

AudioCOMMUNICATOR

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AudioCOMMUNICATOR™

AudioCommunicator application is a flexible utility that allows the end user to design and conduct surveys or announcements for patients or organization personnel. The communication can be done via outbound calling, or as a menu option for patients or personnel calling into the organization's phone system. A "survey" or "communication" will consist of a series of questions and response sets, or simply one or more non-question messages without responses.

- *Survey*: Questions are asked of the patient. The patient selects a valid response to the question by pressing or dialing a number on their telephone.
- *Communication*: The recipient of the call will hear a brief message from the AudioCARE system and will have the option to confirm the receipt of the message by their telephone keypad.

The basic components of the system are:

- **Dictionaries** – Specific tables of Questions, Responses, Greeting Messages, Introductory (Instructional) Messages and Closing Messages are set up within the AudioCOMMUNICATOR application. The user defines the text for each dictionary element. Each dictionary element will require a voice recording to be stored within the AudioCOMMUNICATOR module. Dictionary elements built within these dictionaries can be used interchangeably in any number of different surveys.
- **Communications Set Up** - Surveys and/or announcements are built by selecting elements from the dictionaries described above. System Preferences and System Parameters set up by the end user determine how the communication is to be delivered (outbound calling, inbound menu, or both). In the set-up utilities, a file name is recorded where the system can locate a list of the patients or personnel to call (outbound) or prompt (inbound). For outbound calling, start and stop dates and times are also recorded.
- **Reports** – The statistical reports available with this application will detail the results of the surveys conducted through the system. The reports will also show the results of each attempted announcement or survey call.

Access all Communicator set up options by first selecting the Applications option from the main menu on the AudioCARE system, followed by AudioCOMMUNICATOR from the Applications menu.

Each prompt on the AudioCOMMUNICATOR system screens has online help accessible by pressing the F1 key.

System Overview

Projected Uses of AudioCOMMUNICATOR

- Announcement of New Services
- Target Marketing
- Patient Care Surveys
- Research Surveys
- Health Maintenance Alerts
- Drug recalls and Other Urgent Warnings
- Equipment Recalls

Procedures to create a Communication or Survey

1. Lay out Announcement or Survey on Paper.
2. Verify Dictionary Elements for the Communication are Set-up
3. Define the Communication
4. Select the Question Order and Responses, if applicable
5. Define Survey Branching
6. Create Calling List
7. Define Test Scenario
8. Test the Communication
9. Validate Through Reports

Making Recordings

To record the survey or communication elements entered in the dictionaries:

1. Call the AudioCARE system.
2. At the prompt for Patient Social Security Number, enter ***0000*** followed by the # key.
3. Enter your site number (**20xxx**) followed by the # key when prompted for the site authorization number.
4. At the recording options menu, enter **7** to select the survey recording option.
5. Select the survey recording option for Questions, Responses, Greetings, Introductions, or Closings.
6. Enter the dictionary number of the element for which the recording is to be made.
7. The system will prompt the user to make the recording. The option to review and rerecord the element will be presented prior to the recording being saved into the system.
8. Continue making recordings until complete.

The most efficient way to navigate the text entry/recording process is to do a block of text entries for one of the dictionary categories (e.g. questions) and then to do recordings for the entire block, so that it is not necessary to make repeated calls in to the recording utility.

Communication Dictionaries

To make entries into the Communicator Dictionaries, select Dictionary Maintenance from the main Communicator menu. All new dictionary entries must be entered using *Add New* (Greeting/Introduction/Question/Response/Closing). The system will automatically generate a dictionary number for the new greeting/introduction/etc.

The Dictionary Maintenance menu allows access to add and edit options for each of the following dictionaries:

- Question (or non-question messages)
- Response
- Greeting
- Introduction (Instruction)
- Closing

Each of these dictionaries has the same basic entry form:

- **Short text** for each dictionary element is defined (up to 30 characters). This description is used for pick list display and selection.
- A **full text** description for the element is also recorded. This will be used as a visual and should match the recorded prompt for the element. It will also be available for display on some of the detailed statistical reports. *When initially setting up a dictionary element, (N)o will default in the field asking if this element has been recorded.*

The Response Entry screen requires additional information. It prompts for the entry of a string of numbers that constitutes the valid responses for the corresponding question (e.g. 1,2,3,4,5).

Greeting, Introduction, and Closing Messages

The **Greeting Message** identifies, to the patient, who is calling him/her. After the system has identified the patient, the recipient of the call will then hear a menu, which will determine if:

- The correct party has been reached
- The correct party is available to be brought to the phone
- The correct party will not be available
- A wrong phone number has been reached

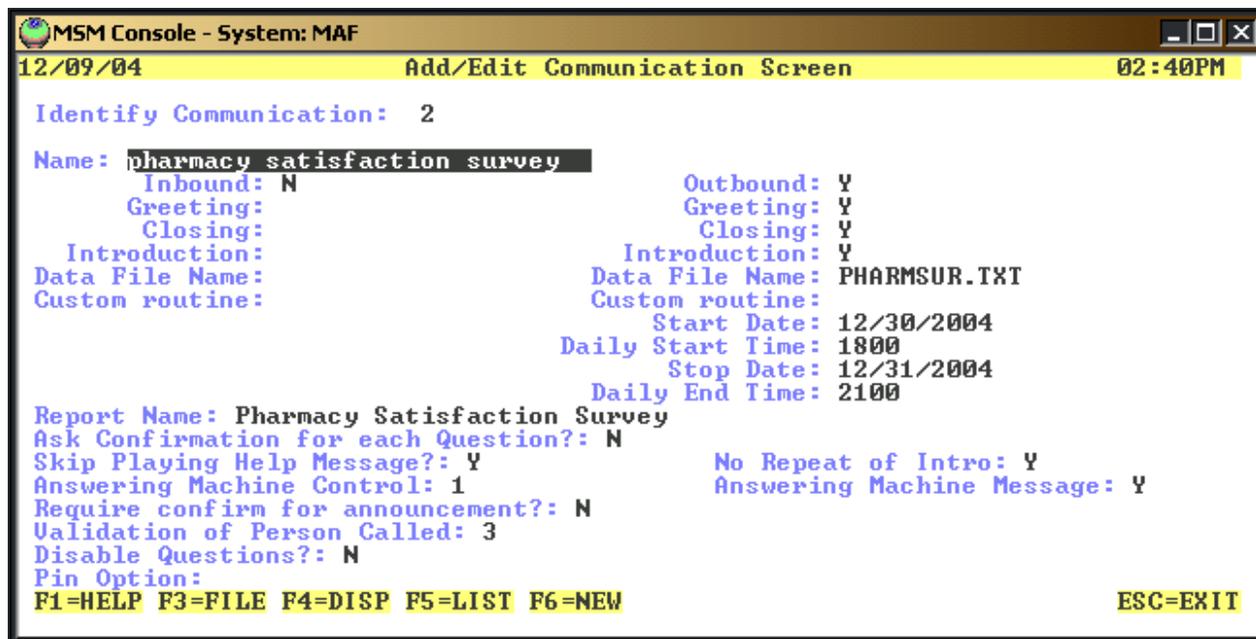
Based on the response, the system either proceeds with the communication, waits for the patient to come to the phone, requeues the call, or removes the phone number from this calling list.

The **Introduction Message** is an explanation and/or instructions to be played prior to the beginning of the communication or survey. The patient will have the option of repeating this message if needed.

Closing Messages thank the patient and indicate that the survey or communication is complete.

Add/Edit Communication

1. Select the Communication Setup option from the main Communication menu, followed by Communication Maintenance.
2. To create a new survey or announcement, press F6 (New) at the Identify Communication field.
3. To edit an existing survey or announcement, enter the number of the existing survey, or press the F5 key to choose from a pick list of existing communications.



```
MSM Console - System: MAF
12/09/04 Add/Edit Communication Screen 02:40PM
Identify Communication: 2
Name: pharmacy satisfaction survey
Inbound: N Outbound: Y
Greeting: Greeting: Y
Closing: Closing: Y
Introduction: Introduction: Y
Data File Name: Data File Name: PHARMSUR.TXT
Custom routine: Custom routine:
Start Date: 12/30/2004
Daily Start Time: 1800
Stop Date: 12/31/2004
Daily End Time: 2100
Report Name: Pharmacy Satisfaction Survey
Ask Confirmation for each Question?: N
Skip Playing Help Message?: Y No Repeat of Intro: Y
Answering Machine Control: 1 Answering Machine Message: Y
Require confirm for announcement?: N
Validation of Person Called: 3
Disable Questions?: N
Pin Option:
F1=HELP F3=FILE F4=DISP F5=LIST F6=NEW ESC=EXIT
```

Identify Communication: Select an existing Communication from the pick list or press the <F6> key to receive a system generated number for a new Communication.

Name: Enter the name of the survey/announcement.

****While the Inbound Parameter fields appear on the screen, they are currently inactive.****

Outbound: Enter 'Y' to enable an outbound survey/announcement

Greeting: Enter 'Y' if a custom greeting is to be used. This is the first message that is heard when the phone is answered, before patient identification.

Closing: Enter 'Y' if a custom closing message is to be used. This is the last message to be used before ending the call.

Introduction: Enter 'Y' if a custom introduction is to be used. This message plays after patient identification, but before any questions. It is also used to enter an announcement message.

****Note that none of three previous message categories are required, however the user must use his/her best judgment in regards to the overall flow of the Communication.*

Add/Edit Communication continued

Data File Name:	Enter the file name of the Calling List. This file must be in the C:/DL/SURVEY directory. See <i>Calling List</i> section for additional information.
Custom Routine:	[Unless the AutoRun feature of Communicator has been purchased, skip this prompt.] Enter the name of the routine to be invoked if the Calling List is to be automatically generated from the host or another system. If the AutoRun feature is being used, this entry is needed to compile the data file. See <i>Calling List</i> section for additional information.
Start Date:	Enter the starting date for this survey/announcement.
Daily Start Time:	Enter the time of day that the survey/announcement should <i>begin</i> placing calls. If the Starting Date is different than the Stop Date, the survey/announcement calls will begin at the time entered here each day until the Stop Date is reached.
Stop Date:	Enter the ending date for this survey/announcement.
Daily End Time:	Enter the time of day that the survey/announcement should <i>stop</i> placing calls. If the Starting Date is different than the Stop Date, the survey/announcement calls will stop at the time entered here each day until the Stop Date is reached.
Report Name:	Enter a name to be used on reports for this survey/announcement. It may be different from the Name of the survey entered earlier on this screen.
Ask Confirmation for each Question:	Enter 'Y' to enable confirmation for each question. The call recipient will the option he/she chose repeated and then be asked to confirm his/her choice. Enter 'N' to suppress this function.
Skip Playing Help Message:	Enter 'Y' to skip playing the built-in help during the call The help will speak "The following responses may be used for any of the questions. If you wish to skip a question press 8. To repeat a question, press 9. To repeat these general instructions now or at any time during the Communication, just press 0."
Answering Machine Control:	Enter '1' to leave a message and <i>not</i> requeue. Enter '2' to requeue and <i>not</i> leave a message. Enter '3' to leave a message <i>and</i> requeue.
Require confirm for Announcement:	Enter 'Y' if this is a single announcement with a single response requiring confirmation. Unless a '1' is entered by the responsible party, the call will be requeued.
Validation of Person Called:	Enter the type of validation 1 = Validate with Date of Birth 2 = Ask if Person Answering is a Responsible Party 3 = No Validation
Disable Questions:	Enter 'Y' to disable speaking out any questions/answers for this communication. For example, this must be disabled for a general announcement because there are no questions.
PIN Option:	Allows patient to enter their SSN or PIN for confirmation that the call is being made to the right person. Possible values are 1= Require Last 4 SSN; 2= Require User Defined PIN; Blank= No PIN.

Add/Edit Communication continued

No Repeat of Intro: Enter Y to suppress the Repeat Introduction message, or leave blank.

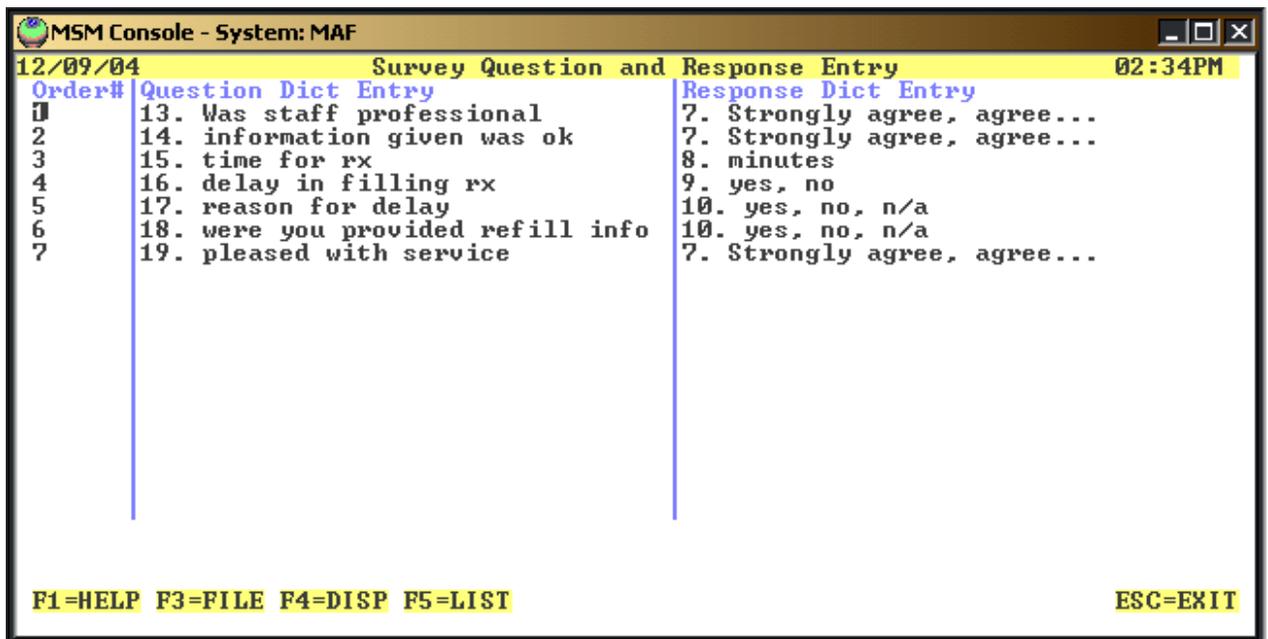
Answering Machine Message Enter Y to play a different message when an answering machine is reached. Otherwise leave blank. If Y is entered, a message defined in the Introduction. Dictionary will be used and that message number is entered in the Greeting/Closing Screen – see below.

SURVEY QUESTION AND RESPONSE ENTRY

If Y was entered at the Disable Questions prompt above, this section will be skipped and you will move directly to the Greeting and Closing screen.

When the initial set up screen has been completed, the question and response must be defined. *If you do not want to proceed to question entry at this time, select FINISHED on the information screen that appears after filing the Add/Edit Survey screen.*

The user will select questions from the question dictionary (set up previously), enter the question order for the survey, and attach a response to the question from the response dictionary (also set up previously).



Order #: Enter the order in which the questions are to be asked.

Question Dict Entry: Press F5 and select the question from the list.

Response Dict Entry: Press F5 and select the response from the list. If no response is desired, then leave this blank.

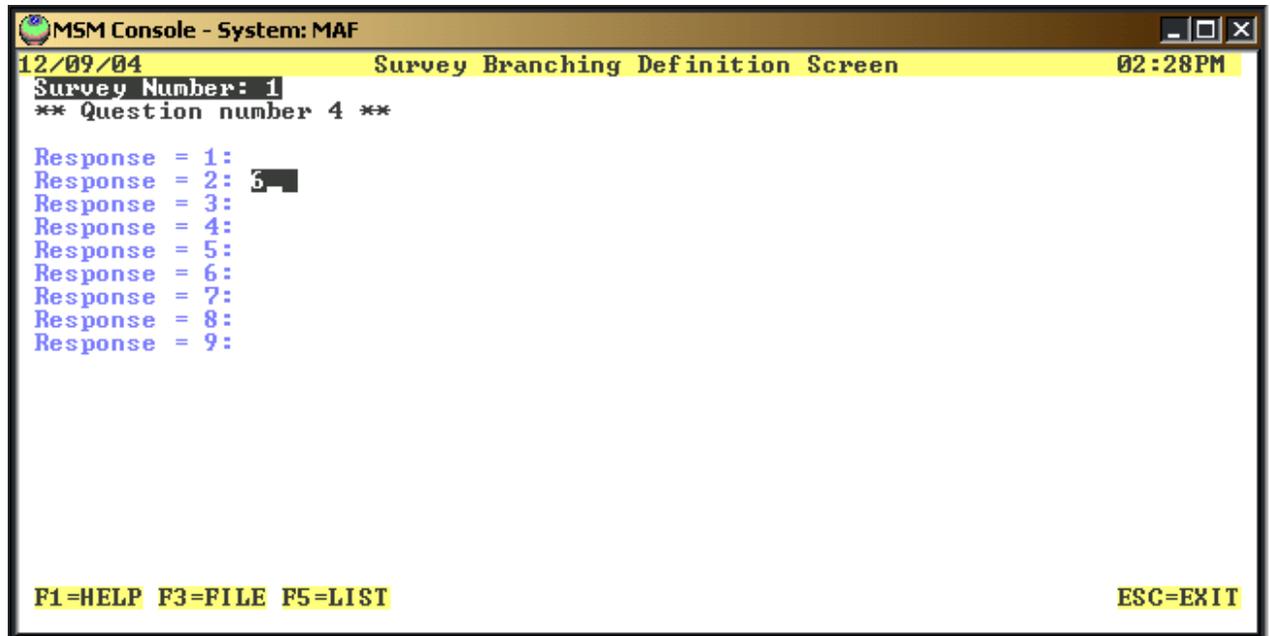
Communication Maintenance continued

SURVEY BRANCHING DEFINITION SCREEN

For each valid response to the question, the option exists to branch the survey to another question rather than the next question in the order (i.e. A question can be skipped based on the patient response).

If the survey will include no conditional branching, press the ESC key to move to the next screen.

To create a conditional branch, first enter the number of a question that may be branched. The system will list several available response prompts.

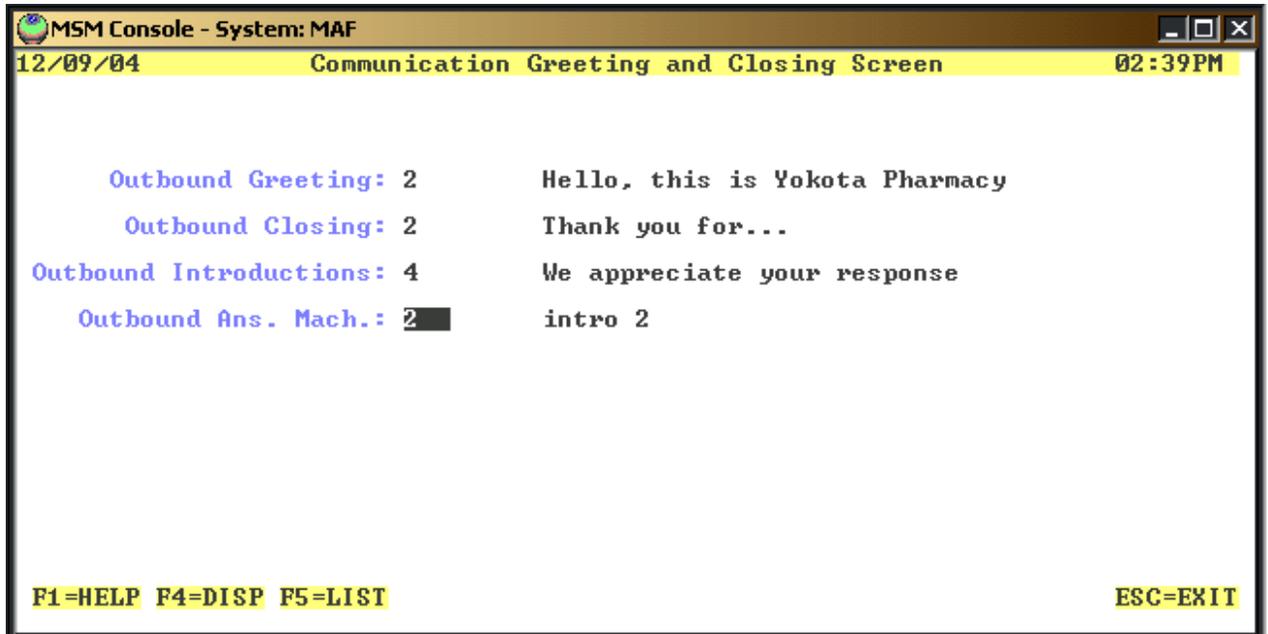


In the example cited above, if a patient's response to question 4 is 2, question 5 will be skipped and the survey will continue with question 6.

Communication Maintenance continued

COMMUNICATION GREETING AND CLOSING SCREEN

If Y is entered to any of the Greeting, Introduction, or Closing prompts on the Communication Maintenance screen, then a corresponding message number must be entered here.



Outbound Greeting Enter the desired greeting number or press F5 for a list of available greetings.

Outbound Closing: Enter the desired closing number or press F5 for a list of available closings.

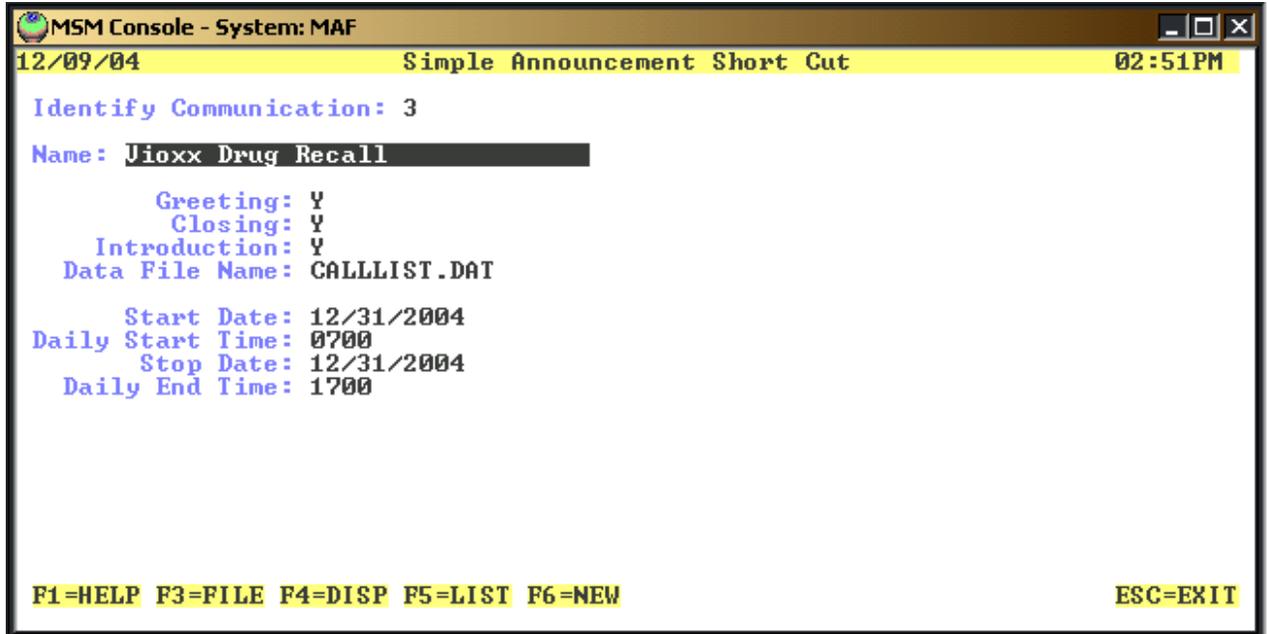
Outbound Introductions: Enter the desired introduction number or press F5 for a list of available

Outbound Ans Mach: Unique answering machine messages are selected from the Introduction Dictionary since this message will play in the place of the normal Introduction Message when an answering machine is detected.

Simple Announcement Short Cut

In order to quickly build a general announcement without going through all the prompts on the Communication Maintenance screen, access the Simple Announcement Short Cut off of the Communication Set Up Menu. This allows the user to include all of the core requirements for an announcement, but without all the detail of the Communication Maintenance option. This can *only* be used for announcement messages, *not* surveys. Parameters not presented here are set to default values. This would be useful, for example, in situations where the user wants to deliver a simple announcement message to a sizable population with no concern for verification that particular individuals have been reached.

To create a new announcement, press F6 (NEW) or to edit an existing announcement, press F5 for a listing.



```
MSM Console - System: MAF
12/09/04          Simple Announcement Short Cut          02:51PM
Identify Communication: 3
Name: Jioxx Drug Recall
      Greeting: Y
      Closing: Y
      Introduction: Y
      Data File Name: CALLLIST.DAT
      Start Date: 12/31/2004
      Daily Start Time: 0700
      Stop Date: 12/31/2004
      Daily End Time: 1700
F1=HELP F3=FILE F4=DISP F5=LIST F6=NEW          ESC=EXIT
```

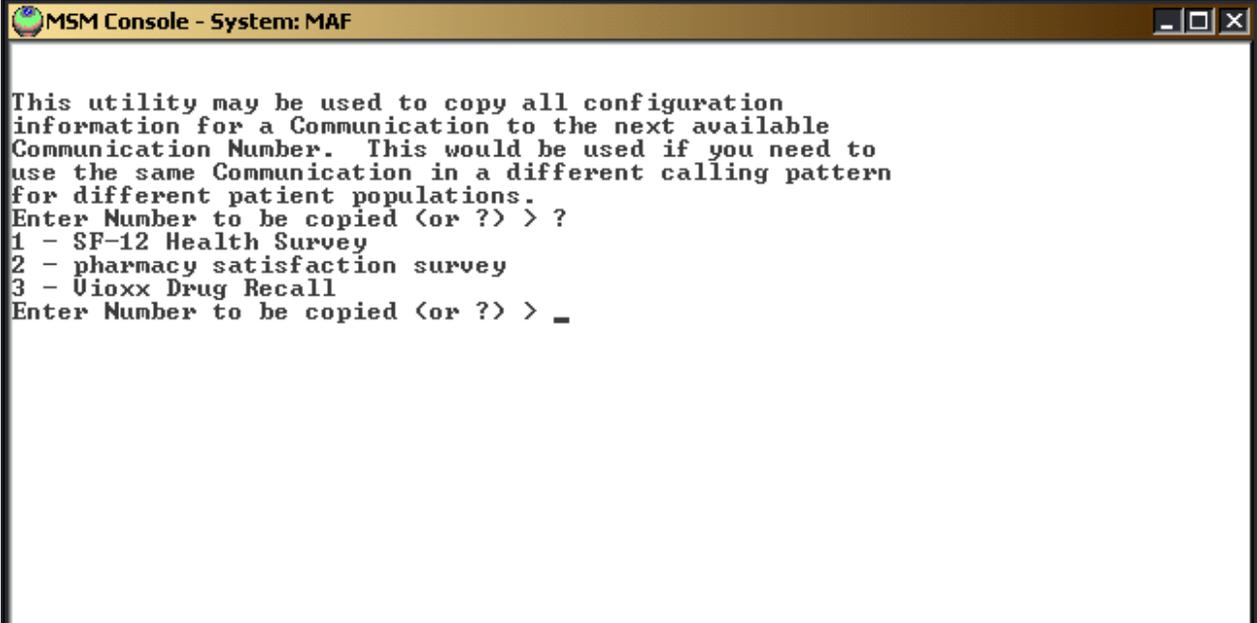
The following fields are required for the Simple Announcement: Name; Greeting (Y/N); Closing (Y/N); Introduction (Y/N); Start Date; Daily End Time; Stop Date; Daily Stop Time.

Default values automatically set: Report Name = Same as Communication Name; Skip Help = Y; Answering Machine Control = 1 (Leave Message, Don't Requeue); Verification of Person = None; No Repeat for Intro = Y; PIN Option = N.

When this screen is filed, the user will be taken to the Communicator Greeting, Introduction and Closing Screen. This screen allows you to attach greeting, screen (i.e. will not have to pass through the Question/Response and Branching screens, as with Communication Maintenance).

Copy a Communication

This function is used to copy all configuration information for a communication to the next available communication number. This would be used if the same communication is needed in a different calling pattern for a different patient population. Rather than having to enter all information a second time, the copy does it for you.



```
MSM Console - System: MAF

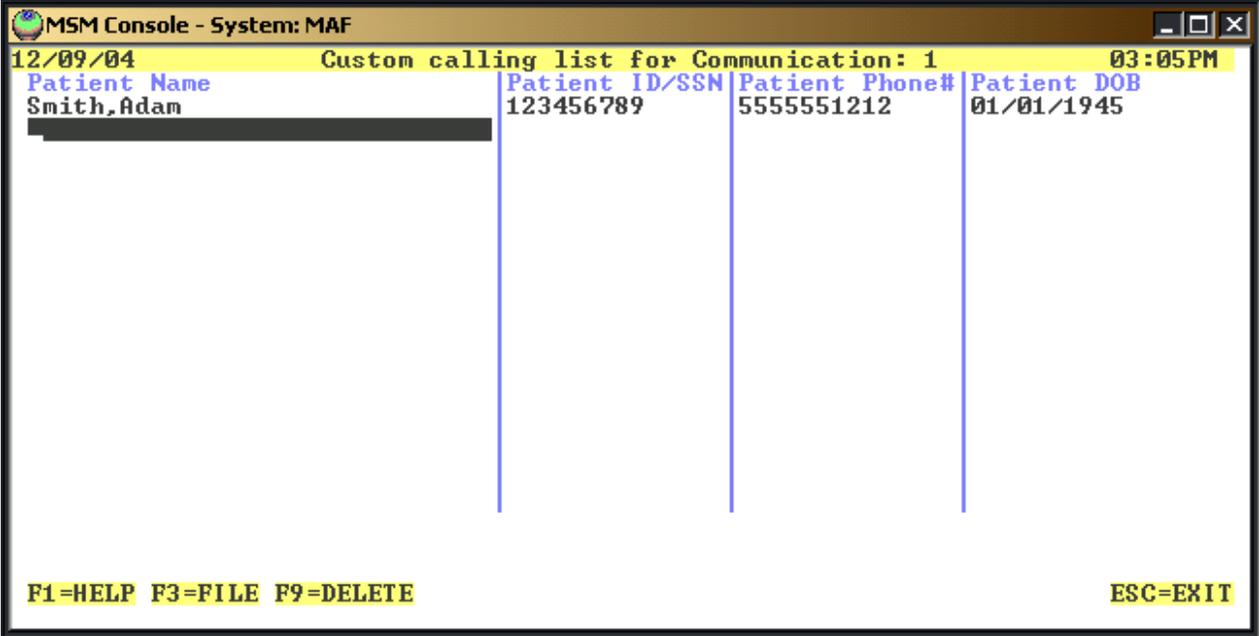
This utility may be used to copy all configuration
information for a Communication to the next available
Communication Number. This would be used if you need to
use the same Communication in a different calling pattern
for different patient populations.
Enter Number to be copied (or ?) > ?
1 - SF-12 Health Survey
2 - pharmacy satisfaction survey
3 - Uioxx Drug Recall
Enter Number to be copied (or ?) > _
```

The Calling List

The Calling List will contain the names and phone numbers of the individuals to receive the specific communication. The user must specify the file name that will contain the specific Calling List. The survey files should reside in the following directory on the AudioCARE system: C:\DL\SURVEY. The following format must be used:

LastName,FirstName^PatientID (eg. SSN)^PatientPhone/^PatientDOB

The file may be directly loaded to AudioCARE from a diskette or over the network. It may also be entered manually in AudioCOMMUNICATOR using the Custom Calling List Entry option. The screen below is an example of how a calling list should be entered. Be sure phone numbers are entered so as to be compatible with the Outbound Dialing Setup. Generally it is best to always include area codes.



MSM Console - System: MAF

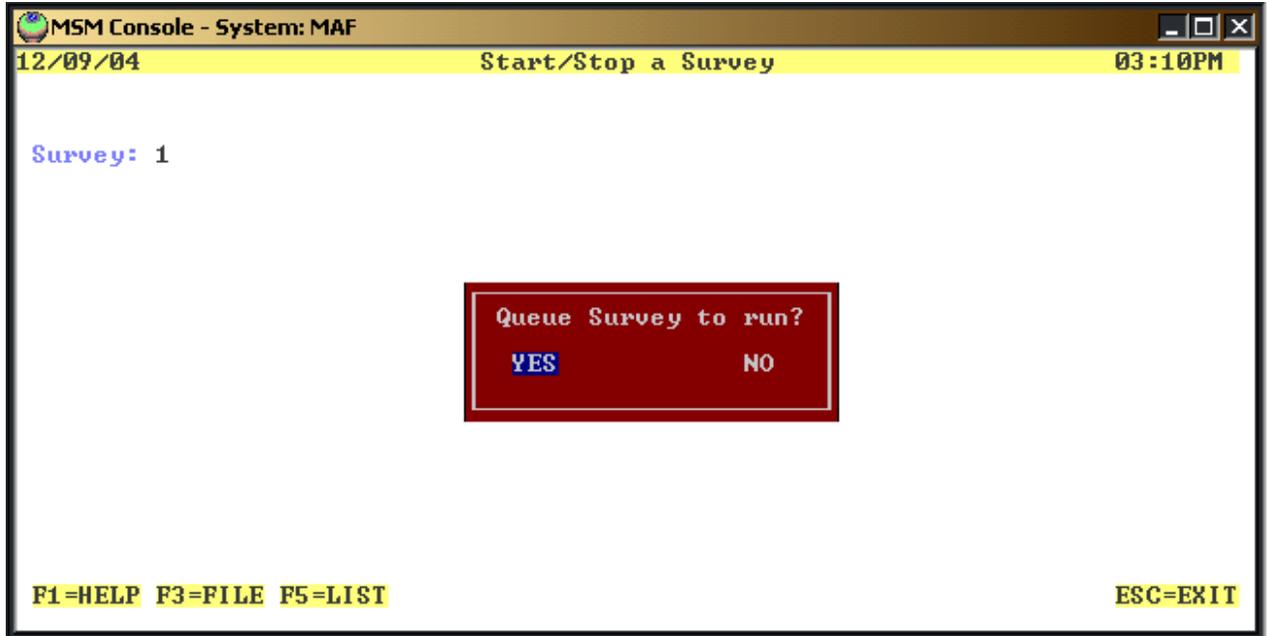
12/09/04 Custom calling list for Communication: 1 03:05PM

Patient Name	Patient ID/SSN	Patient Phone#	Patient DOB
Smith, Adam	123456789	5555551212	01/01/1945
[REDACTED]			

F1=HELP F3=FILE F9=DELETE ESC=EXIT

Start/Stop a Communication

When the set up of the survey or announcement has been completed, the outbound calling is started by selecting the Start a Communication option from the main menu, followed by Start/Stop a Communication on the next menu. Enter the number of the survey/announcement at the prompt, or press F5 for a pick list of existing communications. The pick list will indicate the current status of the Communication: e.g. Ready, Running, Incomplete, etc. Once activated, the calls will be queued to begin at the designated date and time entered in the Communication Maintenance option. The communication will continue placing calls within the Start Time/End Time window each day until either the End Date/End Time is reached, or all patients on the calling list have been successfully called; removed from the calling queue for other reasons, e.g. wrong phone number; or until the Communication is stopped manually using this screen.



REFRESH COMMUNICATION RUN STATUS

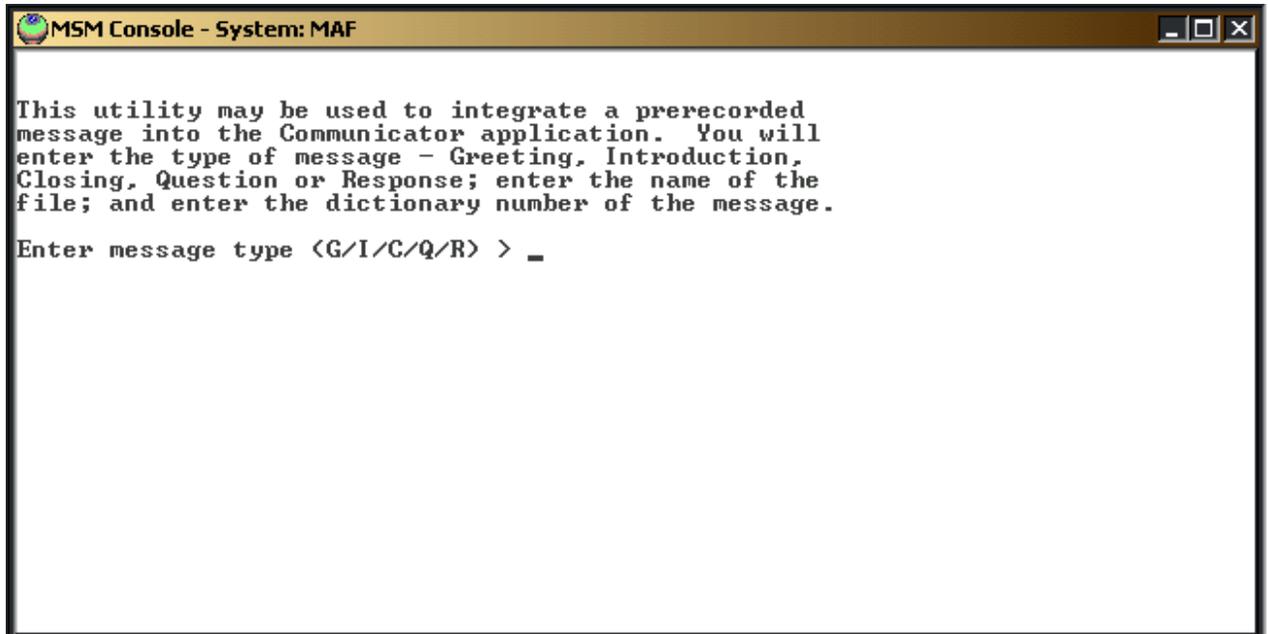
This option, primarily to be used by AudioCARE, or under the supervision of AudioCARE, provides a review of the status of a started Communication, and allows the operational flags for the communication to be reset. The operation flags are: User has requested start; System has queued to run; Communication compiled and started; and User has requested stop. It is sometimes useful to clean up after an abortive survey test.

DEACTIVATE/ACTIVATE COMMUNICATION ACTIVITY

This function adds the ability to deactivate then reactivate the entire application should that be required, similar to On/Off switches which exist for several other applications.

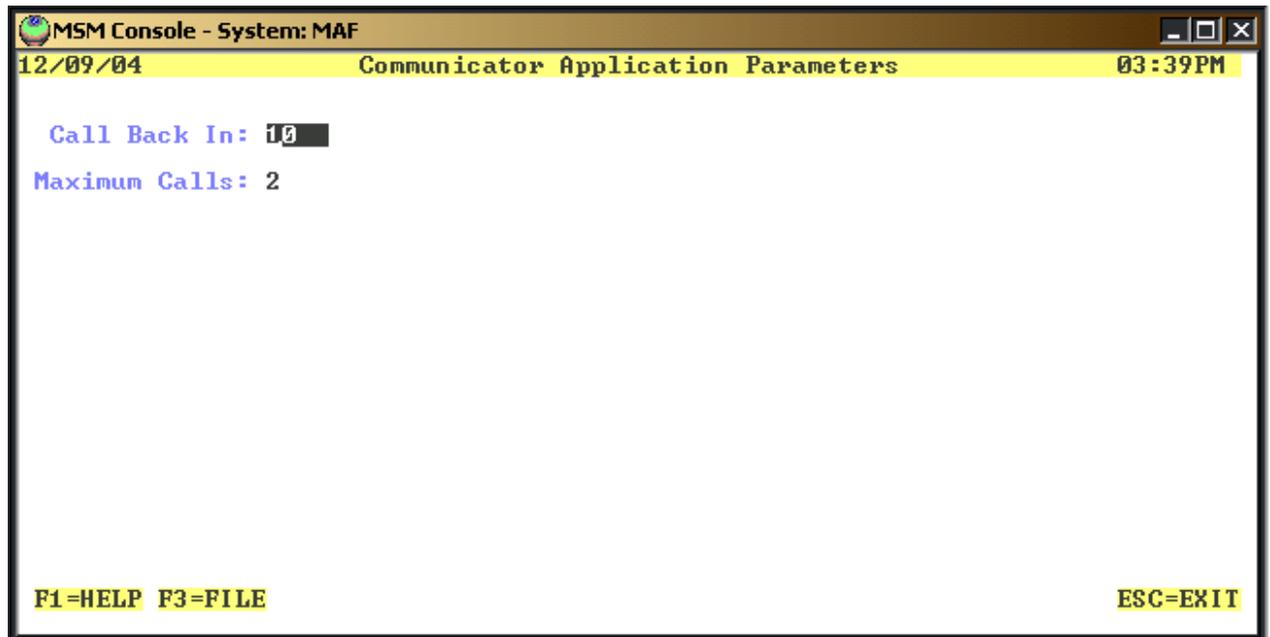
Integrate Prerecorded Messages

This option is a utility that allows the user or AudioCARE to move prerecorded messages into a local Communicator environment. The user is prompted for the type of Communicator message it is, for the file path and name, and for the Communicator Dictionary Number. The file is then renamed and moved to the correct directory, and the Communicator Dictionary is updated with the name of the file and the Recorded (Y/N) node is set to Y.



Application Parameters

This screen allows the setting of the following parameters, which apply to *any* communication defined on the system:



- Call Back In:** This allows the user to override the default call back time for completed calls, which include answering machines or requests by the person receiving the call to call back.
- Maximum Calls:** This option allows the user to reduce the maximum number of completed calls to a number during a calling episode from the default of 3 to either 2 or 1. Note: If the Answering Machine Parameter is set to continue to try the number after a message is left, subsequent calls that again reach an answering machine do not leave another message and are not counted as completed calls.

Communication Reports

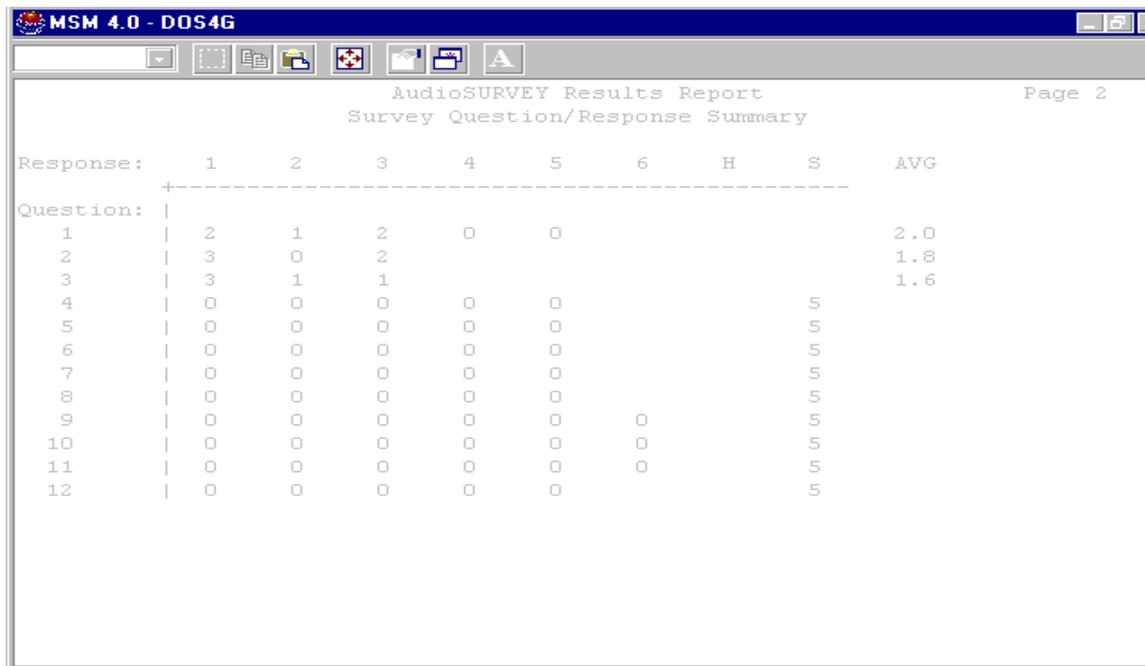
To access Communicator Reports, select the Communicator Reports option from the main Communicator menu.

AudioCOMMUNICATOR logs and reports data in several different ways. Of primary importance are, in the case of research or market oriented surveys, the statistical reports summarizing patient responses to a survey; and in the case of patient related communications, the reports showing individual patient responses.

There is also the option of viewing and analyzing overall performance of a survey or communication by using comprehensive calling transaction reports, or calling statistical summaries. These tools review the success in reaching patients or quickly identify those patients the system failed to reach for follow-up action.

SURVEY STATISTICS

Summary Statistics provides a summary grid of all questions in a survey with response totals for each possible response. Note that possible values here include S(kipped) or H(ung up before this question).



MSM 4.0 - DOS4G

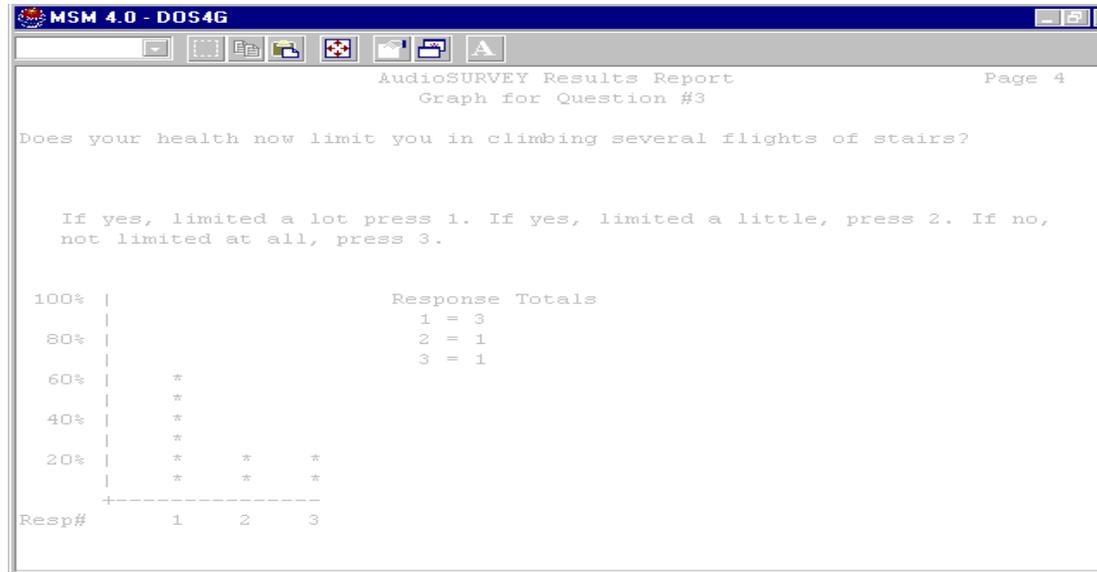
AudioSURVEY Results Report Page 2

Survey Question/Response Summary

Response:	1	2	3	4	5	6	H	S	AVG
Question:									
1	2	1	2	0	0				2.0
2	3	0	2						1.8
3	3	1	1						1.6
4	0	0	0	0	0			5	
5	0	0	0	0	0			5	
6	0	0	0	0	0			5	
7	0	0	0	0	0			5	
8	0	0	0	0	0			5	
9	0	0	0	0	0	0		5	
10	0	0	0	0	0	0		5	
11	0	0	0	0	0	0		5	
12	0	0	0	0	0	0		5	

Survey/Communication Reports continued

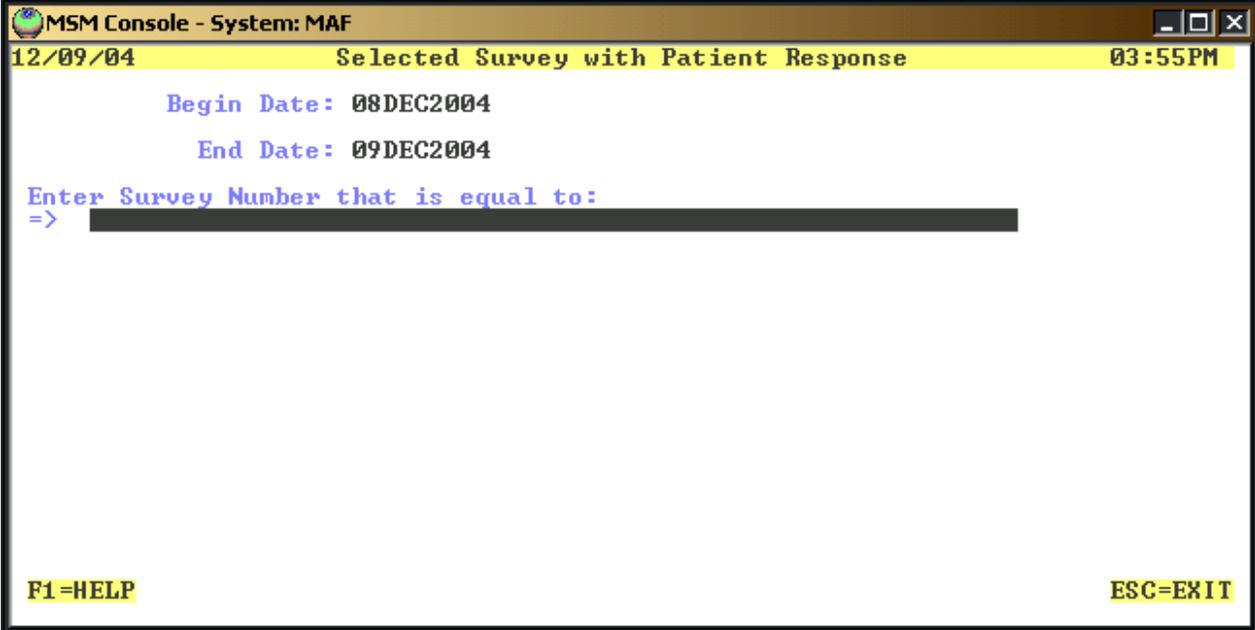
The *Detail Report* provides the complete text for each question and possible response, lists the response frequencies, and presents a graphical comparison of the percentages of the respondents' selection for each response.



Survey/Communication Reports continued

CALLING TRANSACTIONS

Selected Survey with Patient Response Report: This report allows for the selection of a survey/communication that has been run (or is still in the process of running), and view on a patient-by-patient basis what responses each patient gave to this survey.



MSM Console - System: MAF

12/09/04 Selected Survey with Patient Response 03:55PM

Begin Date: 08DEC2004

End Date: 09DEC2004

Enter Survey Number that is equal to:
=> [Input Field]

F1=HELP ESC=EXIT

Begin Date: Enter the date on which to start reporting.

End Date: Enter the date on which to stop reporting.

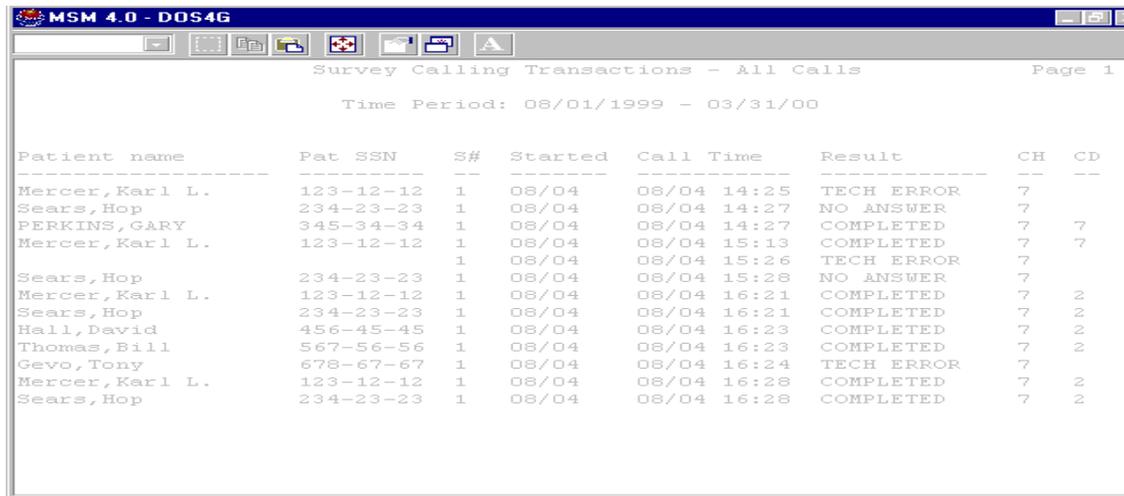
Enter Survey Number that is equal to: Enter the desired survey number.

Output Device: Enter the desired printer or leave blank to print to screen.

Selected Survey with Patient Responses for Export: This report is a variation of the basic Patient Response report, with a more complete set of patient information (includes phone number and patient ID), formatted for export for use by the standard tool of the user's choice (e.g. Excel).

Survey Calling Transactions – All Calls: This report shows all calling activity for a selected date range, including failed calls (e.g. busy, no answer). This provides the ability to comprehensively view all call attempts, sorted in the order that you choose. This is useful in the event that you need to research the attempts to reach a particular patient for a particular survey.

Survey/Communication Reports continued



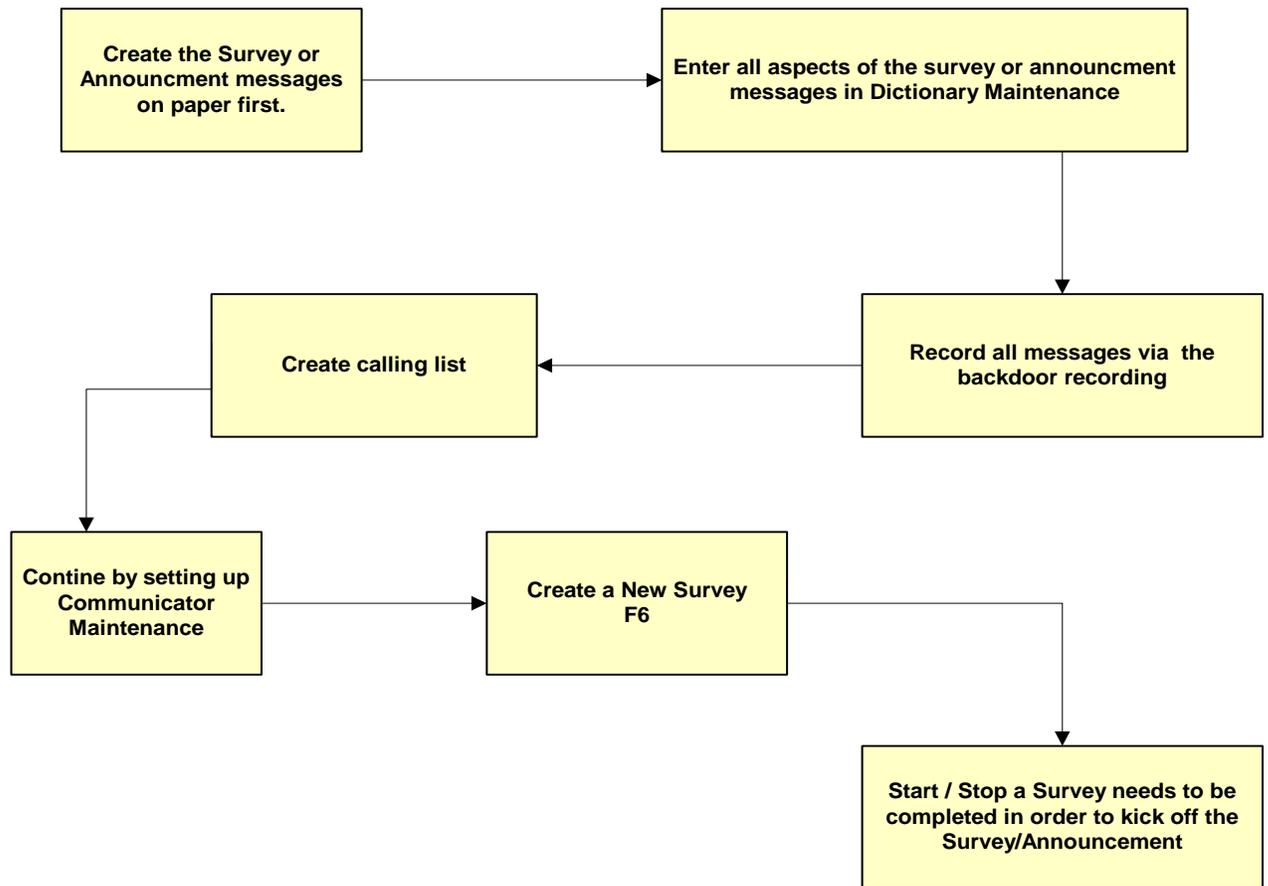
The screenshot shows a DOS-style window titled "MSM 4.0 - DOS4G". The window content displays a report titled "Survey Calling Transactions - All Calls" on "Page 1". The report covers the "Time Period: 08/01/1999 - 03/31/00". The data is presented in a table with the following columns: Patient name, Pat SSN, S#, Started, Call Time, Result, CH, and CD. The table lists 15 individual call records for various patients, including Mercer, Karl L., Sears, Hop, PERKINS, GARY, Hall, David, Thomas, Bill, Gevo, Tony, and Mercer, Karl L. again. Results include "TECH ERROR", "NO ANSWER", and "COMPLETED".

Patient name	Pat SSN	S#	Started	Call Time	Result	CH	CD
Mercer, Karl L.	123-12-12	1	08/04	08/04 14:25	TECH ERROR	7	
Sears, Hop	234-23-23	1	08/04	08/04 14:27	NO ANSWER	7	
PERKINS, GARY	345-34-34	1	08/04	08/04 14:27	COMPLETED	7	7
Mercer, Karl L.	123-12-12	1	08/04	08/04 15:13	COMPLETED	7	7
		1	08/04	08/04 15:26	TECH ERROR	7	
Sears, Hop	234-23-23	1	08/04	08/04 15:28	NO ANSWER	7	
Mercer, Karl L.	123-12-12	1	08/04	08/04 16:21	COMPLETED	7	2
Sears, Hop	234-23-23	1	08/04	08/04 16:21	COMPLETED	7	2
Hall, David	456-45-45	1	08/04	08/04 16:23	COMPLETED	7	2
Thomas, Bill	567-56-56	1	08/04	08/04 16:23	COMPLETED	7	2
Gevo, Tony	678-67-67	1	08/04	08/04 16:24	TECH ERROR	7	
Mercer, Karl L.	123-12-12	1	08/04	08/04 16:28	COMPLETED	7	2
Sears, Hop	234-23-23	1	08/04	08/04 16:28	COMPLETED	7	2

Survey – Final Calls for Selected Survey: This selects from the comprehensive list described above, to show only the final attempt to reach each patient during a survey run. This is useful when sorted by final status to pull out those patients who were and were not reached for this survey.

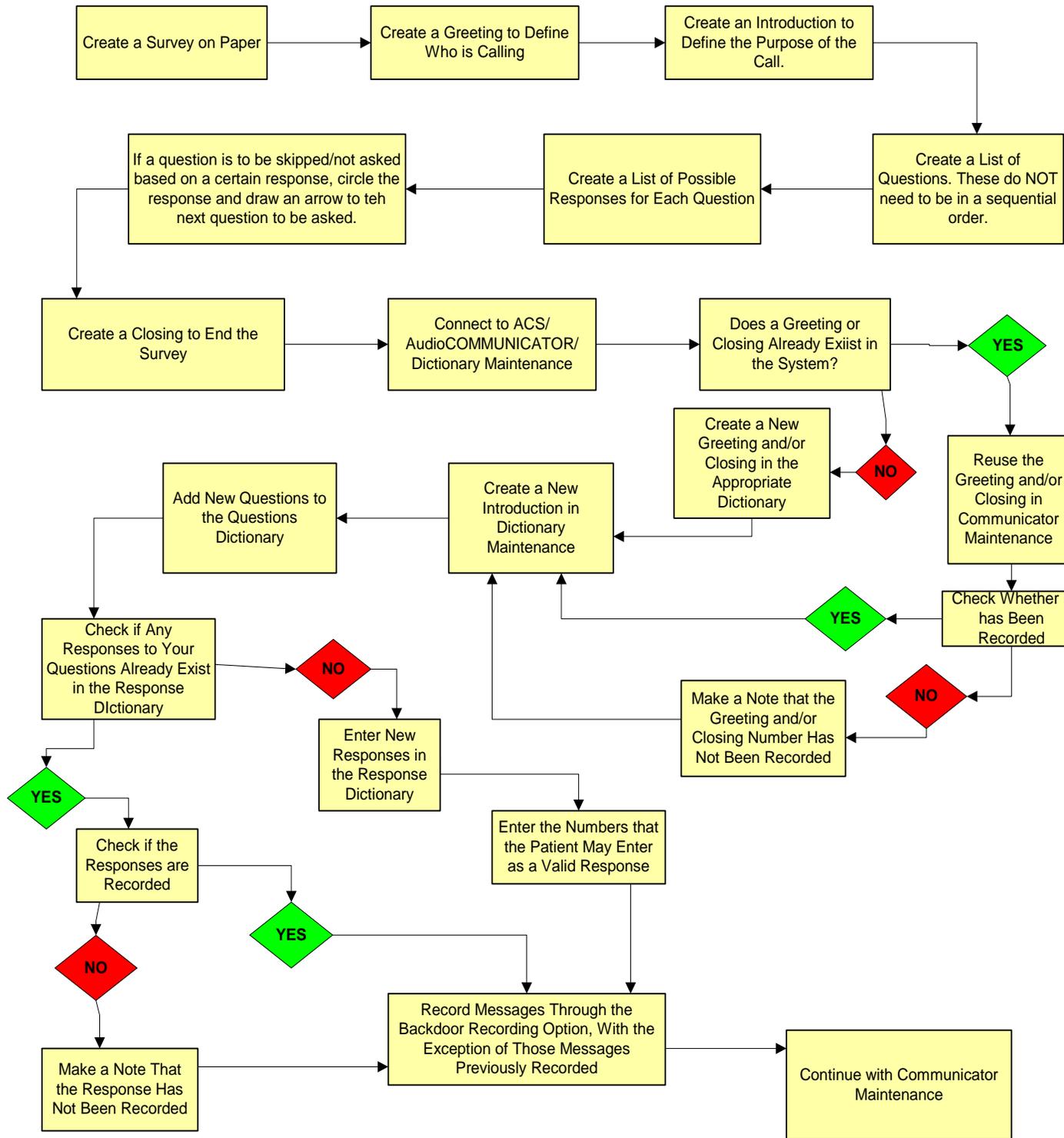
Appendix

AudioCOMMUNICATOR Process Flow



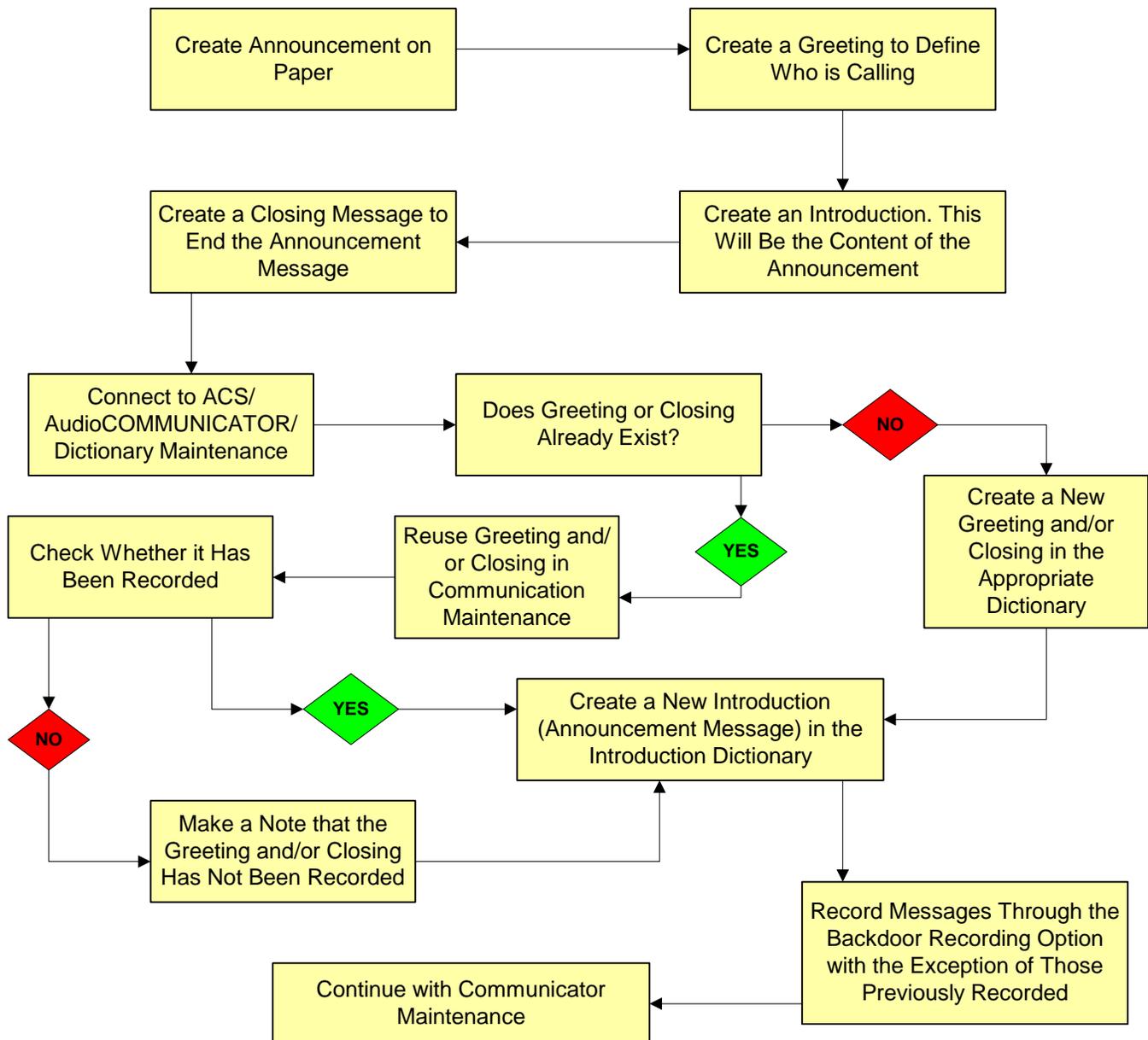
**** Surveys/Announcements CANNOT run at the same time as Appointment Reminder calls.**

Survey Process Flow



****Caution** Be certain that those previously recorded messages are the same voice as any new messages, otherwise re-record them to match the Greeting, Introduction, Questions, and Responses Voice**

Announcement Process Flow



****Caution** Be certain those previously recorded messages are the same voice, otherwise re-record it to be consistent with the Introduction (Announcement Message) voice.**