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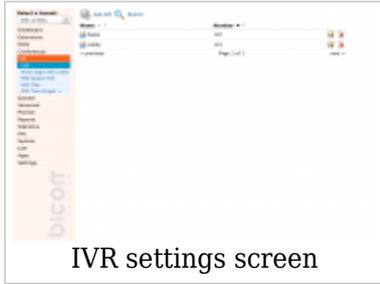
## From Bicom Systems Wiki

IVRs (Interactive Voice Response) are automated answering machines which guide callers to their destination by providing a number of choices and waiting for caller to make a selection through DTMF tones via device keypad.

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# IVR



IVR settings screen

This screen lists all system standard IVRs with the following details:

- **Name**

IVR name  
(ex. Welcome)  
(Display)

- **Number**

IVR network number.  
(ex. 1010)

-  Edits the IVR configuration

(ex. Click to edit IVR configuration)  
(Button)

-  Deletes an IVR from the system

(ex. Click to delete an IVR from the system)  
(Button)

## Search

- **Search**



IVR search

Search phrase  
(ex. Provide a search phrase here and hit enter to filter the records).  
([a-z][0-9])

- **Name**

Should search filter be applied to IVR names  
(ex. Check the box to search IVR names).  
(Check box)

▪ **Number**

Should search filter be applied to IVR numbers.  
(ex. Check the box to search IVR numbers).  
(Check box)

**Add/Edit IVR**

Click on the 'Add/Edit' button will open standard IVR options

**TIP:**

Make sure to create a greeting sound before adding a new IVR. You may create one by dialing '\*301' from your UAD/Phone or by uploading a custom sound file from your computer through 'System: Sounds'.

▪ **Name**



Unique IVR identifier/name.  
(ex. This name will be displayed once IVRs are accessed).  
([a-z][0-9])

▪ **Number**

Unique network IVR number.  
(ex. This number is to be dialed in order to access the IVR).  
([0-9])

▪ **Greeting**

Greeting sound file.  
Example:  
Once a user enters the IVR, a greeting with instructions is played(e.g. 'Welcome. For Sales Press 1...'). Select the greeting file played by this IVR here.

**NOTE:** Greeting file name must start with 'greeting-\*\*\*'. To record a custom greeting message dial '\*301' from your extension. A newly recorded greeting file will have the current date stamp in the title(e.g. 'greeting-Apr-14-2006-16-32').  
(Select box)

#### ▪ **IVR Type**

Set the proper IVR type.

(ex. PBXware works with two type of IVRs: Single and Multi digit ones. Single digit IVR is used for small range of options(0-9). Multi digit IVR support between(10-9999999999) and is shared with all Multi Digit IVRs).

(Select box)

#### ▪ **Destination**

Set the proper destination for each digit pressed.

(ex. Once a greeting message(e.g. 'Press 1 for Sales') is played to user, provide the valid destination where the call is to go to once 1 is pressed. If John from sales department is to be dialed, select 'Extension' in this field. If you wish to provide additional options to caller, you can point him to another IVR with its set of options by selecting 'IVR' here).

(Select box)

#### ▪ **Extension**

This field further describes the 'Destination' field. In case 'Remote Access' or 'Queue' are selected under 'Destination', a predefined option will be available for selection under this option.

(In the example above we have set the PBXware destination. In this option we set which destination part is to be dialed exactly. If 'Destination'='Extension', provide the extension number here. If 'Destination'='IVR' provide the IVR number here etc.).

([0-9])

### **Destination Types**

#### ▪ **IVR**

Destination for this selection is IVR with number entered into Extension field.

(ex. 401)

([0-9])

#### ▪ **Queue**

Destination for this selection is the Queue which is selected from the Extension select box.

(ex. Queue 1)

(Select box)

#### ▪ **Conference**

Destination for this selection is the Conference with number entered into the Extension field.

(ex. 500)

([0-9])

#### ▪ **Extension**

When the Extension is selected, the destination for this selection is the Extension with number entered into the Extension field.

(ex. 198)

([0-9])

#### ▪ **Voicemail**

With this option selected, you can leave voicemail for a specified extension.

(ex. 198)

([0-9])

#### ▪ **Directory**

With this option selected, you will have the ability to dial an extension by entering the first three letters of the extension's last or first name, if it is provided. Dialing by the first or last name depends on the selection in the 'Options' menu for that selection.

#### ▪ **Remote Access**

This option enables you to remotely access one of four available types of destinations:

**Agent Login** - enables remote login as an agent

**Destinations** - enables one to dial any destination

**Voicemail** - remotely login to Voicemail

(Select box)

#### ▪ **Fax to E-mail**

When the user chooses this option, his fax can then be sent as an E-mail to the number provided in the Extension field.

(ex. 222)

([0-9])

#### ▪ **Call External Number**

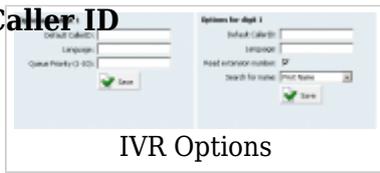
When Call External Number is selected, destination for this selection is an external number that you will enter in the Extension field.

(ex. 004412345678)

([0-9])

When you click on the Options button you will get the following window with two or three options, depending on your destination selection.

- **Caller ID**



Overrides the incoming Caller ID with custom information.

(ex. Sometimes, it is useful to know from which IVR the call is coming from. By settings 'Lobby IVR' here, all calls coming through this IVR will display 'Lobby IVR' on phone display. To show the actual phone number along with our data use '%CALLERID%' with our text(e.g. 'Lobby IVR %CALLERID%'). This will display 'Lobby IVR 55528790' on our phone display, where 55528790 is the phone number of the person calling us).

([a-z][0-9], %CALLERID%, %CALLERIDNUM%, %CALLERIDNAME%)

- **Language**

Language used for this choice

(ex. us)

([a-z])

- **Queue Priority**

If the selected destination is a queue, this is where you set your priority in regards to other callers in that queue, with 1 being the highest priority.

(ex. 5)

([0-9])

- **Read extension number**

If this option is selected, when the IVR selection is Directory, the system will spell the extension number after the extension name.

(Check box)

- **Search for name**

Here you can select whether to search the directory by first or last name.

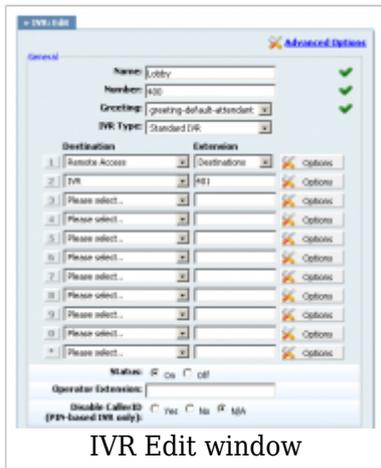
(ex. Last Name)

(Select box)

## Advanced Options

### General

- **Status**



IVR Edit window

Rather than deleting the IVR, set its status to 'Off'. This will make the IVR inactive and all calls will be transferred to 'Operator Extension'.

(ex. Lobby IVR has this option set to 'Off'. John dials this IVR number (e.g. 1003) but instead of IVR instructions, his call will be transferred to 'Operator Extension').

(Option button)

### ▪ Operator extension

Provide the operator extension to which all calls will be redirected to if 'IVR Status' = 'Off'.

(ex. Lobby IVR has the 'Status' set to 'Off'. John dials this IVR but instead of IVR instructions, his call will be transferred to the extension number provided here).

([0-9])

### ▪ Disable CallerID (PIN-based IVR only)

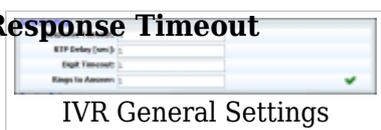
This option disables CallerID but only for PIN-based IVRs.

(ex. Yes)

(Option button)

## General Settings

### ▪ Response Timeout



Time period in seconds during which an IVR option must be dialed by the user.

(ex. John enters the Sales IVR and hears the instructions. If this field is set to '4', John will have 4 seconds to dial an IVR option).

([0-9])

### ▪ RTP Delay [sec]

Delay time in seconds inserted before the IVR greeting message is played. This solves the 'half-played' file problem. Keep this value between 1-3.

(ex. User A enters the IVR and hears a message '..me. For sales press 1' and doesn't understand. Set this field to 1 so that a 1 second pause is added before the message is played. Now, when user A enters the IVR he will hear 'Welcome. For Sales press 1').  
([0-9])

#### ▪ **Digit Timeout**

Timeout in seconds during which a new digit must be dialed. This option is used with Multi-digits IVR

(ex. John has entered the IVR and wants to dial option 25. If 1 is provided in this field, John will have 1 second to dial number 2, and additional 1 second to dial number 5. If the time exceeds, and John hits 5 too late, IVR will assume that John has dialed option 2 instead of 25).

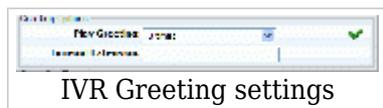
([0-9])

#### ▪ **Rings to Answer**

Number of rings played to caller before a call is allowed to enter the IVR.

(ex. Rather than just 'falling' into IVR, it is recommended to set the number of ring sounds played to caller).

([0-9])



### **Greeting Options**

#### ▪ **Play Greeting**

Number of times the greeting message is played to the caller. If there is no response from the calling party within this time, the call is disconnected.

(ex. John enters the sales IVR and hears the IVR options. If John does not dial one of the options, the IVR options sound file will be played again, a number of times set in this field, before the call gets transferred to 'Timeout Extension').

([0-9])

#### ▪ **Timeout Extension**

The extension number to which the IVR call will be transferred if there is no response from the user during the 'Play Greeting' time period.

(ex. John enters the sales IVR and hears the IVR options. If John does not dial one of the options, the IVR options sound file will be played again, a number of times set in 'Play Greeting' field, before the call gets transferred to extension number provided here).

([0-9])

### **Operation Times**

Set the IVRs open/closed times. Depending on the time when the call is received, the call can be

redirected to different PBXware destinations.

- **Operation Times**



Enable operation times  
(ex. Yes, No)  
(Option buttons)

- **Default Destination**

PBXware extension all calls are redirected to during the closed time hours  
(ex. 1000)  
([0-9])

- **Greeting**

Greeting sound file played to callers during the closed times  
(ex. greeting-\*\*\*)  
(Select box)

Description of destinations follows in this priority order:

- **Open dates:** Sets the working hours during which DID is to redirect calls as set in DID Add/Edit window. If any call is received during the hours not set here, 'Custom Destination' are checked, and if they do not apply, the call is redirected to 'Default Destination' (Closed dates)
- **Custom Destinations:** Redirects all calls received during set hours to PBXware extension provided here
- **Closed dates:** Sets the specific date when all calls are redirected to 'Default Destination'. If 'Destination' field in the Closed dates is set, call will not go to 'Default Destination' but to this number.

## Ringling Type

- **Ringling**



Select the ringling type played back to calling party before they enter the IVR.  
(ex. Rather than just falling into the IVR, play the ring sound to user or music files located

under the MOH class).  
(Select box)

- **Music on Hold**

Select the MOH/Music on Hold class, played to users after they make a selection in IVR.  
(ex. MOH class usually contains one or more sound files. To see these files go to 'System: MOH').  
(Select box)

- **Custom ring tone**

Ring with custom ringtone phone which is set as a destination in IVR.  
(ex. If caller in IVR presses '3' and on that destination there is a Linksys phone, it will ring with this ring tone, ie. <Simple-2>).  
([0-9][a-z])

## Local Dialing

- **Dial local/network destinations**



IVR option can dial local network or proper/mobile phone numbers. By setting this option to 'Yes', the IVR will be allowed to dial local network extensions only.  
(ex. If IVR has this options set to 'Yes', only local network extensions will be accessible from this IVR. No proper/mobile numbers would be dialed).  
(Option buttons)

- **FAX dialing**

Set this option to Yes if you need to send Fax to email of any local extension which is dialed.  
(ex. If John dials into an IVR which has this option turned on, he will have the ability to dial local extensions number to which system will generate a FAX tone. He will then send a fax which will be sent to email of the extension that he dialed).  
(Option buttons)

- **Enable range limit**

Tells the system which extensions on the local network IVR will be able to dial.  
(ex. Yes, No, N/A)  
(Option buttons)

- **Start at**

Starting number in the available range of extensions.  
(ex. 1000)  
([0-9])

▪ **End at**

End of available range  
(ex. 2000)

## Permissions

Permissions are used to allow an organization to restrict who is able to enter an IVR. In particular there are organizations where access to the IVR is only allowed to callers with a valid account number, but it can be used for other similar purposes.

▪ **Account Access Only**



Allow only certain PBXware extensions to access the IVR.  
(ex. If this option is set to 'Yes', only extension numbers set under the 'Account list' will be allowed to access this IVR).  
(Option buttons)

▪ **Account List**

Only local extension numbers provided here, separated with a single space, will be allowed to enter this IVR.  
(ex. John dials this IVR, but his extension number is not in the 'Account list'. John is transferred to 'Sales extension').  
([0-9])

▪ **Sales Extension**

If caller extension is not provided in the 'Account list' his call will not enter the IVR, but will be redirected to extension number provided here.  
(ex. John dials this IVR, but his extension number is not in the 'Account list'. John is transferred to extension number provided here).  
([0-9])

## Multi-digit IVR codes

The only difference between standard and multi-digit IVRs is that the latter accepts two or more digits as a response (numbers between 10-100 for example), therefore providing a wider range of options.



## IVR Access Codes

This screen lists all system Multi-digit DIDs with the following details:

- **Access Code**

Multi-digit IVR access code.  
(ex. 22)  
(Display)

- **Description**

Access code description.  
(ex. desc goes here)  
(Display)

- **Extension**

Extension where call will be transferred to.  
(ex. 1004)  
(Display)

-  Edits the IVR configuration

(ex. Click to edit IVR configuration).  
(Button)

-  Deletes an IVR from the system

(ex. Click to delete an IVR from the system).  
(Button)

## Search

- **Search**



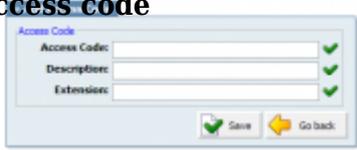
Search phrase  
(ex. Provide a search phrase here and hit enter to filter the records).  
([a-z][0-9])

- **Access Code**

Should search filter be applied to access codes  
(ex. Check the box to search access codes).  
(Check box)

## Add/Edit Access Code

### ▪ Access code



Add/Edit Access Code

Option dialed from the Multi-digit IVRs that will transfer user to PBXware 'Extension' number.

(ex. John enters the Multi-digit IVR and dials this 'Access Code' (e.g. 99). When John dials 99, he will be transferred to PBXware 'Extension' number).  
([0-9])

### ▪ Description

A short Description of this access code and its destination. This information is viewed only by the Administrator.

(ex. Once the administrators goes to the 'PBXware: Multi-digit IVR codes', a list of access codes, their descriptions and destination extensions will be displayed).  
([0-9])

### ▪ Extension

PBXware extension to which a call will be transferred to once the 'Access code' is dialed from the Multi-digit IVR.

(ex. John enters the multi-digit IVR and dials 99, which is set to lead to PBXware extension 1000. When John dials 99, he will be transferred to PBXware 'Extension' provided here).  
([0-9])

## PIN-based IVR

PIN-based IVR allows dialing local/remote destinations by providing a pre-set IVR PIN number.

### ▪ PIN



ID	Description	Input Date	Destination
1000	John Smith Ltd	21-01-2011	04255524
1001	George Henry & Sons	21-01-2011	01234567
1002	John Co/Inc	21-01-2011	999

PIN-based IVR window

IVR PIN number  
(ex. 55555)  
(Display)

### ▪ Description:

IVR PIN short description  
(ex. Remote Cell)  
(Display)

▪ **Expiry date:**

PIN expiry date  
(ex. 31-01-2007)  
(Display)

▪ **Destination:**

Destination dialed once the IVR PIN is provided  
(ex. 061505139)  
(Display)

▪  Edits the IVR PIN configuration

(ex. Click to edit the IVR PIN configuration)  
(Button)

▪  Deletes the IVR PIN settings from the system

(ex. Click to delete the IVR PIN settings from the system)  
(Button)

**TIP:**

If the item is grayed out and the 'Expiry date' field underlined, that PIN has expired.

## Search

By selecting the 'Search' Command, the search menu will be displayed. Searches can be done by PIN numbers

▪ **Search:**

A screenshot of a search input field. The field is a light blue rectangle with a magnifying glass icon on the right side. Below the field, the text "Search PIN" is centered.

Search phrase  
(ex. Provide a search phrase here and hit enter to filter the records).  
([a-z][0-9])

▪ **PIN:**

Should search filter be applied to PIN numbers  
(ex. Check the box to search PIN numbers)

(Check box)

## Upload

You may upload a .csv file with multiple PIN and Destination codes in one step. Click the 'Browse' button and select the .csv file on your computer. Then just click the 'Upload' button to add new PIN codes to PBXware.

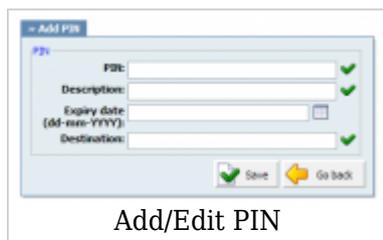


## Sample .csv file:

10002,John Smith Cell,31-01-2007,061555109

20002,George Nimara Home,31-01-2007,032246509

## Add/Edit PIN



To manually add an IVR PIN code, click the 'Add PIN' button on top. The following options will be displayed.

### ▪ PIN:

Unique IVR PIN number. This PIN number is provided once requested by IVR. A correctly supplied PIN will make PBXware dial the 'Destination' number.

(ex. John dials local IVR (1003) and is asked to provide a PIN. He enters PIN (55555) and PBXware dials the number provided under the 'Destination' field).

([0-9])

### ▪ Description:

Short description of the IVR PIN. This description is used for describing the Destination number

(ex. 'John's cell phone', or '21255510205')

([a-z] [0-9])

- **Expiry date:** All PIN codes can be valid until a certain date. You are strongly encouraged to set the expiration date by clicking on the 'Calendar' icon, next to the 'Expiry date' field and selecting a desired date. The date can be provided manually in the following form 'dd-m-yyyy'. Accessing the PIN after the 'Expiry date' will be impossible.

(ex. If this field is set to expire on 31-01-2007. All IVR calls made with this PIN by this date will be passed through the Destination number. Calls after the expiration date will not be made).

([0-9])

- **Destination:** Ten digit destination number dialed once the IVR PIN is provided.

(ex. Provide a 10 digit number here e.g. 1555102057. Once the IVR PIN is provided, a call will be made to it).

([0-9])

## IVR Tree

IVR Tree is a special form of IVRs where the creation of particular IVR is more graphically oriented than it is with regular IVRs.

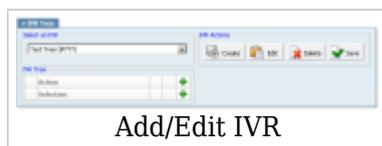


IVR Tree

## Add/Edit IVR

When you click on the 'Create' button, you will be asked to enter an IVR name and number after which the IVR will be available for editing.

After you've created or selected the existing IVR, you can edit it



Add/Edit IVR

If you click on the 'Edit' button, you will get the 'Edit Properties' dialog where you can edit this IVRs properties

- **Name**



IVR Tree Actions

IVR's name  
(ex. Test Tree)  
([0-9][a-z])

- **Extension**

IVR's extension number  
(ex. 777)  
([0-9])

- **Number of rings**

Number of rings before the caller enters the IVR  
(ex. 4)  
([0-9])

- **Response Timeout**

Time period in seconds during which an IVR option must be dialed by the user. Useful when Local dialing is turned on.  
(ex. 4)  
([0-9])

- **Digit Timeout**

Timeout in seconds during which a new digit must be dialed. Useful when Local dialing is turned on.  
(ex. 1)  
([0-9])

- **Selection Timeout**

Timeout in seconds during which the selection must be made.  
(ex. 3)  
([0-9])

- **Direct access**

This option, if turned on, disables direct access to this IVR. This means that this IVR can be accessed only through other IVR.  
(Check box)

- **Local dialling**

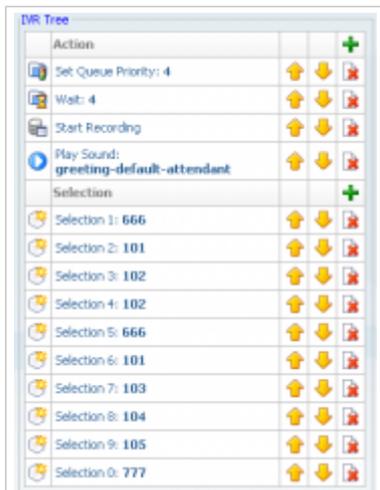
Enable user to dial local extensions while inside IVR.  
(Check box)

Button 'Delete' of course is used to delete given IVR.

'Save' button must be pressed every time a change has been made so it could take place.

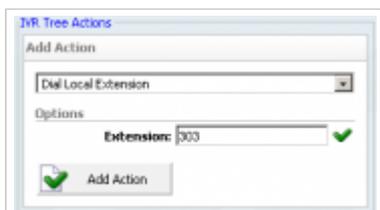
## Actions & Selections

As you can see in the example picture, a main part of the IVR Tree is Actions and Selections. Action or Selection can be added by clicking on a plus icon, and can also be deleted by clicking on the delete button right next to it.



IVR Tree Actions & Selections

Actions are items that are going to be executed when the user enters IVR. They will get executed in the order in which they are placed in the list. Actions can be added by clicking on the plus button.



IVR Tree Actions

### ▪ Dial Local Extension

This option lets you dial the local extension which is set in the Extension field, when the action is executed.

(ex. 303)

([0-9])

### ▪ Dial Remote Extension

This option lets you dial the remote extension which is set in the Destination field.

(ex. 404)

([0-9])

- **Dial Voicemail**

Enables you to leave a voicemail for the given extension  
(ex. 505)  
([0-9])

- **Check Voicemail**

This option enables you to check the voicemail of the extension which you provide with your keypad.

- **Go to context**

Go to given context and extension  
(ex. Context: time, Extension; 222)

- **Start Recording**

Start recording further conversation  
(ex. If Silent recording is turned on, the user will not hear the announcement that his call is recorded)

- **Set Queue Priority**

If the user is about to enter a queue he is going to enter it with a given priority.  
(ex. 5)  
(Select box)

- **Set Language**

Set the language that is going to be used in IVR  
(ex. Use the two letter notation like 'us')  
([a-z])

- **Play Sound**

Play a sound file which the user can select and also set a language for it if the sound file was supplied in several languages. Also you can set here to accept DTMF tones or keypad buttons during play so you can dial local extensions if that option is enabled in IVR properties.

- **Change CallerID**

Change users CallerID  
(ex. John Doe)  
([0-9][a-z])

- **Wait**

Wait the given number of second before IVR continues to execute actions.  
(ex. 5)  
([0-9])

- **Busy signal**

Play the 'Busy' sound to user.

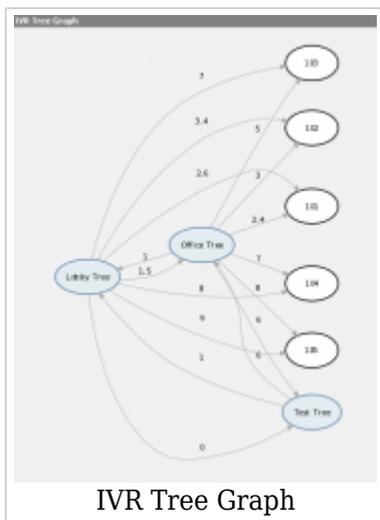
- **Hangup**

Hang up the current call.

Arrows pointing up or down are used to change the order of items which is very important for Actions but non-important for Selections. Clicking on the up arrow on an action puts that action in front of the previous item, or clicking on the down arrow puts that action after the next item.

## IVR Tree Graph

When you click on the IVR Tree Graph menu, you will get a graphical representation of your IVR Tree



IVR Tree Graph

Next -> 8.Queues

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