

IPedge Messaging Scripts Build Applications Easily and Quickly

IPedge Messaging allows for customized routines, called SCRIPTS, which can be used for directing callers around the system. Scripts can also be used to provide various choices to the caller as well as being the standard tool for setting up "Audio Text" mailboxes and building custom applications.

This document will provide an overview of how Scripts operate, and how they can quickly and easily be used to build custom applications.

Scripts Overview

Any mailbox in IPedge Messaging can be defined as a Script. As such, it can be constructed to provide interactive information to the caller, ask questions and save the recorded answers as incoming messages, or present the caller with options in the script to access other areas of the system.

A Script can be used to replace the standard opening greetings of a Department. It resides in an already created mailbox and is referenced by diverting a call to the mailbox. Once a caller is routed to the Script mailbox, a list of choices is provided to the caller.

Scripts have many different applications, including:

- Providing callers access to other departments.
- Transferring callers to other mailboxes.
- Allowing callers to interactively answer a questionnaire.
- Providing callers with access to recorded information, etc.

For example, if a customer requires a sophisticated single digit menu tree to present to incoming callers, the customer may need to license several mailboxes in order to support the various menu options. However, that same application might require only one Script mailbox, because the individual programmable lines within the Script mailbox can perform the same tasks as the individual mailboxes.

Scripts Licensing

In order to take advantage of the features of Script mailboxes, a separate license needs to be purchased and generated for the IPedge. The license is called I-MSG-SCRPT, and is currently available on FYI. One license is required for each Script mailbox that is deployed.

Creating A Script

In order to create a script, a mailbox must first be defined as script.

1. Login to Enterprise Manager. Select **Application > Messaging**. Select the sever.
2. Go to **Mailboxes > Properties** in the Messaging controller screen, and set the Mailbox Type to Script.

Note The script will be active only if the mailbox is set to script.

3. Set the transfer mode to Yes or No.
 - If the transfer mode is set to No, the script will start automatically.
 - If the transfer mode is set to **Yes**, the system will transfer the call to the extension first, as though it was a normal mailbox, and then go to scripts. This is useful if transferring to an extension in an ACD group environment, in which case the script would be executed only if the extension or ACD group is busy or does not answer.

4. Go to **Mailbox > Scripting > Script**. The Mailbox-Script screen will display.

Scripts are composed of **Action Lines**. They always begin on line 1 and can contain up to 15 lines. Longer scripts can be created by executing a TRANSFER to another script located in another SCRIPT mailbox. This process allows for greater flexibility and restrictions on the length and complexity of a script are eliminated.

A script line consists of two main elements; a voice file played for the caller when the script line is entered, and then the action the line is to perform, along with any required parameters.

The voice file for each line is stored in the subdirectory of the SCRIPT mailbox, under the name linexx, xx representing the line number.

Recording A Script Voice File

Enter the script box as a subscriber (with #), and follow the prompts to record a line file. Record the file you desire, and save it under the correct subdirectory and name.

Note Voice files are needed for script operations. These files should be recorded in a quiet location using the telephone handset. Most speakerphones normally have poor voice quality.

Following is a field-by-field definition and explanation of acceptable entries.

Line 1-15+ – This column is NOT programmable. The line number is the ACTION LINE number. The number may be used in other fields to instruct Messaging to jump to or return from a specific ACTION LINE instruction.

While 15 lines are initially displayed in the script screen, you can add additional lines, up to a total of 50 lines. The Add Script Line button will add additional lines, while the Remove Script Line button will delete any additional lines you have added. If you use the Remove Script Line button on lines 1-15, only data will be removed, not the line number.

Prompt – The prompt number is used to identify the prompt for this script line. Any lines that do not have spoken files should have this field cleared. You can use the same prompt in more than one line (if the line needs to repeat the same message), and the prompt number does not have to correspond to the line number. Select number from the drop-down list box.

Action – This drop-down list box determines the action that Messaging is to take when a caller is directed to this line. For each action function, there is a successful result (OK) or an error (ERR). The available options for Action Function Descriptions are shown below, describing what each function does, and what possible results it might have.

OK / ERR – The OK and ERR fields are provided to handle the result of an action, whether it is successful (OK) or faulty (ERR). This field determines where in the script Messaging will continue after an action line is completed.

From the drop down list box, select: Hang Up, return to the original Main-menu, or 1-15 to jump to another line in the script or, Directory Assistance.

Parameter – When used in conjunction with MENU 1 DIGIT this field is a translator. The caller presses a digit and the digit is translated by Messaging to a number (one or two digits long) that directs the caller to another ACTION LINE, or hangs up if 99 is entered.

Note Each action has a different OK and ERR response based on that action. Action Function Descriptions, OK and ERR responses are as follows.

MENU 1 DIGIT

This function is used to play a message to the caller and allows the caller to interact with the system by pressing one of the telephone buttons (0-9, #, *). For each of the telephone buttons, there is a field which determines which line will be executed next in the script. (Possible values are from 1-15+) To return to the main menu from this script, select MAIN MENU in the designated key field. To hang-up, select HANG-UP.

If you wish to log the key presses selected by the caller for this menu, check the Log Menu Entries box. You can then view the key presses in the Script Logging Report (Reports > Script Logging Report).

To have the prompt repeat multiple times if no key is pressed or an undefined key is pressed, check the Use repeating menu box, select the number of menu repetitions and the Post repetition action (this is the destination to continue if all the repetitions failed).

OK – Not used in this action.

ERR – If any of the fields is left blank, and the caller dialed this field, the script will proceed to the number in the ERR field. If no Touch Tone is pressed, the script will proceed to the number in the ERR field after the script time-out (Site Parameters > Settings > System parameters > Script Timeout).

PLAY

This function is used simply to play a message (the one corresponding to the message number).

OK – If the message exists and was played.

ERR – If the message does not exist.

PLAY (NUM)

This function anticipates an entry of digits from the caller, and then plays the file located, according to the digits entered (which was earlier recorded with the RECORD (NUM) function). The number of digits is set in the corresponding Parameter field.

The PLAY (NUM) function is very useful in applications where information changes day by day, or week by week. Examples of this would be Lottery results or weather reports. This function is also useful for applications that require the entry of a customer claim number or a tracking order number.

For example, a customer can call a car service center and enter a claim number to find out if the car is ready.

The System Administrator can select the script handling menu and can then remove a range of old (out of use) files from the system.

OK – If the file is found and played, the script will proceed to OK.

ERR – If the file to be played is not found, or Script time-out is reached, the script will proceed to ERR.

PLAYDEL (NUM)

Same as Play (NUM), but this action also deletes the file immediately after it has been played.

DELETE (NUM)

Delete a file corresponding with the number received.

RECORD (NUM)

This function anticipates an entry of digits from the caller, and then the system stores the caller's message into a file that corresponds with the digits entered by the caller. The number of digits is set in the corresponding Parameter field.

Note In PLAY (NUM), PLAYDEL (NUM), DELETE (NUM) and RECORD (NUM), the OK and ERR conditions are identical.

Note In all the above cases of recording, playing and deleting, you can select a mailbox number from the drop box in order to record to a different mailbox rather than the current one, and play & delete from a different mailbox.

TRANSFER

This function is usually reached from a MENU 1 DIGIT choice selection. It enables a caller to be directed to a regular mailbox, another script for further processing, or exit the system. If the TRANSFER is to another script, there is no need to record a voice prompt for this action line, since the next script would have an opening prompt. However, if the TRANSFER is to another mailbox, then a message similar to "one moment please" should be recorded so the caller is alerted to the process, and knows what is happening. This option is good for inputting transfer codes manually.

OK – DTMF response was received, but mailbox doesn't exist.

ERR – No DTMF response was received.

TRANSFER PARAMETERS

To X Mailbox - [n] – Waits for the number of digits specified in the combo box and transfers to the mailbox number received.

Append X to Mailbox - [Mn] – Waits for the number of digits specified in the combo box, appends the entry to the previous T.T. entry, and transfers to the complete mailbox number.

Append X to Ext [Dn] – Waits for the number of digits specified in the combo box, appends the entry to the previous T.T. entry, and transfers to the complete extension number (not a mailbox).

Enter as subscriber - [#n] – Waits for the number of digits specified in the combo box and enters into the mailbox as a subscriber.

Enter X in Rec Mode - [*n] – Waits for the number of digits specified in the combo box and enters into the mailbox directly into the greeting.

Enter to X ext - [!n] – Waits for the number of digits specified in the combo box and transfers to the entered extension number (not to a mailbox).

Enter MB as subscriber - [T#n] – Enter a mailbox (specified in the combo box) as a subscriber.

Enter MB to rec message - [T*n] – Enter a mailbox (specified in the combo box) to record a message.

To Extension - [T!n] – Transfer to the extension specified in the combo box.

To MB X - [Tn] – Transfer to the mailbox specified in the combo box.

To Department X – Transfer to the department selected in the combo box. When this command is used, the application will restart the department menu and will play all department prompts, including the time of days greetings (100,101,102) and the company/department greeting (111 for department 1).

Enter MB to rec no greet - [TDn] – Enter the mailbox specified in the combo box to record a message, without playing the greeting (i.e. plays the record beep only).

Manual Entry – Enter any of the above codes (codes are displayed in this chart in brackets ([]) in the code form.

MSG. TO MBOX

After the completion of an interview session in a script mailbox (a set of RECORD commands), use this action to save the message. You will then be able to listen to the messages when entering the mailbox as its owner.

OK – Message was saved.

ERR – There was a problem saving the message.

RECORD (seconds) –

This function plays the line's voice file, after which two options are available:

1. If the SECONDS parameter is 0, there is no need for recording and the system branches to the next action line as programmed in the OK field.
2. When the RECORD field contains a value of 1 to N, the system goes into recording mode for the duration of the defined time period and anticipates recording of the caller's message in response to the question just asked. (If the caller's answer is shorter than the defined time period, the system recognizes this and proceeds to the next line.) If the script contains a number of RECORD lines, then all the answers will be collected in a single message which is stored in the SCRIPT mailbox. When the recorded answers are played back, they will be played in the same order as the questions were asked.

If the append box (/APP) is used after the n amount of seconds, n amount of seconds of recording would be appended to the previous recording.

OK – Recording was successful.

ERR – Recording operation failed.

BRANCH

Use the BRANCH function to make a Time/Date/Day related decision. If the current Time/Date/Day is within the specified range, the function would go to the OK field. If the current Time/Date/Day is not in the range, the function would go to the ERR field. You can use the branch options window (which opens automatically once you select the Branch opcode) to select the time or date range. Click on the line and a box will appear, prompting you to Save values.

Parameters

D - Day and the day numbers (e.g. D1234567)

C - Date and the range of dates MMDDMMDD

Examples:

C01010331 – between January 01 and March 31

C01 – any day in January

C0105 – only on January 5th

C0005 – any fifth of the month

Default – time (e.g. 0900-1500 - between 9am and 3pm)

OK – The current Day/Date/Time is in range.

ERR – The current Day/Date/Time is not in range.

You cannot combine between different options. They must be done on separate lines.

CID ROUTING

This function is used in conjunction with the CID Routing table in **Mailboxes > CID Routing**. If **Deactivated** the system does not look at the numbers in the Caller ID column. If **Activated** and the calling number is found in the table, the table action is executed.

Example: a call can be transferred to an ACD group according to a specific caller ID. No parameter applicable.

To add a CID Route step click on the **New CID** icon.

To remove numbers from the list, click the check box in front of the number, then click the **Save** icon.

Enter the calling number to be routed in the **Caller ID Number** column.

From the **Action** column, select the appropriate action to be taken with this number from the drop-down list. Available action options are:

Transfer: The system transfers the call and acts according to the settings defined in the Mailbox menu.

Enter Mailbox: The system automatically opens the mailbox and prompts the user for a password.

Take Message: The system automatically takes a message in the assigned mailbox.

Busy: The system automatically plays the “busy” greeting in the assigned mailbox.

No Answer: The system automatically plays the “no answer” greeting in the assigned mailbox.

Hang Up: The system simply hangs up.

Trans. Ext.: Transfers to the extension selected. The transfer supervision is based on the class of service of the mailbox. If the call is supervised and it was not answered or was busy, the greeting of the original mailbox will be played and a message will be taken in the original mailbox.

OK – Not used in this action.

ERR – The CID number was not found in the table.

PIN

This function performs a lookup in the PIN table, each mailbox has a PIN table set in **Mailboxes > Scripting > PIN**. In the PIN Width field you set maximum number of digits in the PIN. The system will check the dialed digits against the PIN range when that number of digits has been entered or the systems DTMF timer expires. If the DTMF entry matches a PIN in the table, it will return OK. Otherwise it will return an ERR. 61

OK – PIN is valid.

ERR – PIN is not in the PIN table.

PROMPT

This function allows the recording of external prompts (e.g. 121.ENG, 1234.ENG, etc) and has these parameters:

- Play
- Delete
- Record

In the text box next to the parameter enter the external prompt number (up to a 5-digit number). The prompt number is used to identify the prompt for this script line. Any lines that do not have spoken files should have this field cleared. You can use the same prompt in more than one line (if the line needs to repeat the same message), and the prompt number does not have to correspond to the line number. Select a 1-2 digit number from the drop-down list box.

OK – Prompt operation successful.

ERR – Prompt operation failed.

Script Examples

Example: Preliminary Job Interviews

Messaging can perform preliminary job interviews. A newspaper ad can instruct callers to call a number and an extension (i.e. 555-5555, Ext. 101). When 101 is dialed, the caller reaches Script Mailbox 101 and is asked a series of questions that are appended to one another. When the caller is done answering the questions, he is transferred to the operator. The script follows:

The screenshot shows the 'Mailbox - Script' configuration window. At the top, there are tabs for Mailboxes, Department, COS, Site Parameters, PBX, Utilities, Reports, Registry, Applications, SMDR, and Fax. Below the tabs, there is a search bar with '101' entered and a 'Go' button. The main area contains a table with 7 lines of script configuration.

Line	Prom.	Action	Parameter	Append	Ok	Err
1	1	Record	15	☐	2	
2	2	Record	20/APP	☒	3	
3	3	Record	20/APP	☒	4	
4	4	Record	80/APP	☒	5	
5	5	Transfer	To Extension	☐	6	
6		Msg. To MBox				
7						

VOICE FILES

Prompt 1: Thank you for calling about the opening in our sales department. I'm going to ask you a few questions... please answer all of them. What is your name?

Prompt 2: What is your complete address?

Prompt 3: Please describe your previous work experience.

Prompt 4: When are you available to start working?

Prompt 5: Thank you for your time. We will now connect you with a live operator.

Example: Customer Information System

The Script Generator can be used to replace the main menu greeting and at the same time serve as a Customer Information System. In this example, a customer calls a company to check a ticket status by entering the ticket number. After entering the ticket number, the customer will hear a recording of the ticket status. A technician will call in to the same script to record (line 11) or delete (line 12) a ticket status message.

Also available under this menu are all the transfer options, including transfer to a fixed mailbox – a supervisor (line 7), and the append option (the caller enters a two digit number, which is appended to the digit 2 from the main menu to become 2xx – the mailbox number). In this example we assume that all mailbox numbers begin with a 2, therefore only option 2 leads to the append option.

For this script to serve as a main menu, in Department > Properties, "Start with Script" should point to the script you have developed (in this example, we are using script 300). See below.

Line 1: Responds to a digit pressed by the caller. It is set to repeat three times and disconnect after three times.

Prompt: Thank you for calling. If you know your party's extension you may dial it now. To check on the status of your ticket, please press 1. To leave a message for the supervisor, please press 6. To speak with a supervisor, please press 0. To leave a message for a subscriber, please press Star If you are a subscriber on the system, press Pound. If you are a technician and would like to record or delete a ticket status, press 3. To hang up, press 9.

Line 2: Requests a four-digit ticket number from a caller and plays the pre-recorded ticket status.

Prompt: Please enter your four-digit ticket number.

Line 3: Requests a five-digit pin number from the technician to authenticate access. The pin number needs to be defined in the Mailbox > Pin table.

Prompt: Please enter your pin number.

Line 5: Accepts two more digits and transfers to a mailbox 2xx (appended to the digit 2 received in line 1). No prompt required.

Line 6: Transfers to the greeting of the supervisor's mailbox (400 in this example). No prompt required.

Fax Function Descriptions

Note IP Fax feature via T.38 will be available in Release 1.1 of IPedge.

To create a fax-on-demand script three functions are available.

CHOOSE DOC

Use this function to receive the document number required by the caller. In the Parameter field enter the number of digits to be received.

OK – Document number is valid.

ERR – No such document exists or no digits were received.

GET PHONE NO

Use this function to receive the telephone number of the fax machine of where to send the document. In the parameter field enter two parameters: minimum number of digits to receive and maximum number of digits. Use a comma to separate between the two parameters. The # key can be used by the caller to terminate number entry if it is less than the maximum number of digits.

OK – Sufficient number of digits was entered.

ERR – Not enough digits were entered.

TRANS. FAX

Use this function to send the fax to the required destination. Parameters available for this function

No Parameter – Send the selected fax (Choose Doc.) to the selected number.

PlayBack selected Doc [/D] – Play the selected document number (to confirm entry).

PlayBack selected phone num [/P] – Play the selected telephone number (to confirm entry).

Submit fax [/S] – Submit fax to queue in a dedicated line call.

Divert to fax device [/N] – Divert a call to a fax port and save the fax in the current script box

Divert to fax device and save in [/Nxxx] – Divert a call to a fax port and save it in mailbox xxx

To send a specific document number (as required by the Menu 1 Digit command), add the document number to the /O (e.g. if the document number is 110 then the command is TransFax/O110) or /S (e.g. if the document number is 110 then the command is TransFax/S110).

OK – Fax sent.

ERR – Not able to send fax.