Auto Dialer User Guide

Abstract: This guide describes how to configure and use the Epygi Auto Dialer application with Epygi IP PBXs.

Document Revision History

Revision	Date	Description	Valid for FW	Valid for Models
1.0	14-Apr-15	Initial Release	6.1.2 and higher	QX IP PBXs
1.1	07-Apr-17	Updated for QX500.	6.1.45 and higher	QX IP PBXs

Table of Content

1 Introduction

The **Epygi Auto Dialer** (herein Auto Dialer) is a PC-based application designed to work with Epygi IP PBXs. **Auto Dialer** will call via Epygi IP PBXs to the predefined numbers with the option of playing audio messages and the audio menu upon answering the call. Outbound calls can be activated manually or based on schedule, audio messages and audio menu played to called destination can be pre-recorded and updated regularly. The Auto Dialer application will prompt the called party to enter a response by pressing one or more DTMF keys to navigate through menus. Then the entered responses will be updated in the calling list.

The described below mainly concern the Epygi IP PBXs of QX line (herein QX). In general, **Auto Dialer** can be configured and used identically with Epygi IP PBXs of QX and Quadro line.

This guide provides a general description on how to configure and use Auto Dialer with the QX. A **Doctor Office** example is provided to show the implementation and usage of Auto Dialer.

2 Target Market

The Auto Dialer's target industry are small doctors' offices, independent pharmacies, schools and other service providers that call their customers on a daily basis as part of their operating procedures. Some of the usage scenarios are as follows:

- **Schools/colleges** – a school management calls parents on a weekly basis to inform about appointments, study progress, current marks, absences and etc. Teachers do this manually by using the front office staff to place the calls. Many times, they have to call more than once if there is no answer, voice mail is encountered or the wrong person answers.

- **Marketing offices** – the marketing team calls people on a daily, weekly or monthly basis for marketing research. Researchers do this manually by using the front office staff to place the calls. For example, researcher could create scenario (query), which would allow evaluating services, etc.

- **Doctor offices** – the doctor's office calls their patients on a daily basis to confirm appointments for the week and to minimize no–show appointments, which cost the doctor time and money. Doctors do this manually by using the front office staff to place the calls. Many times, they have to call more than once if there is no answer, voice mail is encountered or the wrong person answers. In some cases, the patient needs to reschedule their appointment time and contact the doctor's office directly.

- **Small local pharmacies** – large pharmacy chains have very expensive phone systems, tied to their ERP systems that perform automated calling to alert patients when their prescriptions are ready. These systems also allow patients to call into the IVR and automatically refill prescriptions by entering their specific prescription number using the phone keypad. These systems are not always affordable, especially for small, independent pharmacies which have to rely on staff for customer calls notifying them when prescriptions are filled and ready to be picked up.

- **Telemarketing** – Telemarketers prepare recorded promotions based on a customer database and place calls to the selected customers which allow them to talk to an agent or opt out.

3   Requirements

3.1   System Requirements

One of the mentioned operating systems should run on the PC for proper operation of Auto Dialer:

- Windows 10, Windows 8.1, Windows 7, Windows Vista or Windows XP.
- Windows Server 2012R2, Windows Server 2012, Windows Server 2008 or Windows Server 2003.

3.2   Network Connectivity

The QX and PC running Auto Dialer should be visible to each other. **Note:** If Auto Dialer is connected to the QX via WAN interface, ensure a filtering rule is enabled on the QX firewall for the PC. Auto Dialer will use port **4849**. Creating a **call control access** rule is not required if the firewall on the QX is disabled or set to **Low**. For more information regarding the Filtering Rules, see the Manual-II: Administration Guide for QX IP PBXs.

3.3   Firmware Requirements

Auto Dialer is compatible with the following Epygi IP PBXs, running the firmware:

IP PBX Model	Firmware Version
QX500	6.1.45 and higher
QX50/QX200	6.0.2 and higher
QXISDN4+	6.0.11 and higher
QX2000	6.0.2 and higher
QX1000	5.2.7 and higher
QuadroM32x	5.2.46 and higher
QuadroM8L/26x/12Li/26xi	5.2.66 and higher
Quadro4Li	5.2.46 and higher
Quadro6L	5.2.46 and higher
Quadro4L/2x2	5.2.46 and higher

Note: Always use the **latest** available **firmware** to achieve maximum compatibility with the IP PBX's features and settings.

4 Installation

To install the Auto Dialer, run the executable file and follow the instructions of the Auto Dialer Setup wizard. **Note:** Ensure no previous version of Auto Dialer is running before installing a new one.

Later you can launch Auto Dialer by running its executable file "**Epygi AutoDialer.exe**" which is by default installed in the C:\Program Files (x86)\Epygi Technologies\ Epygi AutoDialer.

To upgrade from an existing version, close the Auto Dialer application and run the setup file for the new version. The configuration and the data will be kept after the upgrade. It is not necessary to uninstall the previous version before performing the upgrade.

5 Auto Dialer Licensing

Auto Dialer is a licensable feature. The Auto Dialer activation license key should be purchased and installed to make the Auto Dialer functional with the QX. There is no limitation on the number of Auto Dialer applications connected to the QX at any point in time except for the maximum number of concurrent calls originated by all connected Auto Dialer applications. It cannot exceed the total number specified in the Auto Dialer expansion license key installed on the QX. **TIP:** Auto Dialer does not require the additional 3PCC license to be installed on the QX.

Install the feature key as follows:

1. Go to the **Setup→Licensed Features→Feature** page.
2. Click the **Add** button.
3. Enter the key in the **Feature Key** text field and **Save** it. The status of the corresponding feature on the **Features** page will change to **Reboot needed**.
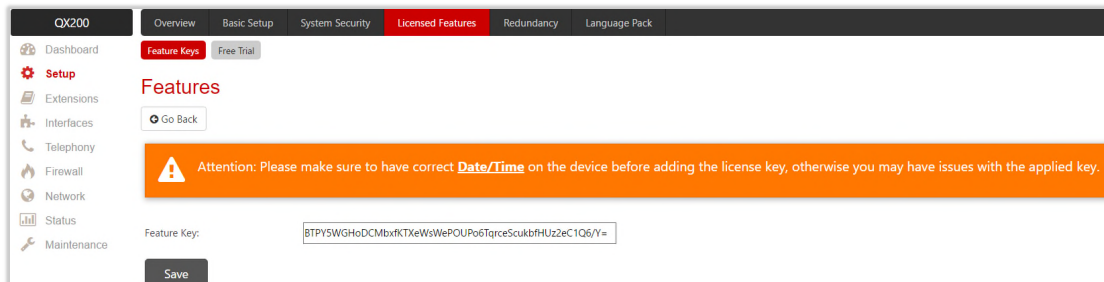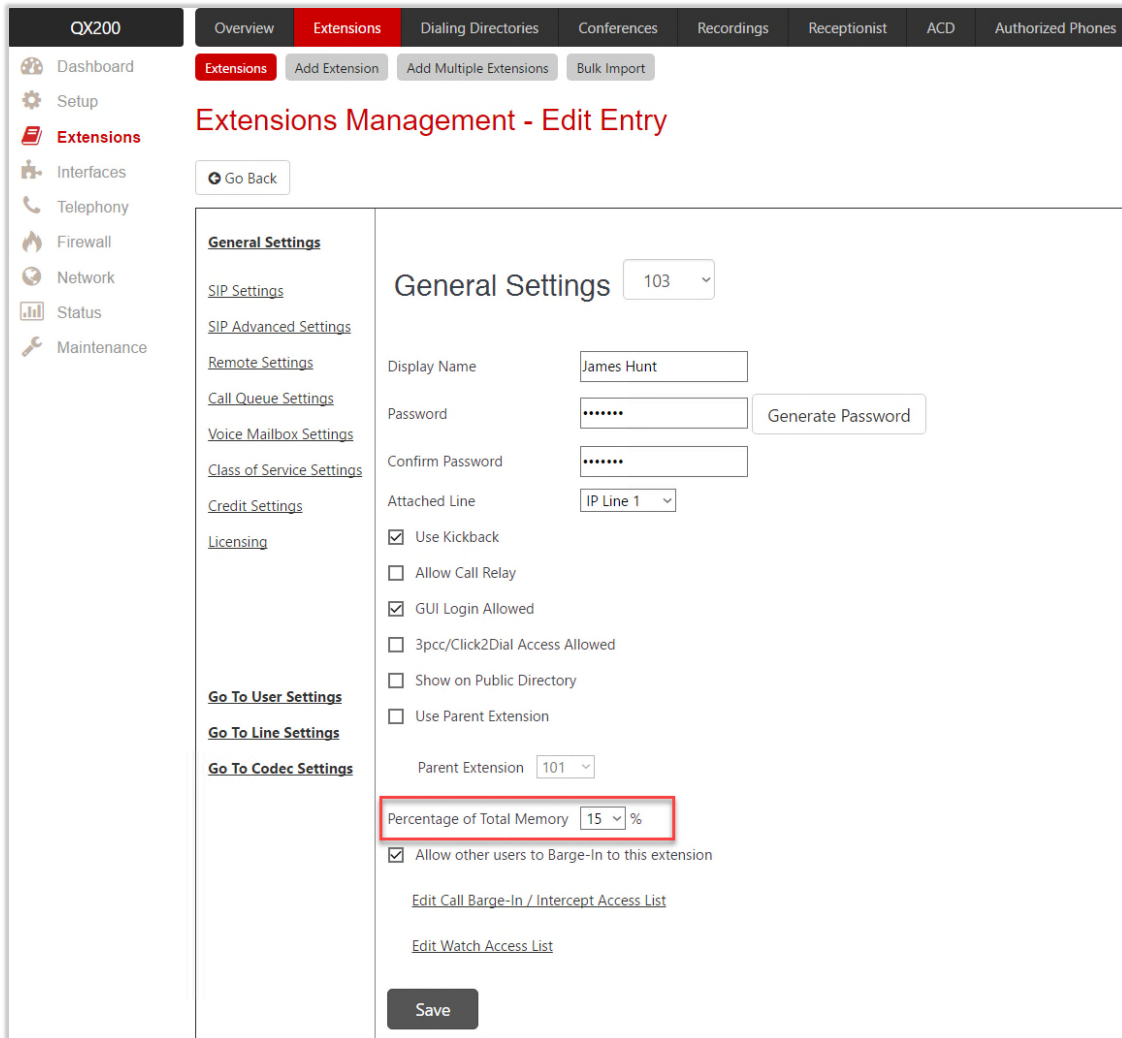4. Reboot the QX to complete the installation.

Figure 1: Inserting feature key

For more information on **Licensable Features**, please refer to the Licensable Features on QX IP PBXs guide.

6 Configuring the QX

Configure an extension on the QX dedicated to Auto Dialer as follows:

1. Go to the **Extensions Management** page.
2. Select the extension for Auto Dialer and click the "**Admin Settings**" icon.
3. Go to the **General Settings** section.

   ➢ Insert the **Password**. **TIP:** The same **Extension Number** and **Password** should be specified in the Auto Dialer configuration.

   ➢ Select **Percentage of Total Memory** to allocate enough memory space for the extension. **TIP:** It used to store the application scenario's voice messages. Before starting calls, Auto Dialer uploads all needed voice files to the QX.

4. Click **Save** to apply the settings.

Figure 2: Extension – General Settings section

7 Configuring Auto Dialer

7.1 Configuring Connection

Once the Auto Dialer extension is configured on the QX, you may start with Auto Dialer configuration. Each time the **Auto Dialer** starts, it opens the **Options** window. In the **Connection** tab the parameters must be configured to connect to QX. The same window can be opened after the **Auto Dialer** starts by selecting the **Tools→Options** menu item or corresponding icon in the toolbar.

Connect to

The parameters in the **Connection** tab are as follows:

- **Host** – IP address or host name of the QX the **Auto Dialer** extension is located.
- **Port** – listening port on QX for 3PCC interface. The port is set to **4849**.
- **UserName** – the selected extension number on the QX. Calls will be made on behalf of this extension.
- **Password** – extension password. **TIP: UserName** and **Password** authentication parameters are used for the registration to the QX. They must be identical on both QX and Auto Dialer.
- **Secure Connection** – enables a secure SSL encrypted connection between the **Auto Dialer** and the QX. **TIP:** This option should be selected when the secure connection is enabled on the QX (**Telephony→ Advanced→3PCC Settings** page) to allow the Auto Dialer connecting to the QX.
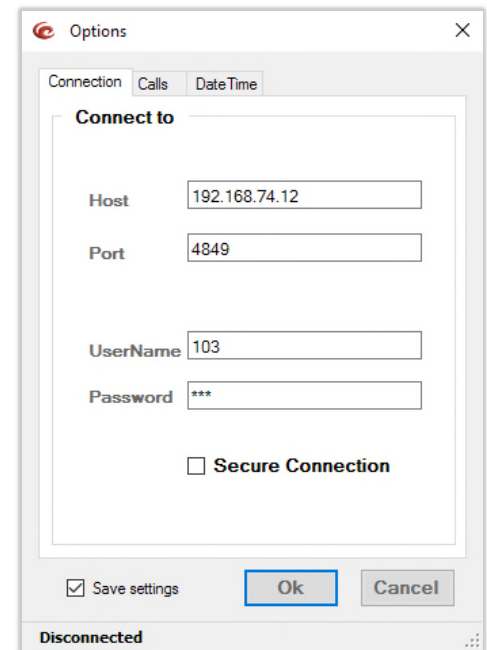
Figure 3: Options – Connection tab

Note: You can modify the settings in the **Connection** tab only when the Auto Dialer is not connected to QX.

Calls Related Settings

The **Calls** tab allows the user to configure the following call-related parameters:

- **No input timeout** – is used to define the timeout **Auto Dialer** waits for the called party's input after playing the voice menu. If there is no input during that period, the call is considered to be failed and **Auto Dialer** will make another attempt to call the same number.

- **Max number of simultaneous calls** – defines the maximum number of concurrent calls that the application is allowed to make. If this number is greater than the total available with the installed Auto Dialer expansion license key then the maximum number of the concurrent calls will be limited to the number available with the expansion license key.

- **Max retry count** – If the call to a particular number fails because it was busy, not connected (network failure), not answered or answered without called party's input (**No input timeout expired**), the application will make repetitive call attempts to that phone number until either:

  ➢ The number of failed attempts reached the **Max retry count**.
  ➢ The call is answered by the called party and the confirmation input is received.

- **Time between repeated attempts** – defines the interval between the subsequent call attempts to the same phone number after the failed attempt.

Figure 4: Options – Calls tab

- **Schedule start time** – defines the time when the calling session will start by the **Start by schedule** button command. The application will start the calling session either immediately by the **Start** command, or at the scheduled time, when the **Start by schedule** command is used.

- **Schedule end time** – defines the time when the active calling session will stop after activating the **Start by schedule** command. **TIP:** The calling session will not stop at the scheduled end time if the session has been activated by the **Start** command.

Note: You can modify the settings in the **Calls** tab only when there is no active calling session.
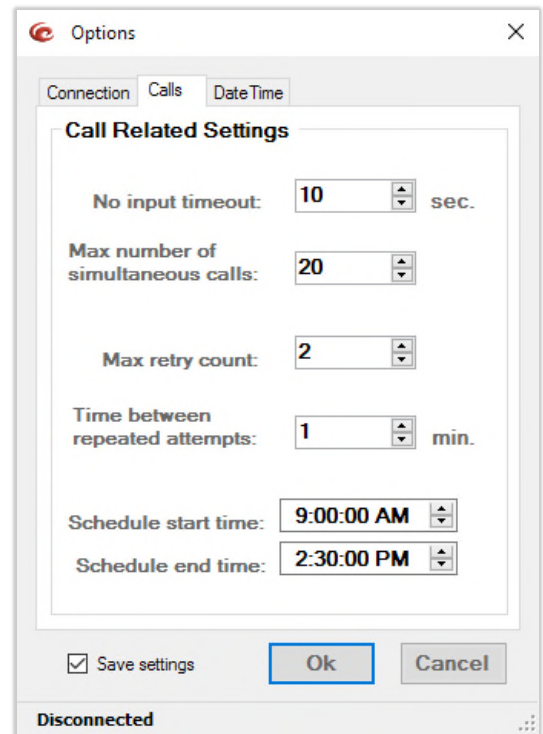
Date Time

The **Date Time** tab allows to specify the **Date** and **Time** formats for France and USA to play the "**Date**" and "**Time**" messages according to the selected format.

Note: You can modify the settings in the **Date Time** tab only when there is no active calling session.
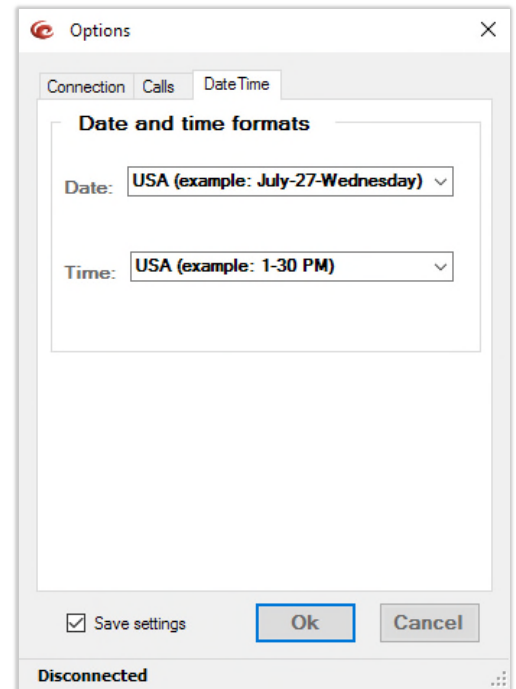
<div align="right">

Figure 5: Options - Date Time tab

</div>

7.2 Configuring the Scenario

Before starting the calling session, you need either create a new calling scenario or open a saved scenario from a previous calling session. The calling scenario is a sequence of actions executed by the application for every contact in the calling list.

Creating a New Calling Scenario

To create a new scenario, open the scenario page either by selecting the **View→Scenario** menu item or **Scenario** tab in the toolbar (Figure 6). The scenario may consist of one or more actions. Below are listed the possible actions:

- call to
- play message
- play date
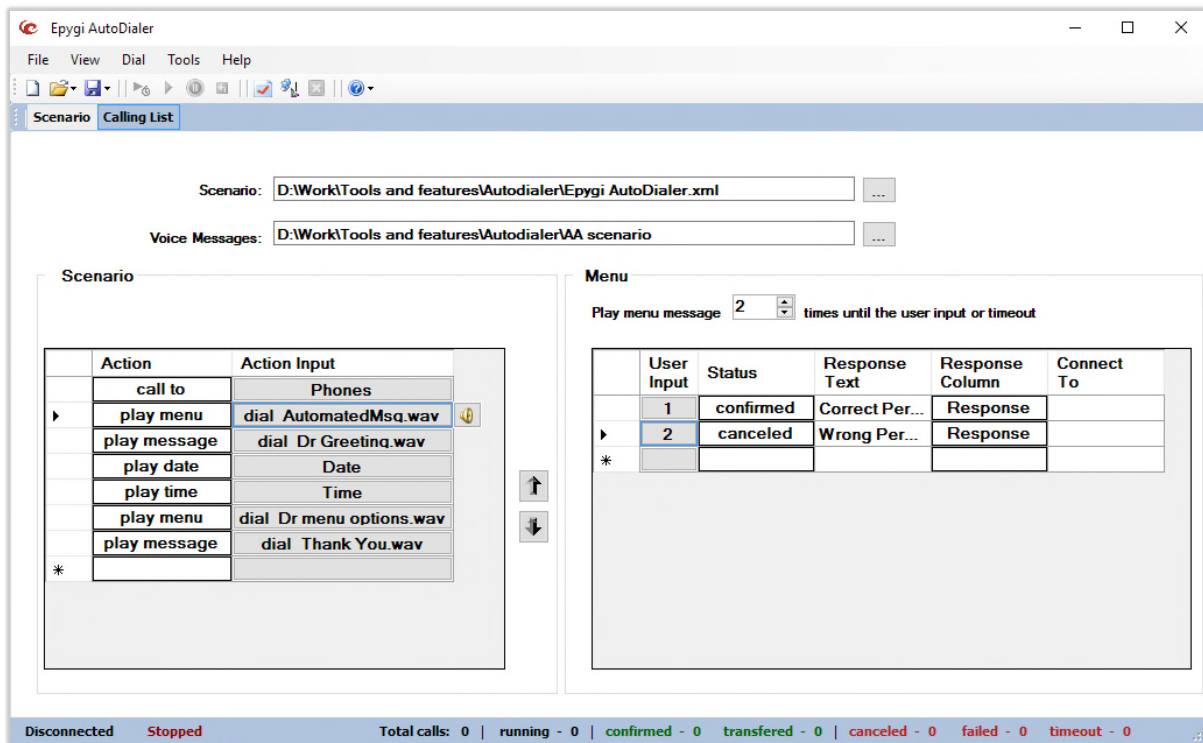- play time
- play number
- play menu

Figure 6: Auto Dialer – Scenario tab

call to

The **call to** is always the first action in the scenario. Each scenario allows one **call to** action only. The **call to** action will tell the QX to make a call to the phone number retrieved from the current position (line) in the calling list.

All phone numbers should be stored in the same column from the calling list. This column should have the header name that will be selected from the **Action Input** field next to the **call to** action.
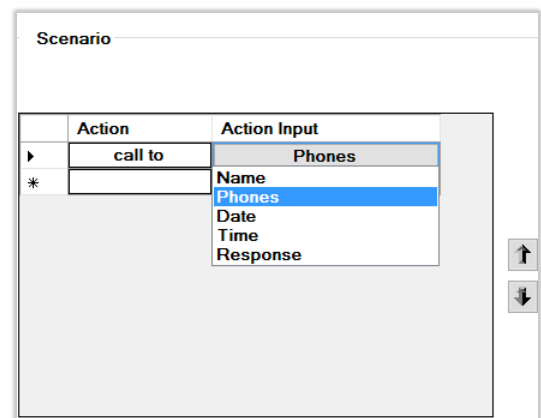

Figure 7: Scenario – "call to" action

play message

This action is used for playing a prerecorded voice message to the called party when the call is answered. The name of the voice message file should **always** start with the "**dial_**" prefix, otherwise the file will be rejected by the application. Press the empty cell from the "**Action Input**" column (next to "**play message**") to open the file chooser window and browse for the file.
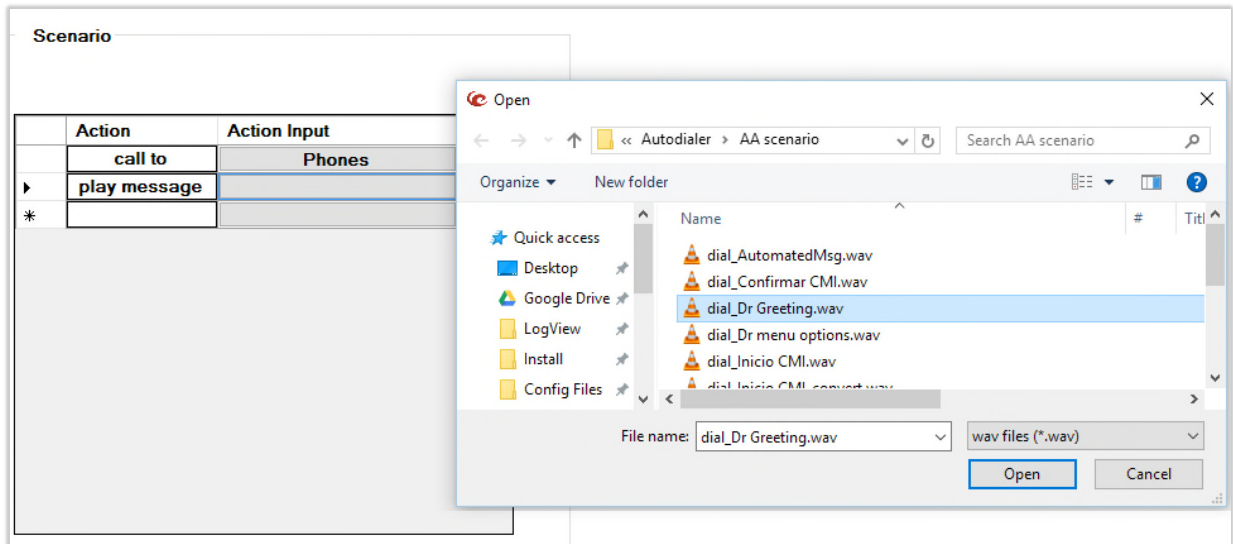
Figure 8: Scenario – "play message" action

During the **play message** action, when the voice message is being played to the called party, the Auto Dialer will ignore the DTMF tones generated as an input by the called party. If the **play message** action is the only action in the scenario that is listed after the **call to** action, then the call will be disconnected after playing the voice message.

play date

The **play date** action is used for playing an automatically generated voice message to the called party with the date and day of the week. All dates should be stored in the same column from the calling list. This column should have a header name that will be selected from the **Action Input** field next to the **play date** action.
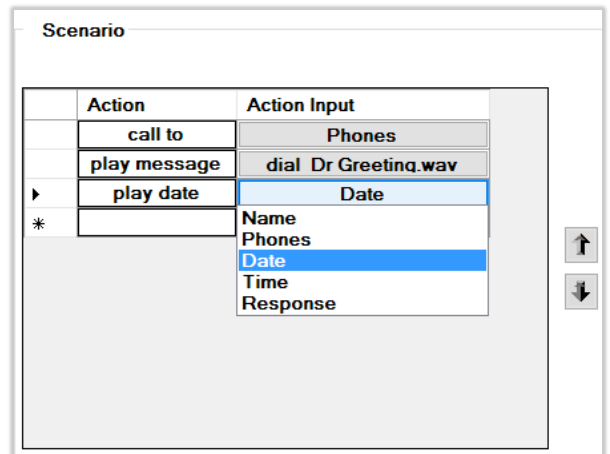

Figure 9: Scenario – "play date" action

play time

The **play time** action is used for playing an automatically generated voice message to the called party with the time of day. All times should be stored in the same column from the calling list. This column should have a heading name that will be automatically pulled from the **Action Input** field next to the **play time** action.
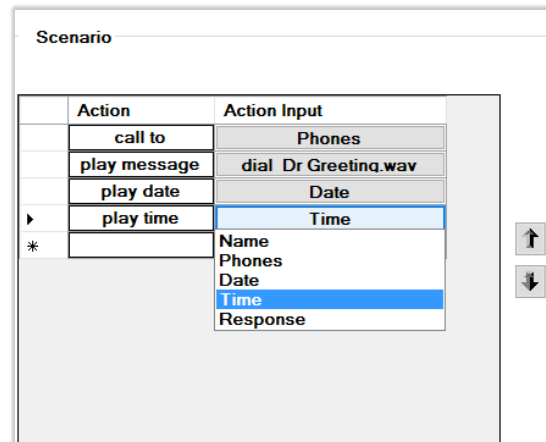

Figure 10: Scenario – "play time" action

play number

The **play number** action is used for playing an automatically generated voice message representing a number to the called party. All numbers should be stored in the same column from the calling list. This column should have a headier name that will be selected from the **Action Input** field next to the **play number**.

The **play number** action can be used to play a message to the called party when numbers are required. For example, a message that says, "Your ticket number is, 123456".
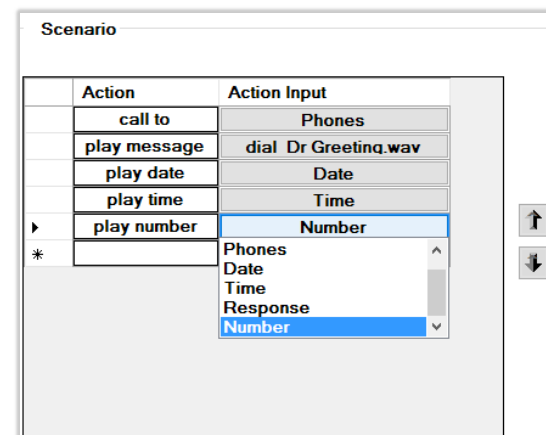

Figure 11: Scenario – "play number" action

play menu

The **play menu** action executes in two steps. At first, the prerecorded message will be played to the called party requesting the person to respond by pressing a digit(key) on their phone. The **Auto Dialer** will then wait for the person to enter their response.

The name of the voice message file should start with the "**dial_**" prefix, otherwise the file will be rejected by the application. Press the empty cell from the "**Action Input**" column (next to "**play menu**") to open the file chooser window and browse for the file.

The valid user inputs and actions of the **play menu** action are configured in the **Menu** window which opens when the user selects the **play menu** action (Figure 12).
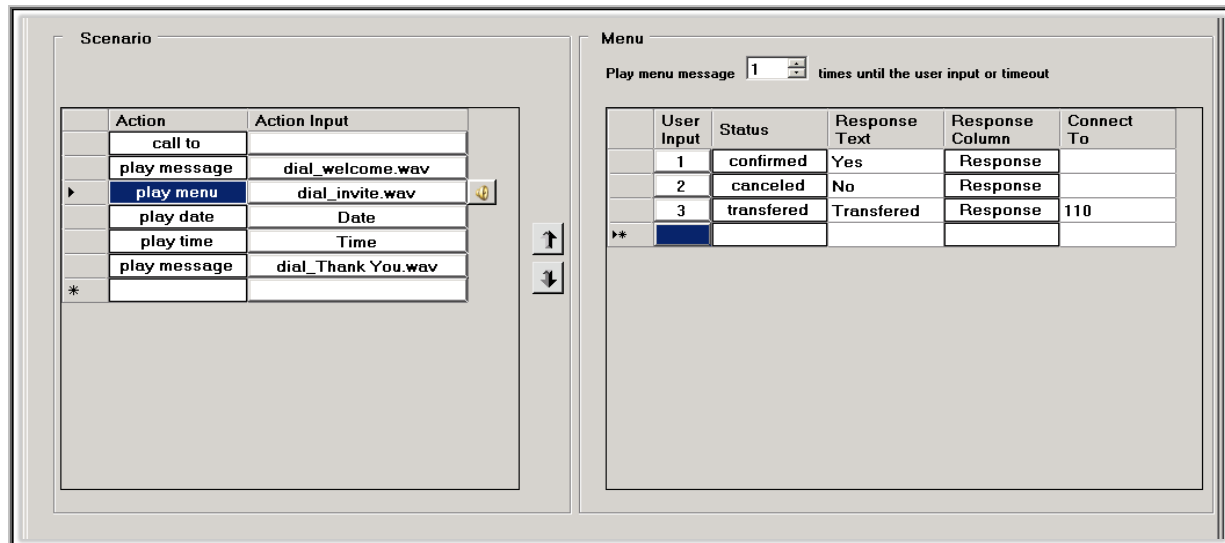
Figure 12: Scenario – "play menu" action

Each item (line) of the **Menu** defines the final action that will be performed in response to called party's input.

- **User Input** – defines the called party's input; the possible options are DTMF digits **0, 1, 2, … 9**, ***** and **#**. The user can enter the DTMF digits at any point when a message is being played.

- **Status** – defines the status of the call after the called party's input. The possible options are:
  - ➢ **confirmed** – is used to get a "positive" answer from the called person.
  - ➢ **canceled** – is used to get a "negative" answer from the called person.
  - ➢ **transferred** – is used to transfer the call to PBX extension (auto attendant or user extension) or any external number.

- **Response Text** – specifies the text to be written into a column of the calling list after the user's input. **Response Column** – specifies the column heading of the calling list where the above-mentioned text will be written.

The "**Play menu message [n] times until the user input or timeout**" option is used to define the number of the message replay. This field is significant if the application will be calling out on a PSTN POTS line using one of the QX's FXO lines or trunks. As a usage note, it is suggested to keep the very first greeting message that is played to the called party as short as possible and recorded so that the user can listen to any part of the message and understand the intent. Calls placed on the FXO port do not receive answer supervision from the Central Office so the QX cannot start the message from the beginning when the caller actually answers and says, "**Hello**". Depending on when the called party answers, the first part of the message may have already been played. Therefore, with this option, the application can be configured to repeat this message so that it can be heard in its entirety.

Opening the Existing Calling Scenario

The created scenario can be saved by selecting the **File→Save** or **Save As** menu command or with the corresponding icon on the toolbar. When saving a scenario, the **Scenario** tab needs to be visible in the Auto Dialer's window. The scenario file will be saved in the (***.xml**) format.
To open the existing scenario, select **File→Open→Scenario** or click the corresponding icon on the toolbar. The opened scenario can be modified and saved for future usage.

7.3 Building the Calling List

The **Calling List** is used to display the called party's name, phone number, Date/Time as well as show real time information about the call state, call status and call attempts.

The **Calling List** can be created either manually or imported from the file.

<u>To create a calling list manually</u>

1. Right-click on the column header name.
2. Insert new column.
3. Enter the new column name and click **Save**.
4. Fill in the information for each row (name, phone number, date/time, etc.).

<u>To create a calling list by imported file</u>

1. Use any text editor.
2. Insert column heading names, separate each column header by comma.
3. Add a line break after column row.
4. Separate each component of a certain contact by comma.
5. Add a line break after each inserted contact.
6. Save the file in the (***.csv**) format.

Note:
➢ The imported file may have any number of columns but only a few of them are required for use by Auto Dialer. The main mandatory column is the column containing the phone numbers.
➢ The QX handles the calls initiated by **Auto Dialer**. Therefore, the phone number(s) dialed by **Auto Dialer** should match the call routing rules specified on the QX's Call Routing Table.
➢ Any header name can be used for the "**phone number**" column and the same name will be presented in the **call to** action when creating the scenario.
➢ If the scenario includes the **play date** and **play time** actions, the corresponding columns are also required in the calling list. Any header name may be used.
➢ If the scenario includes a menu that uses the **Response** text then there will need to be appropriate columns in the calling list and the names of those columns should be specified in the **Response** column fields of the menu options.
➢ The calling list may also include optional fields that are not utilized by the Auto Dialer but are good to have for user friendliness. For example, includes the "**First Name**" column containing the names of the called parties.

There are also some auxiliary columns in the calling list that are being created by the application. The names of these columns have the "**_**" prefix to distinguish them from the columns created by user. When saving the calling list, those auxiliary columns will be saved along with the data stored in the columns. These auxiliary columns will be blank initially and updated as the Auto Dialer runs. The following auxiliary columns are available:

*   **_CallState** – is used for tracking the call state in real time. The last state of the call stays in the calling list after the call is finished.
*   **_Status** – is used for registering the status of the call after the called party's input. The possible options are: "**confirmed**", "**canceled**" and "**transferred**". The values in this column are used by the application to make a decision about the necessity of making another call to a particular phone number. More

specifically, if the value of this column for some phone number (calling list entry) is "**cancelled**", then the application may consider making another call attempt to that number. In case of "**transferred**", the application will transfer the call to the number mentioned in the scenario. In case of "**confirmed**", the application will not make another attempt to call that phone number.

- _Attempts – keeps track of the number of call attempts to a specific phone number. Each time the call is canceled by the called party or fails for another reason, the application will increase the number of attempts. Regardless the value of the "**_Status**" field, Auto Dialer will stop calling a specific phone number if the value of "**_Attempts**" field equals "**Max retry count**".

- _DoNotCall – contain checkboxes to disable specific lines of the calling list. If the checkbox in any line is checked, then the Auto Dialer will not make a call to the phone number in that line when passing through the list.

Note: All fields of the calling list except for **auxiliary fields** are editable for the user in real time (during active calling session).

8 Making Calls

Before starting the calling session, you must configure the following items for the Auto Dialer:
- The connection and call-related parameters in the **Options** window.
- **Calling scenario** – this specifies the application's actions to be taken before and after the called party has entered their response on the phone's keypad.
- **Calling list** – a list of phone numbers to call along with the corresponding supplementary information (like day of the week, time, etc.) to be used by the application for automatic generation of voice messages to be played to the called party.

Note: For the time of configuring the calling scenario, all voice messages and voice menus need to be prerecorded and placed in the same folder, accessible for Auto Dialer.

After successful configuration, you can start making calls to the numbers of the **Call List**. To start the **Auto Dialer** (calling) session the following options are available:

- Selecting the **Dial→Start** menu command or corresponding button on the toolbar.
- Selecting the **Dial→Restart** menu command or corresponding button on the toolbar.
- Selecting the **Dial→Start by schedule** menu command or corresponding button on the toolbar.

Start

If the **Start** is the first command after the application's launch, it will start making calls from the top of the calling list to the bottom until reaches the last item on the list. During that process, the application populates the response and the auxiliary columns with the values indicating the user response, state and status of the call and the number of call attempts to the called number. When the first pass through the calling list is finished, the application starts the second pass again from the top of the list.
The application will then only call numbers having the "**canceled**" or "**failed**" status. If the calling process is not stopped by the user, the Auto Dialer will repeat the process until the list is completed. At this point, none of the entries in the calling list will have a status of "**canceled**" or "**failed**" or the call attempt values will be equal to **Max retry count.**

The **Stop** command during the active session will stop the calling process and the current state of the Auto Dialer will be saved so that with the next **Start** command, the Auto Dialer will continue calling from the state where it had been interrupted the previous time.

Note: If the **Start** is the first command executed after the application's launch, and the user response and auxiliary fields of the opened calling list are already populated by some values stored from previous sessions, then the **Start** will take into account those values without resetting them.

Restart

The **Restart** command acts similar to the **Start** command only with a difference: before making calls it will reset the calling list, cleaning up the user response and auxiliary columns and starting the calling process from the beginning of the list.

Start by schedule

The **Start by schedule** command, similar to the **Restart** command, cleans up the user response and the auxiliary columns of the calling list and starts calling from the beginning of the list at the point of time specified in the **Schedule start time** parameter. The calling session initiated by this command stops at the **Schedule end time** parameter unless the calling list is completed before that.

Note: If the calling session initiated by the **Start by schedule** command has been interrupted by the **Stop** command, the calling session will be stopped, no matter what time is specified in the **Schedule end time** parameter.

Stop Command

The **Stop** command stops the calling session, saving the current state of the calling list and current position of the dialer in the list.

9 Example – Doctor Office

The below described scenario is one of the usage scenarios of Auto Dialer. All needed materials (scenario file, audio messages and calling list) can be downloaded from support.epygi.com.

Scenario Description

In this scenario, the Auto Dialer will be used to contact patients to confirm their upcoming appointments. Prior to calling, the contact list needs to be updated with the patient's name, phone number and the appointment date and time. When the Auto Dialer is started, it will begin placing calls to each of the patients. When the call is answered, the patient will confirm he/she is the correct person. The application will play the date and time for the appointment and the patient will be prompted to enter one of three options:

- Confirm the appointment.
- Cancel the appointment.
- Transfer the call and speak to the receptionist (e.g. to reschedule the appointment).

Scenario Summary

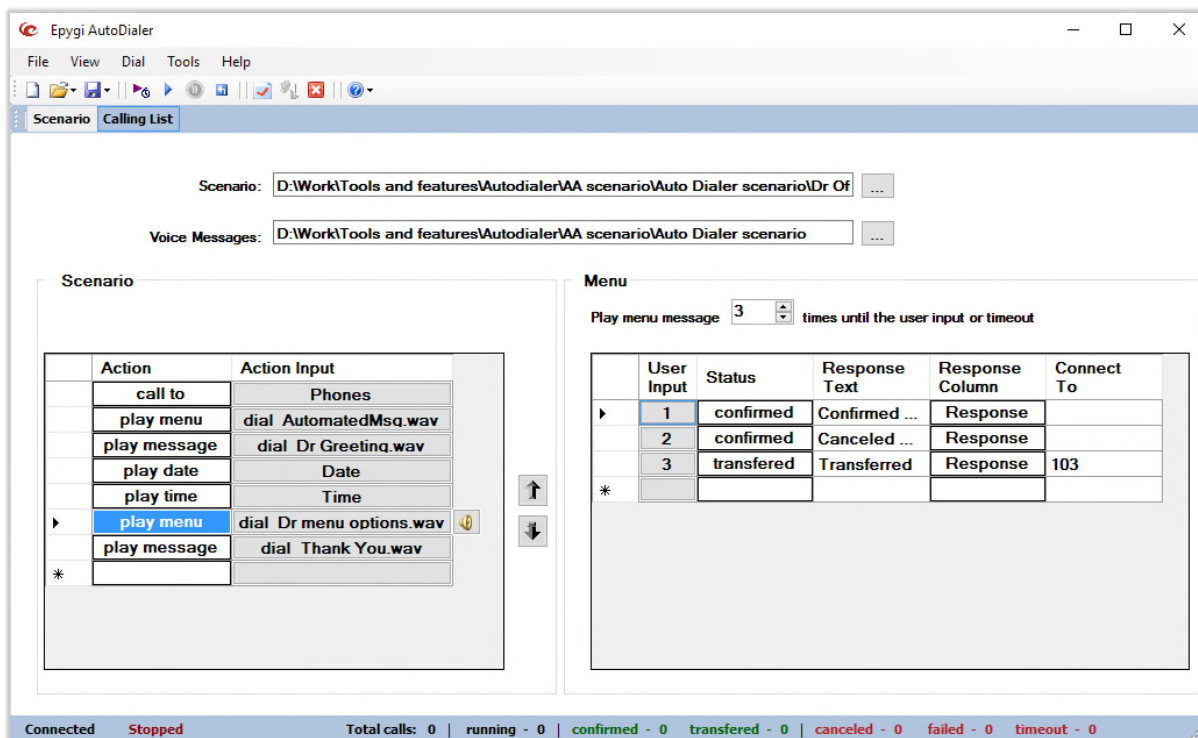| Action	Instructions	Instructions taken from Calling List Column:	Columun(s) Updated	Input Menu
Dr. Scenario to Confirm an Appointment
MAIN MENU:
Call	Dial contacts from Calling List (file- Drs Patient List)	Phones		
Play Menu	AutomatedMsg.wav Hi! This is an automated message. Press 1 if you are a patient of Dr White. Press 2 if you are not.			Customer Input Options #1
Play Message	Dr Greeting.wav: We are calling to confirm your appointment on:			
Play Date	Play date from Calling List	Date		
Play Time	Play time from Calling List	Time		
Play Menu	Dr Menu Options.wav: To confirm your appointment, please press option 1: To cancel your appointment press 2: To speak to a receptionist or to reschedule your appointment, please press option 3.			Customer Input Options #2
Play Message	Thank You.wav: Thank you, and have a good day!			
Customer Input Options #1
1	Correct person		Status = Confirmed & Response = Correct person	
2	Wrong person		Status = Canceled & Response = Wrong person	
Customer Input Options #2
1	Appointment confirmed		Status = Confirmed & Response = Confirmed Appt.	
2	Appointment canceled		Status = Confirmed & Response = Canceled Appt.	
3	Transfer to a Receptionist		Status = Transferred & Response = Transferred	

Figure 13: Doctor Office - Scenario summary

Audio messages

The following audio messages will be used:

- **AutomatedMsg** – Hi! This is an automated message. Press **1** if you are a patient of Dr White. Press **2** if you are not.
- **Dr Greeting** – We are calling to confirm your appointment on:
- **Dr Menu Options** – To confirm your appointment, please press option **1**: To cancel your appointment press **2**: To speak to a receptionist or to reschedule your appointment, please press option **3**.
- **Thank You** – Thank you, and have a good day!

Scenario Configuration

Figure 14: Auto Dialer scenario

Calling List

The calling list is created by the imported (***.csv**) file.
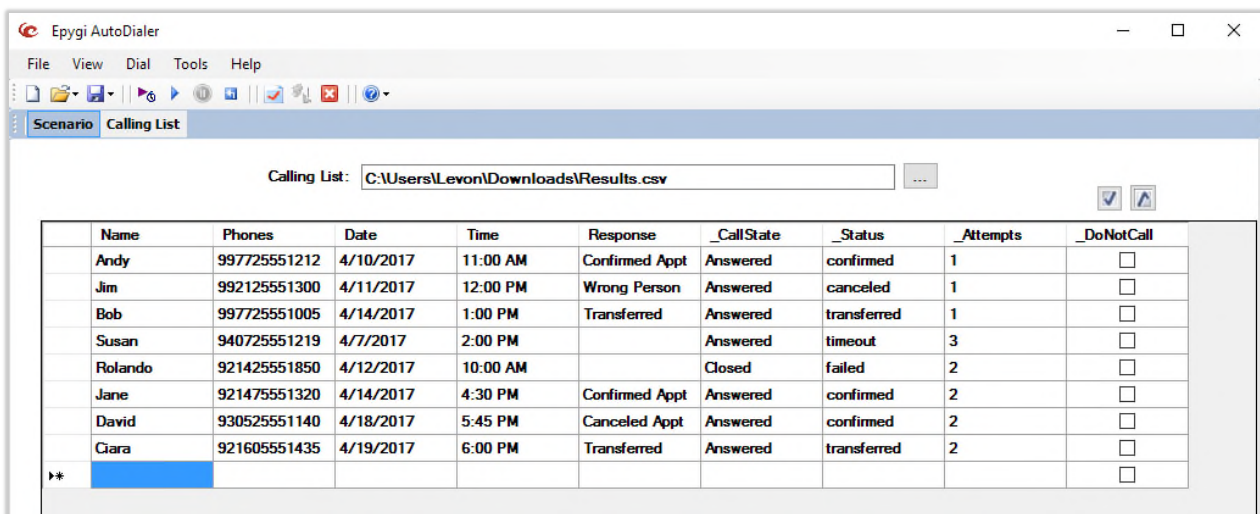
Name	Phones	Date	Time	Response
Andy	997725551212	4/10/2017	11:00 AM	
Jim	992125551300	4/11/2017	12:00 PM	
Bob	997725551005	4/14/2017	1:00 PM	
Susan	940725551219	4/7/2017	2:00 PM	
Rolando	921425551850	4/12/2017	10:00 AM	
Jane	921475551320	4/14/2017	4:30 PM	
David	930525551140	4/18/2017	5:45 PM	
Ciara	921605551435	4/19/2017	6:00 PM	

Figure 15: Calling List

Results

After running the application, the following results have been collected:

- Andy – answered the call and confirmed the appointment.
- Jim – the call was not for him.
- Bob – pressed option 3 to transfer to the receptionist.
- Susan – the call might have gone to voicemail since the call was answered but they never confirmed any option.
- Rolando – the call did not complete.
- Jane – answered the call and confirmed the appointment.
- David – answered the call and canceled the appointment.
- Ciara – pressed option 3 to transfer to the receptionist.

Calling List: C:\Users\Levon\Downloads\Results.csv

Name	Phones	Date	Time	Response	_CallState	_Status	_Attempts	_DoNotCall
Andy	997725551212	4/10/2017	11:00 AM	Confirmed Appt	Answered	confirmed	1	☐
Jim	992125551300	4/11/2017	12:00 PM	Wrong Person	Answered	canceled	1	☐
Bob	997725551005	4/14/2017	1:00 PM	Transferred	Answered	transferred	1	☐
Susan	940725551219	4/7/2017	2:00 PM		Answered	timeout	3	☐
Rolando	921425551850	4/12/2017	10:00 AM		Closed	failed	2	☐
Jane	921475551320	4/14/2017	4:30 PM	Confirmed Appt	Answered	confirmed	2	☐
David	930525551140	4/18/2017	5:45 PM	Canceled Appt	Answered	confirmed	2	☐
Ciara	921605551435	4/19/2017	6:00 PM	Transferred	Answered	transferred	2	☐
								☐

Figure 16: Calling List – Results

10 References

Refer to the below listed recourses to get more details about the configurations described in this guide:

- Manual-II: Administration Guide for QX IP PBXs
- Manual-II: Administration Guide for Quadro IP PBXs
- Licensable Features on QX IP PBXs

Find the above listed documents on Epygi Support Portal.