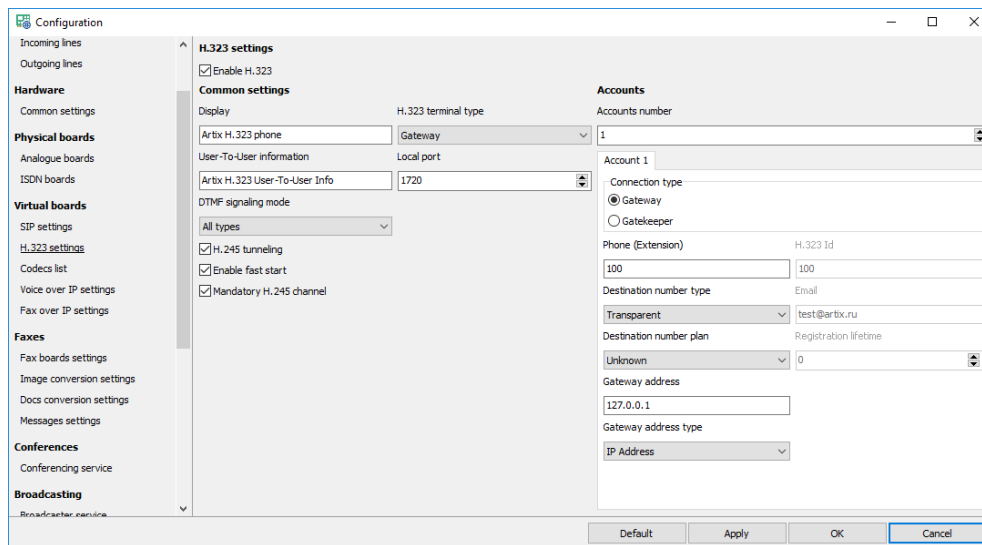
Account settings

- **Connection type.** Specifies connection type:
 - 1) *Proxy without registration.* Proxy does not require authentication.
 - 2) *Proxy with registration.* Proxy requires authentication.

3) *Proxy with Registrar*. Proxy does not require authentication, Registrar requires authentication.

- **Phone**. SIP account phone.
- **Destination number type**. Destination phone number type.
- **Destination number plan**. Destination phone number plan.
- **Registrar domain**. SIP account Registrar domain name.
- **Registrar port**. SIP account Registrar domain port.
- **User alias**. SIP account name.
- **User password**. SIP account password.
- **Realm**. SIP realm.
- **Registration lifetime**. Registration lifetime.

3.3.7 H.323 settings



- **Enable H.323**. Turns on/off using H.323.

Common settings

- **Display**. Specifies H.323 display name.
- **Use-To-User information**. Specifies H.323 user-to-user information.
- **DTMF signaling mode**. Specifies how tone digits are sent and received.
 - 1) *All modes are available*. The system can use any mode.
 - 2) *Out-of-band (RFC 2833)*. DTMF digits are sent and received in the RTP stream as defined in RFC 2833.
 - 3) *In-band*. DTMF digits are sent and received in-band via standard RTP transcoding.
 - 4) *Alphanumeric*. DTMF digits are sent and received in H.245 UII Alphanumeric messages.
- **Local port**. Specifies local port.
- **H.323 terminal type**. Specifies H.323 terminal type:
 - 1) *Terminal*. An endpoint on an IP network that supports the real-time, two-way communication with another H.323 entity. A terminal supports multimedia coders/decoders (codecs) and setup and control signaling.
 - 2) *Gateway*. Provides the interface between a packet-based network (for example, an IP network) and a circuit-switched network (for example, the PSTN). A gateway translates communication procedures and formats between networks. It handles call setup and teardown and the compression and packetization of voice information.

- **Enable fast start.** Enables fast connection.
- **H.245 tunneling.** Turns on/off using tunneled signaling message capability, that is documented in Annex M of the ITU-T recommendations for H.323. This capability allows DSS/QSIG/ISUP messages to be encapsulated in common H.225
- **Mandatory H.245 channel.** Turns on/off mandatory H.245 channel establishment in fast start connections.

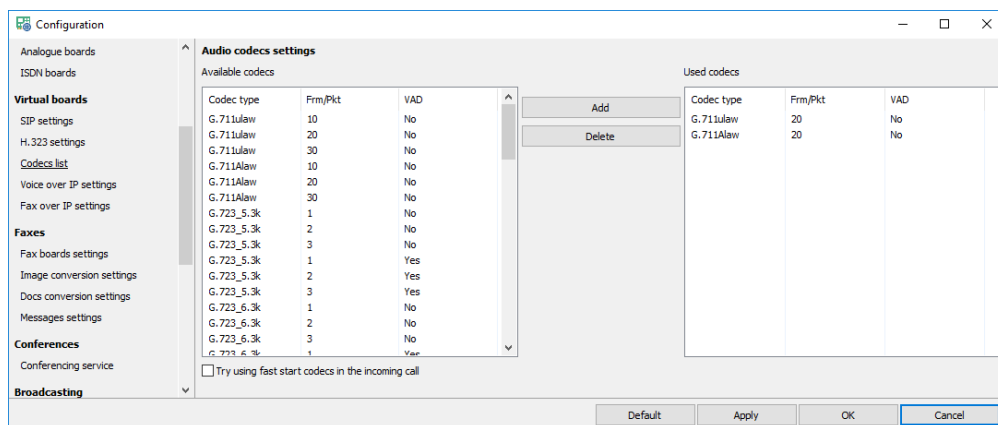
Accounts

- **Accounts number.** Specifies the number of SIP accounts.

Account settings

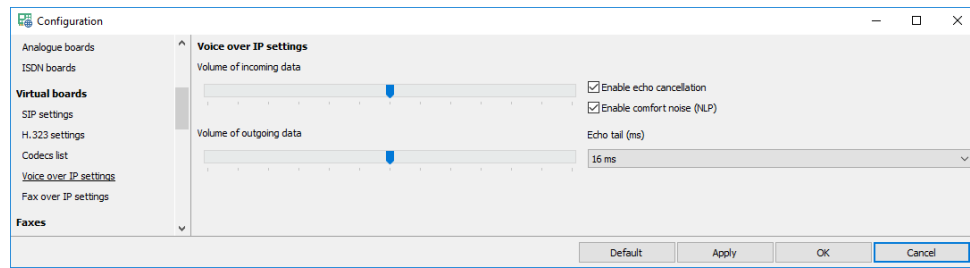
- **Connection type.** Specifies H.323 connection type
 - 1) *Gateway* - simple interface with no authentication.
 - 2) *Gatekeeper* - gateway with authentication.
- **Phone.** Specifies account H.323 phone.
- **H.323 Id.** Specifies account H.323 Id.
- **Email.** Specifies account H.323 email.
- **Registration lifetime.** Registration lifetime.
- **Destination number type.** Destination phone number type.
- **Destination number plan.** Destination phone number plan.
- **Gateway address.** The address of the H.323 registration server.
- **Gateway address type.** The address type of the H.323 registration server.

3.3.8 Codecs



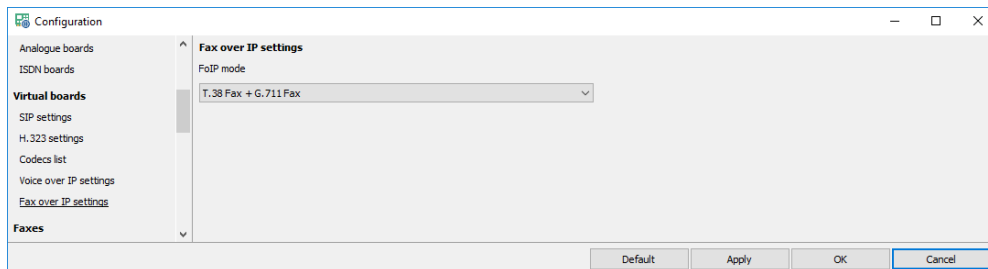
- **Available codecs** All codecs available in the system.
- **Used codecs.** Codecs used in the system.
- **Try using fast start codecs.** Allows the system to change used codecs according to the remote request during fast start.

3.3.9 Voice over IP settings



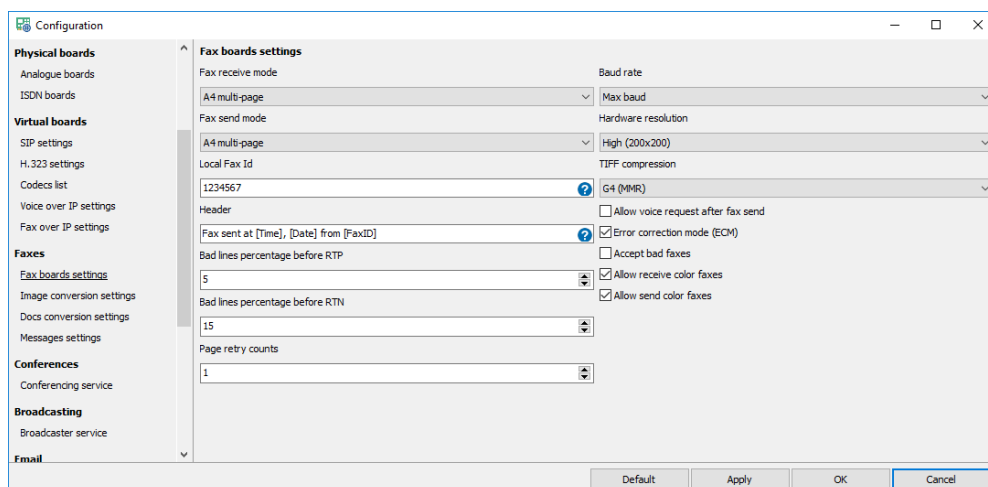
- **Volume of incoming data.** Specifies the incoming data volume gain.
- **Volume of outgoing data.** Specifies the outgoing data volume gain.
- **Enable echo cancellation.** Turns on/off using echo cancellation during conversation.
- **Enable comfort noise (NLP).** Turns on/off using NLP during conversation.
- **Echo tail (ms).** Specifies echo tail length for echo cancellation.

3.3.10 Fax over IP settings



- **FoIP mode.** Specifies fax transmission/reception mode:
 - 1) *Disabled.* No fax is allowed.
 - 2) *G.711 Fax only.* Only G.711 fax is enabled.
 - 3) *T.38 Fax + G.711 Fax.* Both fax connection methods are allowed. T.38 has higher priority.
 - 4) *T.38 Fax only.* Only T.38 fax is enabled.

3.3.11 Fax board settings

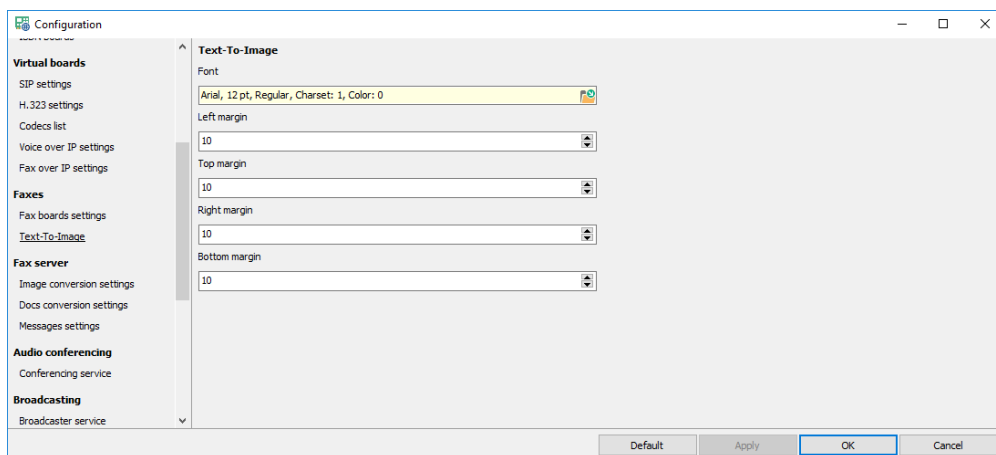


- **Fax receive mode.** Specifies fax receive mode:
 - 1) *Long page.* Receives one long page document.

2) *A4 multi-page*. Receives one A4 multi-page document.

- **Fax send mode**. Specifies fax send mode:
 - 1) *Long page*. Sends one long page document.
 - 2) *A4 multi-page*. Sends one A4 multi-page document.
- **Fax Id**. Specifies fax id used for transmission.
- **Header**. Specifies a text to insert before the image.
- **Page retry counts**. Specifies number of retries for unsuccessful transmit.
- **Bad lines percentage before RTN**. Specifies percentage of acceptable bad scan lines before RTN is returned.
- **Bad lines percentage before RTP**. Specifies percentage of acceptable bad scan lines before RTP is returned.
- **Baud rate**. Specifies transmit and receive baud rate.
- **Hardware resolution**. Specifies image resolution for all fax data during fax transmission.
- **TIFF compression**. Data transmission/reception encoding scheme for TIFF files:
 - 1) *G3, MH*. Modified Huffman.
 - 2) *G3, MR*. Modified Read.
 - 3) *G4, MMR*. Modified Modified Read.
- **Allow voice request after fax send**. Turns on/off voice request after the fax is sent.
- **Error correction mode**. Turns on/off hardware ECM.
- **Accept bad faxes**. Turns on/off accepting fax files received with errors.
- **Accept bad faxes**. Turns on/off accepting fax files received with errors.
- **Allow receive color faxes**. If the option is turned on the system can receive color faxes.
- **Allow send color faxes**. If the option is turned on the system can send color faxes.

3.3.12 Text-to-Image



- **Font**. Specifies font to use for conversion.
- **Margins**. Specify margins of the converted image.

3.3.13 SMTP settings

- **SMTP server, Port, Authentication, Login, Password, Connection type.** Standard SMTP connection settings.
- **Encoding, Reply name, Reply address.** Common outgoing email message settings.
- **Verbose SMTP log.** When checked the SMTP log file (smtp.log) is more verbose.
- **Enable.** Checks and enables SMTP server connection.

3.3.14 MAPI integration

- **Delete read MAPI messages.** Turns on/off deleting of previously read messages
- **Verbose MAPI log.** When checked the MAPI log file (mapi.log) is more verbose.
- **Enable.** Checks and enables MAPI session connection.

3.3.15 GSM settings

- **Enable SMS through GSM phone/modem.** Enables using GSM phone or modem for sending and receiving SMS messages.
- **Available ports.** List of available COM ports.

- **Used ports.** List of all COM ports where GSM modems are connected. You can manage this list using “>>” and “<<” buttons for adding ports from “Available ports” or removing them.
- **Data bits, Stop bits, Port timeout, Parity, Flow control, Baud rate.** Specify COM port settings. They should be the same for all GSM phones.
- **SMSC center.** Specifies a different SMSC center from the one specified in the phone.
- **Read messages.** Allows reading SMS messages from the phone.
- **Delete after message is read.** Turns on/off deleting message after it is read.
- **SMS mode.** Specifies SMS mode:
 - 1) *PDU mode.* Messages will be sent and received with PDU encoding. It is the most common way; all cell phones support this mode.
 - 2) *Text mode.* Messages will be sent and received with various standard encoding e.g. UTF-8. It is the less common way, not all cell phones support this mode.
- **SMS limit per phone.** Specifies limit of sent messages for each phone. Message count can be calculated:
 - 1) *Daily.* On daily basis.
 - 2) *Monthly.* On monthly basis.
- **Process reports.** Turns on/off processing message send reports to make sure that the message is delivered.
- **Reports timeout.** Specifies length of time to wait before deciding that the message sent, but not delivered.
- **Test.** The button is for testing modem properties.

3.3.16 SMPP settings

Common settings

- **Destination number plan, Destination number type.** Plan and type of the destination phone number.
- **Process reports.** When checked the system is waiting for the delivery report.
- **Reports timeout (min).** Waiting time of the delivery report in minutes.
- **Unicode (UTF-16).** Text messages encoding.
- **Verbose SMPP log.** When checked the SMPP log file (smpp.log) is more verbose.

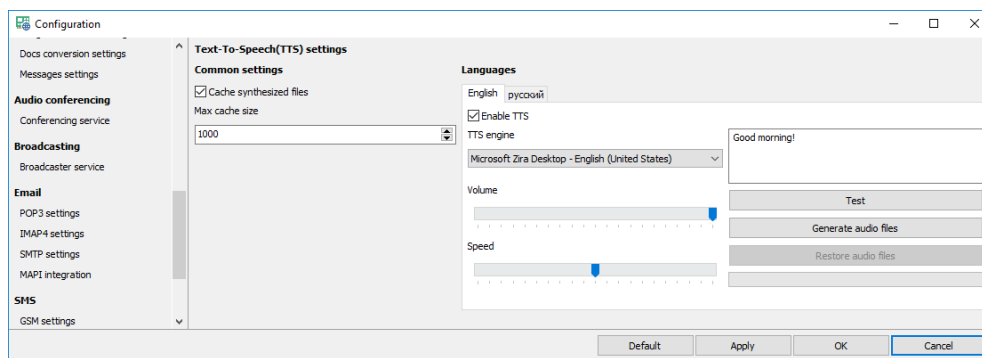
Accounts

- **Accounts number.** Specifies the number of SMPP accounts.

Account settings

- **Enable SMPP server.** Enables using this account for sending SMS.
- **SMPP server name.** Description of the server.
- **Server address, Server port, Login, Password.** Standard SMPP connection settings.
- **SMPP client identifier.** Identifies the SMPP client requesting to bind with the SMPP server.
- **Source number plan, Source number type.** Plan and type of the source phone number.
- **Origination.** Source phone number.
- **Max SMS length.** Specifies maximum symbol count in text message (0 - no limit).
- **SMPP server timeout (ms).** SMPP server IP connection timeout.
- **Message status query interval (s).** Interval between system queries to SMPP server to check status of undelivered messages (0 - no queries).
- **Server status query interval (s).** Interval between system queries to SMPP server for refreshing connection (0 - no queries).

3.3.17 Text-To-Speech (TTS)



Common settings

- **Cache synthesized files.** Turns on/off caching of the generated voice files.
- **Max cache size.** Specifies maximum file count in the cache.

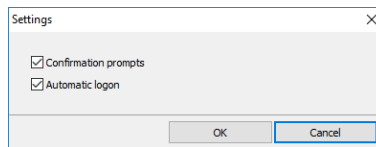
Languages

- **Enable TTS.** Turns on/off using TTS for selected language.
- **TTS engine.** Specifies the TTS engine to use for generating voice files of this language.
- **Volume.** Specifies the volume gain level of speech.
- **Speed.** Specifies the speed gain level of speech.
- **Test.** Plays generated test message.
- **Generate audio files.** When pressed all audio files of this language will be regenerated from the source text files.
- **Restore audio files.** When pressed all audio files of this language will be restored to the prerecorded files.

3.4 Management

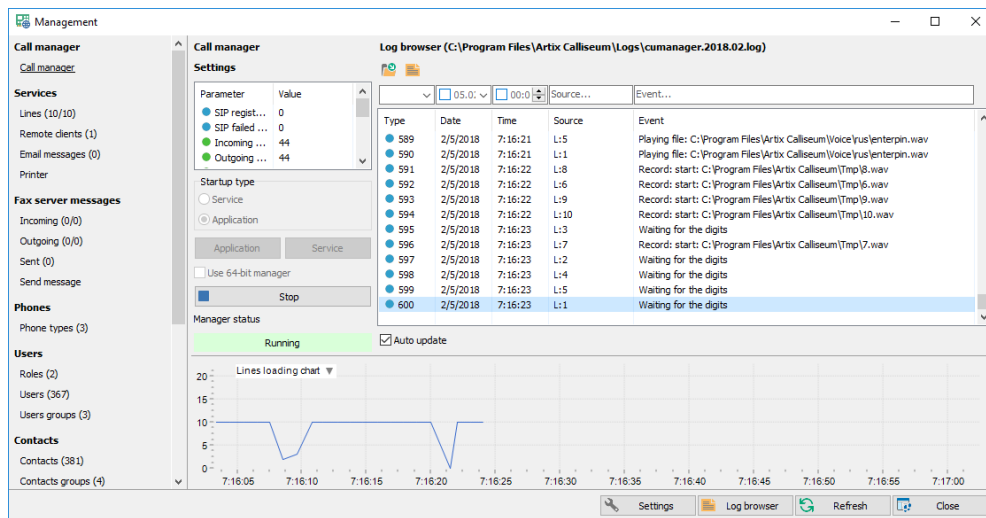
- **Settings.** Shows Administrator settings.
- **Log browser.** Opens external log file browser.
- **Refresh.** Refresh Call manager data.
- **Close.** Closes window.

3.4.1 Settings



- **Confirmation prompts.** When checked the system requires confirmations on various actions.
- **Automatic logon.** When checked *Administrator* starts without authentication prompt.

3.4.2 Call manager



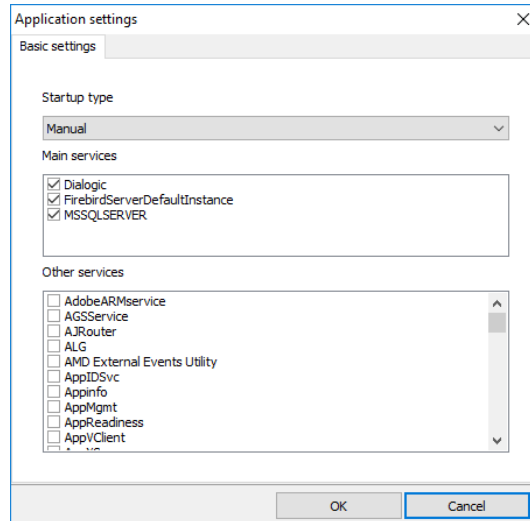
Settings

- **Parameter list.** Main *Call Manager* settings.
- **Startup type.** Specifies *Call Manager* startup mode.
- **Use 64 bit Manager.** When checked starts 64-bit *Call Manager*.
- **Start/Stop.** Starts or stops *Call Manager*.

Log browser

- **Open.** Opens a log file.
- **Log browser.** Runs the external Log files browser.

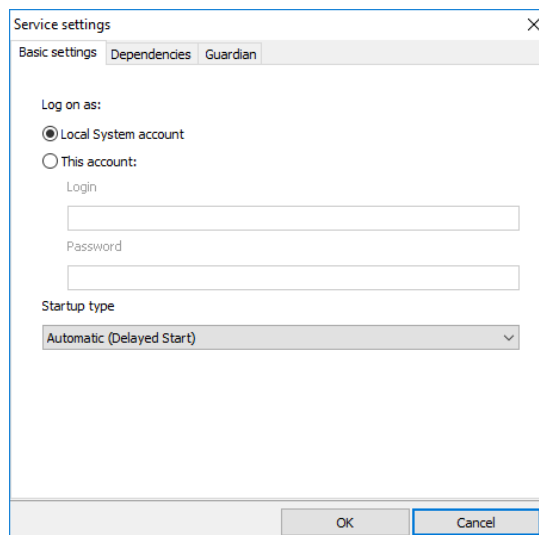
Application



- **Startup mode.** Specifies startup mode for the application:
 - 1) *Automatically.* Application is started automatically when the Windows user is logged on.
 - 2) *Manually.* Application is started manually.
- **Main services, Other services.** Dependencies that must be started prior to *Call Manager*.

Service

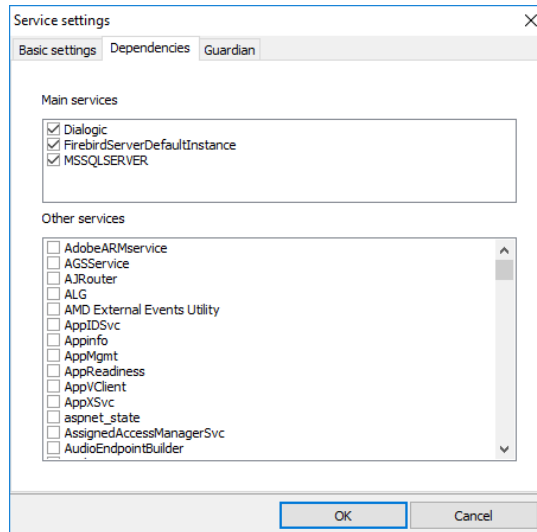
Basic settings



- **Log on as.** Specifies system account to use for starting the *“Call manager”* service
 - 1) *Local System account* - built-in account, extended MAPI and network directories are unavailable for the service
 - 2) *This account* - any Windows user’s account with *“Login”* and *“Password”*, privileges for the service are the same as for the user
- **Startup mode.** Specifies startup mode for the service:
 - 1) *Automatic (Delayed Start)* - service is started automatically with lowest priority
 - 2) *Automatic* - service is started automatically

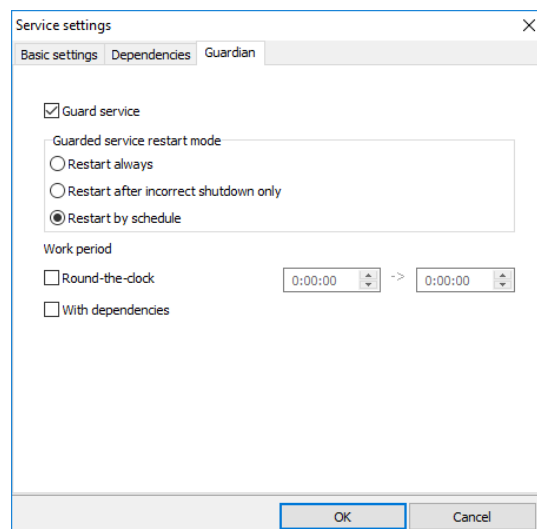
3) *Manual* - service is started manually

Dependencies



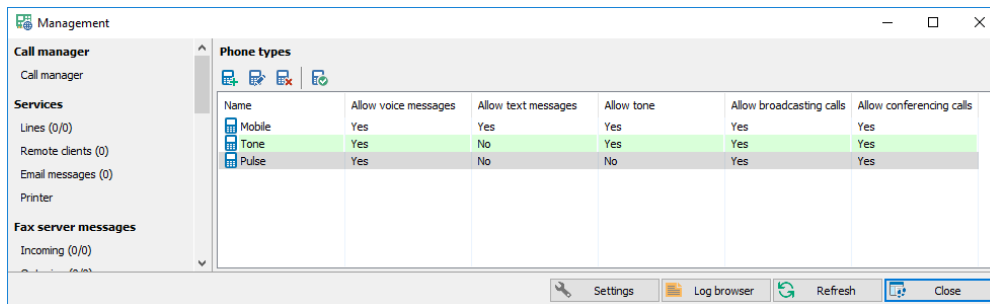
- **Main services, Other services.** Dependencies that must be started prior to *Call Manager*.

Guardian



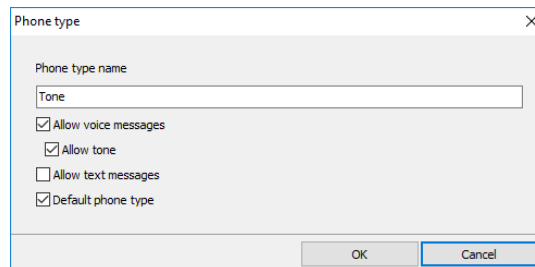
- **Guard service.** Installs and runs *Guardian* service.
- **Guarded service restart mode.** Specifies *Guardian* actions when *Call manager* service is stopped:
 - 1) *Restart always* - *Call manager* service will be restarted no matter for the reason it is stopped
 - 2) *Restart after incorrect shutdown only* - *Call manager* service will be restarted if it is stopped abnormally or hangs
 - 3) *Restart by schedule* - *Call manager* service will be started and stopped according to schedule.
- **Work period.** Specifies start time and stop time of the *Call Manager*.
- **With dependencies.** Allows *Guardian* automatically starting of the "*Call manager*" dependent services

3.4.3 Phone types



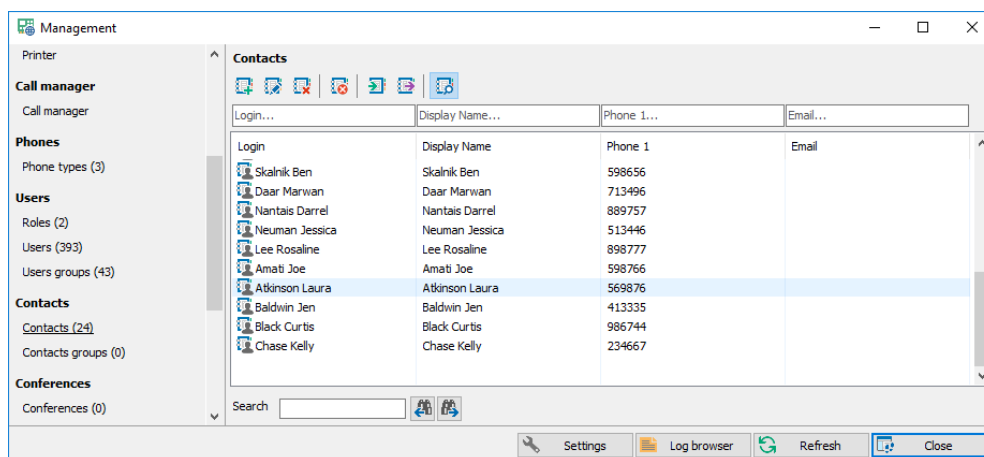
- **Add.** Adds a new phone type.
- **Modify.** Modifies the existing phone type.
- **Delete.** Deletes the selected phone type.
- **Default.** Makes the current phone type default when creating a new contact.

Phone type



- **Phone type name.** Description of the phone type.
- **Allow voice messages.** Allows sending voice messages to the phones of this type.
- **Allow tone.** Phones of this type are able to play DTMF tones.
- **Allow SMS.** Allows sending SMS to the phones of the type.
- **Default phone type.** This phone type is default to use when creating a new contact.

3.4.4 Contacts



- **Add.** Adds a new contact.
- **Modify.** Modifies the existing contact.
- **Delete.** Deletes selected contacts.

- **Delete all.** Deletes all contacts according to the filter.
- **Import.** Imports contacts from different sources.
- **Export.** Exports contacts to text or HTML files.
- **Search.** Hides/shows search panel.

Contact

Main contact settings

The screenshot shows a window titled "Contact" with a sidebar on the left containing "Settings" and "Additional" tabs. The "Main contact settings" tab is active. The fields are as follows:

- Login:** Dennis Cinthia
- Display Name:** Dennis Cinthia
- Phone 1:** 348876
- Phone type 1:** Tone
- Phone 2:**
- Phone type 2:** Tone
- Phone 3:**
- Phone type 3:** Tone
- Pin code:**
- Fax:**
- Email:**
- Language:** English
- Priority:** Normal
- Enabled:** ☒ Enabled

At the bottom right are "OK" and "Cancel" buttons.

- **Login.** Specifies the unique contact login.
- **Display name.** Specifies contact full name.
- **Phone 1, Phone 2, Phone 3.** Specify contact phones.
- **Phone type 1, Phone type 2, Phone type 3.** Specify contact phones type.
- **Pin code.** Specifies contact password.
- **Fax.** Specifies contact fax.
- **Email.** Specifies contact email.
- **Language.** Specifies contact language.
- **Priority.** Specifies contact priority.
- **Enabled.** Turns on/off the contact.

Additional contact fields

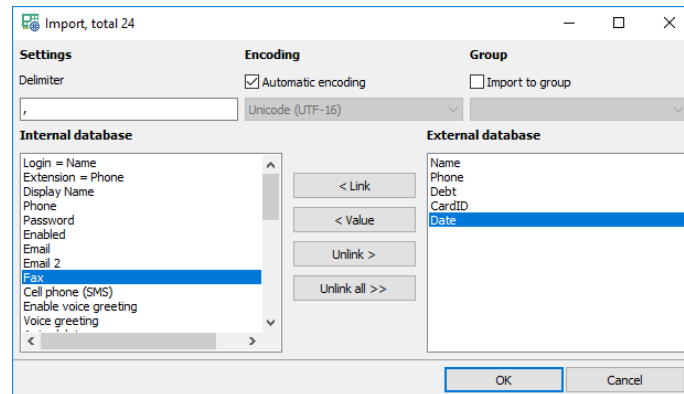
- **Account, Department, Address, Management, Company, Passport, Contact info, Position.** Various contact fields.
- **Number 1,2,3, Date 1,2,3, Time 1,2,3, String 1,2,3.** Individual contact settings.

Data import

Data source

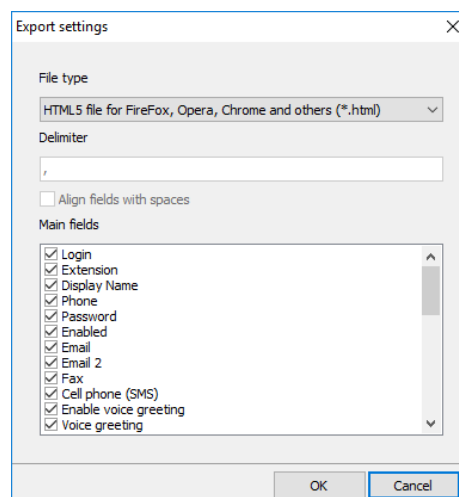
- **Text file.** When selected data will be imported from a text file with where each rows contains delimited users data.
- **Active Directory.** When selected data will be imported from Active Directory starting from any branch.
- **Ado udl file.** When selected data will be imported from the database with connection settings stored in udl file.
- **ODBC database.** When selected data will be imported from the database registered in ODBC.

Field links



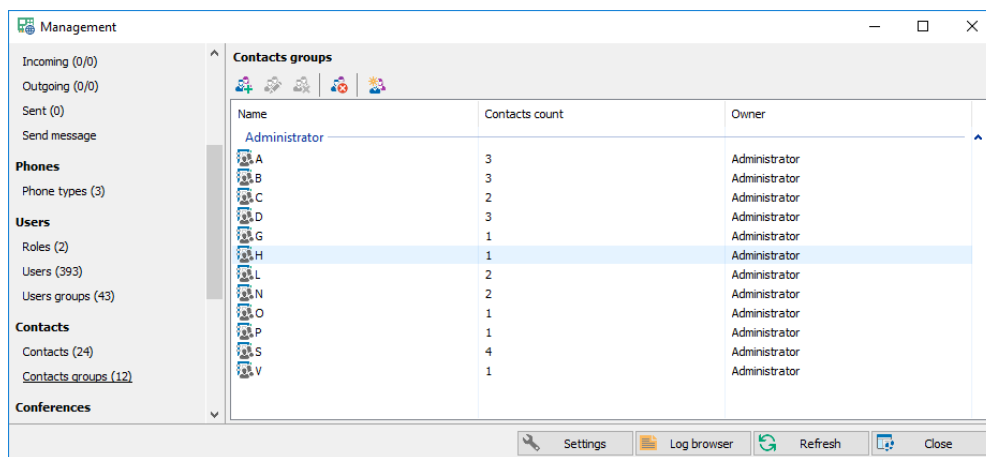
- **Encoding.** Encoding of a text file, it can be either “*automatic*” or of a specific code page.
- **Delimiter.** Delimiter between two consecutive fields of a text file.
- **Group.** All imported users/contacts will be added to the group.
- **Link, Value, Unlink, Unlink all.** Allows creating connections between fields from the internal and external databases.

Data export



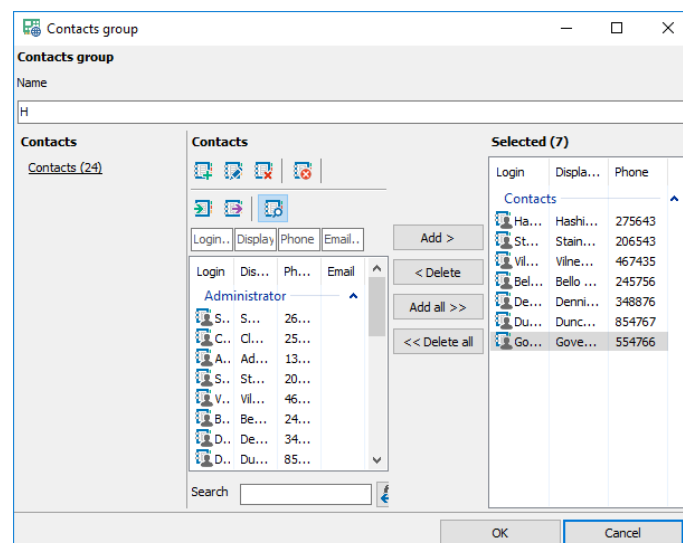
- **File type.** Specifies export file type. Possible values are:
 - 1) *Text files “.txt”* - export file is a text file
 - 2) *Excel files “.csv”* - export file is an Excel CSV file
 - 3) *HTML4 files “.html”* - export file is an HTML4 file better viewed in MS Internet Explorer
 - 4) *HTML5 files “.html”* - export file is an HTML5 file better viewed in all other modern web browsers
- **Delimiter.** Specifies field delimiter for the text files. For CSV files, the delimiter has the predefined value (“;”), for HTML files delimiter is not needed.
- **Align fields with spaces.** Specifies whether the fields of the text files are aligned or not.
- **Main fields.** Users table field list where you can specify the fields to be shown in the report.

3.4.5 Contact groups



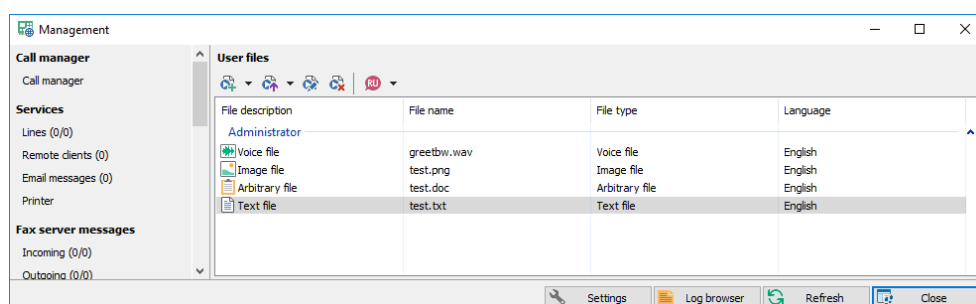
- **Add.** Adds a new contact group.
- **Modify.** Modifies the existing contact group.
- **Delete.** Deletes selected contact groups.
- **Delete all.** Deletes all contact groups.
- **Auto group.** Automatically groups the contacts.

Group



- **Name.** Group description.

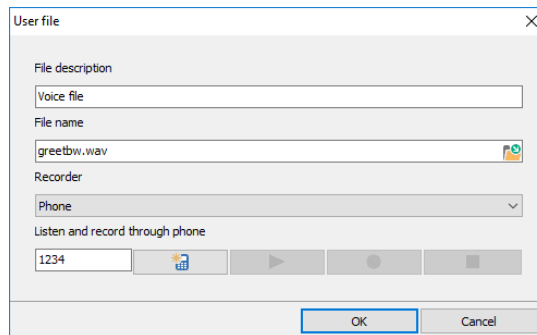
3.4.6 User files



- **Add.** Creates a new user file.
- **Upload.** Uploads existing local file and adds it as new user file.
- **Modify.** Modifies the existing user file.
- **Delete.** Deletes selected user files.
- **Language.** Sets the language of a new user file.

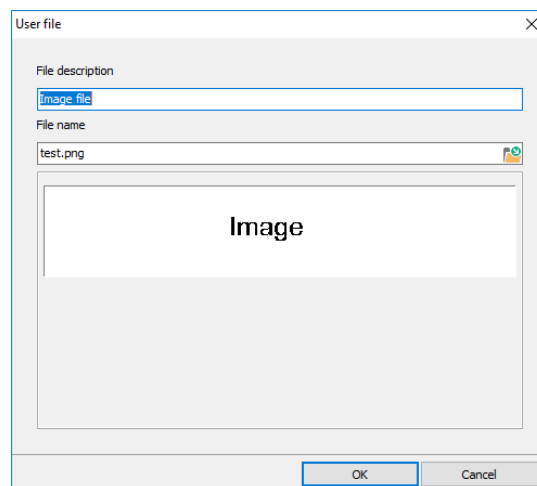
User file settings

Audio file



- **File description.** Specifies the user file name.
- **File name.** Physical file name on the server, accessible for all users when adding a new user file. If name is already used, it is automatically changed to a new unique one. Users with *Administrator* rights can select the existing files on the server.
- **Recorder.** Device for recording files.
 - 1) *Sound card* – record will be made from a client audio card
 - 2) *Phone* – record will be made on the server side from the phone.

Image file



- **File description.** Specifies the user file name.
- **File name.** Physical file name on the server, accessible for all users when adding a new user file. If name is already used, it is automatically changed to a new unique one. Users with *Administrator* rights can select the existing files on the server.

Arbitrary file

User file

File description
Arbitrary file

File name
test.doc

OK Cancel

- **File description.** Specifies the user file name.
- **File name.** Physical file name on the server, accessible for all users when adding a new user file. If name is already used, it is automatically changed to a new unique one. Users with *Administrator* rights can select the existing files on the server.

Text file

User file

File description
Text file

File name
test.txt

Text editor
Text message

OK Cancel

- **File description.** Specifies the user file name.
- **File name.** Physical file name on the server, accessible for all users when adding a new user file. If name is already used, it is automatically changed to a new unique one. Users with *Administrator* rights can select the existing files on the server.
- **Insert contact field.** Selects and inserts a contact table field to replace it with real data before sending message.
- **Insert common field.** Selects and inserts a common field (date and time) to replace it with real data before sending message.

3.4.7 Task messages

Message name	Message type	Message	Owner
Administrator			
Voice message	Voice message	%V{1;Voice file;greetbw.wav}	Administrator
Fax message	Fax message	%G{2;Image file;test.png}	Administrator
Email message	Email message	%A{3;Arbitrary file;test.doc}	Administrator
SMS message	SMS message	%T{4;Text file;test.txt}	Administrator

- **Add.** Creates a new task message.
- **Modify.** Modifies the existing task message.
- **Delete.** Deletes selected task messages.

Task message settings

Voice message

- **Message name.** Specifies the task message name.
- **Message type.** Type of the message, selectable when creating a new task message.
- **Message format.** Voice message is constructed using files and database fields:
 - 1) *Add voice file* – adds a voice user file
 - 2) *Add text file* – adds a text user file, before played, inserted database fields are filled with actual values and audio file is generated using TTS
 - 3) *Add money field* – adds a money field, various currencies are available
 - 4) *Add number field*– adds a number field, numbers can be played by groups
 - 5) *Add date field* – adds a date field
 - 6) *Add time field* – adds a time field, seconds may be played or not
 - 7) *Add string field* – adds a text field, when played audio file is generated using TTS
 - 8) *Delete the last field* – removes the last inserted field
- **Test contact.** Generates a full audio file for the selected contact and plays it through audio card

Fax message

- **Message name.** Specifies the task message name.
- **Message type.** Type of the message, selectable when creating a new task message.
- **Message format.** Fax message is constructed using files:
 - 1) *Add image file* – adds an image user file
 - 2) *Add text file* – adds a text user file, before sent, inserted database fields are filled with actual values and image file is generated using image libraries
 - 3) *Delete the last field* – removes the last inserted field
- **Test contact.** Generates a full image file for the selected contact and shows it in the view panel

Email message

The screenshot shows the 'Task message' dialog box with the following fields and options:

- Message name:** A text input field containing 'Email message'.
- Message type:** A dropdown menu set to 'Email message'.
- Email message:** A section with a checkbox (unchecked) and a red 'X' icon, labeled 'File or database field'.
- File or database field:** A list of two items:
 - 1: 3;Arbitrary file;test.doc
 - 2: 3;Arbitrary file;test.doc
- Buttons:** 'OK' and 'Cancel' at the bottom right.

- **Message name.** Specifies the task message name.
- **Message type.** Type of the message, selectable when creating a new task message.
- **Message format.** Email message is constructed using files:
 - 1) *Add arbitrary file* – adds an arbitrary user file
 - 2) *Delete the last field* – removes the last inserted field

SMS message

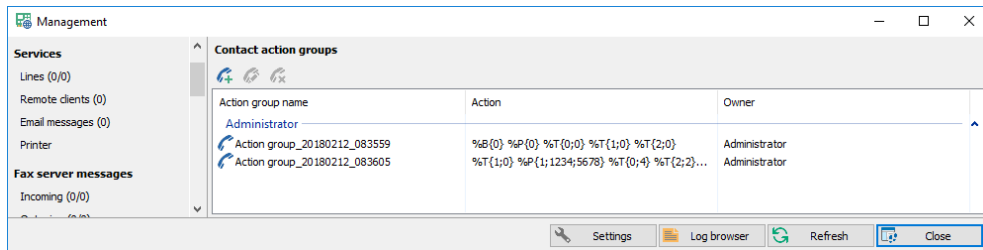
The screenshot shows the 'Task message' dialog box with the following fields and options:

- Message name:** A text input field containing 'SMS message'.
- Message type:** A dropdown menu set to 'SMS message'.
- SMS message:** A section with a checkbox (checked) and a red 'X' icon, labeled 'File or database field'.
- File or database field:** A list of two items:
 - 1: 4;Text file;test.txt
 - 2: 4;Text file;test.txt
- View message:** A section with a dropdown menu set to 'Clark Arthur' and a text area containing 'Text message' and 'Text message'.
- Buttons:** 'OK' and 'Cancel' at the bottom right.

- **Message name.** Specifies the task message name.

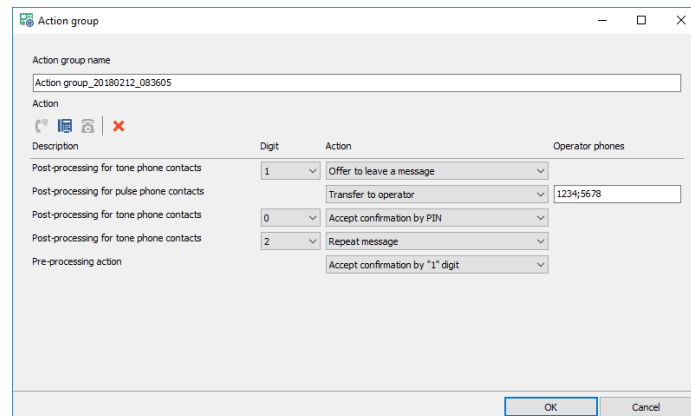
- **Message type.** Type of the message, selectable when creating a new task message.
- **Message format.** SMS message is constructed using files:
 - 1) *Add text file* – adds a text user file, before sent, inserted database fields are filled with actual values
 - 2) *Delete the last field* – removes the last inserted field
- **Test contact.** Generates a full text file for the selected contact and shows it in the view panel

3.4.8 Action groups



- **Add.** Creates a new action group.
- **Modify.** Modifies the existing action group.
- **Delete.** Deletes selected action groups.

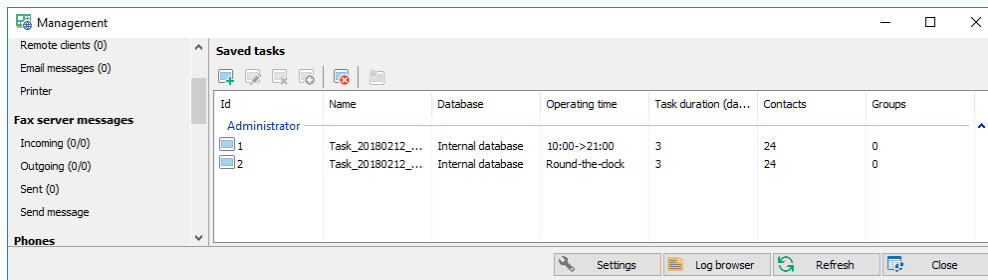
Action group settings



- **Action group name.** Specifies the action group name.
- **Action group format.** Action group is constructed using different contact actions:
 - 1) *Pre-processing action*– adds field with possible contact actions available before playing message
 - 2) *Post-processing tone phone action*– adds field with possible contact actions available after playing message for tone phone contacts
 - 3) *Post-processing pulse phone action*– adds field with possible contact actions available after playing message for pulse phone contacts
- **Digit.** Phone key, possible values 0, 1, 2...9, *, #, T (timeout).
- **Action.** System reaction:
 - 1) *Offer to leave a message* – the system offers to leave a message
 - 2) *Transfer to operator* – the system transfers the call to one of the specified phones
 - 3) *Repeat message* – the system repeats the message
 - 4) *Accept confirmation* – the system is notified that the message is received

- 5) *Accept confirmation by «1» digit* – the system is notified that the message is received when the subscriber presses «1» key
 - 6) *Accept confirmation by PIN* – the system is notified that the message is received when the subscriber enters his pin code
 - 7) *Accept digit and hang up* – the system accepts digit, stores it and then finished the call
 - 8) *Say “Invalid key”* – the system says “invalid key”
 - 9) *Unsubscribe from further announcements* – the system disables the subscriber
- **Operator phones.** Operator phones delimited by “;”

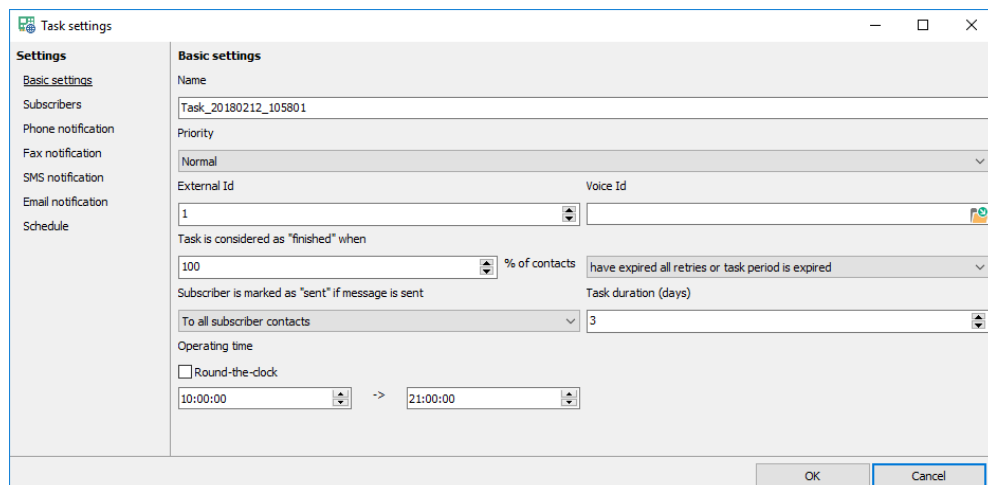
3.4.9 Saved tasks



- **Add.** Adds a new saved notification task.
- **Modify.** Modifies the existing saved task.
- **Delete.** Deletes selected saved tasks.
- **Clone.** Copies the saved task to a new one.
- **Delete all.** Deletes all saved tasks.
- **Start.** Starts the saved task, new active task is created.

Saved task settings

Basic settings



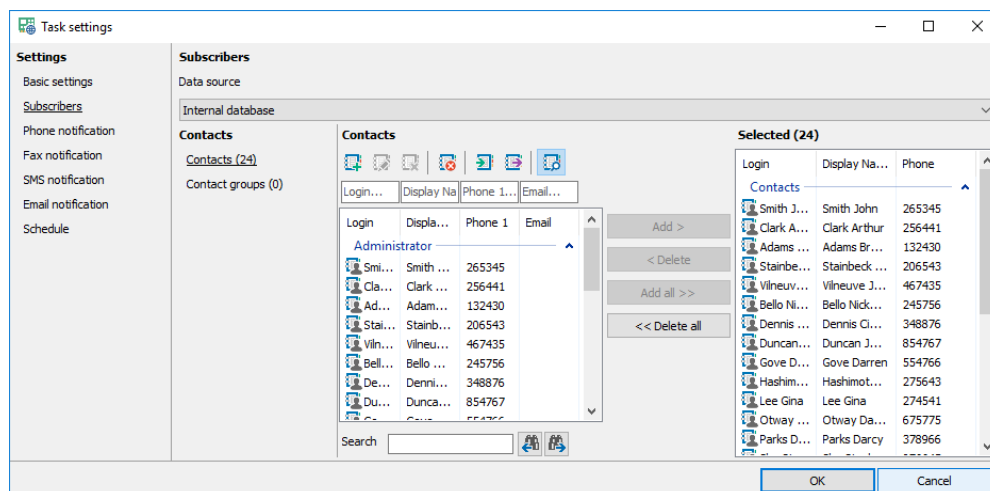
- **Name.** Specifies the saved task name.
- **Priority.** Priority of the saved task.
- **External Id.** Specifies the unique saved task Id to give access to the task by its Id.
- **Voice id.** Specifies the voice file, which is used to identify the saved task.
- **Task is considered as "finished" when.** Defines part of the subscribers to meet one of the criterions when task is considered as "finished". Possible values are:

- 1) *All retries are spent*
- 2) *All retries are spent or task period is expired*
- 3) *Task period is expired*
- **Subscriber is marked as "sent" if message is sent.** Specifies the criterion of contact notification success.
 - 1) *To all subscriber contacts* - means that a subscriber should receive the message to all his available contacts
 - 2) *To one subscriber contact* - means that for a subscriber it is enough to receive the message only to one, any contact
 - 3) *To one subscriber contact of each type* - means that a subscriber should receive the message to all available contacts of each type (phone, fax, email or SMS)
- **Task duration (days).** Specifies the working days of the task.
- **Operating time.** Specifies the working period of the task.

Subscribers

- **Data source.** Specifies the data source for getting list of subscribers.
 - 1) *Internal database* – subscribers are part of the contacts table
 - 2) *External database* - subscribers are from the external database using SQL queries
 - 3) *External text file* - subscribers are from the external text file formatted the same way as required for the [import](#)

Internal database



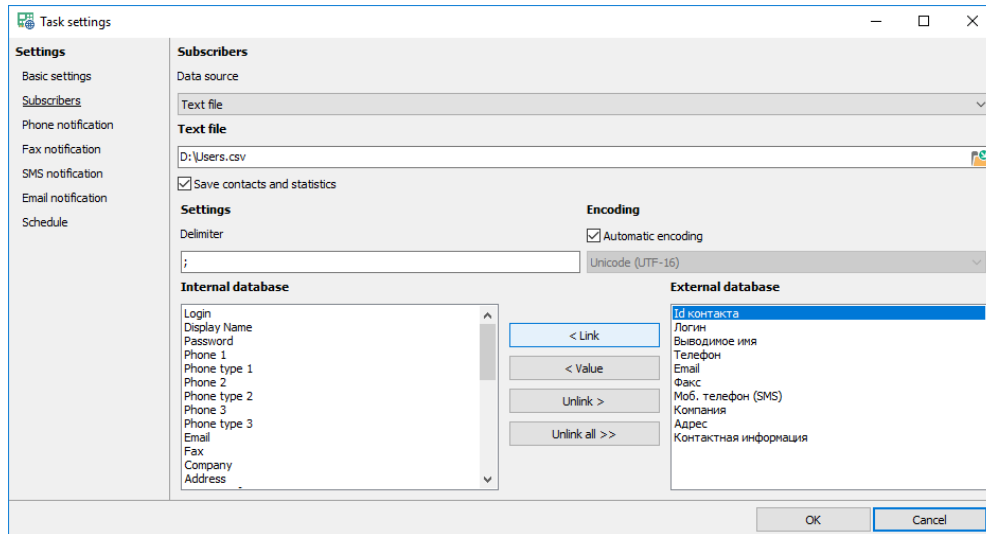
- **Add, Add all, Delete, Delete all.** Modify the subscriber list.

External database

The screenshot shows the 'Task settings' window with the 'Subscribers' tab selected. The 'Data source' is set to 'External database'. Under the 'External database' section, the 'Type' is 'ODBC alias'. The 'File' field is empty. The 'Alias' field is empty. The 'Login' field is empty. The 'Password' field is empty. There are four SQL file paths: 'SQL-select' (Select.txt), 'SQL-update after SQL-select' (UpdateSelect.txt), 'SQL-update/insert for successful calls' (UpdateSuccess.txt), and 'SQL-update/insert for failed calls' (UpdateFailure.txt). A 'Test' button is at the bottom right.

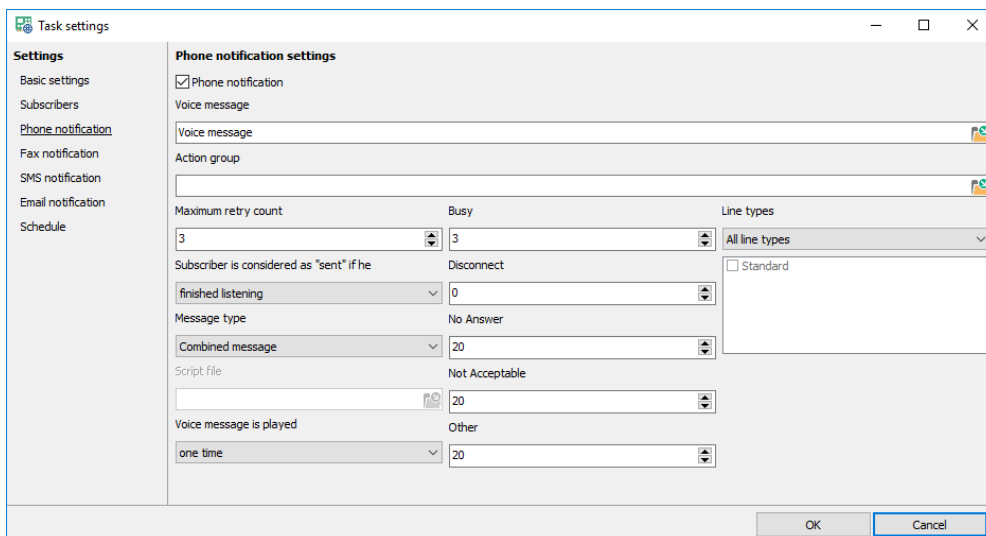
- **Type.** Specifies the database type:
 - 1) *ODBC alias* – DB connection is ODBC alias
 - 2) *ADO udl file* - DB connection is ADO udl file
- **File.** ADO udl file name.
- **Alias, Login, Password.** ODBC alias connection settings.
- **SQL files.** SQL files that are executed when notification task is active:
 - 1) *SQL-select* – selects subscriber list, fields are the same as in *ActiveTaskContacts* and *Contacts* tables of the internal database
 - 2) *SQL-update after SQL-select* – updates the external table right after executing *SQL-select*, e.g. to mark currently selected contacts
 - 3) *SQL-update/insert for successful/failed retries*– update the external table when retry is finished
- **SQL parameters.** Possible SQL parameters:
 - 1) *:resultCode (type- Integer)* – retry result, positive value if retry was successful and negative if not
 - 2) *:ResultString (type- WideString)* – text value of retry result
 - 3) *:ContactId (type- Int64)* – subscriber Id
 - 4) *:ContactLogin (type- WideString)* – subscriber login
 - 5) *:ContactName (type- WideString)* – subscriber name
 - 6) *:Phone (type- WideString)* – subscriber phone
 - 7) *:EMail (type- WideString)* – subscriber email
 - 8) *:Fax (type- WideString)* – subscriber fax
 - 9) *:Time (type- DateTime)* – retry time
 - 10) *:Date (type- Date)* – retry date
 - 11) *:DateTime (type- DateTime)* – retry date and time
 - 12) *:ListenedTime (type- Float)* – listen time in seconds
 - 13) *:ListenStarted (type- SmallInt)* – 1 – listen is started, 0 – not started
 - 14) *:ListenFinished (type- SmallInt)* – 1 – listen is finished, 0 – not finished
 - 15) *:Confirmed (type- SmallInt)* – 1 – message is confirmed, 0 –not confirmed
 - 16) *:Unsubscribed (type- SmallInt)* – 1 – unsubscribed, 0 –not unsubscribed
 - 17) *:Recorded (type- SmallInt)* – 1 – message recorded, 0 –not recorded
 - 18) *:Transferred (type- SmallInt)* – 1 – the subscriber was transferred to operator, 0 –not transferred
- **Test.** Tests DB connection and checks SQL queries.

Text file



- **Text file.** Text file name.
- **Save contacts and statistics.** When checked the contacts are physically imported to the system.
- **Connection settings.** Connection settings are the same as in the [import](#) from a text file.

Phone notification



- **Phone notification.** Enables using phone notification to send a voice message.
- **Voice message.** Message from the [task message](#) list.
- **Action group.** Action group from [action group](#) list.
- **Maximum retry count.** Specifies the maximum number of retries for sending the voice message to a single phone.
- **Subscriber is considered as "sent" if he.** Defines criterion whether subscriber received a voice message or not. Possible values are:
 - 1) *Is connected* – the phone connection established.
 - 2) *Started listening* – the subscriber started listening to the message.
 - 3) *Finished listening* – the subscriber finished listening to the message.
 - 4) *Left a personal message*– the subscriber left a voice message
 - 5) *Confirmed the message*– the subscriber confirmed message reception

- 6) *Left a message and made confirmation* – the subscriber confirmed message reception and left a message
- 7) *Never, always consider as "unsent"* – the subscriber cannot do anything to stop message reception
- **Message type.** The type of the voice message:
 - 1) *Combined message* – common message from the task messages table
 - 2) *Script* – voice message is not used, the script prepares audio files in its code. When the system reaches the subscriber the script is started, it can play files, money numbers etc.
- **Script file.** Name of the script file.
- **Interval between retries.** Specifies the next retry delay when the last one was unsuccessful for different reasons:
 - 1) *Busy* – the subscriber is busy
 - 2) *Disconnect* – the subscriber hangs up
 - 3) *No Answer* – the subscriber is not responding
 - 4) *Not Acceptable* – the subscriber is not available
 - 5) *Other* – any other result
- **Line types.** Specifies the types of outgoing line type to use with phone notification.

Fax notification

The screenshot shows the 'Task settings' window with the 'Fax notification settings' tab active. The left sidebar lists various settings categories, with 'Fax notification' highlighted. The main panel contains the following fields and controls:

- Fax notification:** A checked checkbox.
- Fax message:** A text input field.
- Maximum retry count:** A dropdown menu currently showing '3'.
- Fax failed:** A dropdown menu currently showing '20'.
- Line types:** A section containing a dropdown menu set to 'All line types' and a list box with 'Standard' selected.

At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

- **Fax notification.** Enables using fax notification to send a fax message.
- **Fax message.** Message from the [task message](#) list.
- **Maximum retry count.** Specifies the maximum number of retries for sending the fax message to a subscriber fax.
- **Interval between retries.** Specifies the next retry delay when the last one was unsuccessful for different reasons:
 - 6) *Fax failed* – fax transmission is failed for any reason
- **Line types.** Specifies the types of outgoing line type to use with fax notification.

SMS notification

The screenshot shows the 'Task settings' window with the 'SMS notification settings' tab selected. On the left, a 'Settings' sidebar lists various options, with 'SMS notification' highlighted. The main area contains the following settings:

- SMS notification:** A checked checkbox.
- SMS message:** An empty text field.
- Maximum retry count:** A dropdown menu set to '1'.
- SMS not sent:** A dropdown menu set to '0'.
- SMS not delivered:** A dropdown menu set to '0'.

At the bottom right, there are 'OK' and 'Cancel' buttons.

- **SMS notification.** Enables using SMS notification to send a SMS message.
- **SMS message.** Message from the [task message](#) list.
- **Maximum retry count.** Specifies the maximum number of retries for sending the SMS message to a single subscriber phone.
- **Interval between retries.** Specifies the next retry delay when the last one was unsuccessful for different reasons:
 - 1) *SMS not sent* –message is not sent for different reasons
 - 2) *SMS not delivered* –message is sent but not delivered, this time starts counting when delivery report timeout is expired

Email notification

The screenshot shows the 'Task settings' window with the 'Email notification settings' tab selected. On the left, the 'Settings' sidebar has 'Email notification' highlighted. The main area contains the following settings:


- Email notification:** A checked checkbox.
- Email message:** An empty text field.
- Maximum retry count:** A dropdown menu set to '1'.
- Email not sent:** A dropdown menu set to '0'.
- Subject:** A text field containing 'Message for [CONTACTLOGIN]'.

At the bottom right, there are 'OK' and 'Cancel' buttons.

- **Email notification.** Enables using email notification to send an email message.
- **Email message.** Message from the [task message](#) list.
- **Maximum retry count.** Specifies the maximum number of retries for sending email message to a subscriber email address.
- **Interval between retries.** Specifies the next retry delay when the last one was unsuccessful for different reasons:
 - 1) *Email not sent* –sending email is failed for any reason

- **Subject.** Specifies the email subject.





Task start schedule




 Task settings

Settings

Basic settings
Subscribers
Phone notification
Fax notification
SMS notification
Email notification
Schedule

Task start schedule

*	Frequency	Date	Time	Last start	Starts
	Daily	Daily	7:46 PM		0
	Monthly	2nd week, Monday	7:46 PM		0
	Weekly	Monday	7:46 PM		0

OK

Cancel

- **Add.** Adds a new schedule item.
- **Modify.** Modifies the existing schedule item.
- **Delete.** Deletes selected schedule items.
- **Delete all.** Deletes all schedule items.

Schedule item

Schedule item settings

Starts: 0 Last start: Never

Frequency: Single start

Date: 08.02.2018 Execution time: 8:42:34

Week: 2nd week Day of week: Thursday

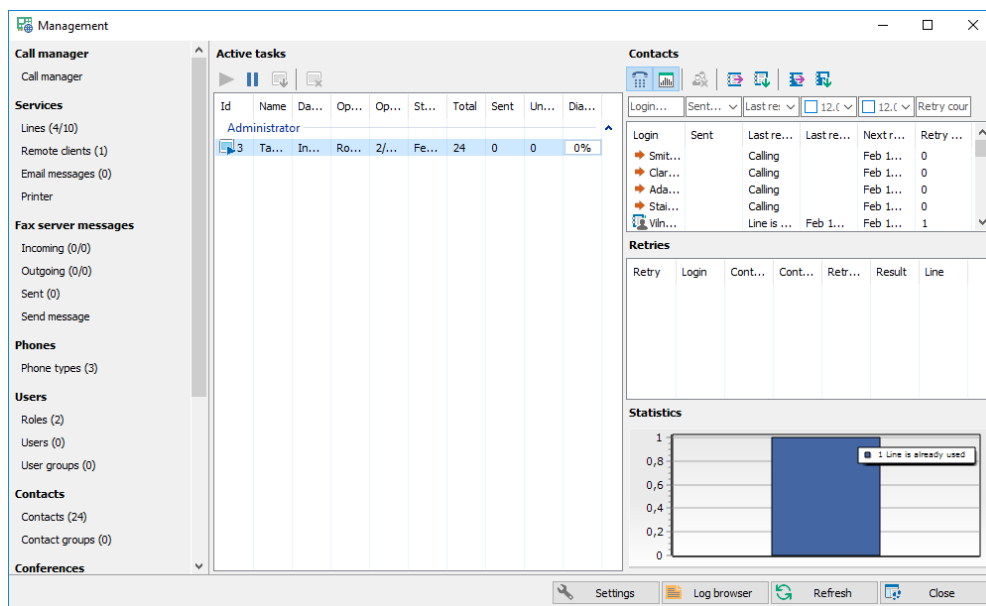
☐ Exclude weekends

☒ Schedule item is enabled

OK Cancel

- **Frequency.** Specifies how often the task will be started.
- **Date, Execution time, Week, Day of week, Exclude weekends.** Specify dates and times of the task start.
- **Schedule item is enabled.** Turns on/off the schedule item.

3.4.10 Active tasks



Active task list

- **Continue, Stop.** Pauses and continues execution of the selected tasks.
- **Finish.** Finished execution of the selected paused tasks.
- **Delete.** Deletes the selected paused tasks.

Contact list

- **Show retry list panel.** Shows panel with all retries of the selected subscriber.
- **Show statistics chart panel.** Shows chart with all retry results of all subscribers.
- **Delete.** Deletes selected subscribers from the task.
- **Prepare brief report.** Prepares [export file](#) with the subscriber notification results according to the filter. The report has not information regarding individual retries, only “Sent” or “Not sent”. In the end the export file is opened in the 3rd party HTML viewer.
- **Download brief report.** Acts the same way as “prepare” but in the end archives and offers to store under different name instead.
- **Prepare full report.** Prepares [export file](#) with the subscriber retry results according to the filter. The report has all information regarding individual retries. In the end the export file is opened in the 3rd party HTML viewer.
- **Download full report.** Acts the same way as “prepare” but in the end archives and offers to store under different name instead.

3.4.11 Finished tasks

Management

Finished tasks

Id	Name	Da...	Op...	Wo...	Total	Sent	Un...	Dia...	
2	3a...	Int...	10...	Ja...	378	0	378	0%	
6	3a...	Int...	10...	Ja...	378	0	378	0%	
7	3a...	Int...	10...	Ja...	378	0	378	0%	
10	3a...	Int...	10...	Ja...	379	0	379	0%	
11	3a...	Int...	10...	Ja...	379	51	328	13%	
12	uo...	Int...	10...	Ja...	378	38	340	10%	
13	3a...	Int...	10...	Ja...	379	104	275	27%	
14	3a...	Int...	10...	Ja...	1	0	1	0%	
15	3a...	Int...	10...	Ja...	1	1	0	100%	
16	3a...	Int...	Ro...	Ja...	379	187	192	49%	
17	3a...	Int...	Ro...	Ja...	379	379	0	100%	
18	3a...	Int...	Ro...	Ja...	376	376	0	100%	
19	3a...	Int...	Ro...	Ja...	379	379	0	100%	
20	3a...	Int...	Ro...	Ja...	1	1	0	100%	
21	3a...	Int...	Ro...	Ja...	1	1	0	100%	
22	3a...	Int...	Ro...	Ja...	10	10	0	100%	
23	3a...	Int...	Ro...	Ja...	379	377	2	99%	
24	3a...	Int...	Ro...	Ja...	379	379	0	100%	
25	3a...	Int...	Ro...	Ja...	381	354	27	92%	
26	3a...	Int...	Ro...	Ja...	381	381	0	100%	
27	3a...	Int...	Ro...	Ja...	381	136	245	35%	
28	3a...	Int...	Ro...	Ja...	379	378	1	99%	
29	3a...	Int...	Ro...	Ja...	381	132	249	34%	
30	3a...	Int...	Ro...	Ja...	381	138	243	36%	
31	3a...	Int...	Ro...	Ja...	381	44	337	11%	
32	3a...	Int...	Ro...	Ja...	1	0	1	0%	
33	3a...	Int...	Ro...	Ja...	1	0	1	0%	
34	3a...	Int...	Ro...	Ja...	1	1	0	100%	
35	3a...	Int...	Ro...	Fe...	379	371	8	97%	

Contacts

Login...	Sent...	Last re...	Last result	Retry coun
2900	Yes	Янв 28...	Sent to phone	1
2901	Yes	Янв 28...	Sent to phone	1
2902	Yes	Янв 28...	Sent to phone	1
2903	Yes	Янв 28...	Sent to phone	1
2904	Yes	Янв 28...	Sent to phone	1
2905	Yes	Янв 28...	Sent to phone	1
2915	Yes	Янв 28...	Sent to phone	1

Retries

Retry	Login	Contact	Cont...	Retry...	Result	Line
1	2904	2904	Phon...	Янв ...	Sent ...	10

Statistics

4 Not sent to phone
192 Rejected by operator
187 Sent to phone

Finished task list

- **Restart.** Restarts selected tasks with “*unsent*” subscribers.
- **Delete.** Deletes selected tasks.

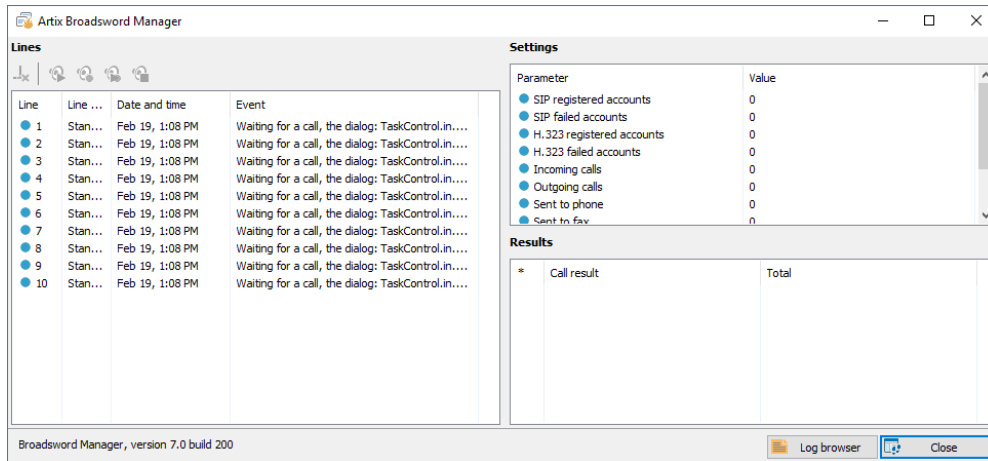
Contact list

The panel is the same as active task [contact list](#).

4 Manager

Call manager is a utility for handling both incoming and outgoing calls, emails and SMS messages.

4.1 Main window



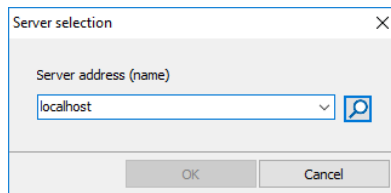
- **Log browser.** Opens external log file browser.
- **Close.** Closes window.

4.1.1 Lines

- **Terminate call.** Terminates the call on the current line.
- **Listening and recording.** Enables listening or recording the selected line:
 - 1) *Listen* - outputs voice data in the current line to an audio card
 - 2) *Record* - saves voice data in the current line to a file
 - 3) *Listen and record* - *Listen* and *Record* simultaneously
 - 4) *Stop recording/listening* - stops listening and recording

5 Client

5.1 Server selection



- **Server address (name).** IP-address or network name of the server.
- **Search.** Searches the server and tries to connect.

5.2 Authentication

Authentication window is the same as [authentication window](#) in *Administrator*, *login* field is editable.

5.3 Main window

Main window is the same as [Management panel](#) in *Administrator* with the exception of:

- 1) [Call manager](#) panel is absent
- 2) *Log browser* button is absent

5.3.1 Settings

Settings window is the same as [Settings window](#) in *Administrator* with the exception of new parameters:

- **Select server after restart.** Opens the [Server selection window](#) after restart.
- **“Close” button hides.** When checked “Close” button hides the client to the system notification panel.