

L I N E

fax: +7 (495) 669-3951 web: www.artixline.com



## Unified broadcasting system

# **Artix BroadsWord**

## Version 6.0

## For MS Windows



"Artix Line"

2014





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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.
- 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 System requirements

- *Computer*. Any modern PC.
- **Operation system**. Any MS Windows starting from XP SP3 and higher.
- *Hardware*. Dialogic or Pika boards.
- *Software*. Dialogic HMP software.



## 1.3 Additional information

Additional information can be obtained from "Artix Line" by phones or emails. Tel.: +7 (495) 669-3951 Fax: +7 (495) 669-3951 Web: <u>www.artixline.com</u>



## 2 Installation

## 2.1 Server part installation (required)

To install and run the server software Windows "administrator" user rights are required. The installation starts with running "setup.exe" which installs the system and creates a new folder "Artix BroadsWord" in the main Windows menu.

Then you can start "Administrator" utility.

### 2.2 Client part installation

Client part is optional and can be used for remote system management. Installation is the same as of the <u>server part</u>.

After the first start of the client version of "Administrator", the "Lookup for server" window shows up:

Look up for server		<b>x</b>
Server address (name)		
localhost		- ⊘
Search	OK	Cancel

Here you must specify the name or IP-address of the BroadsWord server, then click the "Search" button and if all goes well, the client "Administrator" continues starting. At that time, the "Call Manager" utility must be running on the server side.

## 2.3 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. Many engines can be obtained from **Scansoft**.



## 3 System modules

### 3.1 Administrator

"Administrator" is the main utility for configuring and managing broadcasting tasks.

#### 3.1.1 First start

After the first start of the "Administrator", it installs Firebird database server, which can last for 5-15 seconds.

Further, the system displays the "Authentication" window where you can specify the "Login" and a "Password", as well as additional parameters first hidden under the "Hide" button ( $\checkmark$ ):

Athentication	<b>x</b>
Login	
Administrator	
Password	
Interface language	
English	- A
Ascetic interface	
ОК	Cancel

Initially, you may log in only as a built-in user "Administrator" with the "Admin" password (casesensitive). It is recommended to change the password later to protect against unauthorized access to the system.

If the password is lost, only reinstallation can resolve the situation.

Additional options include "Interface language", "Font" and "Ascetic style" which means that no images will be shown in the windows.

If everything is fine, "Administrator" main window will show up:



Buttons of the main window:

- <u>Tasks</u>. Opens the "Tasks" window where you can manage broadcasting tasks, available for the users with the least "Read Only Own Tasks" privilege.
- <u>Subscribers</u>. Opens the "Subscribers" window where you can manage subscribers, including grouping and importing. It is available for the users with the least "*Read Only Own Subscribers*" privilege.



- <u>Configuration</u>. Opens the "Configuration" window where you can configure all system settings. Configuration management is available for the users with "Access to configuration" privilege.
- *Exit*. Exits the system.

A detailed description will be given in the following chapters.

#### 3.1.2 Tasks

#### Task management

To prepare, start and manage calling tasks the "Tasks" window is used:

Tasks														- • •
Id	Name	Total	Sent	Uns	Diagram		Last Name	Contact	Date	Time	Result			Continue
Waitir	ng tasks				_	~	331151	331151	03.08.2014	19:00:07	No Answer			Stop
221	DVD 20140801	293	0	0	0%	1	331190	331190	03.08.2014	18:59:25	Busy			5000
Cincia la		200	Ŭ		0,0		331209	331209	03.08.2014	18:41:17	Sent to phone		L,Ø	Modify
Finish	ed tasks					<u>^</u>	331209	331209	03.08.2014	18:59:25	Busy			Delete
211	DVD_20140801	2740	689	2051	100%		331236	331236	03.08.2014	18:59:43	Sent, not listened			Tiniah
212	DVD_20140801	2051	456	1595	100%		331236	331236	03.08.2014	18:51:12	Sent to phone	-	<u> </u>	Finish
213	DVD_20140801	1595	351	1244	100%					_		-		Restart 🔻
214	DVD_20140801	1244	262	982	100%		Attempt Co	ntact	Date	Time	Result	^		
215	DVD_20140801	982	192	790	100%		1 33	1236	03.08.20	14 18:40	1:24 Busy		8	Report 🔻
216	DVD_20140801	790	138	652	100%		2 33	1236	03.08.20	14 18:50	1:14 Busy			Export
217	DVD_20140801	652	98	554	100%		3 33	1236	03.08.20	014 18:5	9:43 Sent, not listen		<u> </u>	Export 1
218	DVD_20140801	554	113	441	100%								<b>₩</b> ¬	New tack
219	DVD_20140801	441	68	3/3	100%									New task
220	DVD_20140801	373	80	293	100%									Saved tasks
													.dtu	Statistics
												Ŧ		
all mana	oer status:	stopp	ed								ſ	5	Refresh	Close

On the left side of the window, there is a list of calling tasks being grouped according to their status.

- Scheduled tasks. This is the list of saved tasks, which have been scheduled for the future executions.
- Waiting tasks. This is the list of pending tasks, which have been started but not executed yet.
- Active tasks. This is the list of active tasks, which are being executed by the "Call manager".
- *Finished tasks*. This is the list of finished tasks, which execution is finished.

The tasks list context menu duplicate buttons from the right side of the window and allows selecting visible columns.

On the top right side of the window, there is a list of subscribers of the selected task. If a subscriber left a message, you can play it directly from the list. In addition, you can search through the list to find the desired subscriber. Search is processed using the sorted columns. Green marked subscribers have successfully received the message, red marked subscribers did not receive the message and all calling attempts are expired. The subscribers list context menu allows selecting visible columns and displaying *"search field"* input box for locating a subscriber.

On the bottom right side of the window, there is a list of all attempts of the selected subscriber of the selected task. Green marked attempts are successful and red marked attempts are failed.

The attempts list context menu allows selecting visible columns.

On the right side of the window, there are control buttons with the actions:

- *Continue*. Continues execution of the selected, stopped tasks, result: the tasks are active.
- **Stop**. Stops execution of the selected, active tasks, result: the tasks are stopped.
- <u>Modify</u>. Modifies the selected, stopped task.



- Delete. Deletes the selected, stopped tasks.
- Finish. Finishes execution of the selected, stopped tasks, result: the tasks are finished.
- Restart. Restarts the selected, finished task with unsent subscribers, result: tasks are waiting.
- <u>**Report</u>**. Creates a report from the finished task.</u>
- **Export**. Exports finished task report to a text or HTML file.
- New task. Creates a new task.
- <u>Saved tasks</u>. Works with earlier saved tasks.
- <u>Statistics</u>. Creates a diagram with call results.
- *Refresh*. Refreshes the "*Tasks*" window manually.
- Close. Closes the window.

#### Create and modify tasks

To create a new task or modify the existing one, the same "*Task settings*" window is used. The process of task creating or modifying is a wizard with a few steps, some of which can be omitted.

At the bottom of the window, there are common buttons for all steps:

- *Back*. Displays the previous step.
- *Next*. Displays the next step.
- **Ok**. Saves or starts the task and closes the window.
- *Cancel*. Cancels changes and closes the window.

Main settings

Main settingsName 	Administrator
Priority	

Task main settings are adjusted here:

- Name. Specifies the task name.
- **Owner**. Displays the task owner, disabled.
- **Voice id**. Specifies the task voice file, which is used only when the task is being started from the incoming call.
- **Priority**. Specifies the task priority.
- *Id*. Specifies the unique task Id, it is filled automatically by the system for a new task.



#### Broadcasting types

🔚 Task settings				×
Broadcasting types	Fax 1	E-mail	Message type       Image: Combined message       Database	
Subscriber is m	arked as "sent" if mess ne subscriber's contacts	age was sent s	🕎 Internal database 🔻	
Step 2 from 9		🗲 Back	Next	

Here you can adjust the following parameters:

- Phone 1, 2, 3, 4. The task will call subscribers by phone numbers 1, 2, 3, 4.
- Fax 1, 2. The task will send faxes to subscribers by fax numbers 1, 2.
- *Email*. The task will send emails.
- SMS. The task will send SMS.
- **Message type**. The task plays a "Combined message" which consists of the voice primitives; "Script" means that the voice message is prepared during task script execution.
- **Database**. The task uses an "Internal database" with the subscribers extracted from the internal database; "External database" means that the subscribers will be prepared by executing SQL query to an external database.
- Subscriber is marked as "Sent" if message was sent. The parameter "To all of the subscriber's contacts" means that a subscriber should receive the message to all his available contacts. "To one of the subscriber's contacts" means that for a subscriber it is enough to receive the message only on one, any contact. "To one of the subscriber's contacts of each type" means that a subscriber should receive message to all available contacts of each type (phone, fax, email or SMS).

#### Voice message

🔚 Task settings		×
Voice message File V;greet.wav Field D;[Number 1] Field 1;[Date 3] fx (	File File Field Field Field Field Field Field Field Field Field Field Field Field Field Field Field Field Field	
Step 3 from 9	Back Next Next OK Cancel	

Here you can configure voice message for broadcasting to phones. This step is available only if <u>Message</u> <u>type</u> is a "*Combined message*". Voice combined message consists of audio files, subscriber's data fields and constants. Numbers, dates, times and symbols are prepared by the system using voice primitives.

Buttons from the right side are used to make various actions.



#### Add files

The system plays files specified here directly to the subscriber, so all subscribers will hear the same

file.

进 - adds an audio file.

📄 - adds a text file if TTS technology is enabled.

#### Add fields

The system searches for a subscriber in the database and then plays found details to the subscriber, so all subscribers will hear different voice data.

- adds "money" field. Euro, USD and rubles are available.
- 23 adds "date" field.
- 🕒 adds *"time*" field.
- <sup>123</sup> adds "*number*" field. Numbers can be said by groups.
- 🗯 adds "audio file" field.
- left adds "text file" field if TTS technology is enabled.
- <sup>AS</sup> adds "symbols" field. Symbols are played one by one.

No audio and text file names have paths; they are added automatically by the system during a call according to the subscriber's language.

Delete fields

X - deletes the last field

#### Data input fields

Whenever you add a message field in the message a new input field will show up on the left side. Button  $\Box_{1}$  from brings up a window where you can specify input data with the type depending on the field type. Therefore, there can be either a file name, a subscriber database "*Field*" or a constant "*Value*".

The "File selection" window allows selecting a "File" from the different "Language" subdirectories:

File selection									
Folder: "C:\Program Files (x86)\Artix BroadsWord\data\voice\enu\"									
File	Size	Date, time							
wbadpn.wav	32944	14.09.2012 1							
bwconin.wav	38146	14.09.2012 1	Ξ						
whotask.wav	16228	14.09.2012 1							
wownumrc.wav	23006	14.09.2012 1							
🗰 bwsevtsk.wav	47808	14.09.2012 1							
wtskid.wav	8238	14.09.2012 1							
ndebt.wav	10652	14.09.2012 1							
menter.wav	26070	14.09.2012 1							
nterpin.wav	26074	14.09.2012 1	Ŧ						
Language English	ОК	Cancel							

"Money" field selection window allows selecting the "Currency":

Field selection [Money]	- • •
Value Value Value Number 1 Number 3 Number 4 Number 5	Currency Rubles Dollars Euros Tenge
	OK Cancel



"Date" field selection window allows selecting whether the system should "Play a year" or not:

Field selection [Date]	
© Value 22.08.2014	🔲 Play year
Field     Date 1     Date 2	
Date 3 Date 4 Date 5	
	OK Cancel

"Time" field selection window allows selecting whether the system should "Play seconds" or not:

Field selection [Time]	
© Value 21:53:09 ⓐ Field Time 1 Time 2 Time 3 Time 4 Time 5	Play seconds No Yes
	OK Cancel

"Number" field selection window allows selecting how the system should play numbers, "As is" means to play number as a whole, "1, 2, 3, 4, 5 digits" means first to divide number on several groups and then to play group by group.

Field selection [Number]	- • •
Value  Value  Field  Fhone 1 Phone 2 Phone 3 Phone 4 Fax 1 Fax 2 Account Number 1 Number 1 Value 2 Value 1 Val	Play by groups a As is 1 digit 2 digits 3 digits 4 digits 5 digits
	OK Cancel

*"Symbols"* field selection window allows selecting how the system should play symbols, *"As is"* means to play symbols as a whole by using <u>TTS</u>, *"1 letter"* means first to play symbols one by one using recorded audio primitives.

🔚 Field selection [Symbols]	
Value Field Symbols 1 Symbols 2 Symbols 3 Symbols 4 Symbols 5	Play by groups (a) As is (b) 1 letter
	OK Cancel

All "file" fields selection window has no special parameters.



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Field selection [File]	
O Value	
	Ľ
Voice file 1	
Voice file 3	
	OK Cancel

#### Field use condition

Button  $f^{x}$  from an input field brings up a window where you can specify the condition of using the field in the message:

🐁 Field use	condition			<b>—</b>
🗸 🖽	16.08.2014		0	
Condition				
Condition w	ith the inserted data	. Subscriber	[496619]	
			ОК	Cancel

Here you can specify any logical expression in the "C" language form. If the expression evaluates to "true", then the field will be played, otherwise will not. In addition, you can insert a database field or date which are evaluated during the call. After preparing the condition, it can be tested by pressing button  $\checkmark$ .

#### Play the voice message

After the voice message is prepared it is possible to listen to it through sound card for testing. Button here brings up "Play voice message" window:

Message template	essage e: %V(V:bwsevtsk.wav	0		
Moorage after co	nditions are evaluated			
Message after co	nutuons are evaluated.	· 76V(V;DWSEVISK.WdV)		
Message after su	bscriber's data is insert	ed: %V(V;bwsevtsk.wav)		
Subscribers				
Last Name	Phone 1	Number 1	Date 1	*
496619	496619	0,00	01.07.2014	
496617	496617	0,00	01.07.2014	
465577	465577	0,00	01.07.2014	
465652	465652	0,00	01.07.2014	
317277	317277	0,00	01.07.2014	
317287	317287	0,00	01.07.2014	
496455	496455	0,00	01.07.2014	-
				loce

Here you can listen to the message, which will be played to the selected subscriber.

#### Preparing a text file

The system allows creating and editing text files. Button 🔛 brings up "Text file" window:



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Text file [test.txt]	
Text message	
Language English 🔹	Close

Here you can "*create*" (), "*open*" (), "*save*" () text files. Button is used for "inserting" the "*Subscribers*" table fields. Fields will be filled automatically with subscriber's personal data during a call. Text files should be located in the language subdirectory of "*Data/Texts*" directory. "Close" button closes the window.

#### Record an audio file

The system allows recording audio files. Button Prings up the *"Record audio file"* window:

Record audio file	<b>—</b> ×
Recorder Language           Image: Microphone         Image: Microphone           Voice file         Image: Microphone	•
msg2208183237.wav	<b>P</b>
Volume	Close

- **Recorder**. Specifies what device will be used for recording a file, it can be either a *microphone* or a *phone*.
- Language. Specifies what language subdirectory of "Data/Voice" directory will be used for storing recorded files.
- *Voice file*. Specifies audio file name without path.
- **Record control**. The button <a> is for recording,</a> is for pausing,</a> is for stopping and <a> is for playing the audio file.
- **Dialing button (**). The button is used for making a preliminary call to the specified phone number from the "*Call manager*" which should be running. When you answer the phone call, "*record control buttons*" become enabled and allow further record management.
- *Close*. Closes the window.



#### Fax message

Fask settings       Fax message				
File G;test.bmp		File	Field	Delete X
Step 4 from 10	•	Back	Next DK	Cancel

Here you can configure fax message for fax broadcasting. This step is available only if <u>Message type</u> is a "*Combined message*". Fax combined message consists of image and text files and subscriber's data fields and constants.

Buttons from the right side are used to make various actions.

#### Add files

The system sends files specified here directly to the subscriber's fax, so all subscribers will receive the same file.

- adds an image file.

-adds a text file.

#### Add fields

The system searches for a subscriber in the database and then prepares personal image files to send, so all subscribers will receive different fax images.

Selection of the select

l - adds "text file" field

No image and text file names have paths; they are added automatically by the system during a call according to the subscriber's language.

#### Delete fields

X - deletes the last field

#### Data input fields

Data input fields are the same as in the voice message.

#### Editing files

Istarts default image files editor.

Istarts common text editor.

#### View the fax message

After the fax message is prepared it is possible to preview it for testing. Button  $\Box$  brings up "View fax message" window:



e				
%G(G;test.bmp)				
tions are evaluated:	: %G(G;test.bmp)			
riber's data is insert	ted: %G(G;test.bmp)			
Phone 1	Number 1		Date 1	
496619		0,00	01.07.2014	
496617		0,00	01.07.2014	
465577		0,00	01.07.2014	
465652		0,00	01.07.2014	
317277		0,00	01.07.2014	
317287		0,00	01.07.2014	
		0.00	01.07.0014	
	e GG(;test.bmp) ions are evaluated iiber's data is insert Phone 1 <b>496619</b> 496617 465577 465552 312277 21277	e GG(G;test.bmp) ions are evaluated: %G(G;test.bmp) iiber's data is inserted: %G(G;test.bmp) Phone 1 Number 1 496619 496617 465577 465652 312277 21207	e GG(S;test.bmp) ions are evaluated: %G(G;test.bmp) iiber's data is inserted: %G(G;test.bmp) Phone 1 Number 1 496619 0,00 496617 0,00 465577 0,00 46552 0,00 317277 0,00	e GG(5;test.bmp) ions are evaluated: %G(G;test.bmp) ions are evaluated: %G(G;test.bmp) iber's data is inserted: %G(G;test.bmp) Phone 1 Number 1 Date 1 496619 0,00 01.07.2014 496517 0,00 01.07.2014 4655577 0,00 01.07.2014 465552 0,00 01.07.2014 317277 0,00 01.07.2014

The window is similar to the one that is used for playing the voice message.

#### Scripts

Task settings Script		<b>.</b>
Script file Notification.pas	r Be⊉	
//for outgoing calls only procedure PlayDialog; var Digits: string; cb: integer; s: string; begin	m	•
ep 3 from 8	🗲 Back Next 🌩 OK	Cancel

Here you can configure script file for broadcasting to phones or faxes. This step is available only if <u>Message type</u> is a "*Script*". Script is a scenario written in Pascal-like language and intended for call processing. "*Call manager*" compiles the scenario to binary native code and uses it after the call is connected. Scripts can do many actions available for a high-level language including telephony specific actions, such as playing files, sending faxes, accepting tone digits, working with databases etc. When the call is finished, script also stops executing. All scripts should be located in the "*Scripts*" subdirectory where you can find several predefined scripts. The "Notification" script is intended to use for broadcasting purposes, others – for incoming calls handling. More details can be found in "*BroadsWord-Scripts.pdf*" manual.

Buttons from the right side are used to make various actions.

- Script file opens the script file.
- **Button** a saves the script modified below.
- **Button** 🗄 saves the script modified below under a different file name.
- **Button**  $\frac{1}{2}$  compiles the script modified below. Running "*Call manager*" is required.
- *Text field* edits new or modifies the opened script.



#### Email message

Task settings     E-mail message			<b></b>
File A;test.doc	File	Field	Delete
Step 4 from 10	<b>Back</b>	Next DK	Cancel

Here you can configure email message for email broadcasting. email message consists of any file considered as email attachment and text files considered as email message body.

Buttons from the right side are used to make various actions.

#### Add files

The system sends files specified here directly to the subscriber's email, so all subscribers will receive the same attached files and message body.

🔄 - adds a file.

-adds a text file.

#### Add fields

The system searches for a subscriber in the database and then prepares personal text files to send, so all subscribers will receive emails with different message body.

🖹 - adds "*text file*" field

No file names have paths; they are added automatically by the system right before sending according to the subscriber's language.

Delete fields

X - deletes the last field

Data input fields

Data input fields are the same as in the voice message.

*Editing files* → - starts common <u>text editor</u>.



#### SMS message

Task settings      SMS message				<b></b>
File T;test.txt	fx 🗖	File	Field	Delete
Step 5 from 11	•	Back	Next DK	Cancel

Here you can configure SMS message for SMS broadcasting. SMS message consists of text files. Buttons from the right side are used to make various actions.

#### Add files

The system sends files specified here directly to the subscriber's email, so all subscribers will receive the same attached files and message body.

-adds a text file.

#### Add fields

The system searches for a subscriber in the database and then prepares personal text files to send, so all subscribers will receive SMS with different texts.

🖹 - adds "text file" field

No file names have paths; they are added automatically by the system right before sending according to the subscriber's language.

Delete fields

× - deletes the last field

Data input fields

Data input fields are the same as in the voice message.

Editing files

I starts common <u>text editor</u>.



Actions

🔚 Task sett	tings	X
Actions	P	
	No action	
Digit	Post-processing of subscribers with tone enabled phones         ▼       Transfer to operator         ▼       Operator phones	
	Post-processing of subscribers with pulse phones           Immediate hang up <ul></ul>	
	Enable system voice files	_
Step 4 from	9 🗲 Back Next 🍑 OK Cance	el

Here you can configure system actions during voice phone calls. This step is available only if <u>Message</u> is a "*Combined message*".

#### Pre-processing action

Pre-processing action is performed before message is played to the subscriber with tone phone. Possible actions are:

- *No action*. The system is doing nothing.
- Accept confirmation by "1" digit. The system is waiting for the tone digit "1" to start playing message. It is not configurable and always "1".
- Accept confirmation by PIN. The system is waiting for the subscriber's personal "PIN" code to start playing message.
- Offer to leave a message. The subscriber will be prompted to leave a message

#### Post-processing of subscribers with tone enabled phones

This post-processing action is performed after message is played to the subscriber with tone phone and an appropriate tone "*Digit*" is received. Possible actions are:

- *Immediate hang up*. The system hangs up right after message is played.
- Offer to leave a message. The subscriber will be prompted to leave a message.
- *Transfer to operator*. The subscriber will be prompted to be transferred to the operators specified in *"Operator phones"* field.
- *Repeat message*. The subscriber will be prompted to listen to the message again.
- *Accept confirmation*. The subscriber will be prompted to confirm message reception.
- Accept confirmation by PIN. The subscriber will be prompted to confirm message reception by subscriber's personal "PIN" code.
- Accept digit and hang up. After receiving the tone digit, the system immediately hangs up.
- Say "Invalid key". The subscriber will be prompted to press another key.
- *Unsubscribe from further announcements*. The subscriber will be prompted to unsubscribe to prevent future broadcasting.

If all digits actions are "*Immediate hang up*" or "*Say "Invalid key*"" after a voice message is played the system immediately hangs up without prompting.

If at least one digit has real action, the system will be prompting the subscriber.

If at least one digit has action "Accept confirmation" or "Accept confirmation by PIN", the system will require confirmation to mark the subscriber as "Confirmed", otherwise the subscriber will be marked as "Not confirmed".



#### Post-processing of subscribers with pulse phones

This post-processing action is performed after message is played to the subscriber with pulse phone unable to press tone digits. Possible actions are:

- Immediate hang up. The system hangs up right after message is played.
- Offer to leave a message. The subscriber will be prompted to leave a message.
- *Transfer to operator*. The subscriber will be prompted to be transferred to operators specified in the "Operator phones" field.

"Enable system voice files" flag specifies whether the system should use system voice file while talking to a subscriber.

Lines types

Task settin	gs				X
Available Id I 3	Name Line type 1 Line type 2 Line type 3	E	Add -> <- Delete	Used Name Line type 1 Line type 2 Line type 3	
Step 5 from 9			Back Next	ОК Са	ncel

Here you can specify which <u>line types</u> will be used for outgoing calls.

On the left side of the window, there is a list of "Available" line types, on the right side – a list of "Used" line types. The buttons "Add" and "Delete" manage these lists. If no line type is selected then all line types will be used. Since a line type can be configured as being unable to call everyone, there can be a situation where a subscriber could not be called by any line type. This subscriber will be marked as "Nowhere to call".

Subscribers and groups

Task	settings			(	×
	bscribers and gri Groups (2) Sub Last Name <b>496619</b> 465577 465552 317277 317287 496455	Phone 1 496619 496617 465577 465652 317277 317287 496455	Add -> <- Delete Add all ->> <<- Delete all	Used (1) Subscriber All subscribers	
Step	o 6 from 9		Back Next	OK Cancel	

Here you can specify subscribers and subscribers groups required to be called. This step is available only if the <u>Database</u> is an *"Internal database*".

On the left side of the window, there are lists of all available "Subscribers" and "Groups", on the right side – a list of "Used" subscribers. Buttons "Add", "Delete", "Add all" and "Delete all" manage these lists. If no subscriber is selected then all subscribers will be used.



#### External database

Task settings			
External database			
Type ODBC alias Alias BW	•	Login Password	
SQL-select SQL-update/insert for successful calls SQL-update/insert for failed calls	extdbsel.txt extdbups.txt extdbupf.txt		Test
Step 6 from 9	<b>Back</b>	Next	OK Cancel

Here you can specify how subscribers from the external database are selected and processed. This step is available only if the <u>Database</u> is an *"External database"*.

System uses an external database by making direct <u>SQL-queries</u> and bypassing the internal database. Connection *"type"* determines what database type should be used – *"ODBC alias"* or *"ADO udl file"*.

For ODBC connection, "Login" and "Password" can be specified, for ADO connection authentication settings should be placed in the udl file.

The "*Call manager*" regularly executes three SQL-queries: <u>SQL-select</u> for selecting subscribers and two <u>SQL-update/insert</u> queries for updating external database after call is finished, first is used if the call was successful and the other if not.

SQL queries can be checked by pressing "Test" button

#### Operating dates

Task settings		<b>-X</b> -
Operating dates		
	Start date 24 abrycra 2014 r. End date 26 abrycra 2014 r. □▼	
_	Operating time 10:00:00 -> 21:00:00 ->	
	Round-the-dock	-
Step 7 from 9	Back Next Next OK	Cancel

Here you can specify date and time execution settings. "Start date" and "End date" define operating dates; "Operating time" defines working hours. "Round-the-clock" means that the task will work without time restrictions.

For <u>Saved tasks</u> instead of "*Date*" parameters, there will be "*Task duration*" parameter, which is the maximum allowable task duration in days.



#### Additional settings

🔚 Task settings	
Additional settings	
Subscriber is considered as "sent" if he	finished listening
Task is considered as "finished" when	time period or all attempts is expired 💌 100 😴 % of subscribers
Maximum attempts count	1 Time interval when the last attempt was
Maximum number of non-confirmations	1 🕞 Busy 🔻 3 🖨 min
Voice message is played	one time
Step 8 from 9	Back Next Next Cancel

Here you can specify additional task parameters.

- **Subscriber is considered as "Sent" if he.** Defines criterion whether subscriber received a voice message or not. Possible values are:
  - 1) "started listening". Means that the subscriber answered the call.
  - 2) "finished listening". Means that the subscriber listened to the message to the end (default value).
  - 3) "left a personal message". Means that the subscriber left a personal message.
  - 4) "confirmed the message". Means that the subscriber confirmed message reception.
  - 5) "left a message and made confirmation". Means that the subscriber left a message and confirmed message reception.
  - *6) "never, always consider as "Unsent"*". Means that the subscriber's phone contact is never considered as "sent" so the system will always call him no matter what he did.
- **Task is considered as "Finished" when**. Defines criterion when task is considered as "Finished" and is moved from the "Active tasks" to the "Finished tasks" group. Possible values are:
  - 1) "all attempts are expired for". Means that all attempts for "% of subscribers" are expired.
  - 2) "time period or all attempts is expired for". Means that either all attempts for "% of subscribers" are expired or task work period is expired (default value).
  - 3) "time period is expired". Means that task work period is expired.
- **Maximum attempts count**. Defines the maximum allowable attempts count for one subscriber for each contact ("Phone 1, 2, 3, 4", "Fax 1, 2", "Email" or "SMS"). If this value is reached for a subscriber's contact, the contact is considered as "Unsent".
- *Maximum number of non-confirmations*. Defines the maximum allowable confirmation attempts count for a subscriber who should confirm message reception but for unknown reason cannot do it.
- *Time interval when the last attempt was*. Defines time intervals between two consequent call attempts for one subscriber according to the last attempt failure.
- Voice message is played. Defines how many times voice message will be played to a subscriber. When <u>send criterion</u> is "finished listening" the subscriber should listen to the message at least one time to be marked as "Sent".



End

Task settings		×
End		
	Task saving option Save for future use	Ŧ
Step 9 from 9	<b>Back</b> Next	OK Cancel

This is the last wizard's step allowing choosing whether the task should be "Saved for future use" or it should be "Started immediately without saving" ("Task saving option" parameter). If the task is saved, it became one of the <u>Saved tasks</u>, group, if not then it became one of the "Active tasks" group.

#### Saved tasks

#### Saved tasks main window

For convenience, typical tasks can be <u>saved for future use</u> in the internal database as "*Saved tasks*". All settings specified during <u>task creation</u> are suitable for saved task except for the <u>work dates</u>, which are replaced with "*Task duration*" parameter. After saved task is started, the work dates are evaluated automatically, "*Start date*" - to the current day, "End date" – to the current day + ("*Task duration*" - 1).

"Saved tasks main window" can be shown either from the <u>Tasks</u> window by pressing "Saved tasks" button or from the <u>Task settings</u> window automatically after saving a task:

Id	Name	Work period	Task duration (day	*	*	Create
3	test 505035	Round-the-clock	3			Madifi
4	Arenda	10:00:00 -> 21:00:00	3		<u> </u>	Modilly
5	Megaline 160720	10:00:00 -> 21:00:00	3			Delete
6	summer presents	10:00:00 -> 21:00:00	3			Conv
7	Debtors 18072014	18:00:00 -> 21:00:00	3		- <b>-</b>	
8	test	Round-the-clock	3			Schedule
9	Test 496618	Round-the-clock	3		0	Schedule
10	Su23072014	10:00:00 -> 21:00:00	3			Chart
11	20-year wave201	10:00:00 -> 21:00:00	3		. <b>E</b>	Start
13	Debt	10:00:00 -> 21:00:00	3	Ξ		
14	Test 504057	Round-the-clock	3			
15	DVD_20140801	10:00:00 -> 21:00:00	3			
16	sf	Round-the-clock	3	-		

On the left side of the window, there is a list of saved tasks. User can see only allowed tasks according to his privileges.

On the right side of the window, there are control buttons which actions are duplicated in the list context menu. These actions are:

- **Create**. Creates a new saved task. In the "Task settings" window the <u>task saving option</u> is disabled and the "Duration" field is in place of the <u>work dates</u>.
- **Modify**. Modifies the selected, saved task. In the "Task settings" window <u>task saving option</u> is disabled and "Duration" is in place of the <u>work dates</u>.
- **Delete**. Deletes the selected, saved task.
- *Copy*. Copies the selected, saved task to a new task under a different name.



- <u>Schedule</u>. Shows up the "Schedule" window.
- *Start*. Starts the selected, saved task.
- *Close*. Closes the window.

#### Saved task schedule

#### Main schedule window

Save task can be started automatically by the schedule:

l	Schedule, Task 1	Id: 15							- • •
	Start type	Date	Time	Last start	Starts	-	•	<b>(</b>	Add
	Weekly	Tuesday	03:16:40			0			Modify
	Monthly	3rd week, Monday	03:16:45			0			Mouny
								C 👷	Delete
								S	Refresh
L						_			
									Close

On the left side of the window, there is a list of schedule items. On the right side, there are control buttons which actions are duplicated in the list context menu. These actions are:

- <u>Add</u>. Adds a new schedule item.
- <u>Modify</u>. Modifies the selected schedule item.
- Delete. Deletes the selected schedule item.
- *Refresh*. Refreshes the schedule manually.
- Close. Closes the window.

#### Schedule item settings

To create a new schedule item or modify the existing one, the same "*Schedule item settings*" window is used:

Schedule item settings Frequency Weekly Day of week	•	Statistics Last start
Monday	•	Starts
Execution time	3:37:07	
Schedule item is en	abled	
		OK Cancel

Here you can specify schedule item settings.

- **Frequency**. Specifies how often task should be started "single start", "daily", "weekly" or "monthly". Each frequency type has specific parameters defining the task start date, such as "Week", "Day of week" and "Exclude weekends".
- *Execution time*. Specifies start time of the task.
- Schedule item is enabled. Specifies the schedule item status.

At the bottom of the window, there are standard buttons:

- **Ok**. Saves schedule item settings and closes the window.
- *Cancel*. Cancels changes and closes the window.



#### Finished task reports

In the system, it is possible to prepare various reports on the finished tasks. If you want to prepare a report for an active task, first it should be stopped and then <u>finished</u>. Before any report is prepared, you can specify its settings in the *"Report settings"* window:

Report settings		×
Header font Sub-headers font Detail headers font Details font	Tahoma, 12 pt, Bold, Italic Tahoma, 8 pt, Bold Tahoma, 8 pt, Bold Tahoma, 8 pt, Bold Tahoma, 8 pt, Regular	9
Group Filter	All subscribers All subscribers Real attempts only	•
Main fields Main fields Market (w 10) Attempts (w 10) Time (w 10) Contact (w 10) Cast attempt (w 10) Message file (w 10) Ressult (w 10)	Additional fields  Last Name (w 10) First Name (w 10) Middle Name (w 10) Phone 1 (w 10) Phone 2 (w 10) Phone 3 (w 10) Phone 4 (w 10) Fax 1 (w 10) Fax 2 (w 10) Phone type 1 (w 10)	*
	OK	el

On the top side of the window, you can set specific "*fonts*" for the different parts of the report: "*Header*", "*Sub-headers*", "*Detail headers*" and "*Details*". Report parameters are:

- **Group**. Specifies that the subscribers in the report should be limited to those who belong to a specific group.
- *Filter*. Specifies an additional filter, which depends on the report.
- **Real attempts only**. Specifies whether the report should be based on all calling attempts or on just those attempts where the system actually tried to call the subscriber. This removes "Nowhere to call", "Hardware error", "Rejected by operator" and some other attempts results.
- *Auto stretch details*. Specifies whether the details line should be stretched when the text is too large for one line or not.
- *Main fields*. Task table fields list where you can specify the fields to be shown in the report. The list depends on the report
- **Additional fields**. Subscriber table fields list where you can specify the fields to be shown in the report.

In the context menu of the fields list, you can specify the report "Sort field", "Field width", "Check" or "Uncheck" all fields in the list. Field width is considered as relative to other fields, e.g. if all fields have width "10" except one that has width "20", then this field will be two times wider than the others, which will have the same width.

At the bottom of the window, there are standard buttons:

- **Ok**. Prepares the report and closes the window.
- Cancel. Cancels changes and closes the window.

#### Brief report

Brief report shows the task subscribers list with "Sent" or "Unsent" result without detailed attempts statistics so each subscriber is included to the report only once:



🔚 Report preview	
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1 🖨 🖨 🖨 📕	Close
ThumbNails Search Results	
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Main fields of the brief report include:

- Name. Subscribers name.
- Attempts. Total attempts count.
- Date. The last attempt date.
- *Time*. The last attempt time.
- *Contact*. The last attempt contact.
- *Last attempt*. The last attempt result.
- *Message file*. Message file name is the subscriber left a message.
- Result. Summary of all notification attempts, possible values are "Sent" or "Unsent".

Filter values are:

- All subscribers. No filter is applied.
- Sent only. Only "Sent" subscribers will be shown in the report.
- Unsent only. Only "Unsent" subscribers will be shown in the report.

#### Full report

Full report shows task attempts list so each subscriber is included to the report as many times as he is been called:



🗟 Report preview							
	- 🖛 🔺	>	-		► ¥		
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				P.49.49.5			
			1 I I I	1240402	101017		any any
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				1140-40-1			1.1.Y
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	54.70						

Main fields of the full report include:

- Name. Subscribers name.
- *Line*. Attempt phone line.
- *Attempt*. Attempt number.
- Date. Attempt date.
- *Time*. Attempt time.
- *Contact*. Attempt contact.
- *Key*. The last pressed key.
- *Message file*. Message file name is the subscriber left a message.
- *Listened*. Call duration after subscriber is connected.
- Attempt. Attempt result.

Filter values are:

- *All attempts*. No filter is applied.
- Successful attempts only. Only successful attempts will be shown in the report.
- *Failed attempts only*. Only failed attempts will be shown in the report.

#### Task attempts statistics

The "Task attempts statistics" window shows graphic chart and statistics of the task attempts results:



强 Task attempts statistics	s: DVD_20140801, Id 3	02, operating dates 2	28.08.2014	-> 28.08.2014	- • •
Date range 28.08.2014	-> 28.08.2014	- Line All lines	•	Real attempts only	
	Rejected by			Total calls 113	4 <mark>5%</mark>
	operator 53,98 %			Sent 51	<mark>4</mark> 5%
				Using phones 51	45%
				Using faxes 0	0%
				Using E-mail 0	0%
				Using SMS 0	0%
Aborted			Sent, not	Unsent 62	54%
by operator 0.88.%			listened 5,31 %	No Answer 0	0%
0,00 %				Disconnect 0	0%
	Sent			Other 62	54%
	to phone 39,82 %				
				📃 Print	Close

Task attempts statistics parameters are the following:

- *Line*. Statistics can be limited to show data only for a specific line, possible values are "All lines" or a line number started from "1".
- *Real attempts only*. Statistics can be limited to show only attempts when the system actually tried to call the subscriber. This removes "*Nowhere to call*", "*Hardware error*", "*Rejected by operator*" and some other attempts results.

At the bottom of the window, there are standard buttons:

- **Print**. Brings up the print setup window where you can print the diagram.
- *Close*. Closes the window.

Mouse wheel rotates the diagram.

#### Export task reports

<u>Full</u> and <u>Brief</u> reports can be exported to text, HTML or CSV files. Before export fle is prepared, you can specify its settings in the *"Export settings"* window:

🔚 Export setting	s 🗆 💌
Report file File type Delimiter	D_20140801_Administrator_04082014_145953_brief.txt Text files (*.txt) I I Align fields with spaces
Group Filter	All subscribers All subscribers Real attempts only
Main fields           Main fields           Ø Name           Ø Attempts           Ø Date           Ø Time           Ø Contact           Ø Last attempt           Message file           Ø Result	Additional fields          Last Name         Middle Name         Phone 1         Phone 2         Phone 3         Phone 4         Fax 1         Fax 2         Phone type 1
	OK Cancel



Export settings are:

- *Report file*. Specifies export file name.
- *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 is pre-defined as ";", for HTML files delimiter is not needed.
- Align fields with spaces. Specifies whether the fields of the text files are aligned or not.
- **Group**. Specifies that the subscribers in the report should be limited to those who belong to a specific group.
- *Filter*. Specifies an additional filter, which depends on the report type.
- **Real attempts only**. Specifies whether the report should be based on all calling attempts or on just those attempts where the system actually tried to call the subscriber. This removes "Nowhere to call", "Hardware error", "Rejected by operator" and some other attempts results.
- *Main fields*. Tasks table fields list where you can specify the fields to be shown in the report. The list depends on the report type.
- **Additional fields**. Subscribers table fields list where you can specify the fields to be shown in the report.

HTML files are recommended when you need to listen to the voice messages left by subscribers. If you add a *"Message file"* field to an export file it will be filled with URL links to the left messages available for listening.

At the bottom of the window, there are standard buttons:

- **Ok**. Starts data exporting and closes the window.
- *Cancel*. Cancels data exporting and closes the window.

#### Attempts statistics

"Attempts statistics" windows shows graphic chart and statistics of all tasks attempts results:





This window is similar to the <u>task attempts statistics</u> window except for the "*Date range*" parameter that is enabled.

#### 3.1.3 Subscribers

#### Subscribers management window

To manage the subscribers list the "Subscribers" window is used:

Last Name	Phone 1	Number 1	Date 1	· 🔒	Add
496619	496619	0	,00 01.07.2014		Madifi
496617	496617	0	,00 01.07.2014		Modilly
465577	465577	0	,00 01.07.2014	<b></b>	Delete
465652	465652	0	,00 01.07.2014		
317277	317277	0	,00 01.07.2014	22	Delete all
317287	317287	0	,00 01.07.2014		
496455	496455	0	,00 01.07.2014	- E	Report
311505	311505	0	,00 01.07.2014		Evenent
317322	317322	0	,00 01.07.2014		Export
311676	311676	0	,00 01.07.2014	24	Import
490223	490223	0	,00 01.07.2014	1	Auto create
496456	496456	0	,00 01.07.2014		
496620	496620	0	,00 01.07.2014	63.	Groups
496621	496621	0	,00 01.07.2014		Groups
496359	496359	0	,00 01.07.2014		
496618	496618	12345	,00 01.07.2014	-	
Search field: Last	t Name	-			

On the left side of the window, there is a list of subscribers. On the right side, there are control buttons which actions are duplicated in the list context menu. These actions are:

• <u>Add</u>. Adds a new subscriber.



- *Modify*. Modifies the selected subscriber.
- **Delete**. Deletes the selected subscriber.
- Delete all. Deletes all subscribers.
- **<u>Report</u>**. Creates a report from the subscribers.
- **Export**. Exports a report from the subscribers to a text or HTML file.
- Import. Imports subscribers from a text file or a database.
- <u>Auto create</u>. Creates subscribers automatically.
- <u>Groups</u>. Groups subscribers.
- *Close*. Closes the window.

In addition, from the context menu, you can select visible columns or display "search field" input box for locating a subscriber.

No subscriber's fields are unique including phones and names. Sometimes it is not convenient and to resolve this situation the system offers a possibility to make "Phone 1" and "Last Name" table fields unique. It can be done through the <u>Database check</u> utility

#### Add or modify subscribers

To add a new subscriber or modify the existing one, the same "Subscriber settings" window with three tabs is used.

The first tab is for specifying main subscriber's settings:

ast Name 421394	First Name	Middle Name	
Notify by	Phone number	Phone type	
V Phone 1	421394	Тоновый	-
Phone 2		Тоновый	
Phone 3		Тоновый	
Phone 4		Тоновый	Ŧ
Fax 1		Тоновый	
Fax 2		Тоновый	w
E-mail			
Mobile (SMS)			

This tab displays the following parameters:

- *"Last Name", "First Name", "Middle Name".* Specify the subscriber's names. "Last name" parameter is required as well as at least one of the parameters below specifying the subscriber's contacts.
- "Phone 1, 2, 3, 4". Specify the subscriber's phones. Phone extension can be set after "#" sign.
- "Fax 1, 2". Specify the subscriber's faxes.
- "Email". Specifies the subscriber's email. Actually there can be many emails divided by ";".
- "Mobile (SMS)". Specifies the subscriber's cell phone.

The second tab is for specifying subscriber's personal data:



lain settings	Numbers, dates, files	Add	litional settings			
Number 1	9522		Date	e 1 31	1.08.2014	
Number 2	0		Date	2 31	1.08.2014	
Number 3	0		Date	e 3 31	1.08.2014	
Number 4	0		Date	: 4 3:	1.08.2014	
Number 5	0		Date	e 5 31	1.08.2014	
Symbols 1			Time	e 1 22	2:53:41	
Symbols 2			Time	2 22	2:53:41	
Symbols 3			Time	e 3 22	2:53:41	
Symbols 4			Time	e 4 22	2:53:41	
Symbols 5			Time	e 5 22	2:53:41	
	Voice file		Text file		Image file	
1st	debt.wav	9	test.txt	[	test.bmp	P
2nd		P		Γ	9	P
3rd		- P			P	<u>م</u>

This tab displays the following parameters:

- "Number 1, 2, 3, 4, 5". Specify the subscriber's arbitrary float numbers.
- "Date 1, 2, 3, 4, 5". Specify the subscriber's arbitrary dates.
- "Symbols 1, 2, 3, 4, 5". Specify the subscriber's arbitrary symbols.
- "Time 1, 2, 3, 4, 5". Specify the subscriber's arbitrary times.
- *"Voice file 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>"*. Specify the subscriber's arbitrary voice files.
- *"Text file 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>"*. Specify the subscriber's arbitrary text files.
- *"Image file 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>"*. Specify the subscriber's arbitrary image files.

The third tab is for specifying additional subscriber's personal settings:

lain settings	Numbers, dates, files	Addi	tional settings			
Passport						
Company						
Address						
Department						
Management	-					
Post						
Rank						
Zip		City	Петропавловск	Region	ско	
Country	Казахстан			Language	русский	•
PIN			Account			
	Inactive		Priority	Normal		-

This tab displays the following parameters:

• "Passport", "Company", "Address", "Department", "Management", "Post", "Rank", "Zip", "City", "Region", "Country". Specify arbitrary text information, which is used just for reports; they are not used in the broadcasting process in any way.



- *"Language".* Specifies subscriber's language that is used when the system searches for the data language directory.
- "PIN". Specifies subscriber's PIN. The subscriber can use it to confirm voice message receipt.
- "Account". Specifies subscriber's account.
- "Priority". Specifies subscriber's priority.
- "Inactive". Specifies, if checked that the subscriber will not receive further notifications.

At the bottom of the window, there are standard buttons:

- **Ok**. Saves the subscriber's settings and closes the window.
- *Cancel*. Cancels changes and closes the window.

#### Subscribers report

Subscribers report is used to display subscribers list:



Main fields of the subscribers report is empty. In the <u>report settings</u> window instead of the *"Filter"*, there is a *"Priority"* parameter and instead of the *"Real attempts only"*, there is an *"Active"* checkbox. Priority values are:

- *All subscribers*. No priority filter is applied.
- *Exclusive, high, normal, low*. Only subscribers with according priority will be displayed.

Checked "Active" checkbox means that only active subscribers will be displayed.

#### **Export** subscribers

Subscribers list can be exported to a text, HTML or CSV file. Before export file is prepared, you can specify its settings in the same <u>export settings</u> window. *"Priority"* and *"Active"* parameters have the same meaning as the <u>subscribers report</u>.

#### Import subscribers

Subscribers can be imported from a text file, Active Directory or any ADO or ODBC database. First, you should specify a "*Data source*" from which you wish to import the data in the "*Select data source*" window:


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Select data source			-x-
Database CU Table SCHEDULEDCON	IF		
🔘 Text file	P		
Active Directory		Select a table	
<ul> <li>ADO udl file (OLE DB/ODBC)</li> <li>ODBC database</li> <li>Select a database</li> <li>CU</li> </ul>		GROUPS INCOMING INLINETYPES MAILS OUTBOUND OUTLINETYPES PASSWORDS RESTRICTIONS RULES SCHEDULEDCONF SENT SENT SENT	
		Next ->	E T

Then for "Active Directory", a new window will be displayed where you should specify the LDAP path to "Domain Users" group and optionally domain user's "Login" and "Password":

ect a domain		
LDAP or WinNT address of	i the "Domain Users" group	
LDAP://CN=Users,DC=AF	TIX,DC=LOCAL	-
Connect using a differer	nt username	
Login		
Password		
Password		

No matter which import type is selected the last step will brings up the "Import" window:

Import, database "D:\Archive\Artix\D	ata", table "beutyeng.txt", total 24	×
Delimiter , Encoding V Automatic Western European (Windows) v	Options Update subscribers deleting non-existent subscribers not adding new subscribers Search field Last Name	V Import to group Group DVD_20140801
Internal database Last Name = Name First Name Middle Name Phone 1 = Phone Phone 2 Phone 3 Phone 4 Fax 1 Fax 1 Fax 2 Phone type 1 Phone type 2 Phone type 3 f	<pre></pre>	External database Name Phone Debt CardID Date
		OK Cancel

List on the left contains "Internal database" fields; list on the right contains "External database" fields. In the center of the window, there are control buttons to manage field links between "Internal database" and "External database":

- <-Link. Connects two fields.
- <-Value. Assigns a constant value to the internal field.
- **Unlink->**. Breaks the selected link.
- Unlink all->>. Breaks all links.



In the upper left, there is a set of parameters specifying import text file settings. Text import file should consist of similar formed lines where the first line specify field names.

- **Delimiter**. Delimiter between two consecutive fields of a text file.
- Encoding. Encoding of a text file, it can be either "automatic" or of a specific code page.

In the upper center part of the window, there is "*Options*" parameters set specifying how the system should handle the existing subscribers.

- Update subscribers. Updates existing subscribers.
- **Deleting non-existent subscribers**. Deletes existing subscribers, which are not presented in the external database.
- *Not adding new subscribers*. Does not add subscribers, which are not presented in the internal database.
- Search field. Internal database field that is used for searching for the subscriber.

In the upper right, there is a set of parameters specifying group settings.

- *Import to group*. Specifies whether the imported subscribers should be added to a group.
- *Group*. Specifies the group name.

At the bottom of the window, there are standard buttons:

- **Ok**. Starts data importing and closes the window.
- *Cancel*. Cancels data importing and closes the window.

# Auto create subscribers

Subscribers can be created automatically for various reasons using the "Auto create" window:

Phone prefix	Phone type	Transact to grown
	Тоновый	
Start	End	Group
1000000	1000999	▼

Created subscriber's name will be the same as his phone number, phone numbers will be created according to these parameters:

- Phone prefix. Automatically added prefix for a phone number.
- *Phone type*. Phone type of the created phone numbers.
- *Start*. The first phone number value.
- *End*. The last phone number value.

On the right side, there is a set of parameters specifying group settings.

- *Import to group*. Specifies whether the created subscribers should be added to a group.
- *Group*. Specifies the group name.

At the bottom of the window, there are standard buttons:

- *Create*. Starts data creating and closes the window.
- *Close*. Cancels data creating and closes the window.



list.

# Subscribers groups

#### Groups main window

To manage subscribers groups the "Groups" window is used:

Subscribers (1:	9920)		Groups (5), active (Dsud15P 19082014)	)
Last Name	Phone 1	<b>A</b>	🕀 💀 test [16]	-
496619	496619		Add -> 🔬 SU110814 [4181]	
496617	496617		<- Delete 🕸 🖓 Arenda 2 part [8734]	
465577	465577		👜 🔹 cp20140815 [2621]	
465652	465652		Add all ->> DsudISP 19082014 [391]	
317277	317277		462004	
317287	317287		< Delete all 462578	
496455	496455			
311505	311505			
317322	317322			
311676	311676		423636	
		+	🖸 11010	

"Subscribers" list is on the left side of the window and "Groups" list is on the right side. In the center of the window, there are control buttons to manage group subscribers:

- Add->. Adds a subscriber to the selected group. The subscriber can be added to one group only once.
- <-Delete. Removes the selected subscriber from the group.
- Add all->>. Adds all subscribers to the selected group.
- <<-Delete all. Removes all subscribers from the selected group.

Double click on the subscriber in the "Groups" list automatically moves the cursor in the "Subscribers"

Group subscribers that are added or removed in the current grouping session are not written to the database immediately and displayed in grayed color until "*Apply*" or "*Ok*" button is pressed.

Context menu of the "Subscribers" list allows adding, modifying, deleting and importing subscribers. In addition, you can select visible columns or display "search field" input box for locating a subscriber.

Context menu of the "Groups" list contains these items:

- Add group. Adds a new group to list.
- *Modify group.* Modifies the selected group.
- Delete group. Deletes the selected group.
- <u>Auto group</u>. Creates groups automatically.
- Search for subscriber. Displays "search field" input box for locating a subscriber in the groups list.
- <u>Group view</u>. Shows groups list in a different manner.

At the bottom of the window, there are standard buttons:

- *Apply*. Writes groups list changes to the database.
- **Ok**. Writes groups list changes to the database and closes the window.
- *Cancel*. Cancel groups list changes and closes the window.

# Auto group subscribers

Subscribers can be automatically grouped by a common attribute. This attribute can be specified in the "Auto group settings" window:



Field		Symbols co	unt
Last Name		1	
First Name			
Middle Name			
Phone 1			
Phone 2			
Phone 3	-		

Common attribute settings are:

- Field. Specifies the attribute's field name.
- **Symbols count.** Specifies the number of symbols in the attribute field, which should be the same for the subscribers are to be placed in one group.

At the bottom of the window, there are standard buttons:

- **Ok**. Starts automatic grouping of subscribers and closes the window. Old groups will be deleted. Number of created groups will meet the conditions: each subscriber should be placed in a group and a group should contain at least one subscriber.
- *Cancel*. Cancels automatic grouping and closes the window.

# Group views

In addition to a "tree" view, there is a groups "list" view:

ubscribers (1	5956)		test, subscribe	rs: 16	
ast Name	Phone 1				
475356	475356	Add ->	Last Name	Phone 1	
475483	475483	<- Delete	4966 19	496619	
476230	476230		496617	496617	
371783	371783		ן 🚣 465577	465577	5
71911	471911	Auu ali ->>	465652	465652	
471968	471968	<<- Delete all	317277	317277	
170777	470777		317287	317287	
171017	471912		496455	496455	
171020	471020		311505	311505	
171930	471930		317322	317322	
4/1941	4/1941		311676	311676	

Both views are functionally identical and just show groups in different ways.

# 3.1.4 Configuration

# Main configuration window

To manage system configuration the "*Configuration*" tabbed window is used. Each configuration tab is described below.

On the left side of the window, there are category buttons, which are linked to specific configuration tabs.

At the bottom of the window, there are standard buttons:

- **Default**. Sets all configuration settings of the current tab to their default values.
- Apply. Saves all configuration settings changes without closing the window.
- Ok. Saves all configuration settings changes and closes the window.
- *Cancel*. Cancels all configuration settings changes and closes the window.



# Main settings group

This group of settings affects most common aspects of system behavior.

# Lines and types

This tab is used for specifying lines settings:

Configuration								×
➢ Main settings	-	Lines and types						
Lines and types Phone types Global settings Users list Extensions settings External database Default fields Text-To-Speech	ш	Lines	<ul> <li>✓ Line: 1</li> <li>✓ Line: 2</li> <li>✓ Line: 3</li> <li>✓ Line: 4</li> <li>✓ Line: 5</li> </ul>	Account 1 Account 2 Account 3 Account 1	•		•	
About ¥ Hardware Hardware settings Hardware settings (more) Fax settings Text-To-Image ISDN settings		Line t Id	Name Account 1 Account 2 Account 3	Operating time <b>Round-the-clock</b> Round-the-clock Round-the-clock	Dialing mode Digital Digital Digital	Outgoing Yes Yes Yes		
		J		Default	Apply	ОК	Ca	ancel

In the upper part of the window, you can configure all the lines found in the system. Below you can specify different line types. Each line is assigned to a specific line type

# Lines

The "Lines" are presented as checkboxes; unchecked checkbox means that the line is disabled. Right from the checkbox, you can specify a "Line type" assigned to the line.

# Line types

Below the "Lines", there is a "Line types" list, which is operated through the context menu. Possible actions are:

- *Add*. Adds a new line type.
- *Modify*. Modifies the selected line type.
- **Delete**. Deletes the selected line type.

In addition, you can select visible list columns. To change or modify line types the same "*Line type*" window is used:



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r	
Line type	×
	_
Name Account 1	
Outgoing calls Incoming calls	_
✓ Allowed	
Phone prefix	
Allowed numbers	
Dialing mode Digital 💌	
SIP account Account 1	
Operating time	
10:00:00 -> 21:00:00	
Round-the-clock	
	_
Check lines	
V Default	
	_
OK Cancel	

At the top, there is an input text box for specifying line type "*Name*". Below is the page control with two tabs.

First tab is used for configuring outgoing calls settings and displays the following:

- *Allowed.* Specifies whether outgoing calls are allowed or not.
- *Phone prefix.* Specifies the phone prefix that is automatically added to any phone number.
- **Allowed numbers.** Specifies the phone number templates allowed for calling by this line. Empty value means that "all calls" are allowed. Otherwise it should be a set of <u>regular expressions</u> divided by ";". If a call number satisfies at least one regular expression, then it will be allowed. For example, if only 4-digits phone numbers should be allowed then any of these expressions can be used:
  - 1) ^....\$
  - 2) ^.{4}\$
  - 3) ^[0-9]{4}\$
- **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.
- Operating time. Specifies the operating time for making calls. "Round-the-clock" means "24 hours".

Second tab is used for configuring incoming calls settings:

Line type	x
Name Account 1	_
Outgoing calls Incoming calls	
Allowed	
Dialogue	
Operating time	
10:00:00 -> 21:00:00 ->	
Round-the-clock	
Chark lines	_
V Default	
OK Cancel	



It has the following parameters:

- Allowed. Specifies whether incoming calls are allowed or not.
- **Dialogue.** 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".

Below there are following parameters:

- **Check lines**. If checked the "Call Manager" regularly makes empty calls to check if the line is available. Obsolete, used for analogue lines only.
- **Default**. Makes the line type the default. Obsolete, not used.

At the bottom of the window, there are standard buttons:

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

# Phone types

This tab is used for specifying phones settings:

Configuration										×
	-	Phone types								
Lines and types Phone types Global settings Users list Extensions settings	ш	Р	hone types							
External database			Id	Name		Operating tin	ne	Use tone		
Default fields			1	Pulse		Round-the-d	lock	No		
Text-To-Speech	-		2	Tone		Round-the-d	ock	Yes	Ξ	
About										
Hardware settings									 *	
Hardware settings (more)										
Fax settings										
Text-To-Image										
ISDN settings										
X IP technologies	Ŧ								 	
					Def	ault	Apply	0	Can	cel

In the center of the window, there is a "*Phone types*" list, which is operated through the context menu. Each subscriber's phone and fax number is assigned to one of the phone types.

Possible context menu actions are:

- Add. Adds a new phone type.
- *Modify*. Modifies the selected phone type.
- **Delete**. Deletes the selected phone type.

In addition, you can select visible list columns. To change or modify phone types the same "*Phone type*" window is used:



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Phone type	×
Name Tone	
Operating time	
10:00:00 → -> 21:00:00 → Round-the-clock	
☑ Use tone ☑ Default	
OK Cance	1

At the top, there is an input text box for specifying phone type "*Name*". Below there are following parameters:

- **Operating time.** Specifies the operating time for making calls. "Round-the-clock" means "24 hours".
- **Use tone**. If checked the subscriber can press tone digits. Obsolete, all modern phones can send tone digits.
- **Default**. Makes the phone type the default. All new added subscriber's phone contacts will be of that type if not specifically assigned to another type during <u>import</u>.

At the bottom of the window, there are standard buttons:

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

# **Global settings**

This tab is used for specifying global settings:

Configuration								×
	•	Global settings						
Lines and types Phone types Global settings Users list Extensions settings Extension database	I	Common para Generic voi Attempts st are saved	ame ce f tatis	neters file tistics	Queue settings Max queue size Peak load of makin Automatically	ng calls y start "Call manager	1000 2	
Default fields Text-To-Speech About ¥ Hardware Hardware settings		Extended I V Hardwar Detect b V Confirma	re k poar atio	gging  logging  logging  logging (cmlib.log) ards after restart ion prompts  Contabase password	Subscriber proces Max call time (s) Max recorded mes Min recorded mes User timeout (s)	ising settings ssage length (s) sage length (s)	600 10 3 5	
Faraware settings Fax settings Text-To-Image ISDN settings X IP technologies	Ŧ				Maximum bad digi	ts count labels	3	
				Default	Apply	ОК	Can	cel

#### Common settings

- *Generic voice file*. Specifies the voice file that is played before any voice message.
- Attempts statistics. Turns on/off storing of attempts statistics required for preparing and exporting <u>full reports</u>.
- Logging level. Specifies logging verbosity for the "man.log" file.
- *Hardware logging (cmlib.log)*. Turns on/off hardware and VoIP logging to the "*cmlib.log*" file.
- Detect boards after restart. Turns on/off boards check after "Administrator" restarts. Detected lines are shown in the <u>lines</u> list.
- **Confirmation prompts**. Turns on/off asking for confirmations before significant action takes place.
- **Database password**. Allows changing database password for the internal database login "SYSDBA", default value "masterkey".



## Queue settings

- *Max queue size.* Specifies maximum number of prepared in memory subscribers. The value "0" means that no restrictions is applied.
- **Peak load of making calls**. Specifies maximum number of lines where the system is calling. The line where a voice message is played is not counted.
- **Automatically start "Call manager"**. Turns on/off automatic start of the "Call manager" after a task is started.

## Subscriber processing settings

- Max call time (s). Specifies maximum call time in seconds.
- *Max recorded message length (s)*. Specifies maximum length of a recorded message left by a subscriber in seconds.
- *Min recorded message length (s)*. Specifies minimum length of a recorded message left by a subscriber in seconds.
- **User timeout(s)**. Specifies maximum time the system waits for a tone digit from a subscriber in seconds.
- *Maximum bad digits count*. Maximum allowable number of bad digits entered by a subscriber.
- **Enable tone labels**. Turns on/off waiting for the tone digit during dialing, accepted "1" means that the subscriber is unsubscribed, accepted "2" means that the subscriber is busy. Obsolete, for analogue lines only.

# Users list

This tab is used for managing the internal users:

Configuration										×
	•	Users list								
Lines and types Phone types Global settings			U	sers						
Users list	Ε			Id	Lo	ogin		*		
Extensions settings					1 A	dministrator				
External database					2 J	ohn				
Default fields								=		
lext-lo-speech										
ADOUL										
Hardware settings								-		
Hardware settings (more)										
Fax settings										
Text-To-Image										
ISDN settings										
X IP technologies	Ŧ									
						Default	Apply		ок	Cancel

In the center of the window, there is an internal "Users" list, which is operated through the context menu.

Possible context menu actions are:

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

To change or modify a user the same "User settings" window is used:



iain user settings		Access to all data	Access to own data
ogin	PIN		
Jonn	2	Disabled	Full access
assword	E-mail	Subscribers	Subscribers
		Disabled	<ul> <li>Full access</li> </ul>
Confirm	Phone	Statistics	Statistics
		Disabled	Full access
Send brief task rep Send full task rep Notify about finish Notify about finish Access to configu	ports by E-mail orts by E-mail ned tasks using SMS ned tasks using phone call ration		

#### Main user settings

- Login. Specifies the user's login.
- **Password**. Specifies the user's password.
- *Confirm*. Confirms the user's password.
- **PIN**. Specifies the user's PIN that is used for the user's authentication through the phone.
- *Email*. Specifies the user's personal email.
- *Phone*. Specifies the user's personal phone.

#### Access to all data

- **Tasks, Subscribers, Statistics.** Specify the user's privilege for managing tasks, subscribers and statistics owned by any user. Possible values are
  - 1) Disabled. Access is forbidden.
  - 2) Read only. Allows viewing data, modifications are not allowed.
  - 3) Restricted. Allows viewing data and making specific actions.
  - 4) Full. Access is granted for all actions.

#### Access to own data

- **Tasks, Subscribers, Statistics.** Specify the user's privilege for managing tasks, subscribers and statistics owned by the user. Possible values are
  - 1) Disabled. Access is forbidden.
  - 2) Read only. Allows viewing data, modifications are not allowed.
  - 3) Restricted. Allows viewing data and making specific actions.
  - 4) Full. Access is granted for all actions.

#### Additional user settings

- **Send brief task reports by email**. Sends brief task reports to the owner by email if it is specified and sending mails is allowed.
- Send full task reports by email. Sends full task reports to the owner by email if it is specified and sending mails is allowed.
- **Notify about finished tasks using SMS**. Sends SMS notification to the owner by the phone if it is specified and sending SMS is allowed.
- **Notify about finished tasks using phone call**. Calls the owner by the phone if it is specified and plays notification message.
- Access to configuration. Grants the user privilege to modify configuration.

At the bottom of the window, there are standard buttons:

• **Ok**. Saves the user's settings changes and closes the window.



• Cancel. Cancels all changes and closes the window.

## Extensions settings

Here you can configure settings regarding phone extensions and answering machines handling:

Configuration		
Configuration  ✓ Main settings  Lines and types Phone types Global settings Users list Extensions settings External database Default fields Text-To-Speech About  ✓ Hardware Hardware Hardware settings Hardware settings (more) Fax settings	Extensions settings	Minimum silence duration (sec) 1 Wait for silence timeout (sec) 10 Play *** to interrupt IVR greeting Chable simple AM processing Simple AM is considered as a subscriber
Text-To-Image ISDN settings	-	
L X 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Default Apply OK Cancel

Extensions are specified in the subscriber's phone contacts after the "#" sign. This assumes that an outgoing call to this number will be answered by an IVR and the system should dial an extension to reach either the subscriber or his voice mail. If no extension is specified in the phone number but the system encountered an answering machine it can also handle it. Extensions settings are the following:

- *Minimum silence duration (sec)*. Specifies the silence length system waits after dialing an extension or detecting simple AM.
- *Wait for silence timeout (sec)*. Specifies wait for silence timeout after dialing an extension or detecting simple AM.
- *Play "\*" to interrupt IVR greeting*. Turns on/off playing "\*" sign after dialing an extension or detecting simple AM.
- **Enable simple AM processing.** Turns on/off simple AM handling, when unchecked and simple AM greeting is encountered the call is considered as failed with the "Simple AM is detected" result.
- Simple AM is considered as a subscriber. Turns on/off considering AM as a real person e.g. waiting for digits etc.

# External database

Here you can configure external database connection settings:



Configuration						
➢ Main settings		External database				
Lines and types Phone types Global settings Users list Extensions settings External database Default fields Text-To-Speech	III	External database Connect to ex Connection settin Type OD Alias CU Text files with SQ	tternal database gs BC alias L queries SOL-select	extribusel.txt [@	Pass	Login
About		SQL-update/ins	sert for successful calls	extdbups.txt		All subscribers
Hardware     Hardware settings     Hardware settings (more)     Fax settings		SQL-updat	te/insert for failed calls SQL-insert for all calls Message templates file	extdbupf.txt P extdbinr.txt P mescodes.txt P		Test
Text-To-Image ISDN settings		SQL oper	ating time 12:00:00	▲ -> 21:00:00 ▲	Exec	cution interval (min) 0
L♥ IP technologies		<u> </u>		Default App	bly	OK Cancel

Unlike the task <u>external database</u> connection, this global external database connection is not belonged to a specific task so you cannot prepare or export reports on its subscribers and SQL queries are executed without date range. Most of the settings are the same as in the task <u>external database</u> connection, but some are specific:

- **Attempts logging**. Specifies when the "SQL-insert for all calls" should be executed:
  - 1) "Off". Never.
  - 2) "Internal subscribers only". Only after an internal subscriber is called.
  - 3) "External subscribers only". Only after an external subscriber is called.
  - 4) "All subscribers". After any attempt.
- **Message templates file**. Specifies a text file with the message templates on each line. The required message can be addressed from the *SQL-select* query by its line number starting from "1".
- **SQL operating time.** Specifies operating time when <u>SQL-select</u> is executed.
- Execution interval (min). Specifies the interval between consecutive <u>SQL-select</u> executions.

#### Default fields

Here you can configure default subscriber's field values:

Configuration								×
➢ Main settings	*	Default fields						
Lines and types Phone types Global settings Users list Extensions settings External database Default fields Text-To-Speech About	ш	Fields Company Zip Country Address Post Numbers	Great Britain		Region City Dates Time	London London 21.07.2014 11:09:42		
		Symbols			PIN			
Hardware settings Hardware settings (more) Fax settings Text-To-Image ISDN settings		Priority	Normal	•	Language	English	•	
	Ŧ							 
				Defau	ult	Apply	ОК	Cancel

# Text-To-Speech (TTS)

Here you can configure Text-to-speech settings required for generating audio from text files:



Configuration											×
➢ Main settings	1	Text-To-Speech									
Lines and types Phone types Global settings		Text-To-Speed	ch TS (t	ext-to-speech)	A			61			
Extensions settings External database Default fields Text-To-Speech About		TTS setting Volume Speed	gs min	osott Anna - Englist	max.	M	Good morning!		1000		
			-10	0	10						
Hardware settings Hardware settings (more) Fax settings Text-To-Image ISDN settings								Test			
	-	<u></u>									
					Defau	lt	Apply	ОК		Cance	1

Though the system has its own voice primitives engine, which allows playing digits, numbers, dates and currencies, sometimes it is required to prepare voice messages directly from a custom text information. This can be done through TTS engines using Microsoft SAPI technology.

Text-To-Speech settings are the following:

- Enable TTS (text-to-speech). Turns on/off using TTS.
- TTS engines. Specifies the TTS engine to be used for generating voice files.
- Volume. Specifies the volume gain level of speech.
- Speed. Specifies the speed gain level of speech.
- Cache synthesized files. Turns on/off caching of the generated voice files.
- *Max cache size*. Specifies maximum files count in the cache.

"Test" button allows engine testing by generating audio from the text memo above.

#### Hardware

This group of settings affects low-level hardware and software specific technologies.

# Hardware settings

Here you can configure various settings regarding telephony equipment and low-level software:

Configuration					×
		Hardware settings			
Lines and types Phone types Global settings Users list Extensions settings External database Default fields Text-To-Speech About	Ш	Voice Detection settings   Voice Detection Settings   Simple AM Detection  Detection Speed Value  Quick  Full  Accurate  Minimum PAMD ring (ms)  1900  Accurate	Make call settings Make call timeout (s) Pause after connection (ms) Maximum inter-ring (s) Continuous no signal (s) Start delay (ms) Dial tone detection	40 1000 8 40 250	
¥ Hardware Hardware settings Hardware settings (more) Fax settings Text-To-Image UCDN settings		Voice play settings Volume min. 0 max.	Enable dial tone detection Dial tone present (ms) Dial tone not present (ms) Dial tone debounce (ms)	1000 3000 100	
X IP technologies	Ŧ	Default	Apply OK	Canc	:el

# Voice detection settings

• Enable ISDN/IP Call Analysis. Turns on/off using call progress analysis on digital lines.



- Simple AM detection. Turns on/off using simple AM detection.
- **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).

# Voice play settings

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

# 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.
- *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).
- **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)

# Dial tone detection

- **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).

# Hardware settings (more)

Here you can configure additional settings regarding telephony equipment and low-level software:



Configuration						l
✤ Main settings	Â	Hardware settings (more)				
Lines and types		Cadence detection settings	Tone signals settings			
Phone types		High glitch (ms) 190		Frequency (Hz)	500	
Global settings		Low glitch (ms) 150	Busy	Freq. deviation (Hz)	200	
Users list	=	Cont. nonsilence (ms)	Disconnect		200	
Extensions settings			Ringback	Frequency 2 (Hz)	0	۲
External database		Maximum answer (ms) 100	00 🗟 💿 Fax CNG	Freq. 2 deviation (Hz)	0	
Default fields		Answer deglitcher (ms) -1	E Fax CED	On time (ms)	550	
Text-To-Speech		Hello edge		On time day (ma)		
About		Rising edge	[]	On time dev. (ins)	400	Ē
X. Hardware		Falling edge		Off time (ms)	550	
	-			Off time dev. (ms)	400	
Hardware settings		Test call	0 5000	Repetition	4	
Hardware settings (more)						
Fax settings						
Text-To-Image						
ISDN settings						
✓ IP technologies	-	<u> </u>				
			Default Appl	и ок	Car	ncel

# Cadence detection settings

- *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.

# Tone signals settings

Possible signals to be detected:

- **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).



# Test call

If the "*Call manager*" is started, you can make a test call through "*Administrator*" by pressing "*Test Call*" button:

Test	<b>×</b>
Test phone number	
Voice file	
	P
Tone dialing	
ОК	Cancel

Here you can specify *"Test phone number"*, the *"Voice file"* to be played and *"Tone dialing"* for analogue lines. The *"Ok"* button starts making test call and *"Cancel"* closes the window.

# Fax settings

Here you can configure fax low-level settings:

Configuration		
	-	Fax settings
Lines and types Phone types Global settings Users list Extensions settings External database Default fields Text-To-Speech About	Е	Fax send/receive settings       Baud rate         Local Id       Header       Baud rate         1234567       Fax sent on [Date] at [Time] from [FaxID]       Max baud           Fax send mode       Hardware resolution       TIFF compression         A4 multi-page       High (200x200)       G4, MMR           Outgoing faxes (pre-processing)       Image type       Resolution       Resampling method       White       Black         Hardware       Simple dithering       0       5
➢ Hardware Hardware settings Hardware settings (more) Fax settings Text-To-Image ISDN settings		Dialogic fax     1     Fax greeting       Page retry counts     1     Fax greeting       Bad lines percentage before RTN     15     Fax voice.wav       Bad lines percentage before RTP     5     Fax voice.wav
✗ IP technologies	+	Default Apply OK Cancel

*Fax send/receive settings* 

- Local Id. Specifies phone number used for transmission.
- *Header*. Specifies text to be inserted before the image.
- Baud rate. Specifies transmit and receive baud rate.
- 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.
- *Hardware resolution*. Specifies image resolution for all fax data during fax transmission.
- *Tiff compression*. Data transmission/reception encoding scheme:
  - 1) G3, MH. Modified Huffman.
  - 2) G3, MR. Modified Read.
  - 3) G4, MMR. Modified Modified Read.

#### Outgoing faxes (pre-processing)

- *Image type*. Specifies image type accepted by the fax hardware and software.
- *Resolution*. Specifies image resolution accepted by the fax hardware and software.
- **Resampling method**. Specifies image conversion method to prepare required images.



- White. Specifies whitening gain level.
- Black. Specifies blackening gain level.

# Dialogic fax

- 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.

The "*Fax greeting*" specifies a voice file to be played before fax transmission if a human is detected on the line.

## Text-to-Image

Here you can configure text to image conversion settings used for fax transmission:

Configuration									×
	-	Text-To-Image							
Lines and types Phone types Global settings Users list Extensions settings	ш		Font				-		
External database			Arial, 12 p	ot, Regular		-	Ľ		
Default fields			Left margir	1		10 I op margin			
About			Bottom ma	rain		Right margin			
About 1			10			10			
Hardware Hardware settings Hardware settings Hardware settings Text-To-Image ISDN settings									
	Ŧ	L							
				D	efault	Apply		ок	Cancel

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

# **ISDN** settings

Here you can configure ISDN settings:

Configuration						<b>—</b>
Phone types	*	ISDN settings				
Global settings						
Users list Extensions settings External database Default fields Text-To-Speech About	III	ISDN settings Origination 1234567 Numbering type Unknown Numbering plan Unknown Dialing mode Enblock				
IP technologies     SIP settings     H.323 settings	Ŧ					
			Default	Apply	ОК	Cancel



- **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.

# **IP** technologies

This group of settings affects various VoIP technologies. IP connections can be established through SIP or H.323 protocols, RTP audio can be encoded/decoded using G.711, G.723, G.729 or GSM codec, faxes can be sent and received using T.38 and G.711.

# SIP settings

Here you can configure various settings regarding SIP VoIP technology:

Configuration					-
Default fields	-	SIP settings			
Text-To-Speech		-			
About		SIP settings			
		Enable SIP		Account 1	
Hardware settings		Display U Artix SIP phone A	Display User Agent Artix SIP phone Artix User-Agent		t registration
Eav settings		DTMF signaling mode	Accounts	Proxy with re	gistration
Tax Seconds		All modes are available	<b>v</b> 1 🚍	Proxy with R	egistrar
ICON activities				Phone (Extension)	
ISDN settings	=	Use proxy		100	
➢ IP technologies		Proxy address	Proxy port	Domain	Domain port
67D		192.168.0.192	5090 🕃	localhost	5060
SIP settings H 323 settings		Transport protocol	Local port	User alias	User password
Codecs list	_	UDP	▼ 5060 😴	100	•••
Voice over IP settings		Enable fast start		Realm	Registration lifetime
Fax over IP settings		Allow re-INVITE			3600
		Allow session timers		·	
¥ Email	-			-	
			Default	Apply	OK Cancel

Common settings

- **Enable SIP**. Turns on/off using SIP.
- **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.
- Accounts. Specifies number of SIP accounts.
- *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.
- Enable fast start. Enables fast connection.
- Allow re-INVITE. Allows using re-INVITE method for fax sessions.
- Allow session timers. Allows using session timers to remove hanged SIP connections.

# Individual 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.
- Domain. SIP account Registrar domain name.
- **Domain port**. SIP account Registrar domain port.
- User alias. SIP account name.
- User password. SIP account password.
- Realm. SIP realm.
- **Registration lifetime**. Registration lifetime.

# H.323 settings

Here you can configure various settings regarding H.323 VoIP technology:

Configuration					×
Default fields         Text-To-Speech         About         ✓ Hardware         Hardware settings         Hardware settings         Fax settings         Text-To-Image         ISDN settings         ✓ IP technologies         SIP settings         H.323 settings         Codecs list         Voice over IP settings         Fax over IP settings		H.323 settings H.323 settings Enable H.323 Display User-To-User information Artix H323 phone Artix H323 User-To-User DTMF signalling mode Local port All modes are available  T1720 Origination type 100 H.323 terminal type Gateway Cateway Cateway Mandatory H.245 channel	Account 1 Connection Type Gateway Gateway Gatekeeper Phone 100 H.323 Id 100 E-mail test@artix.ru	Gateway address 127.0.0.1 Registration lifetime 0	
💝 E-mail	-				
L		Default	Apply	OK Cano	el

# Common settings

- Enable H.323. Turns on/off using H.323.
- *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.
- **Origination**. Specifies H.323 origination.
- **Origination type**. Specifies H.323 origination type.
- *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.

# Individual 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.

# Codecs list

Here you can configure available VoIP codecs:



Configuration											
Default fields Text-To-Speech About	*	Codecs list									
	-	Audi	o codecs sett ailable codecs	ings				Used codecs			
Hardware settings Hardware settings (more)		C	odec type	Frm/Pkt	VAD	-	Add	Codec type	Frm/Pkt	VAD	
Fax settings Text-To-Image ISDN settings	ш	9 9 9 9	.711ulaw .711ulaw .711ulaw .711ulaw	10 20 30 10	False False False False		Delete	G.711ulaw G.711Alaw	20 20	False False	
➢ IP technologies		G	.711Alaw .711Alaw	20 30	False False						
SIP settings H.323 settings		G	.723_5.3k .723_5.3k	1 2	False False	-					
Codecs list Voice over IP settings Fax over IP settings			Try using fas	t start code	ecs in the	e inco	oming call				
≽ E-mail	-										
						0	efault	Apply	ОК		Cancel

On the left side of the window, there is a list of all "Available codecs", on the right side – a list of "Used codecs". Buttons "Add" and "Delete" manage these lists.

"Try using fast start codecs" parameter allows the system to change used codecs according to the remote request during fast start.

## Voice over IP settings

Here you can configure some Voice over IP settings:

Configuration		
Default fields Text-To-Speech About	*	Voice over IP settings
		Voice over IP settings Volume Incoming data O © Cutgoing data O © Enable echo cancellation Enable comfort noise (NLP) Echo tall (ms) 16 ms
<ul> <li>✓ IP technologies</li> <li>SIP settings</li> <li>H.323 settings</li> <li>Codecs list</li> <li>Voice over IP settings</li> <li>Fax over IP settings</li> <li>M.5 and</li> </ul>		
	Ŧ	
		Default Apply OK Cancel

Volume

- Incoming data. Specifies incoming data volume gain.
- **Outgoing data**. Specifies outgoing data volume gain.

#### Echo cancellation

- *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.

## Fax over IP settings

Here you can configure some Fax over IP settings:



Configuration						
Default fields Text-To-Speech About	*	Fax over IP settings				
¥ Hardware Hardware settings Hardware settings (more) Fax settings Text-To-Image ISDN settings		Fax over IP settings FoIP mode T.38 Fax + G.711 Fax				
<ul> <li>✓ IP technologies</li> <li>SIP settings</li> <li>H.323 settings</li> <li>Codecs list</li> <li>Voice over IP settings</li> <li>Fax over IP settings</li> </ul>						
¥ E-mail						
			Default	Apply	ОК	Cancel

- 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.

## Email

This group of settings affects various email technologies. Email messages can be sent and received using SMTP and POP3 protocols or through connection to MS Exchange Server using Extended MAPI protocol. POP3/SMTP and Extended MAPI work independently of each other.

#### POP3 settings

Here you can configure POP3 settings for incoming mails:

Configuration							<b>—</b> × <b>—</b>
Hardware settings (more) Fax settings Text-To-Image ISDN settings	*	POP3 settings					
<ul> <li>➢ IP technologies</li> <li>SIP settings</li> <li>H. 323 settings</li> <li>Codecs list</li> <li>Voice over IP settings</li> <li>Fax over IP settings</li> <li>➢ E-mail</li> <li>POP3 settings</li> <li>SMTP settings</li> <li>MAPI integration settings</li> <li>Additional mail settings</li> <li>MAPI</li> </ul>	III	-5 [ [	POP3 settings POP3 settings POP3 server mail.newhost.ru .ogin test@artix.ru Disable	Disabled Server port 110 Password • Enable	<b>a</b>		
SMS	Ŧ						
			Default	Apply		OK	Cancel

For POP3 connection, you need to configure standard POP3 settings: "POP3 server", "Server port", "Login" and "Password". Buttons "Disable" and "Enable" turn off/on using POP3.

#### SMTP settings

Here you can configure SMTP settings for outgoing mails:



Configuration							<b>—</b> ———————————————————————————————————
Hardware settings (more) Fax settings Text-To-Image ISDN settings	*	SMTP settings					
➢ IP technologies			SMTP settings				
SIP settings				SMTP status	Disabled		
H.323 settings			SMTP server	Server port	Encoding		
Codecs list			mail.newhost.	25	Cyrillic (KOI8-R)		
Voice over IP settings			Login	Password	Reply address		
Fax over IP settings			test@artix.ru	•	test@artix.ru		
X E-mail	Ξ		Reply name				
			Artix-Line	Disable	Enable		
POP3 settings SMTP settings							
MAPI integration settings							
Additional mail settings							
¥ SMS	-						
				Default	Apply	ОК	Cancel

For SMTP connection, you need to configure standard SMTP settings: "SMTP server", "Server port", "Encoding", "Reply address", "Reply name", "Login" and "Password". Buttons "Disable" and "Enable" turn off/on using SMTP.

# MAPI integration settings

Here you can configure Extended MAPI settings for connection to MS Exchange Server:

Hardware settings (more) Fax settings Text-To-Image ISDN settings V IP technologies SIP settings Codecs list Voice over IP settings Fax over IP settings Fax over IP settings Voice over IP settings Fax over IP settings Fax over IP settings Fax over IP settings Voice over IP settings Fax over IP settings Fax over IP settings Voice over IP settings Fax over IP settings Voice over IP settings Voice over IP settings Voice over IP settings Voice over IP settings Fax over IP settings Voice over IP settings Voice over IP settings Fax over IP settings Voice over IP settings Fax over IP settings Voice over IP settings Voic	Configuration			
<ul> <li>¥ IP technologies</li> <li>SIP settings</li> <li>H.323 settings</li> <li>Codecs list</li> <li>Voice over IP settings</li> <li>Fax over IP settings</li> <li>¥ E-mail</li> <li>POP3 settings</li> <li>SMTP settings</li> <li>Additional mail settings</li> <li>¥ SMS</li> </ul>	Hardware settings (more) Fax settings Text-To-Image ISDN settings	*	MAPI integration settings	
	<ul> <li>➢ IP technologies</li> <li>SIP settings</li> <li>H.323 settings</li> <li>Codecs list</li> <li>Voice over IP settings</li> <li>Fax over IP settings</li> </ul>			MAPI MAPI status Disabled Disable Enable
	<ul> <li>➢ E-mail</li> <li>POP3 settings</li> <li>SMTP settings</li> <li>MAPI integration settings</li> <li>Additional mail settings</li> </ul>	III		
	¥ SMS	Ŧ		

Buttons "*Disable*" and "*Enable*" turn off/on using Extended MAPI. There no more connection parameters cause them all should be configured in MS Outlook.

## Additional mail settings

Here you can configure some additional settings regarding email handling:



Configuration							×
Hardware settings (more) Fax settings	*	Additional mail settings					
Text-To-Image ISDN settings		Subject Artix Broadsword					
♥ IP technologies SIP settings		Mail check interval	(s)	5			
H.323 settings Codecs list Voice over IP settings Fax over IP settings							
E-mail     POP3 settings     SMTP settings     MAPI integration settings     Additional mail settings	III						
¥ SMS	Ŧ				 		
			[	Default	Apply	ОК	Cancel

- Subject. Specifies the subject of all outgoing email messages.
- Mail check interval (s). Interval between two consecutive mail checking.

# SMS

This group of settings affects various SMS technologies. SMS messages can be sent and received using GSM cell phone/modem or through SMTP servers of cellular providers.

## **GSM** settings

Here you can configure GSM settings:

Configuration			×
Text-To-Image ISDN settings	*	GSM settings	
<ul> <li>※ IP technologies</li> <li>SIP settings</li> <li>H.323 settings</li> <li>Codecs list</li> <li>Voice over IP settings</li> <li>Fax over IP settings</li> <li>※ E-mail</li> </ul>		GSM settings Comment of the settings Comment	ort timeout 20 💭 MSC center Lead messages
POP3 settings SMTP settings MAPI integration settings Additional mail settings	ш	SMS limit per phone     Hardware     N       0     Daily     Baud rate     Af       Process reports     9600     ✓       Reports timeout     SMS mode       167     This means: 24 hour(s)     PDU mode	Vew only
GSM settings SMPP settings	•	Default Apply	OK Cancel

To send SMS messages using GSM phone or modem, first you should connect it someway to a PC and then configure the phone software to make it work as a modem connected to a virtual COM port. GSM settings are the following:

- **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 SMS count limit of sent messaged for each phone. Messages 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" button is for testing modem properties.

## SMPP settings

Here you can configure SMPP settings:

Configuration								×
Text-To-Image ISDN settings	*	SMPP settings						
		SMPP settings	rough SMDD servers					
SIP settings H.323 settings		Phone prefix	Server address	Server port		Login	Password	
Codecs list		+7902; +7916	192.168.0.1	8200	۲			
Voice over IP settings		+7903	192.168.0.1	8200	۲			
Fax over IP settings	_	+7926	192.168.0.1	8200	۲			
➢ E-mail POP3 settings SMTP settings MAPI integration settings Additional mail settings	ш							
<ul> <li>✓ SMS</li> <li>GSM settings</li> <li>SMPP settings</li> </ul>	•							
				Default		Apply	ОК	Cancel

To send SMS messages using SMPP server of the cellular company it should offer you this service and provide you with SMPP server settings, which are the following:

- **Phone prefix**. The setting is required to be specified if you have multiple SMPP servers and you need intellectually select them depending on the phone prefix.
- Server address, Server port, Login and Password. Service provider SMPP server settings.

# 3.2 Call Manager

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



词 Broad	Isword Call N	/lana	ger						×
Line	Line type	0.	s.	Date	Time	Event	Parameter	Value	
Line 1 2 3 4 5 6 7 8 9 10	Line type Account 1 Account 1	0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	S. 0 2 2 2 2 2 2 2 0 0 0	Date 28.08 28.08 28.08 28.08 28.08 28.08 28.08 28.08 28.08 28.08	Time 15:57 15:57 15:57 15:58 15:58 15:58 15:58 15:58	Event Waiting for the digits Calling: 102 (102) Calling: 102 (102) Calling: 102 (102) Playing file: C:\Program File Playing file: C:\Program File Playing file: C:\Program File Calling: 102 (102) Calling: 102 (102) Calling: 102 (102)	Parameter Manager Dialogic d Brooktro Eicon driv Pika drivers SIP acco H.323 ac Database External Total line Active tasks Phone qu Email queue Calls results Sent to phone	Value           Running, ve           Loaded, ver           Not loaded           Not loaded           Registered: 1           Not loaded           28.08.2014           0           10           6           230           0           Image: Not loaded           Participation           Not loaded           230           0	
Broadswe	ord Call Mana <u>o</u>	jer, \	versi	on 6.0 build	16591		<ul> <li>486 Busy He</li> <li>407 Proxy Ai</li> <li>Busy</li> <li>Log-file</li> </ul>	re 100 J 12 32	

On the left side of the window, there is a list of available lines, at the top right – some session information and at the bottom right side - attempts statistics during the "*Call manager*" session.

The lines context menu has the following options:

- *Terminate call*. Terminates the call on the current line.
- *Listening and recording.* Specifies menu items group responsible for listening to 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) Make/Cancel service line. To allow listening and recording on any line another line should be devoted to service purposes. This line is extracted from the calling lines pool and thus cannot be used for making calls.
- Visible columns. Allows selecting lines list visible columns.

"Call manager" tray icon has a context menu with the following options:

- *Restore*. Opens main window. The same effect could be achieved by tray icon double click.
- Log-file. Opens log files browser with automatically opened file "man.log".
- <u>Settings</u>. Open configuration window.
- Close. Closes "Call manager".

At the bottom of the window, there are standard buttons:

- Log-file. Opens log files browser with automatically opened file "man.log".
- *Close*. Closes or hides main window.

# 3.2.1 Settings

The "Settings" option called from the tray menu icon brings up the "Settings" window:



Settings	×
Close <sup>®</sup> button bides	
Close button hides	
Maximum recording time (min)	60
Default OK	Cancel

- **Close "button" hides**. Specifies whether "Close" button from the main window exits the "Call manager" or just hides it.
- *Maximum recording time (min)*. Specifies maximum length of a recorded file when line is being recorded.

At the bottom of the window, there are standard buttons:

- **Default**. Sets all configuration settings to their default values.
- **Ok**. Saves all configuration settings changes and closes the window.
- *Cancel*. Cancels all configuration settings changes and closes the window.

# 3.3 Database Check

"Database check" is a utility for managing the system database file:

Warning!!! Before starting database restru	cturing, stop all Artix Broadsword utilities!
Restructuring mode	- unitable contra la seconda da sec
Clocal database restructuring	y without losing data
Global database restructurin	ig with complete loss of data
Subscribers table properties	
Unique "Last Name" field	
Unique "Phone 1" field	

The "Database check" utility can be used for two purposes:

- 1) To update the database file created in an old BroadsWord version to reflect changes that have been made in newer version.
- 2) To change subscribers table properties so that the "Last name" or "Phone" fields or both became unique. The uniqueness of these fields prevents from using the same "Last name" or "Phone" values twice.
- *3)* To reduce dramatically the database file size because it constantly grows with time and never decreases automatically even when records are deleted.

The "Database check" utility has the following parameters:

- *Restructuring mode*. Specifies the way the restructuring process will affect the database:
  - 1) Local database restructuring without losing data. Tries to leave the database file intact as much as possible. Mostly it keeps all previous data.
  - 2) Global restructuring with complete loss of data. Erases the old database file and creates a new one. All data will be lost
- Subscribers table properties. Specifies unique subscribers fields:
  - 1) Unique "Last Name" field. Values of the "Last Name" field will be unique; duplicates will be deleted and never be added again.



2) Unique "Phone 1" field. Values of the "Phone 1" field will be unique; duplicates will be deleted and never be added again.

At the bottom of the window, there are standard buttons:

- Start. Starts restructuring process.
- *Close*. Exits the program without restructuring.

# 3.4 Quick Start

"Quick start" is a utility for the simplest way to start and stop the saved tasks:

Task			
test 505035	i		-
Status			
Task is start	ed, Sent: 0		
	Start		
-	Stop	Close	

Utility interface is laconic and allows only:

- 1) Selecting a standard "Task"
- 2) "Starting" or "Stopping" an active task.
- 3) "Closing" the program.

# 3.5 Database Viewer

"Database viewer" is a utility for viewing tables from arbitrary database:

Artix Database Viewer	<b>—</b> ×-
Database CU Table INCOMING	
FireBird, Interbase file	Select a table
ADO udi file (OLE DB/ODBC) ODBC alias CU	CALIROUTES  CONFERES CONFERENCES CONFIG CONFIG CONFISTAT CONFUSERSTAT FORWARD GROUPS INCOMING INLINETYPES
	Next Close

First, you should specify a "Data source" from which you wish to view tables. It could be:

- 1) Firebird or Interbase database file (\*.fdb; \*.ib)
- 2) ADO connection file (OLE DB) (\*.udl)
- 3) ODBC alias

Then you should "*Select a table*" from the list of all available tables. At the bottom of the window, there are standard buttons:

- Next. Opens the next step.
- *Close*. Exits the program.



If you pressed the "Next" button a "Table" window will show up:

T 📅	ſab	le: LINE	TYPES															x
ID		NAME	EXITC(	SIPAC	USETC	TEMPL	START	ENDTI	ROUNI	USEOL	USEIN	START	ENDTI	ROUN	PROMI	CHECK	DEFAL	*
	1	Accoun		0	Т		10:00:0	21:00:0	т	Т	F	10:00:	21:00:	т		F	т	
	2	Accoun		-1	Т		10:00:0	21:00:(	т	Т	F	10:00:	21:00:	т		F	F	
	3	Accoun		-1	Т		10:00:0	21:00:(	Т	Т	F	10:00:	21:00:	Т		F	F	
																		•
												E	xport	F	Refresh		Close	

Table data is viewed as a data grid.

At the bottom of the window, there are standard buttons:

- **Export**. Exports the table to a text file with ";" as a divider.
- *Refresh*. Refreshes table data if it is been changed outside the program.
- *Close*. Closes the window.

# 3.6 Log File Viewer

"Log File Viewer" is a utility for viewing log files created by the system:

📑 Artix Log	File Viewer [C:\Program	Files (x86)	\Artix BroadsWord\cmlib.log]
All	•		8
#	Date, time	Туре	Event
0 201639	29.08.2014 00:10:00	B1C5	gc_Close succeeded
0 201640	29.08.2014 00:10:00	B1C5	CMCloseChannel(): gc_Close finished: board: 1, channel: 5
0 201641	29.08.2014 00:10:00	B1C5	CMCloseChannel(): Channel successfully closed, board: 1, channel: 5
0 201642	29.08.2014 00:10:00	B1C2	gc_Close succeeded
0 201643	29.08.2014 00:10:00	B1C2	CMCloseChannel(): gc_Close finished: board: 1, channel: 2
0 201644	29.08.2014 00:10:00	B1C2	CMCloseChannel(): Channel successfully closed, board: 1, channel: 2
0 201645	29.08.2014 00:10:00	B1C6	gc_Close succeeded
0 201646	29.08.2014 00:10:00	B1C6	CMCloseChannel(): gc_Close finished: board: 1, channel: 6
0 201647	29.08.2014 00:10:00	B1C6	CMCloseChannel(): Channel successfully closed, board: 1, channel: 6
0 201648	29.08.2014 00:10:00	System	CMUninitLib(): Finishing CMLib
0 201649	29.08.2014 00:10:00	System	ipt_unregistration(): starting (SIP)
0 201650	29.08.2014 00:10:00	System	gc_ReqService succeeded
0 201651	29.08.2014 00:10:01	System	gc_GetMetaEventEx succeeded
0 201652	29.08.2014 00:10:01	System	GC ProcessRegistration(): IPPARM_PROTOCOL_BITMASK: protocol: SIP
201653	29.08.2014 00:10:01	System	ipt_unregistration(): done, result: True
201654	29.08.2014 00:10:01	System	GC ProcessRegistration(): IPPARM_REG_STATUS: IP_REG_CONFIRMED: SIP unregistered
201655	29.08.2014 00:10:01	System	ipt_unregistration(): SIP account 1 (alias 100) is successfully unregistered
201656	29.08.2014 00:10:01	System	GC ProcessRegistration(): IPSET_REG_INFO/IPPARM_REG_SERVICEID: 0x2
01657	29.08.2014 00:10:01	System	gc_Close succeeded
201658	29.08.2014 00:10:01	System	finish_boards() IP boards are stopped
201659	29.08.2014 00:10:01	System	CMSetEventHandlers(): Handlers are disabled
201660	29.08.2014 00:10:03	System	gc_Stop succeeded
0 201661	29.08.2014 00:10:03	System	CMSetEventHandlers(): Global Call is stopped
0 201662	29.08.2014 00:10:03	System	CMUninitLib(): Event handlers are stopped
201663	29.08.2014 00:10:03	System	CMUninitLib(): All hardware libraries are unloaded
201664	29.08.2014 00:10:03	System	CMUninitLib(): Board chassis is freed
0 201665	29.08.2014 00:10:03	System	CMUninitLib(): CMLib is finished
Search	-	1 🔽 🗚	uto update

All log file are located in the main installed directory.

Log file data is shown as a list of events each marked according to its status:

Specifies a normal event.



- 🔺 Specifies a warning event.
- Specifies a critical event.

At the top of the window there are fields allowing events filtering, if the filter text is found somewhere in the event then it will be shown, otherwise will not. To apply a filter press 5 button, to remove – clear the filter field.

At the bottom left of the window, there are search field allowing events searching back and forth and "Auto update" checkbox for turning on/off automatic log file updating if it is changed outside the program. At the bottom right of the window, there are standard buttons:

- *Clear*. Clears the log file.
- *Refresh*. Refreshes the log file.
- **Open**. Opens a log file.
- *Close*. Exits the program.



# 4 Appendixes

# 4.1 Directory structure and languages

Artix BroadsWord can use various user files for different purposes that should be placed in the predefined user directories.

# 4.1.1 User data directories

«\DATA\» - Directory for all text, image and voice files.
«\DATA\TEXTS\» – Subdirectory for all text files.
«\DATA\VOICE\» – Subdirectory for all voice files.
«\DATA\IMAGES\» – Subdirectory for all image files.

Language subdirectories

These directories contain user data for the subscriber with the specific language.

«\DATA\~~~\RUS\» – Subdirectory for Russian language files.

«\DATA\~~~\ENU\» – Subdirectory for English language files.

Whenever a data file is needed, it is always selected from the language subdirectory disregarding the file path.

# Recorded messages directory

This directory contains all subscribers recorded messages and <u>line recorded files</u>. «**\INCOME\**» - Subdirectory for recorded messages files.

# External database SQL files directory

This directory contains all SQL queries text files for <u>external database connection</u>. **«\EXTERN\»** - Subdirectory for SQL text files.

# **Reports directory**

This directory contains all <u>exported reports</u>. «\**REPORTS**\» - Subdirectory for all exported reports.

# Data connection directory

This directory contains all UDL files for <u>external database connection</u>. **«\UDL\»** - Subdirectory for all UDL files.

# Scripts directory

This directory contains all <u>script files</u>. «\SCRIPTS\» - Subdirectory for all script files.

# 4.2 Remote task start

The user can start the task not only from the server "Administrator" utility but also in many other ways.



# 4.2.1 Using client utilities

The task can be started remotely through the client versions of "Administrator" or "Quick Start" utilities.

# 4.2.2 Using SMS

The task can be started remotely using SMS message from the phone specified in the <u>user settings</u>. Text message should contain only one number – Id of the saved task.

# 4.2.3 Using email

The task can be started remotely using email message from the address specified in the <u>user settings</u>. email message subject should contain only one number – Id of the saved task and the body should contain only one word – user password.

# 4.2.4 Using phone

The task can be started remotely using phone. For this purpose, a "*TaskControl.pas*" script for incoming calls is used. Therefore, you just need to enable incoming calls and specify "*TaskControl*" script as a <u>line type</u> dialogue.

# 4.3 SQL writing guidelines

# Common information

*"SQL-select"* file contains SQL query, which should select subscribers from the external database. *"Call manager"* regularly executes this query to obtain subscribers needed to be called. After the attempt is made one of two *"SQL-update/insert"* queries is executed according to the attempt result.

Each file should contain one query. Query parameters are used with ":" like this: ":*Time*". Guidelines below describe SQL queries applied only for the task <u>external database</u>.

# SQL-select

Common possible fields

- ID (Integer). Unique subscriber id in the external database.
- Name (String) Subscriber name
- Language (Integer) Subscriber language.
- Number1, Number2... Number5 (Float) Subscriber float fields.
- String1, String 2... String 5 (VarChar) Subscriber text fields.
- Date1, Date2... Date5 (DateTime) Subscriber date fields.
- Time1, Time2... Time5 (DateTime) Subscriber time fields.
- VoiceFile1, VoiceFile2, VoiceFile3 (VarChar) Subscriber voice files.
- TextFile1, TextFile2, TextFile3 (VarChar) Subscriber text files.
- ImageFile1, ImageFile2, ImageFile3 (VarChar) Subscriber image files.

#### Common possible parameters

• :Time (DateTime) – Current time.



# Phone broadcasting

Required fields

• *Phone (String)* – Subscriber phone to call.

# Possible fields

- **PhoneType (Integer)** Subscriber phone type.
- PhoneSendCondition (Integer) Subscriber criterion of whether he received a voice message or not
- ConfirmCode (String) Subscriber PIN

# Examples

SELECT user\_id AS id, userphone AS phone, messageid AS messagecode FROM config WHERE (balance<-100) AND (starttime>=:time) AND (endtime<=:time)

# SQL-update/insert

While executing "SQL update/insert" query the "Call manager" fills some parameters with the values obtained from the "SQL select" query and some with the attempt specific data:

# Possible parameters

- :ResultCode (Integer) Result code (attempt data).
- :ResultString (String) Result text (attempt data).
- :ID (Integer) Subscriber Id (SQL select data).
- :Name (String) Subscriber name (SQL select data).
- :Phone (String) Subscriber phone (SQL select data).
- :Mail (String) Subscriber email (SQL select data).
- :Fax (String) Subscriber fax (SQL select data).
- :SMS (String) Subscriber cell phone (SQL select data).
- :Time (String) Attempt time (attempt data).
- :Date (String) Attempt date (attempt data).
- :DateTime (String) Attempt date and time (attempt data).
- :ListenedTime (Float) Length of message part listened by the subscriber (attempt data).
- *:LastDigit (String)* The last sent tone digit (attempt data).
- :VoiceMessage (String) Voice message (attempt data)
- :TaskName (String) Task name (attempt data)

# Example

UPDATE Config SET Code=:ResultCode, Result=:ResultString WHERE User\_id=:ID

Result codes

20	Successful call
19	Phone checked
18	Paged
17	Alarmed
16	Notified by fax
15	Notified by phone
14	SMS delivered



13	Sent to user
12	Transferred to operator
11	SMS sent
10	Email sent
9	Sent to fax
7	Sent to voice mail
6	Paged
5	Sent, not listened
4	Confirmed and replied
3	Replied
2	Confirmed
1	Sent to phone
0	Unsent
-3	Waiting
-4	Not processed
-5	Invalid message data
-6	Fax failed
-7	No suitable line
-8	Postponed
-9	Invalid message format
-10	Unavailable line
-11	Nowhere to call
-12	Sent, not confirmed
-13	Fax detected
-14	No Answer
-15	No Dial Tone
-16	Busy
-17	No Ringback
-18	Hardware error
-19	Simple AM is detected
-23	Sent, continue
-25	Empty phone
-26	Intercepted by operator
-27	Aborted by operator
-28	SMS sent, not delivered
-29	SMS delivery failed



-30	Rejected by operator
-31	Disconnect
-32	Not confirmed
-33	Time expired
-34	Label, rejected
-35	Label, postponed
-37	Inactive
-39	Email not sent
-40	SMS failed
-42	Pending
-43	Outgoing call
-44	Conversion error
-45	File is missing
-47	Hardware error
-48	Call data deleted
-49	Conference error
-50	Not sent to user
-51	Failed call
-300	SIP 300 Multiple Choices
-301	SIP 301 Moved Permanently
-302	SIP 302 Moved Temporarily
-305	SIP 305 Use Proxy
-380	SIP 380 Alternative Service
-400	SIP 400 Bad Request
-401	SIP 401 Unauthorized
-402	SIP 402 Payment Required
-403	SIP 403 Forbidden
-404	SIP 404 Not Found
-405	SIP 405 Method Not Allowed
-406	SIP 406 Not Acceptable
-407	SIP 407 Proxy Authentication Required
-408	SIP 408 Request Timeout
-409	SIP 409 Conflict
-410	SIP 410 Gone
-411	SIP 411 Length Required
-412	SIP 412 Conditional Request Failed



-413	SIP 413 Request Entity Too Large
-414	SIP 414 Request-URI Too Long
-415	SIP 415 Unsupported Media Type
-416	SIP 416 Unsupported URI Scheme
-417	SIP 417 Unknown Resource-Priority
-420	SIP 420 Bad Extension
-421	SIP 421 Extension Required
-422	SIP 422 Session Interval Too Small
-423	SIP 423 Interval Too Brief
-424	SIP 424 Bad Location Information
-428	SIP 428 Use Identity Header
-429	SIP 429 Provide Referrer Identity
-430	SIP 430 Flow Failed
-433	SIP 433 Anonymity Disallowed
-436	SIP 436 Bad Identity-Info
-437	SIP 437 Unsupported Certificate
-438	SIP 438 Invalid Identity Header
-439	SIP 439 First Hop Lacks Outbound Support
-470	SIP 470 Consent Needed
-480	SIP 480 Temporarily Unavailable
-481	SIP 481 Call/Transaction Does Not Exist
-482	SIP 482 Loop Detected
-483	SIP 483 Too Many Hops
-484	SIP 484 Address Incomplete
-485	SIP 485 Ambiguous
-486	SIP 486 Busy Here
-487	SIP 487 Request Terminated
-488	SIP 488 Unsupported Codec
-489	SIP 489 Bad Event
-491	SIP 491 Request Pending
-493	SIP 493 Undecipherable
-494	SIP 494 Security Agreement Required
-500	SIP 500 Server Internal Error
-501	SIP 501 Not Implemented
-502	SIP 502 Bad Gateway
-503	SIP 503 Service Unavailable


-504	SIP 504 Server Time-out
-505	SIP 505 Version Not Supported
-513	SIP 513 Message Too Large
-580	SIP 580 Precondition Failure
-600	SIP 600 Busy Everywhere
-603	SIP 603 Decline
-604	SIP 604 Does Not Exist Anywhere
-606	SIP 606 Not Acceptable