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@maGEN Unified Messaging
System

System Manual



Catalog No. 76-110-0887/0

Issue 1

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Release 1.0

Issue 1

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@*maGEN*

Unified Messaging System

System Manual



Telrad Tenecss Inc.
Woodbury, New York

NOTICE

This publication refers to the Telrad **e**maGEN Unified Messaging System, Release 1.0, Issue 1, connected to any of Telrad's **unite** family of telephone systems, Releases SB7/DB7/LB7, as of February 2002.

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NOTE ON PRONUNCIATION

"unite" is pronounced: yoo - nit - ee.

"emaGEN" is pronounced: ee - ma - jen.

"eManager" is pronounced: ee - man - a - jer.

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Section 1

INTRODUCTION

1.1 MANUAL SCOPE

This manual presents the information needed to install and program the **emaGEN** Unified Messaging System in conjunction with the **unite** family of systems. This information includes an overview of the **emaGEN** system, hardware and software installation procedures and instructions for programming **emaGEN** and its many features.

1.2 STRUCTURE OF THE MANUAL

This manual is divided into the following sections:

1. INTRODUCTION

Provides introductory information about **emaGEN** system documentation.

2. SYSTEM OVERVIEW

Provides a general overview of **emaGEN** capabilities, basic concepts and features.

3. INSTALLATION

Provides information required for **emaGEN** system installation planning and preparations.

4. OPERATION

Provides basic information on **emaGEN** system operation.

5. SYSTEM ADMINISTRATION

Provides basic information on **emaGEN** system administration.

6. **emaGEN** WEB CONTROLLER

Provides an introduction to the **emaGEN** Web Controller -- the administration utility of the **emaGEN** system.

7. SITE

Provides administration definition instructions for adapting **emaGEN** to your specific site.

8. PBX PORT DEFINITION

Provides administration definition instructions for your telephone system outside line ports.

9. PBX

Provides administration definition instructions for your telephone system parameters, integration and outside lines.

10. DEPARTMENTS

Provides administration definition instructions for configuring the **emaGEN** automated attendant to each department on your site.

11. MAILBOX

Provides administration definition instructions for maximum utilization of mailbox features, properties and options.

12. CLASS OF SERVICE

Provides administration definition instructions for assigning a Class of Service to each mailbox, to control its activities.

13. GROUPS

Provides administration definition instructions for assigning, controlling and linking mailbox groups, in various configurations.

14. SCRIPTS

Provides detailed instructions for creating and utilizing customized routines, called scripts.

15. THE SYSTEM ADMINISTRATOR

Provides information on the assignment and functions of the System Administrator.

16. VOICE PROMPTS

Provides describes the organization, structure and utilization of system greeting voice prompts.

17. REPORTS

Provides standard structure and information details contained in a series of statistical reports, used to enable the System Administrator to keep track of **emaGEN** system activity.

18. FAX

Provides administration definition instructions for maximum utilization of fax parameters, facilitating fax mail, fax-on-demand and fax integration with mailboxes and email.

19. PROGRAMMING FOR *e*maGEN IN *unite* SYSTEMS

Provides a description of *unite* system programming requirements -- applied using the Windows-based *e*Manager -- for *e*maGEN implementation.

1.3 INTENDED AUDIENCE

This manual is intended for field technicians and for the System Administrator responsible for maintaining the *e*maGEN Unified Messaging System.

The manual assumes the reader is familiar with *unite* system programming and with personal computers.

1.4 APPLICABLE DOCUMENTATION

In addition to this system manual, the following *e*maGEN documentation is available:

- ***e*maGEN Client User Guide**
Catalog number 76-110-0888/0
- ***e*maGEN Quick Reference Guide (English)**
Catalog number 76-110-0889/0
- ***e*maGEN User Guide for Avanti 3025 set**
Catalog number 76-110-0891/0
- ***e*maGEN User Guide for Avanti 3020 and 3015D sets**
Catalog number 76-110-0892/0
- ***e*maGEN User Guide for All Types of Telephone Sets**
Catalog number 76-110-0893/0

You should also be familiar with the Release 6 and Release 7 documentation for the *unite* Family of systems, including:

- **Feature Description -- Release 6**
Catalog number 76-110-0690/F.
- **Feature Description Addendum -- Release 7**
Catalog number 76-110-0690/G.
- **Hardware Description -- Release 6**
Catalog number 76-110-0685/F.

- **19 inch System Cabinet Administration and Installation Addendum -- Release 7**
Catalog number 76-110-0881/0
- **Operating Instructions -- Release 6**
Catalog number 76-110-0165/F.
- **Operating Instruction Addendum -- Release 7**
Catalog number 76-110-0165/G
- **Administration Manual -- Release 6**
Catalog number 76-110-0175/F.
- **Administration Forms -- Release 6**
Catalog number 76-110-0405/F.
- **Administration, Installation and Upgrade Addendum -- Release 7**
Catalog number 76-110-0175/G
- **Installation Manual -- Release 6**
Catalog number 76-110-0410/F.
- **Maintenance manual -- Release 7**
Catalog number 76-110-0170/G

1.5 TYPOGRAPHIC CONVENTIONS

Throughout this manual, the following typographic conventions have been used:

- Keys on the telephone set are shown like this:
[MSG], [SPKR], [REDIAL], [7].
- Text appearing on the telephone display is shown like this:
ADD ON, ENTER DN.
- Keys on the computer keyboard appear capitalized, like this:
ENTER, ESC, F9 .
- Text to be typed on the computer keyboard exactly as indicated, is shown like this:
p, e1, 42.
- Text appearing on the computer screen is shown like this:
CALLS WAITING, 13 : 20.
- Names of screens or menus are shown like this:
SYSTEM TIMERS Screen.
- Names of Microsoft Windows icons, windows and dialog boxes are shown like this:
Advanced Options.
- Movement from one configuration screen to another appears showing the code letters for the screens as follows:
Y-S.
- Buttons appearing under Microsoft Windows are shown like this:
Change name.

Section 2

SYSTEM OVERVIEW

2.1 GENERAL

This section provides a general overview of Telrad **emaGEN** system capabilities and features. It details the features of the **emaGEN** system and describes its physical connection with the **unite** family of systems, including the following systems:

- **unite 128**
- **unite 400**
- **unite 1000**
- **unite 8/18**
- **unite 60**

2.2 PRODUCT PROFILE

Telrad **emaGEN** is a value added comprehensive voice processing application platform, providing services such as voice mail, unified messaging, automated attendant and automated voice response. It connects to a **unite** telephone system through analog ports, and is administered locally or remotely using TCP/IP interface.

emaGEN is designed with the installer in mind. There are many in-depth parameters to adjust the system for different telephone systems and different site configurations, but the common installation can be completed without changing almost any parameters. A pre-defined library of PBXs is included for your convenience, and during the installation you'll only need to select the type of PBX you are installing **emaGEN** on.

emaGEN is fully integrated with your **unite** system, as demonstrated by the following features:

- Direct communication is established between the **emaGEN** processor and the **unite** system central processing unit.
- **emaGEN** integrates voice and data within the **unite** system and provides an almost unlimited number of up to

seven digit mailboxes for message storage -- within the limits of the installed system platform.

- **emaGEN** leaves messages on your **unite** system telephone set display. Users access **emaGEN** through the normal message answering procedure. You can also access **emaGEN** with softkeys from **unite** system Avanti 3025, Avanti 3020 and Avanti 3015D telephone sets and the Executive telephone set with expanded display.
- Calls can be forwarded from your telephone set to **emaGEN** or from **emaGEN** to your telephone set.
- **emaGEN** knows how to distinguish between incoming internal and external calls and handles the calls accordingly.
- **unite** system Avanti 3025, Avanti 3020 and Avanti 3015D telephone sets and the Executive telephone set with expanded display provide softkeys and menu prompts for enhanced **emaGEN** feature operation.
- Information on received email and fax messages can be heard on **unite** system telephone sets -- utilizing text to speech technology -- and can be viewed on telephone set displays.
- Programmable keys on your telephone sets, if any, can be programmed to give you immediate access to **emaGEN** features, such as to your mailbox, to call recording, call screening and message monitoring.
- The message monitoring feature allows the user to hear a message that is being recorded in her mailbox and to intercept that call if she chooses.
- System Dial By Name option allows you to rapidly call your desired party without even knowing their extension number.
- **emaGEN** can be configured with up to 28 voice mail ports, in all **unite** systems.
Every four **emaGEN** voice mail ports are connected to the system cabinet via their respective MIM module on the Option (OCD) cards.
- Menu-driven **emaGEN** software leads you through easy to understand setup procedures. Configuration and administration tasks are intuitive and simple to learn.
- Most of the system features can be programmed by an authorized user, by means of a browser and modem, or by direct con-

nection to **emaGEN**, from any **unite** system telephone set, or any DTMF telephone.

- When answered by the automated attendant, outside callers follow recorded instructions which explain how to dial directly to the extension of their choice or how to use the Automated Attendant Dial By Name feature to reach their desired party. This feature provides the convenience of direct inward dialing on outside lines, and, since these calls are not transferred via an attendant, it reduces the burden on the attendant position. **emaGEN** can also double as an after-hours office attendant.
- An outside call to an **emaGEN** subscriber can be forwarded by the automated attendant to that subscriber's outside number (or mailbox or alternative internal location), by utilizing the **unite** system's outside line patch feature. This approach can be useful when, for example, the subscriber's extension number is busy or does not answer, or when that subscriber only has an external number and no internal extension.
- A call to an outside party on an external line behind Centrex or a PABX (private automatic branch exchange) can be enabled, by having **emaGEN** initiate the flash signaling required for placing such a call.
- **emaGEN** voice mail is a sophisticated, reliable and confidential solution to the problem of unanswered calls. A caller who receives no answer at an extension, is connected to **emaGEN** voice mail to hear the mailbox owner's prerecorded personal opening greeting. The caller can then record and edit a voice message in the called user's mailbox.
- With **emaGEN**, your telephone set display indicates that a voice message was recorded in your mailbox -- or, if there is more than one message, it shows the number of messages in the mailbox. You can access your mailbox at the touch of a button.
- The user of a **unite** system Avanti 3025, Avanti 3020 and Avanti 3015D telephone set or Executive telephone set with an expanded display has the option of reviewing waiting messages by means of a visual message list displayed on his telephone set. Once the Visual message review feature has been activated, the number of waiting new, urgent and old messages appear, as well as the number of messages prepared by the user for future delivery and the number of messages to be certified by the user. After selecting one of these message categories, you can then scroll through the list -- up to five messages per display page -- and handle each message as you deem appropriate.

- The user of a **unite** system Avanti 3025, Avanti 3020 and Avanti 3015D telephone set or Executive set with expanded display can view a list of incoming outside calls, provided that the Central Office supports Caller ID for those calls. These calls are differentiated between those that were answered and those that were not answered. The user can toggle between a display of the caller's name or the caller's number. If the user is authorized to enter the mailbox of another extension, she can also view the list of incoming outside calls for that extension. The user can return any of those calls simply by pressing the associated softkey.
- With the Caller ID Routing Feature, an incoming call can be classified -- by the area code, office code and/or other elements of the originating telephone number -- and routed to the system extension of a corresponding staff member.
- **emaGEN** allows the technician to exit the system, when necessary, without disconnecting calls currently being handled. When all system ports are released, the exit is automatically executed.

All mailbox owners review messages deposited in their mailbox and can then select one of many options such as replay, save or erase the message, or send or copy the message to other mailboxes.

All access to mailbox messages and greeting changes is controlled by passwords to ensure totally confidential communications.

Advanced subscriber functions include the ability to screen incoming calls, record a call in progress, tag messages with date and time information, index old messages, fast forward messages, record group messages, perform interviews, program comprehensive call handling parameters, and forward message reminders to internal or outside numbers, including pagers.

Advanced system functions include announcer messages, a system directory which can locate a desired number and dial it, automatic disk maintenance capability, recorded announcements for hunt groups, up to 50 recorded announcements for ACD groups, and coordinated day/night control between **emaGEN** and the **unite** system cabinet. An **emaGEN** system can also be used to serve the voice mail needs of a number of networked **unite** systems. See Section 19.12 for **unite** networking programming requirements.

NOTE

emaGEN is a versatile system with many programmable variations. Unless otherwise specified, this manual presents the default operation and settings of programmable features and parameters.

2.3 *emaGEN* SYSTEM HARDWARE

2.3.1 The *emaGEN*-PC

The **emaGEN** system is based on a dedicated personal computer, termed the **emaGEN**-PC, fitted with additional printed circuit cards, as required for full operation of the purchased system.

2.3.2 The *emaGEN* Voice Mail cards

emaGEN can be configured with up to 28 voice mail ports, in all **unite** systems.

The **emaGEN**-PC must be fitted with **emaGEN** printed circuit cards, depending on the number of **emaGEN** ports you wish to establish in your system. There are several types of **emaGEN** four telephony port and two port voice processing cards, manufactured by Brooktrout Technology, to choose from, in order to setup your system, as detailed in Section 3.3.2, below.

The **emaGEN**-PC can thus have any even number configuration of **emaGEN** ports -- from 2 to 28 ports, as follows:

- One four-port card, for a four-port **emaGEN** system;
- Two four-port cards, for an eight-port **emaGEN** system;
- Three four-port cards, for a 12-port **emaGEN** system;
- Four four-port cards, for a 16-port **emaGEN** system.
- Five four-port cards, for a 20-port **emaGEN** system;
- Six four-port cards, for a 24-port **emaGEN** system;
- Seven four-port cards, for a 28-port **emaGEN** system.

The **emaGEN** cards are connected to OCD card(s) installed in the respective **unite** system cabinet, as described in Section 3.9, below.

2.3.3 OCD cards in the system cabinet

emaGEN can be configured with up to 28 voice mail ports, in all **unite** systems.

The required audio and data connections are made between **emaGEN** card(s) in the **emaGEN-PC** and OCD card(s) in the **unite** system cabinet. These connections consist of:

- Data connection: from the **emaGEN-PC** com port, via a three-wire cable to the RJ45 connector on the outside end of the first OCD card holding MIMs. A similar cable must be connected to a second and third OCD card (if present) each of which contains an MIM module(s) supporting **emaGEN** ports.
- Audio connection: from each **emaGEN-PC** card, via two two-pair cables to a junction box and the MDF, and via a 25-pair cable from the MDF to the 25-pair connector on the outside end of each OCD card.

NOTE

A 16 to 24 port **emaGEN** configuration must use two OCD cards.

A 28 port **emaGEN** configuration must use three OCD cards.

Figure 2-1, below, shows the physical connections between an **emaGEN** card and the **unite** system.

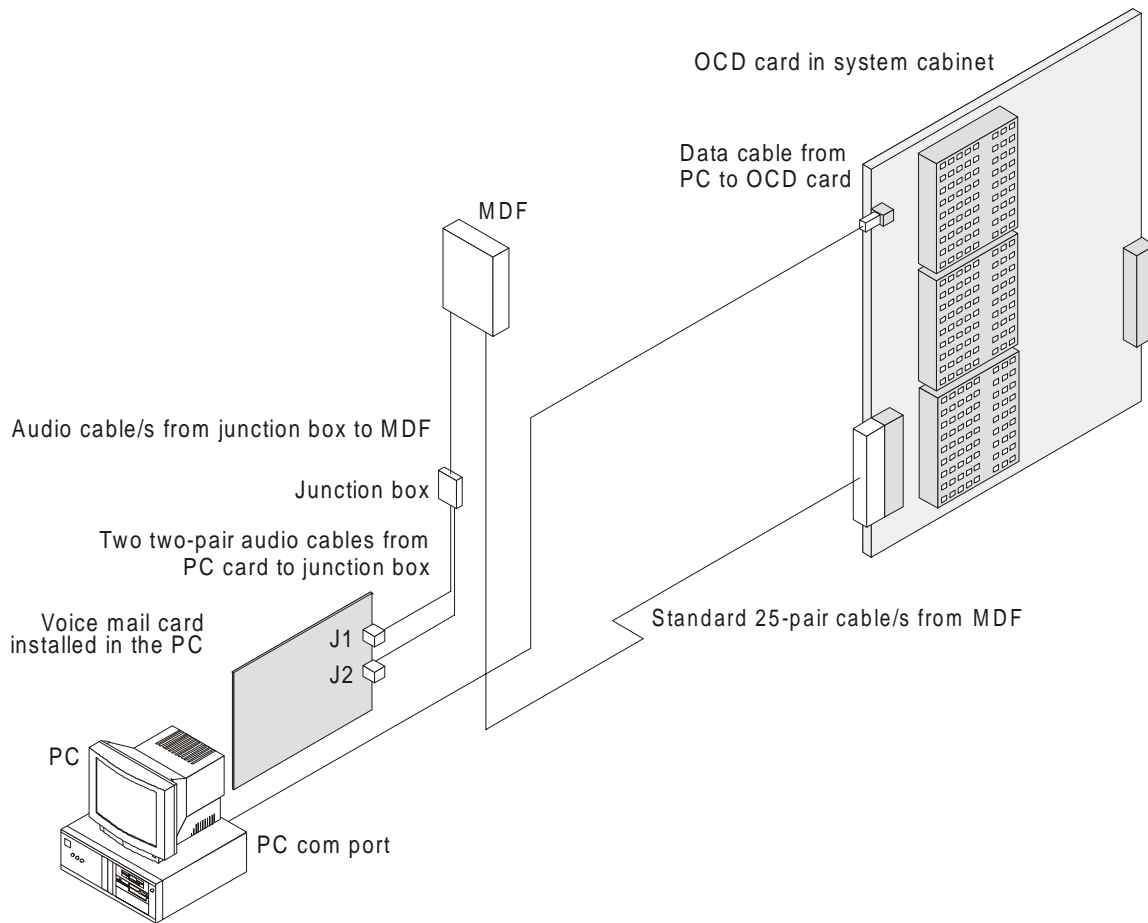


Figure 2-1 *emaGEN* connections with the *unitel* system

2.4 *emaGEN* SYSTEM MENU FEATURE OVERVIEW

Figures 2-2 and 2-3, below, present overviews of *emaGEN* Operation features and Administration features menu processing, respectively. Refer to these figures, as necessary, to follow the *emaGEN* processing flow and see the features involved.

Knowing the capabilities of each *emaGEN* feature is the key to obtaining the maximum amount of service and benefit to your organization. Many features have user-defined parameters that you must program. This customized programming allows you to maximally tailor *emaGEN* to the specific needs of your organization.

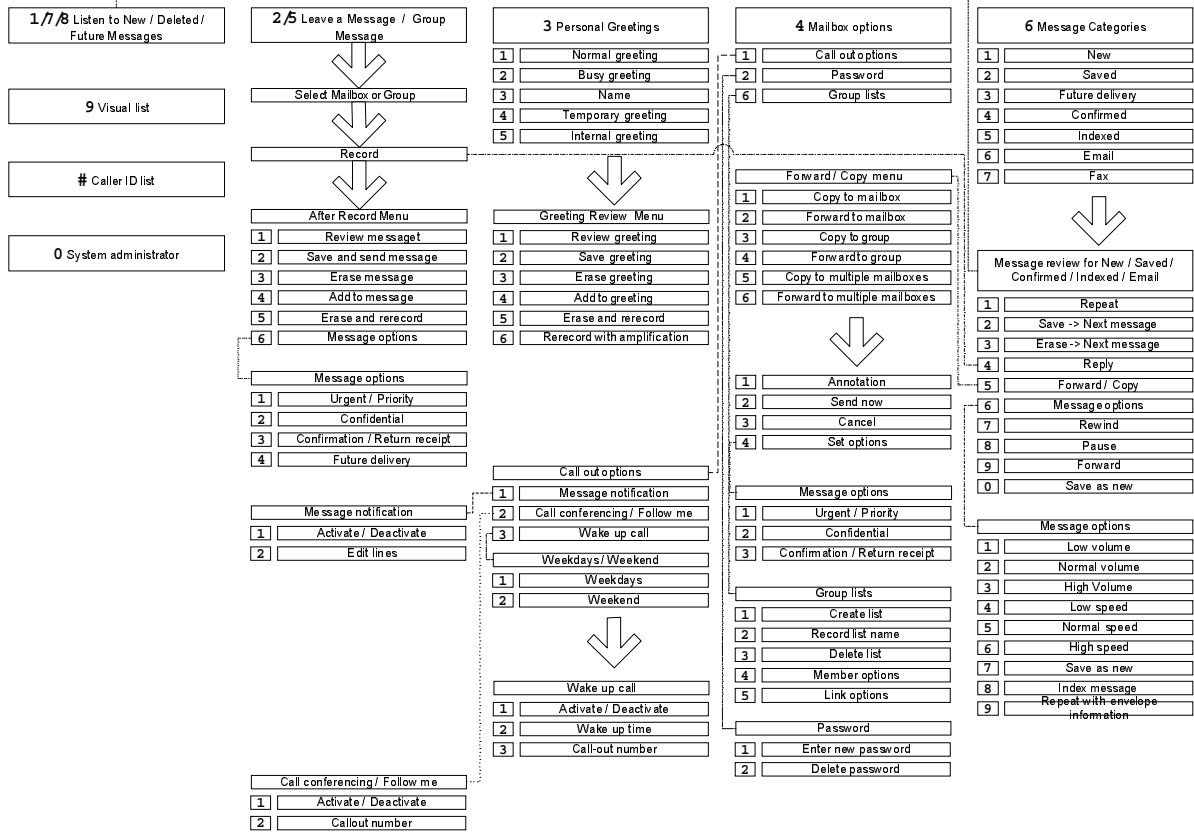


Figure 2-2 eMaGEN Operation Menu feature overview

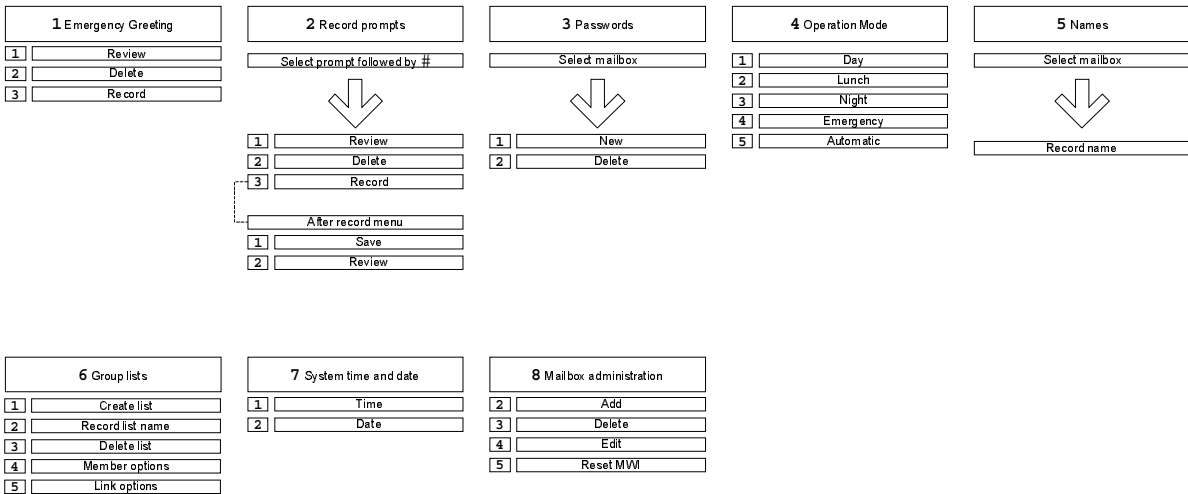


Figure 2-3 eMaGEN Administration Menu feature overview

Section 3

INSTALLATION

3.1 GENERAL

Sections 3.2 through Section 3.6, below, describe planning and component requirements for the installation of the **emaGEN** system, .

Section 3.7 through Section 3.16, below, describe the procedure for installing the physical components of **emaGEN** within the **emaGEN-PC**, and the connections between the **emaGEN-PC** and the **unite** system.

Section 3.17 through Section 3.21, below, describe post-installation checkout and troubleshooting procedures for **emaGEN**.

3.2 INSTALLATION PLANNING

Your **unite** system must be fully installed and operational before you can install **emaGEN**. See the **unite** family of systems Installation manual for full details of the required installation procedure.

Due to protocol changes, **emaGEN** requires that at least **unite** System Software Release SB7, DB7 or LB7 be operating in your system.

The **emaGEN** installation sequence is as follows:

- Hardware installation, as described in Sections 3.7 through Section 3.16, below;
- Software installation, as described in Section 5 and Section 6, below;
- Post-installation checkout, as described in Section 3.17 through Section 3.21, below;
- **emaGEN** system programming and administration, as described in Section 5 through Section 19, below;

- **unite** system programming for **emaGEN**, as described in Section 19, below, utilizing the **unite eManager**.

3.3 INSTALLATION PREPARATIONS

3.3.1 Reading the documentation

Prior to setting up the **emaGEN** system, read through this manual and familiarize yourself with its content and the system components.

3.3.2 **emaGEN-PC** printed circuit cards

The **emaGEN-PC** must be fitted with **emaGEN** printed circuit cards, depending on the number of **emaGEN** ports you wish to establish in your system.

There are three types of **emaGEN** four telephony port, single slot, half-sized, ISA compatible voice processing cards, manufactured by Brooktrout Technology, to choose from, in order to set up your system, as follows:

- Prelude Quartet card;
- Vantage Volare card;
- RDSP 432 card.

NOTE

In systems having more than one card, four port expansion cards may be used, since data support is already provided by the first card. In a 16-port system, a minimum of two data cards is required.

The **emaGEN-PC** can thus have any even number configuration of **emaGEN** ports -- from 4 to 28 ports.

Cards are assigned identification numbers from 1 to 4 for port programming assignment purposes. Port assignment is done in **unite** system programming, utilizing the **unite eManager**.

3.3.3 OCD card preparation

emaGEN can be configured with up to 28 voice mail ports, in all **unite** systems.

The **unite** system configuration must include at least one OCD card for use with **emaGEN**. **unite** system configuration must include:

- a second OCD card, if the **emaGEN** system includes more than 12 **emaGEN** voice mail ports;
- a second and third OCD cards, if the **emaGEN** system includes more than 24 **emaGEN** voice mail ports.

Each OCD card must be equipped with an MIM for each group of four **emaGEN** ports to be connected to the card. Since only three MIMs can be installed on one card, a fourth module on a second card is required for a more than 12-port voice mail system. For a system of more than four ports you can, if you choose, take advantage of the Multiple Communication Ports feature and balance system load and improve system performance by placing MIMs on different OCD cards.

3.3.4 **emaGEN** voice mail ports definition

You decide which **unite** DNs are to be designated for **emaGEN** ports. You can designate any legal DN (directory number), up to four digits in length, as an **emaGEN** port. All selected ports must be both connected to and programmed in the **unite** system.

3.4 OPTIMAL COMMUNICATION PORT PROVISIONING

3.4.1 General

emaGEN has the ability to communicate with the **unite** system via more than one RS232 communication port simultaneously. This feature allows, for example, SMDR data to be sent separately from other **emaGEN** messages, thus distributing system load and providing faster response time. You can thus assign the SMDR feature to **emaGEN** ports which are supported by additional OCD card(s).

If your **emaGEN** system supports SMDR, SMDR also creates communication traffic which increases system load.

The baud rate for all system elements will be 9600 bps.

NOTE

In order to assure proper functioning of the Speech Recognition feature, it is recommended that adequate memory be installed in the *e*maGEN-PC.

128 MB memory should be added to an *e*maGEN-PC with an initial memory of 128 MB, for every four additional voice ports installed in the system -- when upgrading from the initial four voice ports.

3.4.2 Communication requirements programming

The baud rate for all system elements must be programmed as 9600 bps.

3.5 CRITICAL DISTANCES

The *e*maGEN-PC can be located up to 50 feet (15 meters) from the *unite* system cabinet.

3.6 REQUIRED CABLES

3.6.1 Data cable(s) from the *e*maGEN-PC to the OCD card(s)

You must connect the first *e*maGEN card to the RJ45 connector of the first OCD card in the *unite* system cabinet, as described fully in Section 3.9.3, below. You may have two or more OCD cards in the *unite* system, either because there are four or more *e*maGEN-PC cards in the *e*maGEN system, or you choose to balance system load. If so, you must connect the last *e*maGEN-PC card to the second OCD card as well.

This connection is made by means of a 3-wire data cable, terminated by:

- A 9-pin D-type female connector on the *e*maGEN-PC com port end of the cable;
- An RJ45 connector on the OCD card end of the cable.

3.6.2 Audio cable(s) from the *e*maGEN-PC to the OCD card(s)

You must connect each *e*maGEN-PC card to an OCD card by means of two audio cables, as described below and more fully in Section 3.9.4, below.

This connection is by means of:

- Two two-pair cables from the *e*maGEN-PC card to the junction box.
- A pair of wires from each junction box terminal pair to the MDF audio terminals corresponding to each *e*maGEN port voice channel.
- A standard 25-pair cable from the MDF plugs into the 25-pair connector on the OCD card.

3.7 HARDWARE INSTALLATION PROCESS

*e*maGEN normally comes configured with the desired number of *e*maGEN-PC cards. However, there may be situations where you need to perform card installation yourself.

Installing *e*maGEN hardware consists of three separate procedures:

- Installing the *e*maGEN-PC voice mail card(s) into the *e*maGEN-PC;
- Programming the *unite* system;
- Connecting the *e*maGEN-PC to the *unite* system.

These three steps are described more fully below.

- *e*maGEN-PC card installation; Section 3.8.1 and Section 3.8.2, below, describe:
 - setting the *e*maGEN-PC card jumpers on each card;
 - inserting the *e*maGEN-PC card(s) into the *e*maGEN-PC
- *unite* system preparation; Section 19, below, describes:
 - defining the series of *unite* DN extensions necessary for *e*maGEN operation, according to the number of *e*maGEN card ports;
 - mounting the required number of MIMs, dedicated to

emaGEN, on one, two or three OCD cards;

- inserting the OCD card(s), with MIM(s) mounted, in the **unite** system cabinet.
- Connection between **emaGEN** and the **unite** system;
Section 3.9.3 and Section 3.9.4, below, describe:
 - making the data connections between:
 - the first and, if present, fourth or last, **emaGEN-PC** card --
and the OCD card(s) in the **unite** system cabinet;
 - making the audio connection between:
 - each **emaGEN** card in the **emaGEN-PC**
-- and the OCD block in the **unite** system MDF, via the audio
junction box.

3.8 INSTALLING **emaGEN** VOICE MAIL CARDS IN THE **emaGEN-PC**

3.8.1 **emaGEN** voice mail card jumper settings

One or more of the following three types of **emaGEN-PC** four telephony port, single slot, half-sized, ISA compatible voice processing cards, manufactured by Brooktrout Technology, are used, in order to set up your system.

Depending on which of these cards are to be used in your system, refer to the corresponding Brooktrout Technology Hardware installation Guide brochure:

- Prelude Quartet card -- Part Number 934-011-40, Revision 1.00;
- Vantage Volare card -- Part Number 934-009-90, Revision 1.00;
- RDSP 432 card -- Part Number 73-00-0014, Revision 1.00.

You should comply with all instructions in the brochure before inserting the respective type of **emaGEN-PC** card into the **emaGEN-PC**.

The Quartet board has fixed settings as card no. 1, for which no jumper setting is required. For jumper settings of all other cards, follow the required jumper settings shown in Table 3-1, below, for each of the respective cards. In this table: O = open circuit X = closed circuit.

Table 3-1 I/O port jumper settings

Card no.	jumpers									
	9	8	7	6	5	4	3	2	1	0
1	O	O	X	X	X	X	X	X	X	X
2	O	O	X	X	X	X	X	X	X	O
3	O	O	X	X	X	X	X	X	O	X
4	O	O	X	X	X	X	X	X	O	O
5	O	O	X	X	X	X	X	O	X	X
6	O	O	X	X	X	X	X	O	O	O
7	O	O	X	X	X	X	X	O	X	X

3.8.2 *e*maGEN-PC voice mail card insertion

You must insert the *e*maGEN-PC cards into the *e*maGEN-PC. Cards can be placed in any PCI slot.

WARNING

Turn off and disconnect power to the PC, before starting any card insertion procedure.

The physical act of installation is the same as for any other PC card. This procedure is not described here, since it may vary from one PC model to another. Refer to your PC manual for card installation instructions.

CAUTION

The *e*maGEN-PC printed circuit cards contain components that are sensitive to static electricity and should not be handled except as needed to avoid any problem with electrostatic discharge. Hold the card by its outer edges. The use of a wrist ground strap is recommended, as shown in Figure 3-1, below.

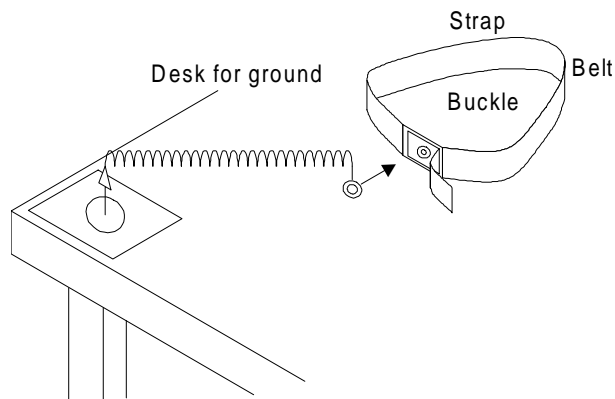


Figure 3-1 Wrist strap guarding against electrostatic discharge

3.9 SYSTEM PREPARATION AND CONNECTIONS TO *emaGEN*

3.9.1 Mounting an MIM on an OCD card

Figure 3-2, below, shows the three module positions on the OCD card. Each OCD card can accommodate up to three cartridge modules, each serving a special option function.

You must connect one MIM (multiple interface module) on the OCD card for each group of four *emaGEN* ports to be connected to the card. The MIM connects the voice channels to the *emaGEN*-PC.

An *emaGEN* system of up to 12 voice mail ports can be handled by one OCD card. However, a 16 port voice mail system requires four MIMs, which necessitates two OCD cards. For a system of between five and 12 ports you can, if you choose, take advantage of the Multiple Communication Ports feature and balance system load (especially if the system includes SMDR) and improve system performance by placing MIMs on two different OCD cards, as described in Section 3.9.3, below.

You can select any positions on the OCD cards for the MIMs. If you require two OCD cards, for example, you can put two MIMs on each card; or you could put three MIMs on one card and the fourth on the second.

1. You must appropriately program the *unite* system, as described in configuration programming covered in Section 19, below, to match the selected MIM position(s).

2. You then assign voice channel and DN numbers to the **emaGEN** ports.
3. Lastly, you physically connect **emaGEN**-PC cards, via the audio cable, junction box, and MDF, to the audio channels of the OCD card MIM(s).

To mount the MIM on the OCD card, perform the following steps, as shown in Figure 3-2, below:

1. Place the OCD card on a soft, clean surface (a piece of sponge or cardboard) with the components facing up.
2. Select the position in which the MIM is to be attached to the OCD card:
 - 3, the upper position, with 20 and 64-pin connectors J6 and J9, respectively;
 - 2, the middle position, with 20 and 64-pin connectors J5 and J8, respectively;
 - 1, the lower position, with 20 and 64-pin connectors J4 and J7, respectively.
3. Plug the MIM into the selected pair of 20 and 64-pin connectors.
4. Make sure the module is seated firmly against the OCD card.
5. Tighten the screw on the top of the module.

NOTE

The position in which the MIM is assigned and mounted on the OCD card determines which voice channels and which wires will be dedicated to it for connection between the **emaGEN**-PC and the **unite** system cabinet.

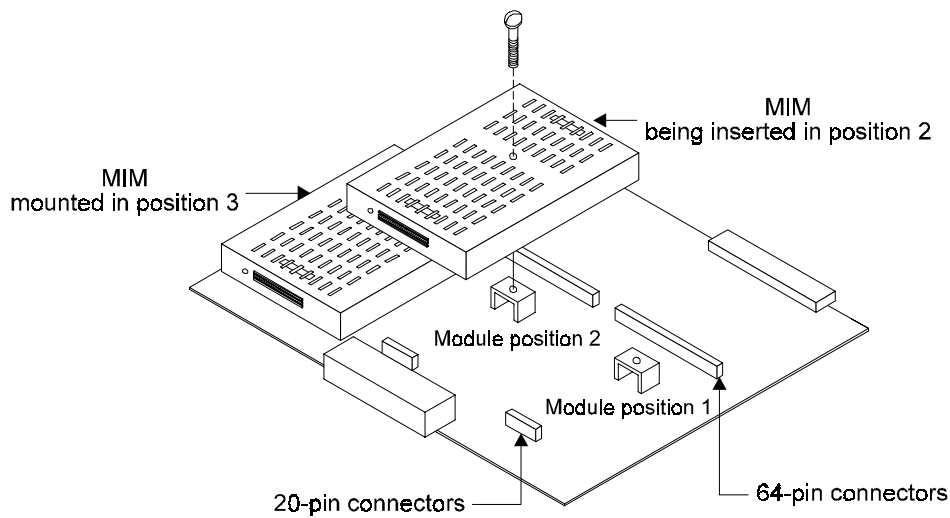


Figure 3-2 Inserting the MIM on the OCD card

3.9.2 Inserting an OCD card into the system cabinet

To insert an OCD card in one of the **unite** system cabinet slots, perform the following steps, as shown in Figure 3-3, below:

1. With the two plastic extension tabs on the end of the OCD card extended outwards, slide the card into the guide runners of the selected slot.
2. Carefully fit the card into the V-shaped insertion guides.
3. Ensure that the female connector on the card is aligned with its male counterpart on the system cabinet backplane.
4. Place both thumbs on the plastic tabs and press the card firmly into place.
5. Fold the tabs flat against the card until they snap into place.

Each OCD card is connected to the MDF by means of a 25-pair cable. This cable is standard for all cards in the **unite** system, as described in the **unite** family of systems Installation manual.

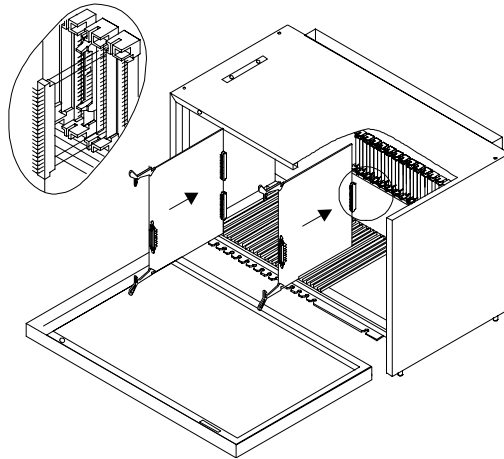


Figure 3-3 OCD card insertion

3.9.3 Completing the data connection

The first **emaGEN** card in the **emaGEN**-PC connects, as described below, directly to the OCD card in the **unite** system cabinet, by means of the RJ45 connector located at the end of the OCD card. If two, or more, **emaGEN**-PC cards are installed, you connect only the first **emaGEN**-PC card, card number 1, to the OCD card. If four, or more, **emaGEN**-PC cards are installed, you must connect the fourth, or last, **emaGEN**-PC card to the second OCD card.

If you choose, for a system of between five and 28 ports, as described earlier, to take advantage of the Multiple Communication Ports feature by placing MIMs on two different OCD cards, there must be a data cable connection between the last **emaGEN**-PC card and the second OCD card as well.

NOTE

If your system has two, or more, OCD cards, it is recommended that you also connect the second, or last, OCD card to the **emaGEN**-PC card assigned the ports operating the SMDR features. This will divide the communication load between the **emaGEN**-PC and the two cards.

The *emaGEN*-PC card connection to the OCD card is by means of a cable, shown in Figure 3-4 terminated by:

- A 9-pin D-type female connector on the *emaGEN*-PC com port;
- An RJ45 male connector on the OCD card end of the cable.

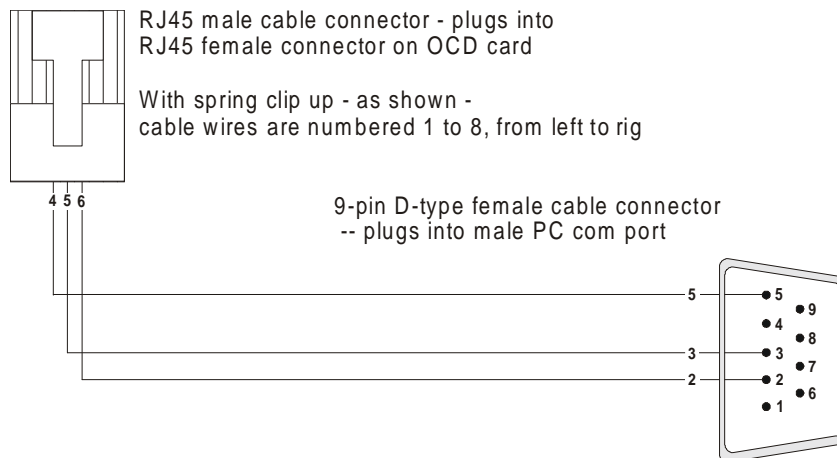


Figure 3-4 Data cable from *emaGEN* card to OCD card

The wire functions and connections for the *emaGEN*-PC card to the OCD card data cable are shown in Table 3-1.

Table 3-2 Connections of data cable from *emaGEN*-PC card to OCD card

9-pin D-type connector		RJ45 connector	
pin number	function	pin number	function
2	transmit	6	receive
3	receive	5	transmit
5	ground	4	ground

3.9.4 Performing the audio connection

Each *emaGEN*-PC card must have an audio connection to the *unite* system. It is connected to an OCD card, as shown in Figure 3-5, below:

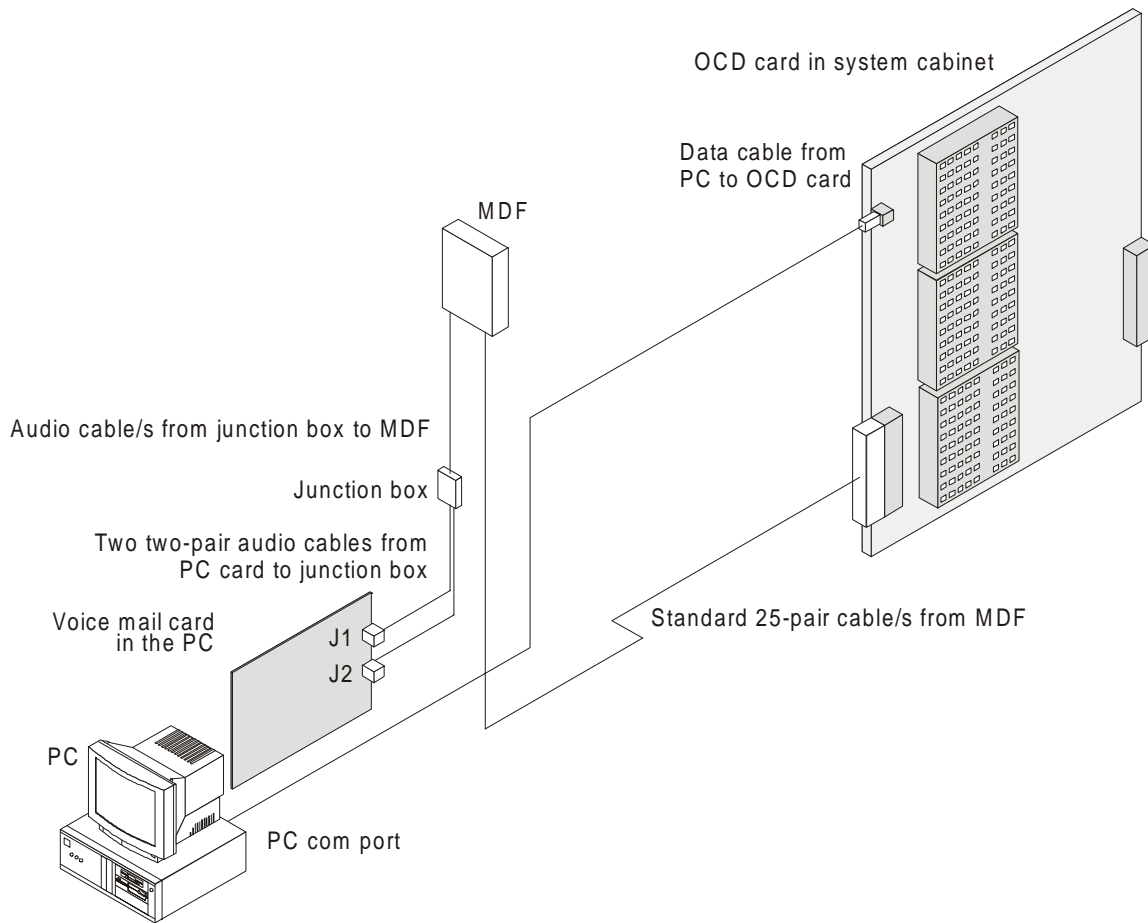


Figure 3-5 eMaGEN cabling from eMaGEN-PC to OCD card

Note in the Figure 3-5, that:

- Connector J3 on the **eMaGEN-PC** card connects to the OCD card containing the MIM by means of a cable, shown in Figure 3-6, terminated by an RJ11 connector on both ends. Each of the terminal pairs in the junction box is connected, via a pair of wires, as shown in Figure 3-6, to the audio terminals in the MDF of the corresponding voice channel utilized as an **eMaGEN** port.
- A standard 25-pair cable, or cables, used to connect the OCD block in the MDF to each OCD card in the **unite** system cabinet, will then also make the final connection of the corresponding **eMaGEN** ports.

This information should assist the installer in selecting the MDF terminals to which each **eMaGEN** audio port from the junction box is to be wired.

The wire functions and connections for the audio cable from the **emaGEN-PC** card to a junction box, and from that junction box to the MDF, are shown in Figure 3-6. For a detailed description of the **unite** system cabinet to MDF connections, refer to the **unite** family of systems Installation manual.

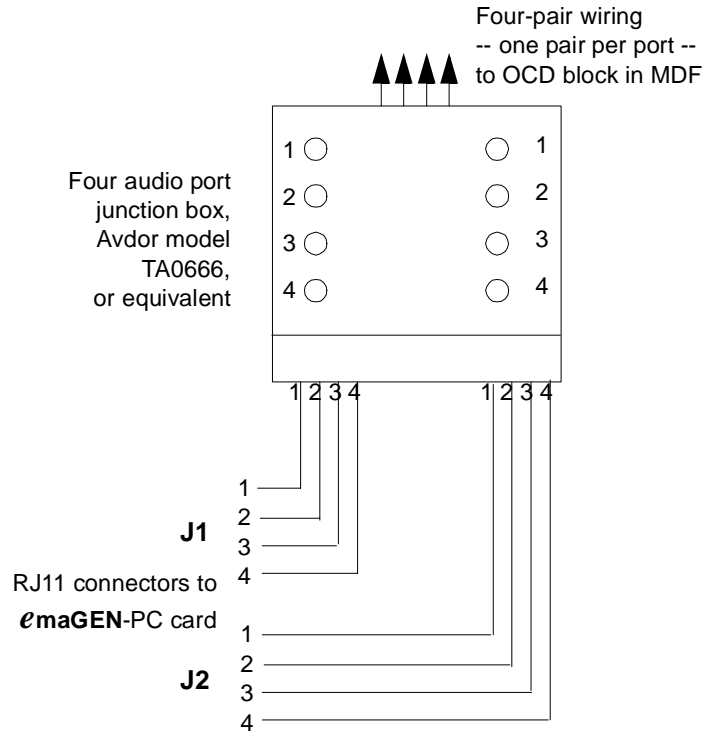


Figure 3-6 Audio cable from eMaGEN-PC voice mail card to four port junction box

Figure 3-7, below, shows the numbers and colors of each pin of the 25-pair cable connector from the OCD block in MDF to the OCD card in the **unite** system cabinet, and each wire in this standard cable which corresponds to the voice channels of each OCD card.

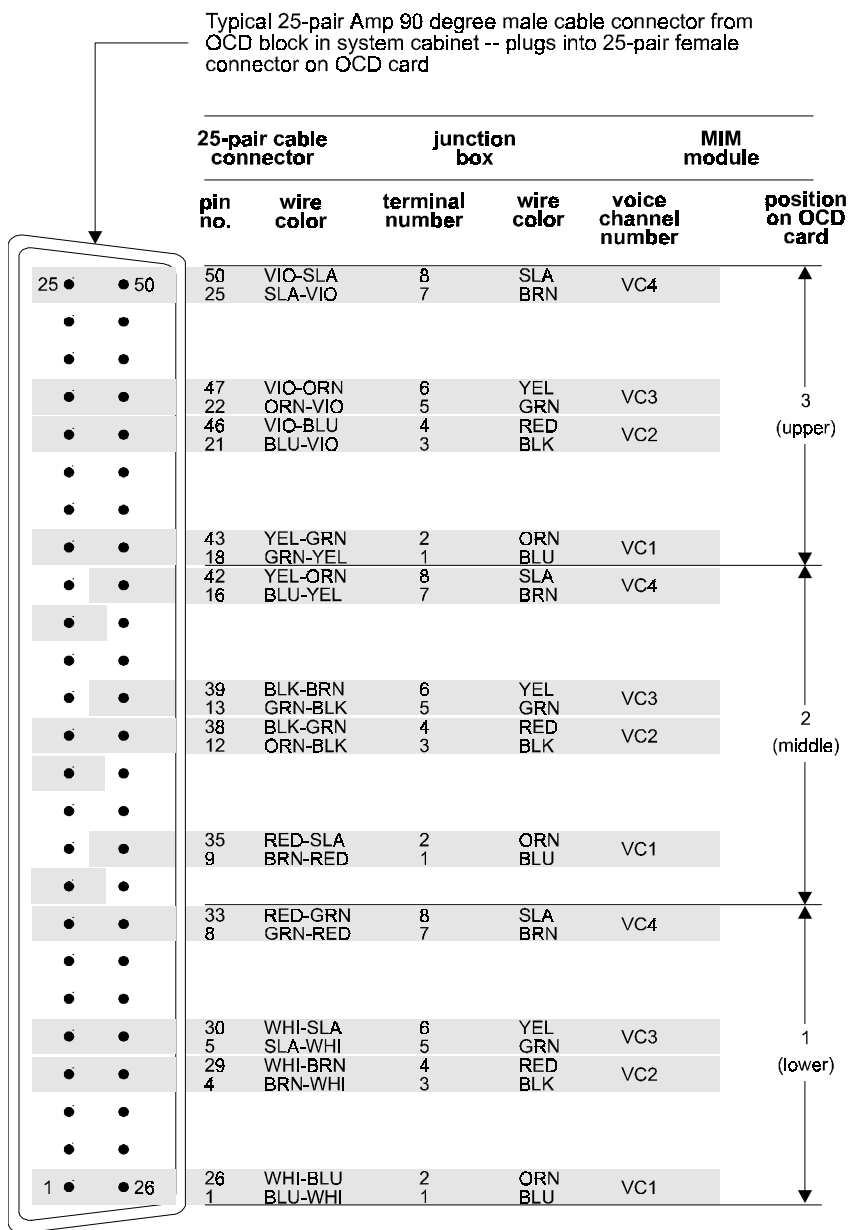


Figure 3-7 Typical 25-pair cable connector from OCD block in MDF

3.10 ADDITIONAL STEPS BEFORE ACTIVATING *e*maGEN

Although you have made all the required physical connections between the *e*maGEN-PC and the **unite** system, you are not yet ready to activate *e*maGEN. You must now carry out the following steps:

- Carry out the postinstallation checks described in Section 3.17 to Section 3.19 of this manual.
- Program a series of **unite** features, which are necessary in order for **emaGEN** to operate, following the programming instructions in Section 19 of this manual.

WARNING

You should install an AC surge protector to protect the **emaGEN**-PC against power fluctuations. Install the surge protector before setup and test procedures are carried out. Use of a UPS is also recommended.

3.11 POWER CABLING

1. Before installing **emaGEN**, inspect all wiring and electrical outlets for proper grounding and voltage.
 - Be sure the third wire power ground connects to the building input transformer or driven ground rod.
 - Voltage measurements between the black wire (measured from the smaller of the two slots on an outlet) and third wire ground should equal 117VAC \pm 10%.
2. In areas where electrical storms pose a danger, install a transient AC protection device in the power lines. This is particularly important where power is provided by outside overhead lines. Install a transient AC protection device if the system is installed in a manufacturing area where motor driven machinery, compressors, pumps, elevators, or other periodically operating units are installed.
3. Protect the equipment against accumulated static electricity which can damage sensitive electronic circuitry in the cabinet. If the site is at high altitude or in a dry climate, humidifying the area may be necessary to correct static electricity problems.

3.12 MAIN DISTRIBUTION FRAME (MDF) CROSS CONNECTS

Connecting **emaGEN** to a telephone system is similar to connecting individual single-line sets. The **emaGEN** system ports require two-wire modular line cords. Each jack on the telephone interface card connects two ports (RJ-11 type connector).

Use modular line cords between the single-line set connections and the ports, then bundle and secure the modular cords. Use a marker to write the extension number assigned to the port number on the modular cords.

Depending on the type of telephone system, and whether or not the system is integrated, the method of connecting with the telephone system varies. More information on integration may be found in the PBX chapter.

3.13 PBX SOFTWARE CONSIDERATIONS

emaGEN interfaces with any PBX software that allows call forwarding and supports a hunt group comprised of extension numbers. The class of service for **emaGEN** extension numbers should include trunk access for out dials, the ability to flash, and the ability to be a target for forwarded calls.

The pilot number of the hunt group contains as its members all the extension numbers assigned to the **emaGEN** system. A subscriber dials the pilot number of the hunt group to access the system. A rotary or circular hunt group allows the telephone system to evenly distribute calls to all **emaGEN** system ports.

3.13.1 Setting up the PBX to accommodate **emaGEN**

Before you start integrating **emaGEN** with the PBX, make sure of the following:

1. Set up enough analog ports for every port you have on **emaGEN**.
2. Program the analog extensions to accommodate voice mail.
3. Put the analog ports in a group. In most PBXs this group has to be designated as a voice mail group.
4. Connect a single line phone or a test-set to each one of the analog ports and verify the following:
 - a. There is dial tone.
 - b. Call each extension and get a ring.
 - c. Call each extension, answer the call and receive touch-tones when pressing keys on the calling extension.
 - d. Get in-band touch-tones in the beginning of the call (for example when pressing the voice mail key on the calling extension.)

3.14 INSTALLING THE *e*maGEN SYSTEM

Use the following procedure to install the equipment:

1. Inspect the shipping cartons for signs of damage.
 - The Carrier is responsible for any damage caused during shipment and should provide the distributor with information needed to file a damage report.
 - Once the claim has been filed, the item or items will then be repaired or replaced.
2. Carefully open each carton and remove the content.
 - Check the equipment against the packing slip to confirm that all parts have been received.
 - Notify the distributor and the shipper if any items are missing from the shipment.
 - Carefully inspect each item for damage.
3. Remove the top cover off the chassis and verify that all cards and cables are seated properly. Then close and secure the chassis and place it in the selected location.
4. Connect the monitor and keyboard.
4. Be sure the AC power to ***e*maGEN** is compatible with the power supply setting of the ***e*maGEN-PC**. Plug in the power cord.
5. Create the extensions in the telephone system database and cross connect the MDF to an RJ-11 type connector block. Assign equipment numbers from at least two separate PBX line cards. This prevents total loss of voice message service in the event of a single PBX line card failure.
6. Locate the telephone interface ports on the back of the system.
 - Use the 4-wire modular line cords to make the connections between the telephone system and the ports.
 - Four ports are on each telephone interface card with two ports per jack.
7. Using a marker, write the extension numbers on each of the line cords. Secure the cords and route them toward the connections to the telephone system.

3.15 QUICK STEPS FOR SOFTWARE INSTALLATION

1. Make sure the PBX system is configured to accommodate ***e*ma-GEN**.

2. Walk through Site Parameters and enter appropriate information.
3. Enter Port Definition and configure the lines as needed.
4. Walk through PBX Parameters and integrate **eMaGEN** with the local PBX.
5. If there are several departments in the particular installation, define them in Department definition.
6. Set the classes of service according to the customer's needs.
7. Open mailboxes.

3.16 CHECKLIST

After completing the installation process, including the PBX section, use the following check list to verify proper installation:

1. Verify the configuration of the system against what was ordered. The **eMaGEN Monitor** shows all active ports.
2. Create a test mailbox.
3. Place a call to **eMaGEN** and initialize the test mailbox.
4. Dial each port individually (override the Hunt group) and test the following:
 - a. Record and send a message to the test mailbox.
 - b. Review the message using all playback controls.
 - c. Check that each port disconnects properly.
 - d. Check transfer to operator by pressing 0 for an operator.
5. Verify PBX system forwarding to **eMaGEN** by dialing an extension that is forwarded to the system.
6. If the system is integrated, verify proper message waiting operation by sending a message to a subscriber's mailbox with a set telephone extension.
7. Dial the **eMaGEN** pilot number and be sure the hunt group can access all the extensions associated with the hunt group.
8. Turn off the power to **eMaGEN** and turn it back on. Be sure **eMaGEN** reboots. Be sure the number of ports is correct. Be sure the time and date are correct.

3.17 CHECKING CABLING

After completing hardware installation, check all the wiring and cables for integrity and secure connections. Particular attention should be paid to the following items:

- The audio connections between:
 - each **emaGEN**-PC voice mail card and the audio junction box;
 - the audio junction box and the MDF.
- The data cabling between the **emaGEN**-PC voice mail card and the OCD card.
- That all the connections to the **unite** system cabinet are firmly in place.

3.18 CHECKING PRINTED CIRCUIT CARDS

Check that:

- The OCD card(s) in the **unite** system cabinet, on which the MIM(s) dedicated to **emaGEN** is/are mounted, is/are firmly seated in the correct slot(s) in the **unite** system cabinet, as defined in system programming;
- The MIM(s) dedicated to **emaGEN** is/are securely mounted on the OCD card(s), as defined in **unite** system programming;
- The **emaGEN**-PC card(s) in the **emaGEN**-PC is/are all firmly seated in its/their correct slot(s);
- The jumpers on the **emaGEN**-PC card(s) are set to the correct positions;
- The Application card, if present in the **emaGEN**-PC-PC, is firmly seated in its slot;

3.19 CHECKING SYSTEM CABINET TO MDF CONNECTIONS

Check that the cable connectors from the MDF to the OCD card(s) in the system cabinet are secure at both ends.

3.20 eMaGEN SYSTEM DETAILED INSTALLATION INSTRUCTIONS

3.20.1 eMaGEN Voice Mail full installation -- version 9

NOTE

Commands you need to type are shown in **bold**.

- Connect to the system with the following FTP command and paste the installation file (t3install.tgz) to the directory.
FTP://root:tenecs@[system_ip]
- Connect to the system with the Telnet command -- or locally with the terminal windows.
Telnet [system_ip]
- **eMaGEN** login: **tenecs**
- Password: **tenecs**
Last login:Sun Feb 3 15:10:40 from erez2000.telradnetorks.co.il
Have a lot of fun...
- tenecs@emagen: **~>su -**
- Password: **tenecs**
- emagen: **~#ls**
This command is like DIR to see if the installation file exists (t3install.tgz).
. .Xauthority .gtkrc .netscape .xsession-errors
...bash_history .kde2 .skel Kdesktop
.DCOPserver_emagen .exerc .kxmlrpcd .wmrc nsmail
.MCOP-random-seed .gnupg .mcopyrc .xinitrc t3install.tgz
- emagen **:~#tar -xvzf t3install.tgz**
The system will create new a directory (t3install) and will extract all files to this directory.
Wait until you get the command prompt before proceeding.
t3install.....
- emagen: **~#cd t3install**
- emagen: **~/t3install #./setup**
- Install Suse Telnet patches (Y/N)?: **y**
Updating etc/rc.config...
- Install rhetorex (Y/N)?: **y**
Installing rhetorex files ...done
- Install **eMaGEN** system (Y/N)?:**y**

- Enter password for user **t3adm.tenecs**
- New password: **tenecs**
Bad password: too simple
- Re-enter new password: **tenecs**
Password changed.
- Configure postgres
database (Y/N)?: **y**
- Import vmsys database (Y/N)?:**y**
- This will erase the old data. Are you sure (Y/N)?**y**
- Import default registry (Y/N)?:**y**
- Install a1.exe file (Y/N)?: **n**
- Do you want to install other languages (Y/N)?:**y**
- Install Hebrew (Y/N)?: **y**
- Install extra stuff (Y/N)?: **y**
 \jsdk/.....
- Install/Remove modem card.
 1. Multitech ISICOM.
 2. US Robotics 5610.
 - q. Finish with installation of modem card.
- **>1**
Driver loaded. Press **enter** to continue.
Install/Remove modem card.
 1. Multitech ISICOM.
 2. US Robotics 5610.
 - q. Finish with installation of modem card.
- **>2**
Driver loaded. Press **enter** to continue.
Install/Remove modem card.
 1. Multitech ISICOM.
 2. US Robotics 5610.
 - q. Finish with installation of modem card.
- **>q**
- Install hylafax
software(yes/no)? **yes**
Please wait ...Done.
Hylafax configuration.
 1. Run fax setup.

2. Add a modem.
 3. Remove a modem.
 4. List available modems.
 - q. Finish with hylafax configuration.
- **>1**
 Setup program for HylaFAX (tm)4.1.
 No scheduler config file exists,creating one from scratch.
 Country code [1]? **[enter]**
 Area code []? **3**
 Long distance dialing
 prefix [1]? **[enter]**
 International dialing
 prefix [011]? **[enter]**
 Dial string rules file (relative
 to /var/spool/hylafax)
 ["etc/dialrules"]? **[enter]**
 Tracing during normal
 server operation [1]? **[enter]**
 Default tracing during send
 and receive sessions
 [0xffffffff]? **[enter]**
 Continuation cover page
 (relative to /var/spool/hylafax)[]?**[enter]**
 Timeout when converting
 PostScript documents
 (secs)[180]? **[enter]**
 Maximum number of
 concurrent jobs to a
 destination [1]? **[enter]**
 Define a group
 of modems []? **[enter]**
 Time of day restrictions for
 outbound jobs ["Any"]? **[enter]**
 Pathname of destination
 controls file (relative to
 /var/spool/hylafax)[]? **[enter]**
 Timeout before purging a
 stale UUCP lock
 file (secs)[30]? **[enter]**
 Max number of pages to
 permit in an outbound
 job [0xffffffff]? **[enter]**
 Syslog facility name for
 ServerTracing messages
 [daemon]? **[enter]**
 The non-default scheduler parameters are:
 AreaCode: **3**

- Are these ok [yes]? **Yes**
Creating new configuration file /var/spool/hylafax/etc/config...
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.
 4. List available modems.
 - q. Finish with hylafax configuration.
- >2
- Enter device (ttyXXX): **ttyS3** (modem in com4 define ttyS1
for modem in com1)
 - Country code [1]? **[enter]**
 - Area code [415]? **[enter]**
 - Phone number of fax
modem [+1.999.555.1212]? **[enter]**
 - Local identification string (for
TSI/CIG) ["NothingSetup"]? **[enter]**
 - Long distance
dialing prefix [1]? **[enter]**
 - International dialing
prefix [011]? **[enter]**
 - Dial string rules file (relative
to /var/spool/hylafax)
[etc/dialrules]? **[enter]**
 - Tracing during normal
server operation [1]? **[enter]**
 - Tracing during send and
receive sessions [11]? **[enter]**
 - Protection mode for
received facsimile [0600]? **[enter]**
 - Protection mode for
session logs [0600]? **[enter]**
 - Protection mode for
ttyS3 [0600]? **[enter]**
 - Rings to wait before
answering [1]? **[enter]**
 - Modem speaker
volume [off]? **[enter]**
 - Command line arguments
to getty program
["-t 60 %l %s"]? **[enter]**
 - Pathname of TSI access
control list file (relative to
/var/spool/hylafax) [""]? **[enter]**
 - Pathname of Caller-ID access
control list file (relative

```

to /var/spool/hylafax[""]? [enter]
Tag line font file (relative to
/var/spool/hylafax)
/etc/lutRS18.pcf? [enter]
Tag line format string
["From %%l|%c|Page
%%P of %%T"]? [enter]
Time before purging a stale
UUCP lock file (secs)[30]? [enter]
Hold UUCP lockfile during
inbound data calls [Yes]? [enter]
Hold UUCP lockfile during
inbound voice calls [Yes]? [enter]
Percent good lines to accept
during copy quality
checking [95]? [enter]
Max consecutive bad lines to
accept during copy
quality checking [5]? [enter]
Max number of pages to
accept in a received
facsimile [25]? [enter]
Syslog facility name for Server
Tracing messages [daemon]?[enter]
Set UID to 0 to
manipulate CLOCAL [""]? [enter]
Use available priority job
scheduling mechanism [""]? [enter]
Your facsimile phone number (+1.999.555.1212)does not agree
with your country code (1)or area code (415).
The number should be a fully qualified international dialing num-
ber of the form: +1 415 <local phone number>
Spaces,hyphens,and periods can be included for legibility.
For example, +1.415.555.1212 is a possible phone number
(using your country and area codes).

```

- The non-default server configuration parameters are:

```

CountryCode: 1
AreaCode: 415
FAXNumber: +1.999.555.1212
LongDistancePrefix: 1
InternationalPrefix: 011
DialStringRules: etc/dialrules
SessionTracing: 11
RingsBeforeAnswer: 1
SpeakerVolume: off
GettyArgs: "-t 60 %l %s"
Local Identifier: "NothingSetup"
TagLineFont: etc/lutRS18.pcf
TagLineFormat: "From %%l|%c|Page %%P of

```

%%T"

MaxRecvPages: 25

- Are these ok [yes]? **yes**
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.
 4. List available modems.
- q. Finish with hylafax configuration.
- **>4**

Modem List
ttyS3 [make sure you see the modem defined]
Press enter to continue. **[enter]**
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.
 4. List available modems.
- q. Finish with hylafax configuration.
- **>2**

Enter device (ttyXXX): **ttyM1a**
Press **[enter]** for all options.
Are these ok [yes]? **yes**
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.
 4. List available modems.
- q. Finish with hylafax configuration.
- **>2**

Enter device (ttyXXX): **ttyM1b**
press **[enter]** for all options.
Are these ok [yes]? **Yes**
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.

- 4. List available modems.
- q. Finish with hylafax configuration.
- **>2**
 Enter device (ttyXXX): **ttyM1c**
 press **[enter]**for all options.
 Are these ok [yes]? **Yes**
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.
 4. List available modems.
 - q. Finish with hylafax configuration.
- **>2**
 Enter device (ttyXXX): **ttyM1d**
 press **[enter]**for all options.
 Are these ok [yes]? **Yes**
- Hylafax configuration.
 1. Run fax setup.
 2. Add a modem.
 3. Remove a modem.
 4. List available modems.
 - q. Finish with hylafax configuration.
- **>q**
- Install Via Voice (Y/N)?: **y**
- emagen: ~/t3install **#reboot**
 Broadcast message from root (pts/1)Sun Feb 3 16:19:59 2002...
 The system is going down for reboot NOW !!

 Broadcast Message from root@emagen
 (/dev/console)at 16:20 ...
 Network is going down now!

3.21 INSTALLATION INSTRUCTIONS FOR ADDING ELEMENTS TO THE *e*maGEN SYSTEM

3.21.1 How to add voice ports

1. Run t3adm
2. Select x (extra stuff)
3. Select option 5 configure voice board
4. Follow instructions for adding voice boards
5. Replace the a1 file for support of more voice ports
6. Shut down system
7. Add voice boards (make sure to strap the jumpers properly)
8. Start system

3.21.2 How to add fax ports

1. Power off the system and insert the fax board
2. Boot the system
3. Run t3adm
4. Make sure you have a1 license for fax
5. Select x (extra stuff)
6. Select option 3 configure fax
7. Select option 2 add modem
8. Follow instructions for adding modem.
Make sure to put in local fax number and fax name.
9. Reboot system

3.21.3 How to add modem

1. Power off the system and insert the modem card.
You can also use an external modem, without turning the system off.
2. Boot the system
3. Run t3adm
4. Select x (extra stuff)
5. Select option 2 define modem port
6. Select com port (for internal US Robotics use com 4).

3.21.4 How to add Unified messaging Push, POP, IMAP and applet

1. Make sure network parameters are working perfect (ping another machine on the network).
2. Run t3adm

3. Select option 3 registry
4. Set parameters ->HostName to the IP address of the t3 system
5. Set smtp ->MailServer to the IP address of the SMTP server to be used to send out
6. Set smtp ->Sender to an email address for the system administrator
7. Select option 1 Services
8. Select option 5 and set t3imap and t3pop to Automatic
9. Restart t3vm,t3pop,t3imap
10. Follow instructions in system manual to setting up email client to a specific mailbox
11. For Send Mail synchronization, follow the TTS instructions -- if you have TTS license.
If you do not have TTS license -- continue to line 12.
12. Run t3adm
13. Select option 1 Services
14. Select option 5 and set t3tts to Automatic
15. Select option 3 registry
16. Set tts ->smtpsync to 2
17. Restart t3tts
18. In **Webcontroller ->Mailbox ->Email Settings ->**
Need permission for Speech
19. In **Webcontroller ->Mailbox ->Pop3Accoutns ->**
put the accounts

3.21.5 How to add TTS

1. Make sure you have license for TTS in a1 file
2. Run t3adm
3. Select option 1 Services
4. Select option 5 and set t3tts to Automatic
5. Restart t3tts
6. In **Webcontroller ->Mailbox ->Email Settings ->**
Need permission for Speech
7. In **Webcontroller ->Mailbox ->Pop3Accoutns ->**
put the accounts

3.21.6 How to add Speech Recognition

NOTE

In order to assure proper functioning of the Speech Recognition feature, it is recommended that adequate memory be installed in the **emaGEN-PC**.

128 MB memory should be added to an **emaGEN-PC** with an initial memory of 128 MB, for every four additional voice ports installed in the system -- when upgrading from the initial four voice ports.

1. Make sure you have ASR license for each voice port
2. Run t3adm
3. Select option 3 Registry
4. Set Parameters ->DirectoryAssist to Y
5. Restart t3vm service
6. In **Webcontroller ->Site ->Speech Recognition ->** add all the names to be used in the department
7. Using the administrator mailbox option 9 -- train the names
8. Define the names in **Department -->Directory assistance**
9. Verify that all names exist in the **Site ->Speech Recognition** table.
Press the Verify List button.
10. Press the Generate SR file button.

3.22 emaGEN SYSTEM DETAILED BACKUP AND RESTORE INSTRUCTIONS

3.22.1 Back up option:

- Connect to **emaGEN** voice mail with Telnet.
Telnet [system_ip].
User: **tenecs**
Password: **tenecs**
Last login:Thu Jan 31 18:59:36 from 141.226.213.60
Have a lot of fun...
- Type: **su-**
password: **tenecs**
- Type: **t3adm.**
 1. Start/Stop emaGEN Services.

2. Load tone file(s).
 3. Change registry keys.
 4. Basic network configuration.
 5. **System backup.**
 6. System monitor.
 7. A1 Info.
 8. Verify Installation.
 9. Shutdown system.
 - x. Extra stuff.
- Select option **5** for system backup.
This will backup your system.
Before that, it will stop any **eMaGEN** services.
Continue [yes/no]? **yes**
All files backup to **./usr/T3/backup.**

*******Backup Completed*******

3.22.2 Restore option:

- Connect to **eMaGEN** voice mail with Telnet.

```

Telnet [system_ip]
User:                tenecs
Password:            tenecs
Last login:Thu Jan 31 18:59:36 from 141.226.213.60
Have a lot of fun...

```
- Type:**su-**
- password: **tenecs**
- Type: **cd ./usr/T3**
- Type: **cd backup** (Togo to the backup directory).
- Type: **ls** (to see the list of files).
- Type **DATE**
This will show you the information about date and time of the last backup.
- Type **cd ..**(to go back one directory).
- Type: **cd bin** (togo to the bin directory).
Type **./t3restore**
Backup date:Thu Jan 31 19:27:13 PST 2002
This will erase all your DATA.
Are you sure [say 'yes']? **yes**
- You must reboot your system.
Press enter to reboot now.

NOTE

Restore will take affect from files under
/./usr/backup only. Do not change the
folder name or directory path.

*******Restore Completed*******

3.23 *e*maGEN SYSTEM DETAILED VERSION UPGRADE INSTRUCTIONS

3.23.1 To view your current system version.

1. Connect to the system with the Telnet command:
telnet [system ip].
2. Type system login user name: **tenecs**
3. Type system login password: **tenecs**
4. Type the command **SU --** to login as administrator.
5. Type the administrator password: **tenecs**
6. Type the command: **T3adm**
7. Choose option **8 --** to verify installation.
8. The system will show you its current version and will check the installation [T3 10.1.8].
9. Press **Enter --** to finish.
10. Press **Q --** to quit to Linux shell.

3.23.2 Connect to the *e*maGEN voice mail with FTP

1. Connect to the system with the FTP command:
ftp://Root:tenecs@[system ip]
2. Copy the new version to the **e**maGEN voice mail folder, using the copy paste command.
3. Close the FTP session.

3.23.3 Extract and upgrade

1. Return to the Telnet session.
If the Telnet session is closed, open it again, by following steps 1 through 5 in Section 3.23.1, above.
2. Type the command **ls**
[ls is like the dir command], you need to see the upgrade file you transfer.
3. Type the command: **tar xvzf [upgrade filename].**
This will extract the installation file to the name directory.
4. Type the command **cd [upgrade directory name].**

to change to the installation directory file.

5. Type the command **./t3update**
-- to upgrade the system version.
6. At the end of the upgrade
process type the command **reboot**
-- to reboot the system with new version.
7. Close the Telnet session.

3.23.4 Verify correct system version

After the system is up again, repeat the instructions in Section 3.23.1, above, to see if the system version is updated and if the upgrade installation is verified as correct.

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Section 4

OPERATION

4.1 GENERAL

Before the system actually begins processing calls, certain information must be entered to complete the installation. Information about the company, the telephone system, and mailboxes must be entered.

4.2 CONVENTIONS

A command is always referred to by the chain of menus you need to select to get to it. For example, to enter the mailbox menu: Users -> Mailboxes

4.3 GENERAL RULES

There are a number of general rules of operation that apply no matter what part of the system a subscriber or outside caller is using.

4.3.1 System Prompts

emaGEN communicates with subscribers and outside callers via prompts. These prompts outline a caller's choices at any given point or give helpful explanations about the system.

As subscribers become more familiar with the system, they know which keys to press without hearing the entire prompt. **emaGEN** system allows an experienced user to press the correct key and interrupt the prompt.

It is possible to "key ahead", i.e., enter several commands very quickly without waiting for the system to respond with prompts. For example, when the system first answers, subscribers enter #, their mailbox numbers and passwords to advance to the subscriber's menu.

4.3.2 No Response from the user

The system is designed to respond when any of the 12 keys on a Touch Tone phone's keypad are pressed. If no key is pressed in response to a prompt, the system assumes the user is uncertain about the correct entry. The system offers the caller assistance. If there is still no response, the system will politely disconnect. This scenario will occur only after the system

has already detected DTMF during the call, and it knows the caller has a Touch Tone phone. In cases where DTMF is not detected by **emaGEN** at the opening greeting point, when the caller does not respond to the prompts, **emaGEN** will transfer the call to the No response Operator, specified in the **Departments --> Properties --> No response mailbox** field.

4.3.3 Too many Errors

The system counts the number of errors (incorrect key entries) that a user makes while interacting with a menu. If the number of errors reaches the pre-set number (usually 3), the caller is politely disconnected.

Errors are considered entries of invalid numbers such as extension numbers, passwords, date and time entries, etc.

4.3.4 Allowable time between key entries

There are a numerous places within the system where multidigit entries must be made: mailbox numbers; group list numbers; phone numbers and time entry.

The system is expecting a string of a pre determined digit length. **emaGEN** waits a few seconds between the digit entry, and upon receiving no additional digits within the allowable time, it assumes that the entry was complete. **emaGEN** then responds based on the digits received.

For example, when entering mailbox 123 as a destination, if there is too long a pause between 2 and 3, the system will interpret the number entered as 12 and not 123.

To define the length of time allowed between digit entries:

- use the System time out field, on the **Site --> Settings** screen, under the System Parameters heading.

4.3.5 Use of the # key to terminate an entry

The # key can be entered to terminate an entry. Though the system has built-in timers that identify an end of a multi digit entry by a pre-determined pause, a user can shorten the response time by pressing the # key, such as when quickly entering a phone number.

4.3.6 Use of the * key

Cancel action: Many of the menu choices within the system include an option to cancel the user's selection by pressing the * key.

Move to previous menu: In all of the subscriber interface menus, pressing the * key will result in returning to the previous menu.

4.4 FIRST-TIME USER TUTORIAL

Upon entering the mailbox as a subscriber for the first time, **emaGEN** greets the mailbox owner with a tutorial. The subscriber is prompted to record a name, personal greeting and private password.

After having completed this tutorial, the subscriber:

- is now in the directory,
and
- hears the subscriber's menu.

4.5 DIRECTORY TREE

- /usr/**emaGEN**/bin -- Executable files
- /usr/**emaGEN**/vox -- Voice files
- /usr/**emaGEN**/vmdat -- Data files
- /usr/**emaGEN**/mailbox/rpt -- Report files
- /usr/**emaGEN**/mailbox -- Mailbox greetings
- /usr/**emaGEN**/messages -- Incoming messages

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Section 5

SYSTEM ADMINISTRATION

5.1 GENERAL

emaGEN system administration is done remotely using standard web based tools. You can connect to the system through a direct connect data cable, over an Intranet or the Internet, using a null modem cable or a standard modem.

There are several administration tools at your disposal:

- **emaGEN** T3adm – a configuration utility to help you setup the network and start / stop the system. **emaGEN** T3adm is executed from telnet / HyperTerminal.
- **emaGEN** monitor – a display utility that shows the status of the voice mail ports.
- **emaGEN** WebController – a web based administration interface to **emaGEN**, used to administer users, site and PBX information.
- standard ftp (file transfer protocol) – using standard ftp protocol, you can access files on **emaGEN** with any browser or ftp program.

This section will discuss the connection options as well as the **emaGEN** T3adm, **emaGEN** monitor and ftp connections.

5.2 CONNECTING TO **emaGEN**

5.2.1 Data Connection

The most efficient method to connect to **emaGEN** is using a data connection.

You can either connect:

- using a PC on the same network as **emaGEN**
or

- create a direct PC-to-PC connection with a crossover data cable, as shown on the right, in Figure 5-1, below.

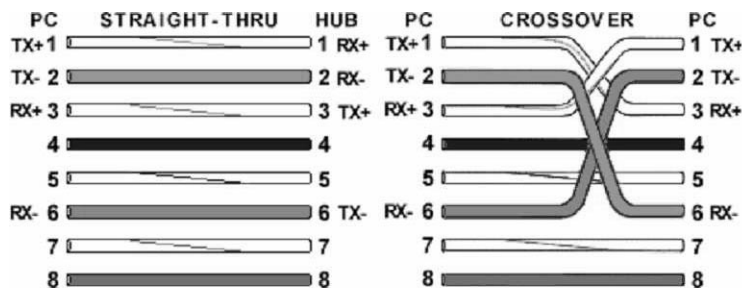


Figure 5-1 Crossover Cable Diagram

A data connection will ensure that TCP/IP protocol is running and will enable ftp, web browsing and telnet.

For a data connection, you will need to know the IP address and sub-net mask of **eMaGEN**.

5.2.2 Modem connection

eMaGEN is configured to accept remote administration via modem. Make sure a modem is connected or installed on **eMaGEN**, and a telephone line is connected to the modem. The modem is set to answer automatically by default.

eMaGEN is equipped with a built-in remote access mechanism. You can network to it using windows dial-up networking.

To connect to an **eMaGEN** system, you will need to create a dial up account (as specified below) and then login to the system.

A. Connecting to a remote **eMaGEN**

1. Double click the dial-up account you create (as defined in the two sections below)
2. Enter the user name and password of **eMaGEN** -- both are "tenecs" by default.
3. Click "Dial".

A window should pop-up once a connection is established.

4. Enter the login name -- "tenecs", and press Enter.
5. Enter the password -- "tenecs", and press Enter.
6. Once you have logged in, type slirp -P, and press Enter.

The system will print out its current ip address (default is 192.168.0.100), and other system information.

7. Click the “done” button (in Windows 98 click the “Continue” button), after which a new connection icon should appear in the local machine’s task bar, which means you have established a TCP/IP connection with the remote machine.
8. Open an Internet browser, and enter in the URL line the remote IP address (192.168.0.100) to see the Web Controller administration site.

B. Creating a dial-up account from windows 2000

1. Right-click “My Network Places”, select “Properties”.
2. Double-click “Make new connection”.
3. Click “Next”.
4. Select “Dial up to private network” and press “Next”.
5. Enter **emaGEN** modem number.
6. Indicate if the connection is for all user or for current user only and click “Next”.
7. On the “internet connection sharing” page click Next.
8. Enter the connection name (e.g. “tenecs”) and press “Finish”.
9. Right-click the connection you just created (inside the “Network and dial-up connections” window).
10. Click the “Security” tab.
11. Select “Advanced” from the “Security options” and click on “Settings”.
12. Select “Allow these protocols” and check all the specified protocols.
13. Make sure the last check box, “For MS-CHAP...”, is not checked and click “OK”
14. Click “Yes” on the dialog box which then appears
15. In the “Security” tab, check “Show terminal window” (at the bottom of the tab) and click “OK”

C. Creating a dial-up account from windows 98

1. Double-click “My Computer”.
2. Double-click “Dial-up networking”.
3. Double-click “Make new connection”.
4. Provide the connection name.
5. Select a modem you want to connect with.
6. Click “Configure”.
7. Click the “Options” tab.
8. Check “Bring up Terminal-Window after dialing”.

9. Click "OK".
10. Click "Next".
11. Enter the **emaGEN** modem number.
12. Click "Finish".

5.2.3 Null-Modem connection

You can use a null modem cable to connect to the communication port on **emaGEN**. This connection will work regardless of an IP address, and you can use it in case the IP connection is not functional or the IP address of **emaGEN** is unknown.

NOTE

You will not be able to use the **emaGEN** WebController and ftp access to the system using null-modem, as it is not an IP based connection. However, you will be able to run the **emaGEN** T3adm program.

5.3 ftp ACCESS

ftp (File transfer Protocol) is an internet standard for transferring files between systems over IP protocol. In order to view the contents of **emaGEN** System as well as download or upload files to it, you will need ftp access.

When connected to **emaGEN** using a crossover cable or over a network:

- open a browser window on your machine and type the following in the address (URL) line of the browser:

```
ftp://root@emaGENIPAddress/./usr/emaGEN
```

where **emaGEN**IPAddress is the name or IP address of the **emaGEN** machine.

For example, with the default address of **emaGEN** being 192.168.0.100, you will enter:

```
ftp://root@192.168.0.100/./usr/emaGEN
```

You will then be prompted to enter your administrator password. Now you have access to the **emaGEN** directory and you can copy, paste and edit files by using standard Windows commands.

5.4 *e*maGEN T3 Adm

The *e*maGEN T3adm is an administration and setup utility. It will enable you to change IP configuration, start and stop *e*maGEN, shut-down the system and change low level *e*maGEN parameters.

To run the *e*maGEN T3adm program, proceed as follows.

5.4.1 Logging in – “telnet”

To run the *e*maGEN T3adm program you need to be logged on to *e*maGEN using telnet.

To run telnet:

1. open a command prompt in windows and type:

```
telnet emaGEN/IPAddress
```

where *e*maGEN/IPAddress is the name or IP address of the *e*maGEN machine.

For example:

```
telnet 192.168.0.100
```

A communication session will start and the Linux prompt for user name and password will appear.

2. Enter the user name and password (this entry is case sensitive).
 - The default user name is: T3adm
 - The default password is: tenecs

You will then be at the Linux command prompt.

Telnet can only be used over IP. If you do not have an IP connection established, you can use HyperTerminal over a null modem cable or a standard modem to connect to *e*maGEN and run *e*maGEN T3adm.

To exit from telnet:

- type exit twice
or
- simply close the command line window.

5.4.2 *e*maGEN T3adm options

- Start the *e*maGEN T3adm program by typing *e*maGEN T3adm at the prompt.
You will be prompted to enter the super user password.

The default password is: tenecs

You are now logged in as a super user and ready to use **e**maGEN T3adm.

You will get the main administration menu: **e**maGEN Basic Administrator Program.

You will have the following options:

1. Start/Stop **e**maGEN Services
2. Load tone file(s)
3. Change registry keys
4. Basic network configuration
5. System backup
6. System monitor
7. A1 Info
8. Verify Installation
9. Shutdown system
- x. Extra stuff
- q. Unix shell

At any time -- while in the **e**maGEN T3adm program -- you can press Ctrl to exit to the Unix shell.

To delete a character, use the Delete key, instead of the Backspace key.

5.4.3 Services

Each of the **e**maGEN components is called a service. The services include:

- **e**maGEN VM -- The main voice processing server
- **e**maGEN IMAP -- The IMAP server
- **e**maGEN POP -- The Pop server
- **e**maGEN TTS -- The text to speech server

Select option 1 from the **e**maGEN T3adm options and you will get options to start and stop each of these services. You can use this when you need to reset any of the servers.

NOTE

It is recommended to wait approximately 15 seconds after stopping a service before restarting it, to allow all the program components to shut down.

Option number 5 will allow you to select the startup mode for each server.

When using the **emaGEN** VM main voice processing server, only, you can select Manual or automatic. The default setting is automatic, which means the server will start to work upon startup of the system.

5.4.4 Network configuration -- option 4

You can use the **emaGEN** T3adm to configure the IP address of **emaGEN** without any need for in depth knowledge of the linux operating system.

1. Select option 4 of the **emaGEN** T3adm main menu and provide the required network information:

NOTE

Do not use DHCP (Dynamic Host Configuration Protocol).

- The IP address for this machine
 - The Network subnet mask
 - The Host name – by which you want to refer to this machine
 - The Gateway -- through which the system can reach the public internet
 - The Domain Name Server (DNS) which is used to resolve internet addresses
2. After changing this information, execute the shut down procedure and reboot the machine, for the changes to take effect.
 3. Make sure to note the changes to allow further access through IP to this machine.
 4. If you fail to connect after reboot using telnet, you can resort to the Telnet method using a null-modem cable or a standard modem.

5.4.5 System Backup -- option 5

To backup the system:

1. Select option 5 of the **emaGEN** T3adm menu.
This will copy all the system files to a backup location.

Before backup, the system will notify you it is shutting down.

2. After the backup is complete, you will have to manually restart the system services.

5.4.6 System Monitor -- option 6

The system monitor will show you a real time info snapshot of all the system ports, as well as indication of the status of the serial link.

You can use this option to start and stop each one of the voice ports, as well as perform a “soft” shutdown of the system, that is, wait until all ports are free and then stop the service.

5.4.7 A1 Info -- option 7

With this option you can view all the licenses given to the machine, including number of voice ports, fax ports, email clients, languages and more.

5.4.8 Verify Installation -- option 8

Running this option will:

- show the software release you are running;
- verify that the system you are working with has all the correct files relative to its version;
- give you an indication whether the process was successful or failed.

5.4.9 Shut down -- option 9

You have to execute a shut down procedure before turning the system off:

- Select option 9 from the **emaGEN** T3adm main menu.
You will be prompted to either reboot the system or to halt it.

Before you select either option, the program will double verify your selection and, only then, it will execute a shut down including turning the power off.

5.4.10 Extra stuff -- option 10

Under the Extra Stuff section you will find options to:

- define a modem,
- configure the fax option,
- configure voice cards,
- define a PBX,
- import/export data configuration,
- recreate administrator mailbox,
- enable/disable modem call in support,
- change time zone,
- set date and time.

5.4.11 Import/Export Data Base

You can import or export a mailbox, class of service or department data base. You can then upload this information on a different machine and put it back on the current system.

- Select the desired mailbox, COS or department. The system will request a floppy disk, or it will save it in a temporary location.

5.4.12 Select PBX

emaGEN has a built in library of PBXs from which you can choose.

1. Simply select the PBX type and
2. Restart **emaGEN** (software only, reboot is not necessary). The values for the PBX you selected will appear on the PBX page of the Controller.

5.4.13 Configure voice card

To add or remove voice cards to/from the system, you will need to use the configure voice card option from **emaGEN** T3. Each time you access this option, you will define **all** voice boards in the system. You will need to specify the following information:

1. the address of each card in the system. The first card (ports 1 through 4) is by default on address 300. The next are 301, 302 etc.

Refer to the Brooktrout Hardware installation guide for more information on setting up the address jumpers on the card.

After entering the address of the card, the system will show you the card configuration:

- the firmware version
 - number of voice channels on the card
 - number of DSP's.
2. If the information shown is incorrect, type **no**.
 3. If you typed **no**, above, you will be able to set the following parameters:
 - Type the number of the firmware you wish to select -- either 1 or 2, below:
 1. firmvp.std is used in US cards (Quartet, RDSP 432).
 2. firmvp.van is used in European cards such as the Volare EU4 and PCI cards from the Vantage family.

- Enter the number of voice channels on the card.
 - Enter the number of RDSP on the card (1 for every 4 ports).
4. Finally, confirm the information and repeat for each card.
 5. Reboot the system after completion of this process.

5.4.14 Define modem

1. Select which com port will be used for remote administration. For Com1 press 1, Com2 press 2, etc.
2. Fax ports can be defined as remote administration ports when setting up fax ports, below.

5.4.15 Configure Fax

Select the configure fax option from the T3adm menu -- under Extra stuff.

The Fax installation has two steps:

1. Run fax setup -- following the steps on the screen to initialize the fax engine.
2. Add a modem -- the system will ask for a device name.
 - If you are using a US Robotics modem (single port modem), the device is ttyS3.
 - If you are using a multi port modem, the device names are:

no.	name	port
i.	ttyM1a	port 1
ii.	ttyM1b	port 2
iii.	ttyM1c	port 3
iv.	ttyM1d	port 4
v.	ttyM1e	port 5
vi.	ttyM1f	port 6
vii.	ttyM1g	port 7
viii.	ttyM1h	port 8

3. Follow the instructions for adding a modem -- press Enter -- to select the default entry for each field.
4. Select either:
 - option 4 -- to view the available modems, or
 - option 3 -- to remove a modem.

Before exiting from the fax configuration, the system will ask you if you want to use the fax port as a port for remote access.

You can choose to enable or disable fax ports for remote administration by modem.

5.4.16 Installing the Fax software

In case step 1 of the previous section fails, that is you cannot run the fax setup option, follow the following procedure:

1. Log in as super user -- type: `su -`, followed by the root password.
2. Type: `cd /emaGENinstall`
3. Type: `./setup`.
This will run the ***e*maGEN** Installation procedure.
4. Press N on all options, until you reach the Install Fax option.
Answer Y to the Install Fax option.
5. Select the fax card type you wish to use -- Multitech or US Robotics.
The driver for this card will be installed.
6. After installing the driver, press q -- to quit the fax installation and continue.
7. Answer **yes** to the **install hylafax software** question.
This will install the fax engine, and might take up to five minutes.

After this stage, you will be able to add modems to the fax engine, as described in the previous section.

5.5 *e*maGEN MONITOR

The ***e*maGEN Monitor** -- shown in Figure 5-2, below -- is a utility that allows you to view the activity of the ***e*maGEN** ports. It can be used remotely over a network or the Internet.

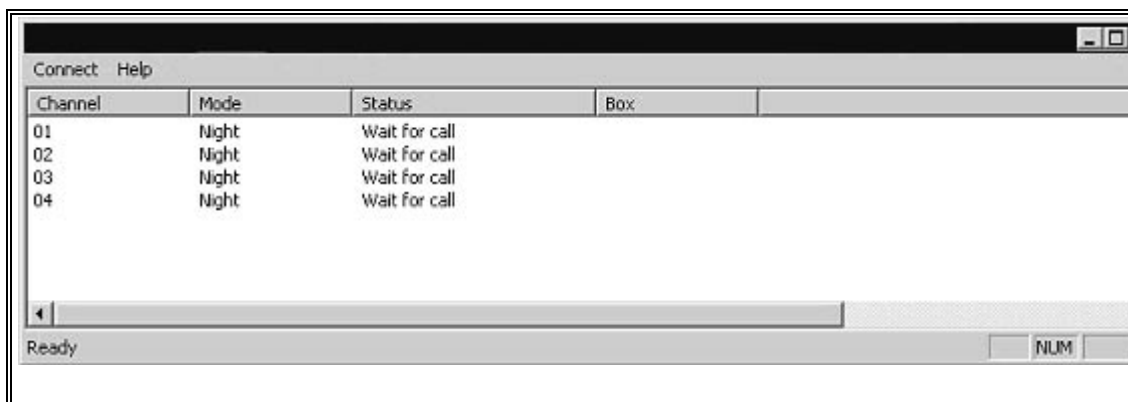


Figure 5-2 *e*maGEN Monitor screen

You can run it while connected over an IP connection. Double click the **emaGEN** Monitor icon. You will be prompted for a host name. Enter the IP address of **emaGEN**. You will see the status of all ports.

You can start or stop a port by right clicking the port.

5.6 **emaGEN** CONTROLLER

The **emaGEN** Controller Main Menu screen -- shown in Figure 5-3, below -- is the top of the pyramid of all administration configuration and definition screens.

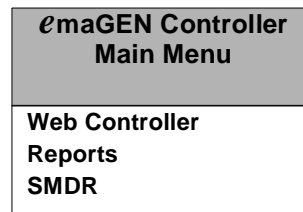


Figure 5-3 **emaGEN** Controller Main Menu screen

See a detailed guide to **emaGEN** screens and instructions in Figure 6-2 of Section 6, below.

5.7 **emaGEN** SYSTEM MESSAGE DETAIL RECORDING (SMDR)

5.7.1 Accessing SMDR Reports

1. Log in to the **emaGEN** T3 administration web page.
2. Click the SMDR link.
The SMDR Reports definition screen, shown in Figure 5-4, below.

5.7.2 Generating a report

To generate a report:

1. Fill in the fields relevant to your query.
2. Press the **[Generate Report]** button, at the bottom of the screen.
The fields are compounded, so you can create a complex query by filling in multiple fields.

The screenshot shows a web browser window titled "SMDR REPORTS - Microsoft Internet Explorer". The address bar shows "http://141.226.213.50/smdrMain.jsp". The main content area is titled "SMDR REPORTS" and contains a form with the following fields:

Extension		<input type="text"/>	Call Type	All
Trunk		<input type="text"/>		
Call cost	From	<input type="text"/>	To	<input type="text"/>
Cost per minute	Amount	<input type="text"/>	Surcharge	<input type="text"/>
Called number		<input type="text"/>		
Account code	Prefix	<input type="text"/>		
Period	Starting	02 / 05 / 2002	Ending	02 / 14 / 2002
		01 : 00 : AM		01 : 00 : AM
Call Duration	From	00 : 00 : 00	To	00 : 00 : 00
		Sort options		
		Summary		
		<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		
		<input type="text"/>		

At the bottom of the form is a "Generate Report" button.

Figure 5-4 SMDR Reports definition screen

To view information regarding a particular extension:

- fill in the Extension number field.

To view information regarding a particular trunk:

- fill in the Trunk number field.

5.7.3 Costing of calls

Cost per minute

To generate price information, enter:

- either the cost per minute and/or

- the surcharge per call.

The cost per minute is calculated in one minute increments.

For example:

If the cost per minute is 15 cents
and the call duration is 45 seconds,
the call cost is 15 cents.

If the call duration is 1 minute and 5 seconds,
the call cost is 30 cents.

Call cost

If you entered information in the cost per minute section, above,
you can select calls by cost according to the following criteria:

- Fill in only the from field -- to view calls equal or above a certain cost.
- Fill in only the to field -- to view calls equal or below a certain cost.
- Fill in both the to and from fields -- to view calls between a range of numbers.

Called number

Fill in the called number field -- to view calls containing the given number. The called number field refers both to:

- numbers dialed on outgoing calls
and
- caller ID numbers in incoming calls.

Period

Enter a valid range of dates – from a certain date/time to a certain date/time.

By default, the end date is today's date.

Sorting Calls

The full report will show all legs of a call. If you selected calls for a particular extension or trunk, full report will show all calls that the extension or trunk took part in plus all other legs of these calls.

The summary report will show only the first leg of each call, or the legs, that a particular extension or trunk took part in.

You can sort the summary report by fields.

A sample SMDR report is shown in Figure 5-5, below

SMDR Report

Trunk	Extension	Date	Time	Duration	Type	Account	Called Number	Cost
8201	210	02/07/02	9:05 am	00:22	Outgoing Trunk	123456789	211	0.0
8100	211	02/07/02	9:05 am	00:22	Incoming Call		0002#5555221	0.0
8100	211	02/07/02	9:08 am	02:42	Incoming Call		0012#5555221	0.0
8200	210	02/07/02	9:08 am	02:42	Outgoing Trunk		211	0.0
8100	211	02/07/02	9:12 am	00:04	Incoming Call	999	0003#5555221	0.0
8200	210	02/07/02	9:12 am	00:03	Outgoing Trunk		999	0.0
8201	210	02/07/02	9:14 am	00:06	Outgoing Trunk	1245	999	0.0
8100	211	02/07/02	9:14 am	00:06	Incoming Call	999	0001#5555221	0.0
8100	211	02/07/02	9:15 am	00:09	Incoming Call	999	0001#5555221	0.0
8200	210	02/07/02	9:15 am	00:08	Outgoing Trunk		999	0.0
8100		02/07/02	9:20 am	00:01	14		#5555221	0.0
8200	210	02/07/02	9:20 am	00:13	Outgoing Trunk		9981211	0.0
8100		02/07/02	9:20 am	00:05	14		#5555221	0.0
8201	210	02/07/02	9:24 am	00:33	Outgoing Trunk		998211123471211	0.0
8100		02/07/02	9:24 am	00:35	14		#5555221	0.0
8200	210	02/07/02	9:25 am	00:32	Outgoing Trunk		99821112348001211	0.0
8100		02/07/02	9:25 am	00:33	14		#5555221	0.0

Figure 5-5 Sample SMDR Report

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Section 6

*ema*GEN WEB CONTROLLER

6.1 THE *ema*GEN WEB CONTROLLER MAIN MENU SCREEN



Figure 6-1 *ema*GEN Web Controller Main Menu screen

6.2 THE *ema*GEN WEB CONTROLLER ADMINISTRATION UTILITY

The *ema*GEN Web Controller screen is the administration utility of the *ema*GEN system.

The *ema*GEN Web Controller is TCP-IP web-based, so you can use it locally or remotely over a network.

6.3 TO USE THE *ema*GEN WEB CONTROLLER

1. Open a browser
2. Type in the IP address of *ema*GEN

-- in the address line (URL) of your browser.

3. Log into the **e**maGEN Web Controller with a valid administrator mailbox:
 - the default mailbox is 100
 - the password is 0000.

At the start of each session you may specify the session timeout (default is 15 minutes). The session timeout is the amount of time the connection to the **e**maGEN server will be open. This time is the elapsed time since the last activity to the server (any time you press the command buttons is considered an activity). If you try to make an operation after the timeout has expired, the system will take you to a login page.

NOTE

emaGEN was tested with Microsoft Internet Explorer and Netscape browsers, with Java Script Enabled. Other browsers may not necessarily work as expected.

6.4 NAVIGATING THE SYSTEM

The **e**maGEN controller is a web-based application, and uses all the familiar conventions.

NOTE

One essential rule to remember is:

The information is not saved into the database, until you click the SAVE icon.

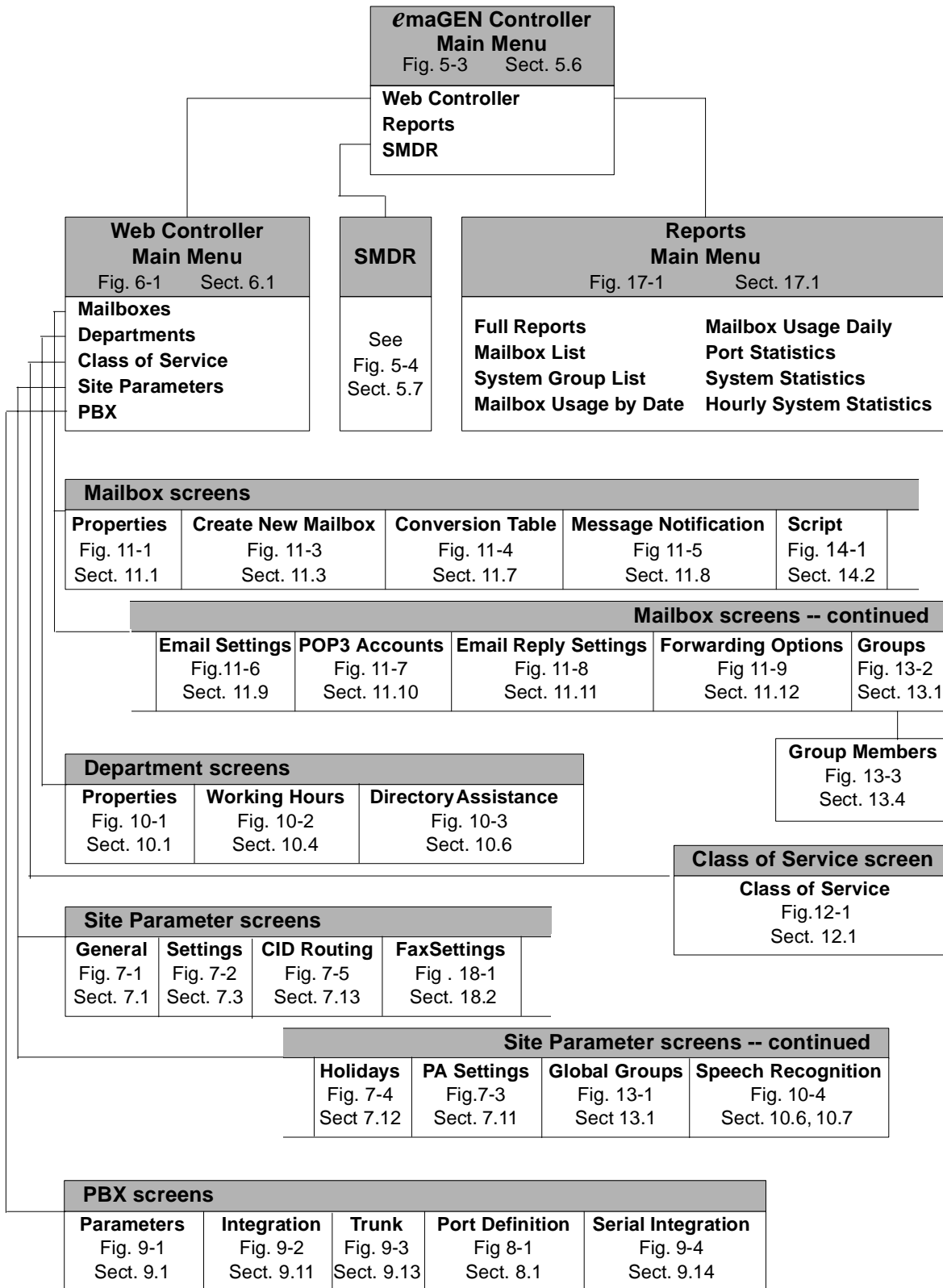


Figure 6-2 Your guide to emaGEN screens and instructions

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Section 7

SITE

7.1 GENERAL

To adapt a system to a specific site, meaning customizing **emaGEN** to the customer's specific environment, you will need to configure several sections of the system, including:

- Site Voice Mail Parameters -- included in this section
- PBX Port Definition -- see Section 8
- Department Definition -- see Section 10

The screenshot shows a Netscape 6 browser window titled "Site Information - Netscape 6". The address bar displays "http://127.0.0.1/webcontroller/SiteInformation.jsp". The page content includes a navigation menu with "General" selected, and other options like "Settings", "CID Routing", "Fax Settings", "Holidays", "PA Settings", "Global Groups", and "Speech Recognition". Below the menu are two buttons: "SAVE" and "MAIN MENU". The main form area contains the following fields:

Company name	<input type="text"/>
Address 1	<input type="text"/>
Address 2	<input type="text"/>
PO Box	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Zip	<input type="text"/>
Telephone	<input type="text"/>
Modem	<input type="text"/>
Fax	<input type="text"/>
Administrator name	<input type="text"/>
Administrator mailbox	<input type="text"/>
Number of trunks	<input type="text"/>
Number of extensions	<input type="text"/>
Voice mail hunt group	<input type="text"/>

The status bar at the bottom indicates "Document Done (0.591 secs)".

Figure 7-1 Site --> General screen

7.2 SITE – GENERAL INFORMATION

Company Name

This is the name of the site where the **e**maGEN system is installed.

Legal values: 1 to 30 characters

Default: Blank

Action: Enter the name of the site.

Address

These fields are for the address of the installation site.

Legal values: 1-30 characters, on 2lines

Default: Blank

Action: Enter the site address on the top line.
Use the second line for room numbers, etc.

P.O. box

This field is where you can enter a P.O. box if required. City

Legal values: 1 to 6 digits

Default: Blank

Action: Enter the P.O. box number

Legal values: 1 to 30 characters

Default: Blank

Action: Enter the name of the city

State

Legal values: 2 characters

Default: Blank

Action: Enter the two-letter state abbreviation.

Zip code

Legal values: 5 or 9 digits

Default: Blank

Action: Enter the site location zip code.

Telephone Numbers

These fields are for the PBX/KTS system primary and secondary phone numbers.

Legal values: 2 fields of 1 to 10 digits each
Default: Blank
Action: Enter the phone numbers, including area code.

Fax number

This field is where you can enter the site's FAX number

Legal values: 1 to 10 digits
Default: Blank
Action: Enter the site's FAX number.

Administrator Name

This space is for the **emaGEN** Administrator's name.

Legal values: 1 to 31 characters
Default: Blank
Action: Enter the System Administrator's name.

Administrator mailbox

This space is for the **emaGEN** Administrator's mailbox. It is essential to enter the mailbox number, in order for the administrator to be able to use the remote access operations.

Legal values: A number -- up to seven digits long between 0000000 and 99999999
Default: Blank
Action: Enter the System Administrator's mailbox number

Number of Trunks

This entry is the number of Central Office trunks connected to the PBX/KTS.

Legal values: 1 to 999
Default: Blank
Action: Enter the number of connected Central Office trunks.

Number of Extensions

This is the number of extensions connected to the private telephone system.

Legal values: 1 to 99999

Default: Blank

Action: Enter the number of connected extensions.

Voice Mail Hunt Group Extension Number

This is the pilot number of the hunt group that the PBX/KTS uses to access **emaGEN**. This field is used for the paging feature. **ema-GEN** announces the name of the subscriber, and asks the person to dial the number of the hunt group, in order to connect to the caller, which is waiting on hold.

Legal values: 1-7 digits

Default: Blank

Action: Enter the hunt group pilot number.

7.3 THE SITE SETTINGS SCREEN

Site Parameters Settings - Netscape 6

File Edit View Search Go Bookmarks Tasks Help

http://127.0.0.1/webcontroller/SiteSettings.jsp

General **Settings** CID Routing Fax Settings Holidays PA Settings Global Groups Speech Recognition

SAVE MAIN MENU

Special Keys

Directory assistance key 9

End recording key @

Skip backward/forward 5 (1-99 seconds)

Pause 60 (1-999 seconds)

Security

Administrator password 1111

Mailbox length 3 digits

Extension length 3 digits

Password length 4 digits

Greeting Hours

Morning starts at (prompt 100) 12 00 AM

Afternoon starts at (prompt 101) 12 00 PM

Evening starts at (prompt 102) 05 00 PM

Call out retries

No answer 30 (1-999 minutes)

Busy 3 (1-999 minutes)

System Parameters

System timeout 5 (seconds)

Script timeout 5 (seconds)

Conversion table timeout 2000 (0-9999 milisec)

Weekday definition Sun Mon Tue Wed Thu Fri Sat

Page wait 0 (1-9999 seconds)

Call Queuing

Maximum ports on hold 1

Time interval between busy 15 (5-999 seconds)

Maximum retries on busy 0 (0-99 tries)

House Keeping

Day Daily

Time 03 01 AM

Purge Reports 2 Months

Document: Done (0.821 secs)

Figure 7-2 Site --> Settings screen

7.4 PARAMETERS ON THE SITE --> SETTINGS SCREEN

emaGEN has a built-in call queuing feature. When the auto-attendant detects a busy event from an extension, it can be set to allow the caller to be placed on hold, in a queue. **emaGEN** will arrange all incoming calls to this extension in a queue, and will let each caller know their position in the queue. The system will try transferring the caller to the extension after a defined period, while holding the call, with full transfer supervision. If the extension is still busy, the system will announce to the caller their position in the queue. While holding, **emaGEN** can play promotional announcements to the caller (refer to Chapter 16 – Voice Prompts).

The following parameters need to be set, on the **Site --> Settings** screen, to activate this feature:

Maximum Ports on Hold Allowed

This field determines the total number of ports in the system that are allowed to be placed on **emaGEN** hold simultaneously. This amount is the MAXIMUM regardless of the amount allowed in a given mailbox.

Legal values: 0 to 24

Default: 0

Action: Select from the drop box.

Time Interval Between Busy

This field controls the timer that determines how often **emaGEN** checks a held call to see if the called party's extension is still busy. This time is used in conjunction with the next field.

Legal values: 5 to 999 seconds

Default: 20 seconds

Action: Enter the duration between checks.

NOTE

This function is only valid for FULL transfer supervision.

Max Retries on Busy

This field determines the number of times the caller can be prompted to remain in the queue, while the extension is busy. When this maximum is reached, the caller may no longer hold, rather the caller may leave a message or be transferred to a different mailbox.

Legal values: 1 to 99

Default: 1

Action: Enter the desired number of times for **emaGEN** to check a busy extension before offering the held caller an opportunity to leave a message or try another number.

NOTE

This function is only valid for FULL transfer supervision.

7.5 SPECIAL KEY PARAMETERS ON THE SITE --> SETTINGS SCREEN

Directory Assistance Key

This field determines the digit that is pressed to have **eMaGEN** present the directory of mailbox holders. Enter a space to disable the directory assistance option.

Legal values: 0, 1, 2 to 9, *, #

Default: 9

Action: Select from the drop box.

End Recording Key

This field determines the key press **eMaGEN** recognizes as the signal from the caller to end a recording.

Legal values: 0, 1, 2 to 9, *, #, or @ (= any key)

Default: @ (= any key)

Action: Select from the drop box.

Skip Backward-Forward

This field determines the number of seconds that **eMaGEN** will skip backward (rewind) / or fast forward a message while the mailbox owner is listening to messages.

Legal values: 1 to 99 seconds

Default: 3 seconds

Action: Enter the number of seconds for rewind/fast forward.

Pause

This field determines pause duration when pause key was pressed, before playback resumes. Pressing any key while in Pause resumes playback.

Legal values: 1 to 999 seconds

Default: 10 seconds

Action: Enter the number of seconds for pause duration.

7.6 SECURITY PARAMETERS ON THE SITE --> SETTINGS SCREEN

Administrator Password

This number is required for access to all System Administrator functions. The password can contain up to 4 digits.

Legal values: 0000 to 9999

Default: 0000

Action: Enter from 1 to 4 digits for a desired password

Mailbox

This field tells **emaGEN** how many digits make up a valid mailbox number. This value is used to determine if a caller has dialed a mailbox number or a conversion table digit.

Legal values: 1 – 7 digits

Default: 3

Action: Select from the drop box.

Extension Length

This field determines the **emaGEN** PBX extension number's length.

Legal values: 1 – 7 digits

Default: 3

Action: Select from the drop box.

Password Length

This field determines how many digits are allowed for a mailbox user's password.

Legal values: 1 to 9 digits

Default: 4

Action: Select from the drop box.

7.7 GREETING HOURS PARAMETERS ON THE SITE --> SETTINGS SCREEN

emaGEN announces "Good Morning, Afternoon, Evening" depending on the time of day. This field determines what these time

periods are. There can occur a situation in which the time greeting is "Good morning" yet the department greeting still indicates that the office is closed (night mode - set in department definition) - e.g. 05:00 AM.

Legal values: 12:00 to 11:59 / AM / PM

Default: Morning - 12:00 AM, Afternoon - 12:00 PM,
Evening - 05:00 PM

Action: Select from the drop box.

7.8 HOUSEKEEPING PARAMETERS ON THE SITE --> SETTINGS SCREEN

emaGEN has a house keeping mechanism, which cleans old messages, according to parameters defined in class of service.

Day

This field entry determines on which day the house keeping will be performed.

Legal values: Sun too Sat, Daily

Default: Daily

Action: Select day from the drop box.

Time

Enter the time of day the housekeeping activity is to begin. This time should be at a no/low traffic period. Typically this is between midnight and 6 A.M.

Legal values: HH:MM AM/PM

Default: 02:59 AM

Action: Select time from the drop box.

Purge reports

Enter the number of months after which the system will delete old report data.

Legal values: number of months

Default: 2 months

Action: Select time from the drop box.

7.9 SYSTEM PARAMETERS ON THE SITE --> SETTINGS SCREEN

System Time Out

This is the duration of the time period after playing a system prompt that **emaGEN** gives the caller to key in the desired number of an extension. If no input is received during this time period, **emaGEN** continues on to the relevant NO-RESPONSE action.

Recommended duration: 3 to 6 seconds.

Legal values: 1-12 seconds

Default: 4 seconds

Action: Select duration from the drop box.

Script Time Out

Script: This is the duration of the time period after playing a script menu that **emaGEN** gives the caller to key in the desired number or extension. If no input is received during this time period, **emaGEN** continues on to the relevant ERR line for more actions.

Recommended duration: 6 seconds.

Legal values: 1-12 seconds

Default: 5 seconds

Action: Select duration from the drop box.

Conversion Table Time Out

This field sets the inter-digit time-out for the conversion table. The recommended time is 2000 msec. The entry should not be less than 800 msec.

Legal values: 200-4000 msec

Default: 2000 msec

Action: Enter the time-out period.

Weekdays Definition

This field determines what days **emaGEN** is to consider as a Weekday. Any day not entered here will be considered to be Weekend day.

Legal values: Days of the week

Default: Monday, Tuesday, Wednesday, Thursday, Friday

Action: Check all days to be considered weekdays.

Page Wait

This field determines the duration (in seconds) of the paging feature. This is the time a caller can wait on the line while **e**maGEN is paging a subscriber. If the subscriber has not contacted the system within this amount of time, the caller is prompted that the subscriber is not available.

Legal values: 1 to 9999 sec

Default: Blank

Action: Enter the desired time duration.

7.10 CALL OUT PARAMETERS ON THE SITE --> SETTINGS SCREEN

When **e**maGEN performs a Call Out, such as wake-up call, remote message notification, etc., it dials out on outside trunk circuits. There are two different results that **e**maGEN may receive other than an answered call.

Busy

This field controls the time interval between Call Out attempts for a Busy condition.

Legal values: 1 to 999 minutes

Default: 3

Action: Enter desired number of minutes to wait before retry.

No Answer

This field controls the time interval between Call Out attempts for a No Answer condition.

Legal values: 1 to 999 minutes

Default: 30

Action: Enter desired number of minutes to wait before retry.

7.11 PUBLIC ANNOUNCEMENT PARAMETERS

Number	Prompt	Day	Time	Zone
1	281	None ▾	12 ▾ : 00 ▾ : AM ▾	
2	282	None ▾	12 ▾ : 00 ▾ : AM ▾	
3	283	None ▾	12 ▾ : 00 ▾ : AM ▾	
4	284	None ▾	12 ▾ : 00 ▾ : AM ▾	
5	285	None ▾	12 ▾ : 00 ▾ : AM ▾	
6	286	None ▾	12 ▾ : 00 ▾ : AM ▾	
7	287	None ▾	12 ▾ : 00 ▾ : AM ▾	
8	288	None ▾	12 ▾ : 00 ▾ : AM ▾	

Figure 7-3 Site --> Public Announcement screen

emaGEN has the ability to activate the public announcement (PA) feature of the PBX. This allows the following **emaGEN** features: First, if a mailbox owner is away from his/her phone, he/she can be paged within the location and receive their calls at a phone elsewhere in the building. Second, **emaGEN** can be programmed to make up to eight special pre recorded announcements to be played back at specific times and days.

Number

This is the ID number for the available schedule assignments.

Legal values: 1 to 8

Default: 1 to 8

Action: None.

Prompt

This is the prompt number that you record for a specific schedule announcement.

NOTE

These prompts are hard-coded and may not be changed.

Legal values: See Action, below.

Default: 151 to 158

Action: Record the appropriate prompts using the "To Record A Prompt" option in the System Administrator menu.

Day

This field determines the day(s) on which a scheduled PA announcement will be made.

Legal values: Daily, None, Day of week

Default: None

Action: Select from the drop box.

P.A. Time

This field sets the time for a scheduled announcement to be made.

Legal values: HH:MM AM/PM

Default: 12:00 AM

Action: Select time from the drop box.

P.A. Zone

This determines the P.A. zone access code to which an announcement is directed. The access code **MUST** match the desired PBX paging access code.

Legal values: 0-9, *, or # / use "," for pause

Default: Blank

Action: Enter the page zone access code.

7.12 HOLIDAY SCHEDULE

Prompt	Holiday Name	Date
170		January 1
171		January 1
172		January 1
173		January 1
174		January 1
175		January 1
176		January 1
177		January 1
178		January 1
179		January 1
180		January 1
181		January 1
182		January 1
183		January 1
184		January 1
185		January 1

Figure 7-4 Site --> Holiday Schedule screen

emaGEN allows you to pre-program up to 16 holiday messages and their dates into the system. When the internal calendar matches one of these dates, the appropriate holiday greeting will be broadcast to the caller. The appropriate operation mode defined in the Holiday Operation Mode field in Department Definition will become active as well. After the holiday message is played, the defined department greetings will begin.

Holiday name

This is the ID number for the available schedule assignments.

Legal values: 1-16 characters

Default: None

Action: None

Date

This field determines the date of the related holiday.

Legal values: MM/DD

Default: 00/00

Action: Enter the desired month and day for this schedule number or select a day from the selection calendar.

Prompt

This is the prompt number to record for this particular holiday.

Legal values: 170-185

Default: None

Action: Record the appropriate prompts using the "To Record A Prompt" option in the Administrator's menu.

Name

These are the names for the holidays.

Legal values: 1-20

Default: None

Action: Enter the holiday name.

7.13 CID ROUTING

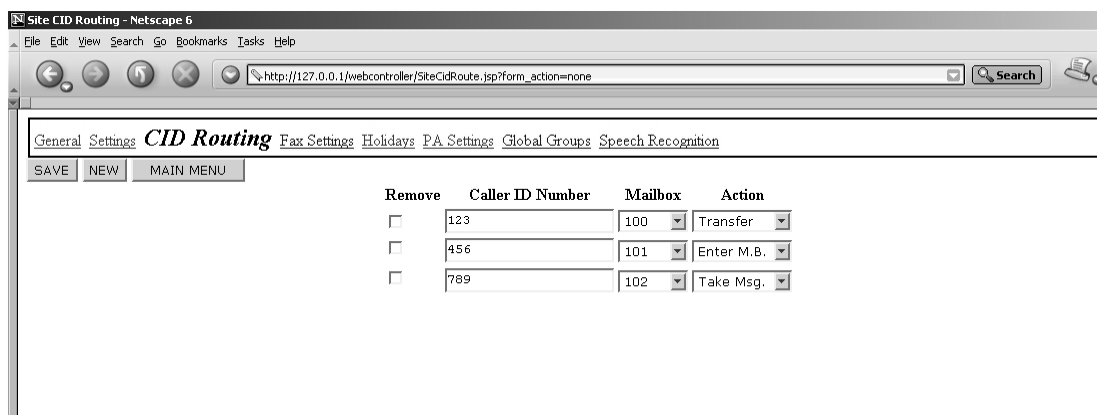


Figure 7-5 Site --> CID Routing screen

The CID Routing table allows you to route calls based on the caller ID information. You can use a complete number or a partial number (which includes only the area code, or area code + exchange).

You can bind each number in this table with a specific mailbox (which can also be a lead number for an ACD group or a script mailbox). You can also specify the type of action to be taken with this number. For example, you can define specific numbers to always be transferred to a mailbox to take a message, and other to be transferred to a live extension.

To add new numbers to this list:

- Click the **NEW** button.

To remove numbers from the list:

1. Check the **REMOVE** box.
2. Click **SAVE**.

The CID routing table is used in conjunction with the **Script** opcode CID Routing.

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Section 8

PBX PORT DEFINITION

8.1 GENERAL

Parameters [Integration](#) [Trunks](#) **Ports Definition**

PBX: Telrad

Port	Extension	Department	Receive Calls	Initiate Calls	Mode	Type	PBX Type
1		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
2		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
3		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
4		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
5		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
6		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
7		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
8		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
9		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
10		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
11		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
12		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
13		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
14		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
15		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx
16		1	Yes	Yes	AutoAttend	VOICE	Primary Pbx

Figure 8-1 PBX --> Port Definition screen

The Port Definition menu defines the **emaGEN** port parameters on the **PBX --> Port Definition** screen, as follows.

8.2 PORT PARAMETERS

Extension

This is the extension number to which the particular port is connected.

Legal values: 1-7 digits

Default: Blank

Action: Enter the related extension number

Department

This field determines which department files are played when a call is answered by **emaGEN**.

Legal values: 0-9
Default: 1
Action: select from the drop box.

Receive calls

This field determines if the port is allowed to receive incoming calls.

Legal values: Yes, No
Default: Yes
Action: Select from the drop box.

Initiate calls

This field determines if the port is allowed to initiate outgoing calls. You can specify for each port which type of callout activity it is allowed to perform: turn on/off message waiting lights (MWI), call out to pager, cell phone or any other external number (CallOut) or use the public announcement system (PA). If you select yes, the port is allowed to call out for any reason.

Legal values: Yes, No, CallOut, MWI, PA
Default: Ports 1, 2, 3 = No; Port 4 = Yes
Action: Select an option from the drop box.

Operation mode

This field determines whether the port will operate as a complete Automated Attendant and Voice Mail system (i.e. Transfer calls and take messages.) If defined as Officinal, it will function as a Voice Mail system only (i.e. Take messages only.)

Legal values: AutoAttend/Voicemail
Default: AutoAttend
Action: Select an option from the drop box.

Card type

This field determines if the port is voice dedicated, FAX dedicated, or combination voice/FAX. This information is important for the configuration of the fax-on-demand and fax mail options (See Fax Instructions).

- Legal values:* Voice, Voice + Fax, Fax only
- Default:* Voice
- Action:* Select from the drop box.

PBX type

This field determines which PBX configuration to use for each port. **emaGEN** can support two different PBXs per system.

- Legal values:* Primary PBX, Alternate PBX
- Default:* Primary PBX
- Action:* Select an option from the drop box.

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Section 9 PBX

9.1 THE PBX --> PARAMETERS SCREEN

Parameters Integration Trunks Ports Definition												
<input type="button" value="SAVE"/> <input type="button" value="MAIN MENU"/>												
PBX: Tetrad												
Dial Strings												
Transfer Sequence	<input type="text"/>	After Busy	<input type="text" value="&,"/>									
Outbound Calls Prefix	<input type="text" value="9"/>	After No Answer	<input type="text" value="&,"/>									
Direct Dialing To Extensions	<input type="text" value="1"/>	After Call Screening	<input type="text" value="&,,"/>									
Default Area Code	<input type="text"/>	Pick Up	<input type="text"/>									
		Paging Access Code	<input type="text"/>									
Signaling		Message Waiting Indicator										
<input checked="" type="radio"/> Tone <input type="radio"/> Pulse		<table border="1"> <thead> <tr> <th></th> <th>MWI on</th> <th>MWI off</th> </tr> </thead> <tbody> <tr> <td>A</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>B</td> <td><input type="text" value="1E&,763"/></td> <td><input type="text" value="1E&, #763"/></td> </tr> </tbody> </table>			MWI on	MWI off	A	<input type="text"/>	<input type="text"/>	B	<input type="text" value="1E&,763"/>	<input type="text" value="1E&, #763"/>
	MWI on	MWI off										
A	<input type="text"/>	<input type="text"/>										
B	<input type="text" value="1E&,763"/>	<input type="text" value="1E&, #763"/>										
Timers												
Flash timer	<input type="text" value="500"/> (1-999 milisec)	Wait for Dial Tone	<input type="text" value="2"/> (1-99 seconds)									
Normal Pause [,]	<input type="text" value="2000"/> (1-9999 sec)	No dial Tone Delay	<input type="text" value="5"/> (1-999 seconds)									
Extended Pause [;]	<input type="text" value=","/> (repeat commas)	Callout Delay	<input type="text" value="1"/> (1-999 seconds)									
Disconnect Detection												
Reorder Tone												
Silence On	<input type="text" value="50"/> (1-999 seconds)											
Silence Off	<input type="text" value="50"/> (1-999 seconds)											
Repetitions	<input type="text" value="3"/> (1-99)											
Silence												
Caller Detection	<input type="checkbox"/>											
DTMF												
Disconnect String	<input type="text" value="###"/>											
Dial Tone												
Max No Silence	<input type="text" value="15"/> (1-99 seconds)											
Conference Sequence												
Put First On Hold	<input type="text"/>											
Dial Second Line	<input type="text" value="9"/>											
Conference	<input type="text"/>											
Reconnect If Busy	<input type="text"/>											
Reconnect If No Answer	<input type="text"/>											
Mode												
<input type="radio"/> Supervised <input checked="" type="radio"/> Non Supervised												

Figure 9-1 PBX --> Parameters screen

9.2 GENERAL PBX PARAMETERS

PBX model

This field identifies the PBX system model.

Legal values: Telrad

Default: None

Action: None

Most parameters you will not need to change, as the default values are correct for the specific PBX.

A successful installation begins with a good PBX integration. There are several issues to be addressed when integrating with a PBX:

1. Proper Disconnect.
2. In-band integration information is in place.
3. Transfer to extensions is successful.

9.3 DISCONNECT

NOTE

In **unite** systems, disconnect is not applicable, and can therefore be disregarded.

To ensure ports are freed up immediately at the end of a call, a proper disconnect detection must be in place. Different PBXs report disconnect in different ways. On external calls, some PBXs will not detect the CO trunk disconnected and will not inform **emaGEN** on disconnect. This needs to be addressed when installing the system. You will know **emaGEN** received a disconnect when the line status goes back to Wait For Call at the **emaGEN** Monitor.

Here are the different methods PBXs report disconnect and how to accommodate them in **emaGEN**:

1. Loop drop – the easiest and fastest method to detect disconnect, the PBX will drop the current on **emaGEN**'s analog port. **emaGEN** will detect this automatically and hang up the port. In this case, no programming action is necessary. At the status display, you will notice the line goes back to Wait For Call **emaGEN** Monitor status immediately upon hang-up.

2. Disconnect string – Some PBXs will send a string of touch-tones immediately before dropping the call (but not necessarily drop the current).

To detect this string, in **PBX --> Parameters --> Disconnect Detection --> Disconnect string field**, enter the required string.

If the string is unknown to you, use a touch-tone grabber to detect the digits or consult technical support.

NOTE

The Micro detects a continuous noise. To trigger this mechanism, any noise with sufficient length will do. As a result, if this parameter is set to a low value, false disconnects will occur, especially if the caller speaks very fast (and has no interval between words, therefore generating continuous noise) or the caller is calling from an unusually noisy environment (for example, a street pay phone or a cellular phone).

If false disconnects occur, increase the value of the Max-Non Silence parameter.

3. Dial tone – After dropping the call, the PBX will put dial tone on the analog port of **eMaGEN**.

To detect this, in **PBX --> Parameters --> Disconnect Detection --> Dial Tone --> Max no silence field**, enter the number of seconds of dial tone after which **eMaGEN** should disconnect. 5 seconds is the recommended value.

4. No indication – In rare cases the PBX will not report disconnect to **eMaGEN**, and the line will simply turn silent. Since there is then no way for **eMaGEN** to know the line is disconnected, it will keep on playing until it times out. This usually will take up to 30 seconds.

To avoid “phantom” calls from getting to the attendant’s console, use the voice detection parameter (**PBX --> Parameters --> Disconnect Detection --> Silence --> Caller detection field**).

When voice detection checked, **eMaGEN** will require the caller to say “yes” before transferring to the attendant (only when no touch-tone was pressed at the main menu).

9.4 IN-BAND INTEGRATION

Most modern PBXs will send in-band touch-tones at the beginning of a call to instruct the voice mail system how to handle the call.

Check the **PBX --> Integration --> Integration Parameters --> Full integration support field**.

emaGEN will wait, either,

- a specified amount of time (**PBX --> Integration --> First timeout field**),

or

- for a specified amount of digits (**PBX --> Integration --> Integration Parameters --> Maximum protocol length field**),

whichever comes first, before playing the main menu.

If digits arrive within this period, **emaGEN** will process the digits according to the integration command table. With this table you can control what **emaGEN** will do upon digits received from the PBX.

Check that PBX integration is working properly by performing the following tests:

1. Press the voice mail key on a phone or dial the voice mail hunt group number.
emaGEN will answer and immediately ask you to enter password for the mailbox you called from. If you do not get the password menu, check the following:
 - a. The PBX is sending digits to **emaGEN** in the beginning of the call. Use a test set, a touch-tone grabber or the flow control screen.
 - b. A mailbox corresponding with the extension you are calling from exists.
 - c. There is an entry in the PBX integration commands for "Enter M.B."
 - d. If you are sure digits are being sent to **emaGEN**, check that the digits correspond with the "Enter M.B." command, and that you have EEE in the place of the extension number you are receiving (EEE corresponds with 3 digit mailboxes. For 2 digit extensions use EE, For 4 use EEEE).
2. Set an extension to forward calls to **emaGEN**. Dial that extension. Verify the call is forwarded to voice mail and you get the prompt: "Extension number ... is not available..." If you did not get into the mailbox to record a message, check the following:
 - a. The extension is forwarding to voice mail.

- b. The PBX is sending digits to **eMaGEN** in the beginning of the call. Use a test set, a touch-tone grabber or the flow control screen.
- c. A mailbox corresponding with the extension you are calling to exist.
- d. There is an entry in the PBX integration commands for "Take Msg."
- e. If you are sure digits are being sent to **eMaGEN**, check that the digits correspond with the "Take Msg." command, and that you have EEE in the place of the extension number you are receiving (EEE corresponds with 3 digit mailboxes. For 2 digit extensions use EE, For 4 use EEEE).

For more information on integration commands, see Section 8.9, Integration Parameters.

9.5 TRANSFER TO EXTENSIONS

The automated attendant transfers calls to extensions just like a single line phone would. It performs a hook flash, dials the extension number and hangs up immediately or after call progress monitoring, depending on the type of supervision (full or blind, determined in the class of service).

The transfer code is defined in the **PBX --> Parameters --> Dial strings --> transfer sequence field**, and will usually be "&," which means hook flash and pause. In some cases, if extra digits need to be dialed in addition to the flash hook, add them to this field. For example, if the voice mail needs to dial hook flash and then the extension followed by 1, set the transfer sequence to "&E1".

NOTE

Some PBXs need an extra digit to cancel automatic answer on an extension. It is necessary to cancel automatic answer, because, otherwise, the voice mail will not be able to take a message, in case no one answered the call.

If you are using full supervision mode, you will also need to tell **eMaGEN** how to reconnect the call if it was not answered. Define this in the Conference sequence section of the **PBX --> Parameters --> Conference Sequence --> Reconnect if no answer field**.

To define hook flash timer, set the:

- **PBX --> Parameters --> Timers --> Flash timer field** and
- **PBX --> Parameters --> Timers --> Normal Pause field.**
If the flash timer is not set correctly, transfers will result in a hang up.

To check call transfer, simply call the main auto attendant and press the mailbox number. **emaGEN** will transfer you to the extension. Make sure to pick up the extension and verify the call is connected.

If transfer is not working properly, check the following:

1. If you dialed a mailbox number and the system prompted you with “Incorrect entry” – check that the mailbox exists (Use the **Mailbox --> Properties** screen, to check this) and if it does not exist – create one; see Section 11.3.
2. If you dialed a mailbox number and you immediately went into voice mail – check that:
 - the mailbox has an extension number -- in the **Mailbox --> Properties --> Mailbox field**)
and
 - transfer is set to Yes -- in the **Mailbox --> Properties --> Transfer mode field**)
3. If the call is transferred to the extension, but when you answer the call the PBX drops it – make sure the:
 - **PBX --> Parameters --> Timers --> flash timer field**
and
 - **PBX --> Parameters --> Timers --> Normal pause field**
are both set properly; see Section 9.7.

9.6 MESSAGE WAITING INDICATOR

Message waiting light is activated by dialing a code to the PBX. In **PBX -> Dial Strings** you will enter the MWI on and off codes. There are two types of message waiting lights, but you will normally only use type A. Type B is an optional MWI sequence, for PBXs that require distinct codes for different types of telephone sets.

Other parameters you will need to set for MWI to work are:

In port definition, define which port is allowed to initiate calls. It is recommended to have only one port that dials out, to avoid call crashes (when a dial-out port receives an incoming call while trying to dial). This may cause MWI not to appear consistently.

For each mailbox, you will need to set the Message Waiting Indicator field, **Mailbox --> MWI (Message Light)**.

To check if MWI is working properly, leave a message in a mailbox and verify the MWI went on. Then enter the mailbox as a subscriber, delete the message and verify the MWI went off.

If MWI is not working properly, check the following:

1. The mailbox MWI field, **Mailbox --> MWI (Message Light)** is set to A.
2. In PBX Port Definition -- Section 8 -- you have defined a port allowed to initiate calls, and this port is within the active ports of the system.

If you see on the Status Display that the initiating port is displaying "Calling MWI" repeatedly but is not activating MWI, check the following:

1. The port defined to initiate calls has dial tone.
2. Try to activate MWI manually (by dialing the same MWI code set in the system through a test-set from the same port).
3. Increase the times in the following parameter fields under **PBX --> Parameters --> Timers**:
 - Wait For Dial Tone field,
 - No Dial tone delay field
and
Call out delay field.

9.7 DIAL STRINGS

Signaling

This field determines whether **emaGEN** will use DTMF tones or rotary pulsing for dialing calls.

Legal values: Tone/Pulse

Default: Tone

Action: Click the button for Tone or Pulse.

Transfer sequence

This is the sequence of characters that **emaGEN** uses to initiate the call transfer function.

Legal values: 0, 1, 2..9, *, #, &, / use "," for pause

Default: & ,

Action: Enter the required digit string to initiate transfers in the PBX.

Outbound calls prefix

This field is where you enter the digit or string of digits needed to access an outgoing trunk group.

Legal values: 0, 1, 2..9, * #, & / use ", " for pause

Default: 9

Action: Enter required string of digits.

Direct dialing to extensions

This field is where you enter the necessary digit string that **emaGEN** will use to dial an extension directly, such as for message notification when no message waiting indicator system is available.

Legal values: 0, 2..9, * #, & / use ", " for pause

Default: Blank

Action: Enter required string of digits.

Default area code

This field is where you enter the default area code for the location where **emaGEN** is installed. This information is required when **emaGEN** makes certain dialing decisions.

Legal values: Any valid area code.

Default: Blank

Action: Enter the area code for the installed site.

9.8 RECONNECT SEQUENCES

After busy

This field determines the digit sequence **emaGEN** will use to reconnect with a caller after receiving a busy signal during a transfer attempt.

Legal values: 0, 1, 2..9, * #, & / use ", " for pause

Default: & ,

Action: Enter the required digit sequence to reconnect to the caller.

After no answer

This field determines the digit sequence **emaGEN** will use to reconnect with a caller after receiving a no answer during a transfer at-

tempt.

Legal values: 0, 1, 2..0, * #, & / use "," for pause

Default: & ,

Action: Enter the required digit sequence to reconnect to the caller.

After call screening

This field determines the digit sequence **eMaGEN** will use to reconnect with a caller after the called station has refused to accept a screened call.

Legal values: 0, 1, 2..9, * #, & / use "," for pause

Default: & ,

Action: Enter the required digit sequence to reconnect to the caller.

Pick up

Some PBXs require a connect sequence after **eMaGEN** picks up to signal the connection is made. For this purpose we use the Pickup sequence.

Legal values: 8 characters

Default: None

Action: Enter pickup string.

Paging zone access code

This field is where you enter the paging zone code that **eMaGEN** dials when a caller selects the paging option.

Legal values: 0-9, *, or # / use "," for pause

Default: Blank

Action: Enter the desired paging zone access code.

9.8.1 Message Waiting Indicator

In certain PBXs, different types of telephones may be used, and for each type there is a different method of lighting the MWI. For this reason **eMaGEN** allows two different types of MWI.

Type A

These fields contains the PBX/KTS code used to turn the "A" Type

message Waiting Indicator; ON/OFF.

Legal values: [Light ON] Code
[Light OFF] Code
blank

Default: Blank

Action: Enter the required codes

These fields contains the PBX/KTS code used to turn the "A" Type message Waiting Indicator; ON/OFF.

Type B

These fields contains the PBX/KTS code to turn ON/OFF the "B" TYPE message lamp.

Legal values: [Light ON] Code
[Light OFF] Code
blank

Default: Blank

Action: Enter the required codes

Dialing Characters

To make the dial code generic, we use some characters to indicate certain parameters:

1. E or X: indicates the extension number to dial
2. M: Mailbox number
3. T: Total number of messages
4. N: number of new messages
5. S: number of saved messages
6. &: Flash
7. ,: Pause

Examples (Message Lamp Codes):

- 175E will dial the prefix 175 and then the extension number.
- E&,80 will dial the extension number, then flash, pause, then dial the code 80.

Legal values: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, *, #, &, "

Default: Blank

Action: Double click to change PBX type.

9.9 PBX TIMERS

Flash &

This field determines the time in milliseconds for **emaGEN** to use for a flash designated with this symbol (the ampersand) while processing a digit sequence.

Legal values: 1-999 msec

Default: Blank

Action: Enter the desired time period.

Pause ,

This field determines the time in milliseconds for **emaGEN** to use for a pause designated with this “,” (comma) in a digit sequence.

Legal values: 1-9999 msec

Default: Blank

Action: Enter the desired time period.

Extended pause ;

This field determines by the number of commas how long a flash is defined for “;”. In the field above, **emaGEN** is told how long in milliseconds each comma is.

Legal values: Commas

Default: Blank

Action: Enter the desired time period.

Wait for dial tone

This field determines how long **emaGEN** will wait for a valid dial tone on a call-out operation. If a valid dial tone is not received during this time period, **emaGEN** will abandon the current operation, wait for the time period programmed in **PBX Parameters -> Timers -> No dial tone delay** field, and then re-try the call-out operation.

Legal values: 1-99 seconds

Default: 1

Action: Enter the desired number of seconds for **emaGEN** to wait for a valid dial tone.

No dial tone delay

This field determines how long **emaGEN** will wait after a no dial tone

condition to re-try a call-out operation.

Legal values: 1-999 seconds

Default: 1

Action: Enter the desired waiting period before re-trying a call-out operation.

Call out delay

This field determines how long **e**maGEN will wait before re-trying to call out a number if the first attempt was unsuccessful.

Legal values: 1-999 seconds

Default: 1

Action: Enter the desired waiting period before re-trying a call-out operation.

9.10 DISCONNECT DETECTION

NOTE

In **unite** systems, disconnect is not applicable, so that disconnect detection can be disregarded.

Silence on duration

This field determines the silence on duration time period for disconnect analysis.

Legal values: 1-999 msec

Default: 0

Action: Enter the desired time period.

Silence off duration

This field determines the silence off duration time period for disconnect analysis.

Legal values: 1-999 msec

Default: 0

Action: Enter the desired time period.

Number of repetitions

This field determines the number of times the silence on/silence off

sequence must be repeated before **emaGEN** decides that the caller has disconnected.

Legal values: 1-99

Default: 0

Action: Enter the desired number of times to test the silent periods.

Max non silence duration

This field determines the time allowed for non-silence (i.e. Noise, particularly Dial Tone) to appear on the line before **emaGEN** disconnects. This is in order to distinguish between Disconnect and Speech.

Legal values: 1-99 seconds

Default: 0

Action: Enter the desired time period.

Caller detection

Some PBX systems do not indicate disconnect at all. In case the caller has disconnected at the beginning of the call, **emaGEN** can not know if there is a disconnect or the caller is not responding (if the caller is using pulse). Normally, **emaGEN** will transfer such a call to the no DTMF operator, defined in the **Department --> Properties --> No response mailbox** field.

To avoid disconnected calls to be received by the operator, the caller detection feature should be checked, in the **PBX --> Parameters --> Disconnect Detection --> Silence Caller detection** field. If this field is checked, **emaGEN** will prompt the caller to say yes, in order to speak to an operator. If there is still no response, the call will be disconnected.

Legal values: Y/N

Default: Yes (checked)

Action: Click the field to check or uncheck.

Disconnect string

This field determines the tones **emaGEN** recognizes as the signal from the PBX to disconnect the current call.

Legal values: 0, 1, 2...9, *, #

Default: PBX dependent

signaling, gives **emaGEN** information for processing the call.

For example, a digit string might tell **emaGEN** that the call is routed to voice mail from a busy or no answer extension (**emaGEN** will announce to the caller that the extension is busy/unanswered and offer available options). If a DTMF string is not received, **emaGEN** will play the normal Welcome message. There are 20 different string entry fields for a total of 20 different action options.

Legal values: Y/N
Default: N
Action: Click the field to check/uncheck.

Integration type

If you checked Full integration support, above, then in this field select whether the integration is a DTMF integration (the PBX sends Touch Tones to **emaGEN** to indicate the type of the call, e.g. busy, no answer, etc.) or RS232 serial integration, in which case the PBX signals to **emaGEN** through the RS232 port. If the RS232 integration is selected, specify further parameters in the **PBX --> Serial Integration** screen. For DTMF integration, indicate the sequences in this **PBX --> Integration** screen.

Legal values: DTMF/RS232
Default: Blank
Action: Select using the drop box.

First time-out

This field determines how long **emaGEN** should wait for DTMF signals to be sent when an incoming call is answered. If no DTMF digits are received during this time period, **emaGEN** will proceed to play the standard opening greeting for the department assigned to the port.

Legal values: 1-999 sec
Default: 2 seconds
Action: Enter the desired time period.

Maximum protocol length

This field determines the total number of digits that **emaGEN** will recognize as a valid DTMF digit string from the PBX.

Legal values: 0-40 digits
Default: 15
Action: Enter the required number of digits.

Interdigit delay

This field determines the amount of time allowed between DTMF digits. This timer is used when **emaGEN** is analyzing the incoming DTMF strings. Once **emaGEN** sees a period of time between digits that exceeds this value, it assumes that the PBX has stopped sending digits and will now act upon the DTMF information already received for processing the call.

Legal values: 1-999 sec

Default: 3 seconds

Action: enter the required time period.

Hunt group support

This field tells **emaGEN** if the telephone system ports are operating from a hunt group or are ringing simultaneously on incoming calls. This distinction is important. If the ports are set up as a hunt group, **emaGEN** will answer each incoming call as it comes in. If the ports are NOT set up as a hunt group, but are all ringing at the same time when the PBX directs an incoming call to **emaGEN**, the operation is different.

emaGEN will answer the first port that is open and ringing. It then delays answering all other ringing ports, by the amount of time specified in this field, so that the PBX will stop the ringing signals for that particular incoming outside call. After this short delay period, if the ports all ring again, **emaGEN** will then repeat this same action. This call handling sequence prevents the same incoming call from the PBX to be answered by more than one port.

Enter 0 if PBX/KTS has Hunt Group feature.

Legal values: 0-9 sec

Default: 0

Action: Select from the drop list.

9.11.1 DTMF Integration commands

emaGEN is capable of acting upon DTMF sequences sent by the PBX. You may program up to twenty (20) different codes which **emaGEN** will use to analyze these DTMF sequences and then use the information to process the call.

Protocol

Enter the DTMF digit string that **emaGEN** is expected to receive and act upon. In addition to actual digits, the following special characters may be used as part of the protocol:

- S - source digit(s)
- E - target extension digit(s)
- L - line (trunk) digit(s)
- ? – Caller ID digit(s)

See the string examples below to get a good idea of how these protocols are set up.

Legal values: 0, 1, 2-9, *, #, S, E, L, ?

Default: Blank

Action: Enter the correct DTMF protocol for the desired action choice.

DTMF String Examples:

- *****4EEE** (No Answer) Action
No answer from "EEE" destination extension number.
eMaGEN expects ***4 and three extension digits.
If the particular PBX has extension numbers of four digits, you should enter "EEEE" rather than "EEE" for three digit extension.
- *****3EEE** (Busy) Action
Busy at "EEE" destination extension.
- **5#SSS#EEE** (No Answer) Action
"SSS" (source/calling station) called "EEE" (destination/called station) and there was no answer.
eMaGEN ignores the source, which normally would be a C.O. line, and performs the action on the "EEE" destination station

Any PBX protocol format can be implemented for efficient full integration with the PBX/KTS.

Action

The entries in these fields instruct **eMaGEN** as to what action should be taken when the DTMF string to the left of this action is received.

Legal values: Pop-Up Menu

Default: Blank

Action: Use the drop box to select an action.

The following actions are available:

Busy

The caller will be sent directly to the message-taking menu for the mailbox which **eMaGEN** attempted a transfer to but received a busy condition.

No answer

The caller will be sent directly to the message-taking menu for the mailbox which **emaGEN** attempted a transfer to but received a no-answer condition.

Take msg.

The caller will be sent directly to the message-taking menu for the mailbox which **emaGEN** attempted a transfer to, but received a refusal such as a do-not-disturb signal.

Enter M.B.

The caller will be sent directly to get password prompt. This condition occurs when there is a MSG button set up on the subscriber's telephone set which may be pressed in order to immediately access **emaGEN**. This action will direct the subscriber immediately into the subscriber's menu.

Monitor

This action tells **emaGEN** to record whatever audio is currently present on the port as a new message in the designated mailbox.

Hang up

This action tells **emaGEN** to immediately hang up and release the port for new calls.

Hand shake

This action tells **emaGEN** that it has a valid connection with a given PBX. This string consists of two parts; the received string, comma and the return string.

Ignore

This action tells **emaGEN** to ignore the related series of digits if they are received.

Transfer

This action tells **emaGEN** to transfer the caller to the received extension, as if he entered through the caller menu.

Line

This action tells **emaGEN** to check in the **trunk integration table** which department corresponds with the received trunk, and prompt the caller according to this department's protocol.

Announce

This action tells **emaGEN** to play a message with the number received from the PBX and then hang up.

Getuser#

The user will be prompted to enter their mailbox number, as if dialing # from the main menu.

9.12 CONFERENCE SEQUENCE

The conference sequence is used to connect a caller to a subscriber in a remote location. The Automated attendant allows transfer of a call to a remote location instead of an external extension, defined in the **Mailbox --> Properties --> Follow me** field; see Section 11.5. The conference sequence, using the following parameters, puts the caller on hold, grabs another line, dials the remote telephone number and conferences the calls (normally the calls are conferenced within **emaGEN**, because most PBXs do not allow CO line to CO line conferencing without having at least one internal extension on the line -- this parameter is set in **Mode**). If the remote destination returns as busy or no answer, **emaGEN** uses the reconnect parameters to reconnect the caller back to the system.

Put first on hold

This field contains the sequence of digits that **emaGEN** must use to put the first caller on hold in the PBX in order to start the conference connection.

Legal values: 0, 1, 2..9, * #, & / use "," for pause

Default: Blank

Action: Enter the required digits.

Dial second line

This field contains the sequence of digits that **emaGEN** must dial in order to access a second dial tone while making a conference connection.

Legal values: 0, 1, 2..9, * #, & / use "," for pause

Default: Blank

Action: Enter the required digits.

Conference

This field contains the sequence of digits that **emaGEN** must dial to connect the held party with the second party that was just dialed.

Legal values: 0, 1, 2..9, * #, &, use "," for pause

Default: Blank

Action: Enter the required digits.

Reconnect if busy

This field contains the sequence of digits that **emaGEN** must dial to

reconnect the caller if a busy is received from the remote location.

Legal values: 0, 1, 2..9, * #, & / use ", " for pause

Default: Blank

Action: Enter the required digits.

Reconnect if no answer

This field contains the sequence of digits that **emaGEN** must dial to reconnect the caller if a no answer is received from the remote location.

Legal values: 0, 1, 2..9, * #, & / use ", " for pause

Default: Blank

Action: Enter the required digits.

Mode

The mode determines whether **emaGEN** will:

- a. stay on the line as a third party making a conference (Supervised).
- b. disconnect after connecting the two parties from within the PBX-CO line to CO line (Non Supervised).

Legal values: Supervised/Non-Supervised

Default: Non-Supervised

Action: Select Supervised or Non-Supervised mode.

9.13 TRUNK INTEGRATION TABLE

	Trunk	Department
1.		1
2.		1
3.		1
4.		1
5.		1
6.		1
7.		1
8.		1
9.		1
10.		1
11.		1
12.		1
13.		1
14.		1
15.		1
16.		1
17.		1
18.		1
19.		1
20.		1

Figure 9-3 PBX --> Trunk Integration screen

emaGEN has the ability to identify up to 64 different incoming trunk codes and use them to direct incoming calls to a specific department for processing. If the PBX has the capacity to send a code in the DTMF sequence, **emaGEN** will use this code to identify what department a given call is to be sent to. This functionality allows all ports to be non-dedicated, providing the most efficient use of the **emaGEN** system.

Trunk

This field is where the PBX code for a given trunk line is identified.

Legal values: 001-999

Default: Blank

Action: Enter the PBX trunk code for each incoming trunk.

Department

This field tells **emaGEN** what department to use when the related trunk code is received by **emaGEN**.

- Legal values:* 1-9
- Default:* Blank
- Action:* Select from the drop list.

9.14 RS232 INTEGRATION TABLE

Serial Integration				
	Com1	Com2	Com3	Com4
Active	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protocol	1. Internal	1. Internal	1. Internal	1. Internal
Channels	1 24	0 0	0 0	0 0
Baud Rate	9600	300	300	300
Parity	<input checked="" type="radio"/> None <input type="radio"/> Odd <input type="radio"/> Even	<input checked="" type="radio"/> None <input type="radio"/> Odd <input type="radio"/> Even	<input checked="" type="radio"/> None <input type="radio"/> Odd <input type="radio"/> Even	<input checked="" type="radio"/> None <input type="radio"/> Odd <input type="radio"/> Even
Stop Bit	<input checked="" type="radio"/> 1 <input type="radio"/> 2	<input checked="" type="radio"/> 1 <input type="radio"/> 2	<input checked="" type="radio"/> 1 <input type="radio"/> 2	<input checked="" type="radio"/> 1 <input type="radio"/> 2
Word Length	8	8	8	8
Xon / Xoff	70 30	70 30	70 30	70 30
Rx / Tx Size	1024 1024	1024 1024	1024 1024	1024 1024
DTR / RTS	1 1	1 1	1 1	1 1

Figure 9-4 PBX --> Serial Integration screen

emaGEN supports four different com ports, which can be set independently. The com port default is com1. Each of the following fields is applicable in all four com ports.

Active

This field determines if the port is available for data send and receive or it is idle.

- Legal values:* Checked/Unchecked
- Default:* Unchecked
- Action:* Click the field to check/uncheck.

Protocol

This field determines the protocol in which data will be received and should be sent.

The legal values of the options for different protocols are listed below.

<i>Legal values:</i>	<i>Internal</i>	For Integration with Telrad Systems.
	<i>ANI</i>	ANI protocol -- not used for eMaGEN . This should always be internal.
	<i>SMDI1</i>	SMDI protocol -- data without ring.
	<i>SMDI2</i>	SMDI protocol -- data before ring.
	<i>SMDI3</i>	SMDI protocol -- data after ring.
<i>Default:</i>	None	
<i>Action:</i>	Select from the drop list	

Channels

This field determines for which channels this com port is receiving data. **eMaGEN** can be set to receive data from different devices, each device corresponding to different channels (voice ports).

NOTE

It is necessary to assign 10 more channels than actual voice channels, as the system also uses virtual channels for some operations.

<i>Legal values:</i>	0 - Maximum number of channels
<i>Default:</i>	0 - 0
<i>Action:</i>	Enter channel numbers

Baud rate

This field determines the baud rate in which the signaling occurs.

<i>Legal values:</i>	above 300
<i>Default:</i>	9600
<i>Action:</i>	Select the baud rate from the drop list.

Parity

This field determines the parity of the data interchange. It can be None, Even or Odd.

<i>Legal values:</i>	N / O / E
<i>Default:</i>	N
<i>Action:</i>	Click the button.

Stop bit

This field determines the stop bit for the data interchange.

Legal values: 1 / 2

Default: 1

Action: Click the button.

Word length

This field determines the word length (in bits) for the data interchange.

Legal values: 7 / 8

Default: 8

Action: Select 7 or 8.

Xon / Xoff

This field determines transmission type.

Legal values: Xon / Xoff

Default: 70/30

Action: Use default unless specified otherwise by communication method.

Rx / Tx size

This field determines transmission capacity.

Legal values: 1024 / 1024

Default: 1024 / 1024

Action: Use default unless specified otherwise by communication method.

DTR / RTS

This field determines the signaling method.

Legal values: 1 / 1

Default: 1 / 1

Action: Use default unless specified otherwise by communication method.

Section 10 DEPARTMENTS

10.1 DEPARTMENT DEFINITION

Properties [Working Hours](#) [Directory Assistance](#)

Department: 1

Operation Mode

Normal

Holiday

	Day	Lunch	Night
Start with script	<input type="text"/>	<input type="text"/>	<input type="text"/>
Override integration with script	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No response mailbox	<input type="text" value="303"/>	<input type="text" value="303"/>	<input type="text" value="303"/>
Operator mailbox	<input type="text" value="303"/>	<input type="text" value="303"/>	<input type="text" value="303"/>
Rings before answer	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>

Language

Default

Alternate

Digit

Directory Mode

Normal

Prerecorded

List

Prerecorded only

List only

Conversion Table

1 <input type="text" value="383"/>	2 <input type="text" value="301"/>	3 <input type="text"/>
S <input type="text"/>	S <input type="text"/>	S <input type="text"/>
4 <input type="text"/>	5 <input type="text"/>	6 <input type="text"/>
S <input type="text"/>	S <input type="text"/>	S <input type="text"/>
7 <input type="text"/>	8 <input type="text"/>	9 <input type="text"/>
S <input type="text"/>	S <input type="text"/>	S <input type="text"/>

Figure 10-1 Department --> Properties screen

The Department definition is used to configure the automated attendant aspect of each department. In most cases you will use only one department, which will be the site's automated attendant.

The department activated for each port:

- is defined in the PBX --> Port Definition (“Department” Column on **PBX --> Port Definition** screen, see Section 7) or
- can be dynamically set using a PBX Integration Line command (on the **PBX --> Trunk Integration** screen, see Section 8.11).

NOTE

If a call comes in and integration information sent by the PBX routes the call to a specific mailbox, the main automated attendant will not be activated.

The automated attendant greetings and routing are time sensitive. The operation mode determines which greeting to use and which operator and no response mailbox to use at any given time. The operation mode can be set automatically – using the working hours table or can be fixed at any given mode.

When setting up a system, you will need to record the automated attendant greetings. These greetings are not mailbox numbers – rather they are simple prompts, recorded through the system administrator mailbox.

10.1.1 Recording system greetings

1. Enter the administrator mailbox designated in **Site --> Settings**.
2. Press # for administrator menu.
3. Select option 2 – record a prompt.
4. Enter the greeting number to be recorded and follow the instructions.

The greetings to be recorded are:

- 100 – good morning
- 101 – good afternoon
- 102 – good evening
- 111 – Company greeting (“Thank you for calling ...”)
- 121 – Instructions (“With a touch tone phone... Press 1 for...”)

For a full description of the prompts refer to Section 16, below.

For system administrator instructions refer to Section 15, below.

10.1.2 Conversion table

After recording the system prompts, you will want to create a corresponding routing scheme.

While the user is listening to the automated attendant greeting, you want to provide them with one-touch dialing in addition to the ability to dial a mailbox number or press 0 to reach the operator.

The one-touch dialing is defined in the conversion table.

For each digit option you want to use as a one-touch number, assign a mailbox number -- in the **Department --> Properties --> Conversion Table**.

The automated attendant will execute the routing to this mailbox.

NOTE

You can use any number in the conversion table, regardless of the mailboxes numbering scheme. For example, if you have mailboxes starting with the digit 3 -- you may also use the digit 3 in the conversion table.

The system will wait for the maximum number of digits allowed for a mailbox (defined in Mailbox length field, under the Security heading of the **Site --> Settings**).

If it receives all digits -- it will try to open a mailbox. Otherwise, it will try to convert the entered digit according to the conversion table.

10.1.3 Using a script instead of the standard automated attendant

In some cases when a more sophisticated automated attendant tree is required, you can override the standard automated attendant that uses the conversion table and the external prompts and use a script.

Set the **Department --> Properties --> Start with script** field to the designated script.

The system will automatically start with the script without playing any of the external prompts.

10.2 DEPARTMENT --> PROPERTIES GENERAL SETTINGS

Department Number

This is the field that determines which Company, tenant or department is going to be defined.

Legal values: 1,..9

Default: 1

Action: Enter department/tenant number.

Normal operation mode

These fields determine which mode the selected department will operate in Normal conditions. Each mode can contain different main greetings, different operators and different script routings.

When in Automatic mode, **emaGEN** responds by routing the calls according to the internal clock and the working hours table described below.

When set manually for Day, Night, Lunch or Emergency Mode, **emaGEN** routes the calls based on the specific set of instructions for the current operating mode.

Legal values: Day, Night, Lunch, Automatic, Emergency

Default: Automatic

Action: Select from the drop box.

Holiday operation mode

Refer to above Normal Operation Mode. The entry in this field will go into effect based on the Holiday schedule **Site -> Holidays**.

Legal values: Day, Night, Lunch, Automatic, Emergency

Default: Automatic

Action: Select from the drop box.

Start with script - Day/Lunch/Night

emaGEN will start executing this script instead of playing the normal main menu. This option allows for complex menus.

The **override integration with script** will force the system to answer **every** call with a script, even if the call is received internally with integration.

Legal values: any valid script mailbox number in system

Default: Blank

Action: Select from the drop box – only valid script mailboxes will be displayed.

No response mailbox - Day/Lunch/Night

This field is used to tell **emaGEN** where to transfer a caller who does not or cannot respond to an **emaGEN** prompt with DTMF tones. For example, if the caller is not calling from a Touch Tone telephone. Leaving this field empty causes **emaGEN** to hang up on the

caller.

Legal values: any mailbox number in system

Default: Blank

Action: Select from the drop list.

Operator mailbox - Day/Lunch/Night

This field contains the Operator's mailbox number. The extension number of the operator should be entered when defining this mailbox (in **Mailbox administration**), and so when a transfer to an operator is requested, **eMaGEN** tries the extensions specified for this mailbox (in case there is more than one extension specified, **eMaGEN** will try all the specified extensions).

Legal values: any mailbox number in system

Default: Blank

Action: Select from the drop box.

Rings before answer Day/Night

This field determines the number of times the port receives ringing before **eMaGEN** will answer. Use the arrow keys to move between the Day/Night fields.

Legal values: 1-9 / 1-9

Default: 1/1

Action: Enter the number of rings for day/night mode.

Language default/Alternate

This field determines which languages are used by **eMaGEN**. The choices in this field determine which language is the default one and which language is the alternate one. If an alternate language is used, in addition to a default language, the entry in the next field will determine an activating digit.

Legal values: Language default/Alternate Language

Default: English/English

Action: Select from the drop box.

NOTE

In order to make the system truly multi-lingual, all **eMaGEN** prompts should be recorded in the desired languages.

Language digit

If an alternate language is being used, any time while listening to the opening message a caller can select this digit and toggle between the two languages.

NOTE

It is important to make mention of this digit when recording the opening message.

WARNING

Do not conflict with other entries in the conversion table!!!

Legal values: 1..9

Default: 7

Action: Select from the drop box.

10.3 DEPARTMENT --> PROPERTIES DIRECTORY MODE

Play directory

These fields are used to control the directory assistance list feature. In addition to the lookup directory assistance, in which a caller can dial the digits of the party's name, **emaGEN** also contains an option to play the entire list of mailbox owners and their mailbox number. After pressing the Directory assistance key field (usually **9** - or as selected in **Site --> Settings --> Special Keys**), the caller may press **#** to listen to the list. This option can be used in two ways:

- **Pre-recorded file:** The system administrator can record a file for each department (291.eng for department 1, 292.eng for department 2 etc.). This file contains the recording of the list of names and mailbox numbers of all department members.
- **List:** **emaGEN** plays the list of names of all mailboxes and the mailbox number according to the internal database. Owners who wish not to be included in the list may enter a space before the first and last name in **Mailbox administration**, and **emaGEN** will skip their name when playing the list.

To deactivate the directory assistance and use only a pre-recorded list of names, use the **Prerecorded only** option. As soon as **9** is pressed for directory assistance, the directory list is played. If the **List only** option is selected, the system will automatically play the mailbox list.

When using the **Normal** option, the caller will be prompted to enter

a three digit entry. The # key will not be active.

When using the **Prerecorded** and **List** options, the caller will be prompted to enter a three digit entry or press the # key to listen to a list of names.

When using the **Prerecorded only** and **List only** options, the caller will hear a list of names. There will be no further input of digits.

Legal values: Normal, Prerecorded, List, Prerecorded only, List only

Default: Normal

Action: Click the button.

10.4 DEPARTMENT --> WORKING HOURS

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Open	05:00 AM	08:00 AM	08:00 AM	08:00 AM	08:00 AM	12:00 PM	12:00 PM
Lunch start	05:00 PM	12:00 PM	12:00 PM	12:00 PM	01:00 PM	12:00 PM	12:00 PM
Lunch end	12:00 PM	12:00 PM	12:00 PM	01:00 PM	01:00 PM	12:00 PM	12:00 PM
Close	05:00 PM	05:00 PM	05:00 PM	05:00 PM	05:00 PM	12:00 PM	12:00 PM

Figure 10-2 Department --> Working Hours screen

Opening

This is the time that the Day Mode starts.

Leaving this field with an entry of 00:00 tells **emaGEN** to stay in previous operating mode continuously.

Legal values: 12:00AM – 11:59 PM

Default: 08:00 AM

Action: Select a time.

Lunch time

This is when the Lunch period begins. If not used, enter 12:00AM.

Legal values: 12:00AM – 11:59 PM

Default: 12:00AM

Action: Select a time.

Lunch over

This is the time that the Lunch period ends.

Legal values: 12:00AM – 11:59 PM

Default: 12:00AM

Action: Select a time.

Closing

This is the time that the Night Mode starts.

Legal values: 12:00AM – 11:59 PM

Default:

Action: Select a time.

10.5 DEPARTMENT --> PROPERTIES CONVERSION TABLE

[1], [2],...[9] -- Single digit dialing

Each of these fields instructs **e**maGEN to transfer the call to a specific mailbox or script mailbox in response to a single digit keyed by the caller. The conversion table is used in conjunction with the Conversion table timeout field (**Site --> Settings --> System Parameters**). If the time-out is reached after one digit is pressed, **e**maGEN checks the conversion table to verify the digit has a corresponding mailbox.

Application: You can direct callers to special application files, created using the system application generator (the “Gen”).

Legal values: Any valid mailbox number

Default: Blank

Action: Select from the drop box.

10.6 DEPARTMENT --> DIRECTORY ASSISTANCE

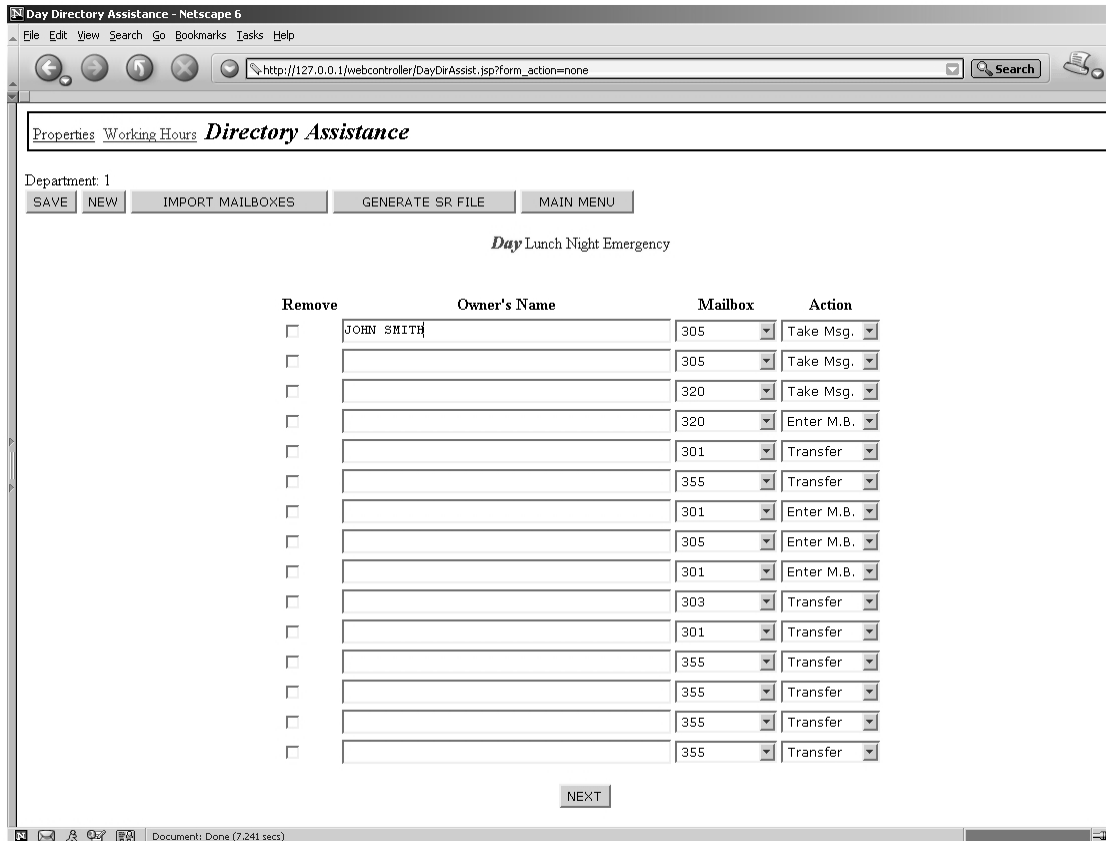


Figure 10-3 Department --> Directory Assistance screen

The Directory Assistance screen is used for two purposes:

- Speech recognition Automated Attendant
- Key Press Directory Assistance

Names can be imported from the mailbox list, and you can also enter new names into this list and associate them with mailboxes.

10.6.1 Speech recognition automated attendant

You can define for each name in this table, based on the operation mode of the system, to which mailbox the call be routed and in which manner.

Use the action field to determine if the call should be transferred to the owner's extension, take a message for this mailbox or enter as an owner.

For example, you can define that upon recognition of the word "Jim" the call will be transferred to mailbox 102, upon recognition of the

words “message Jim” the call will be transferred to mailbox 102 to leave a message, and upon recognition of the words “user Jim” the caller will be prompted to enter the password in mailbox 102.

You may define multiple names pointing to the same mailbox. By this you can have the same user be accessed through their first name, last name or any combination as well as nicknames or department names.

10.6.2 Key press directory assistance

When callers request the directory assistance feature, **emaGEN** checks this table for matches. Only the Day table is used for Key Press Directory Assistance, and the Action field does not play a part.

You may define multiple names pointing to the same mailbox. By this you can have the same user be accessed through their first name, last name or any combination as well as nicknames or department names.

10.6.3 Adding and removing names

To add a new name:

1. Click the **[NEW]** button.
2. Add the required name.

To display the full list of names:

- Click the **[SAVE]** button.

To get existing names from the mailboxes of the current department:

- Click the **[IMPORT MAILBOXES]** button

To remove a name:

1. Click the **Remove** check box alongside the name.
2. Click the **[SAVE]** button.

To remove all names:

1. Click the **Clear All** hyperlink.
2. Click the **[SAVE]** button.

10.7 SETTING UP SPEECH RECOGNITION

NOTE

In order to assure proper functioning of the Speech Recognition feature, it is recommended that adequate memory be installed in the **emaGEN-PC**.

128 MB memory should be added to an **emaGEN-PC** with an initial memory of 128 MB, for every four additional voice ports installed in the system -- when upgrading from the initial four voice ports.

Speech recognition works by training the system to recognize names and pronunciations. It is speaker independent, so you only need to train the system once for each name. However, in some cases accents can influence the recognition and it is recommended to train the system specifically for those names that are not recognized with the original accent.

There are three steps to setting up the speech recognition engine:

1. Defining all the names the system is to recognize.
2. Recording the names and adding to the pronunciation table.
3. Defining for each recognized name:
 - which mailbox it corresponds to and
 - by which method to open that mailbox.
See Section 10.6.1.

10.7.1 Defining names

From any of the **Site Parameters** screens, click the **Speech Recognition** folder link.

The Speech Recognition screen -- shown in Figure 10-4, below -- appears.

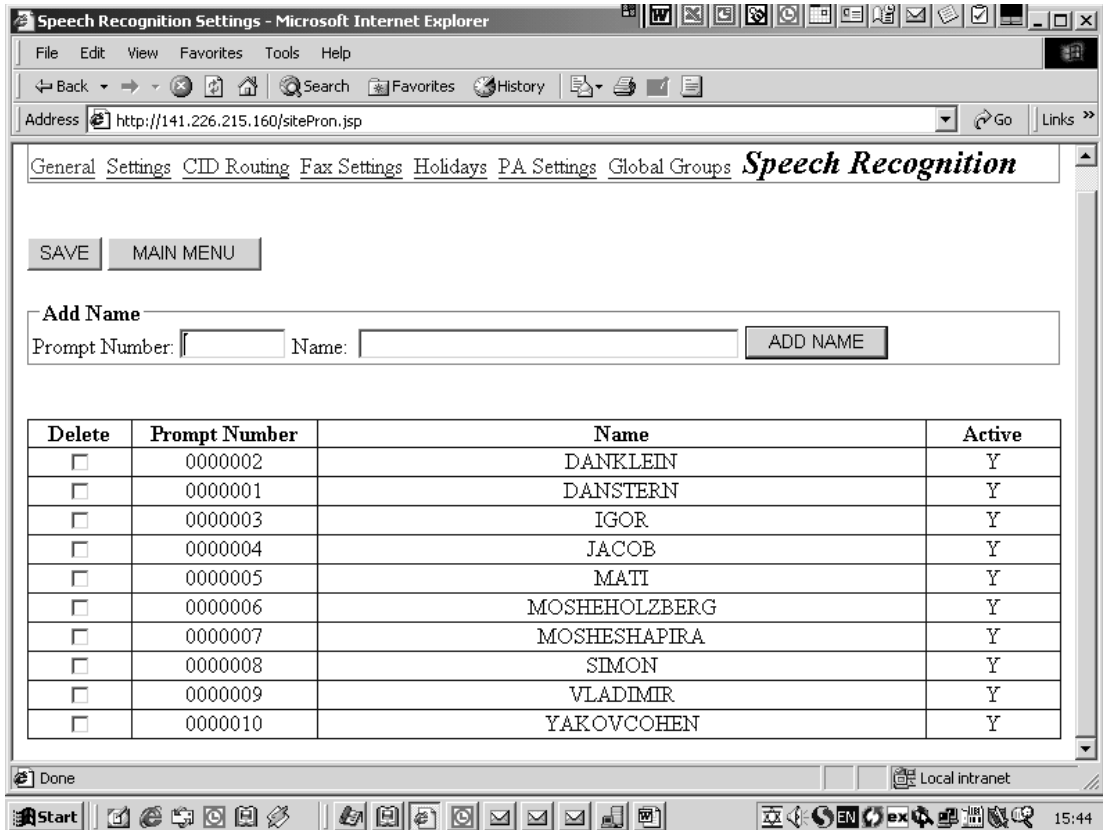


Figure 10-4 Site --> Speech Recognition screen

On this screen, you can add and remove names to/from the list. Add all the names you would like to add to the pronunciation list.

Each name corresponds to a prompt number, which you use to record the name through the phone (see Section 10.7.2, below). Names should be entered without spaces.

Examples:

- To add the name "John" to the table, select a prompt number and type:

JOHN

- To add the name "John Wayne" to the table, select a prompt number and type:

JOHNWAYNE

- To add the expression "User John" to the table, select a prompt number and type:

USERJOHN

10.7.2 Adding names to the pronunciation table

1. Call into the system and enter as an administrator.
2. Select option 9 from the administration menu – Speech recognition.
You will then be prompted to enter a file number. These numbers correspond to the numbers you entered in the Directory Assistance table in Section 10.6, above.

After selecting the file number, you can record it, add to pronunciation file, remove from the pronunciation file or listen to the name you recorded.

3. First record the name
and then
-- press 2 to add the name to the pronunciation file.
The system will confirm the name was added successfully or wasn't added.
4. If the name was not added (this may be due to an unclear pronunciation):
-- rerecord it
and
-- try to add it again.

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Section 11

MAILBOX

11.1 MAILBOX MAINTENANCE

The most basic element of the system, the mailbox, is created and maintained thru the Mailbox --> Properties screen, shown in Figure 11-1, below.

Properties [Conversion Table](#) [Message Notification](#) [Script](#) [Email Settings](#) [POP3 Accounts](#) [Email Reply Settings](#) [Forwarding Options](#) [Groups](#)

Mailbox:

MWI: A B C R N MWI2: A B C R N

Special MWI: Active On: Off:

Department: Ext. 1:

Class: Ext. 2:

Type: Ext. 3:

Password: Transfer Mode: Yes No Day Announce Call

Last Name: Call Screening:

First Name: Follow Me:

Call Record Timer: (0-999 seconds) Unlimited

Message Monitor Duration: (0-999 seconds) Unlimited

Mailbox Language:

Fax DID: PA Paging Mode: None Always Night Day

Copy To: Delay (0-999 minutes) Priority Regular Confidential Reply Fax E-Mail System Group

Wake Up
 Hotel Normal
 Week Days Time: : :
 Week End Time: : :

Figure 11-1 Mailbox --> Properties screen

11.2 ESSENTIAL FIELDS TO SET WHEN CREATING NEW MAILBOXES

- *Department*: Make sure you use a valid department number.
- *Extension number*: By default, the first extension number is similar to the mailbox number.
- *Class of Service*: Make sure you enter a valid class of service.
- *Last/First Name*: This will identify the mailbox to callers using the directory assistance feature.
- *Message Waiting Indicator (MWI)*: Select the type of message waiting indicator – most digital phones need the A type. For phones without MWI, use the R type.
- *Transfer Calls*: Select Y if this is an active extension, or N to send calls directly to voice mail.

To move between mailboxes you can use one of the following options:

- Enter the number of mailbox you want to access in the mailbox field and press R.
- Click the **[NEXT]**, **[PREV]**, **[FIRST]** and **[LAST]** buttons in the mailbox toolbar -- at the top of the Mailbox screens, below the various folder titles -- to move forward, backward, first or last.
- Double click a mailbox number from the list on the side of the screen.

11.3 CREATING A MAILBOX

To add a single mailbox:

1. Click the **[NEW MAILBOX]** button -- in the Mailbox toolbar of the **Mailbox --> Properties** screen. The Mailbox Toolbar is shown in Figure 11-2, below.

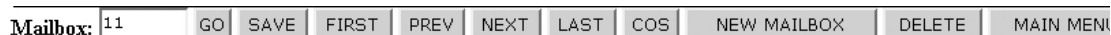


Figure 11-2 Mailbox Toolbar

The Create New Mailbox screen appears -- as shown in Figure 11-3, below.

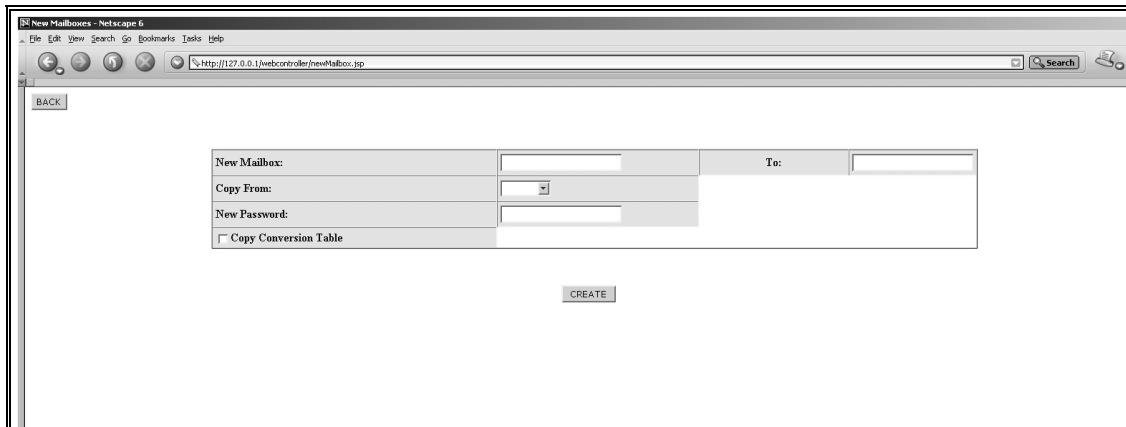


Figure 11-3 Create New Mailbox screen

2. Fill in -- on the Create New Mailbox screen -- the number of the "New Mailbox" you want to create.
3. Select -- in the "Copy From" field drop box -- the number of the existing mailbox from which you want to copy the information for the new mailbox.
4. Check the "Copy Conversion Table", if desired.
5. Fill in the "New Password" for the new mailbox.
6. Click the **[CREATE]** button.
The new mailbox is created and saved in the database.

To add multiple mailboxes:

1. Repeat steps 1 through 4, above, for creating a single mailbox.
2. Enter a value in the "To" field.
3. Fill in the "New Password" for the first of the new mailboxes.
4. Click the **[CREATE]** button.
The new mailboxes are created and saved in the database.

11.4 MAILBOX PROPERTIES FIELDS

Mailbox No.

This entry identifies the user's mailbox and typically (though not required) is the same as the user's extension number.

Legal values: 1 to 7 digits

Default: Blank

Action: Select a mailbox number by one of the options in Section 11.2, above.

Message Light

This field controls the message waiting light for each mailbox. There are three different message light methods you can use for each mailbox:

- A - use the codes programmed for type A fields in **PBX -- Parameters --> Dial Strings --> MWI**; see Section 9.6.1.
- B - use the codes programmed for type B fields in **PBX -- Parameters --> Dial Strings --> MWI**; see Section 9.6.1.
- R - ring the primary extension (1) of the mailbox at the interval set in the corresponding COS. This selection is often used when the phones have no MWI.
- N - disables message indication for the mailbox.

You can use type A or type B if certain extensions need a special message light sequence or in networked switches. You can program the MWI code -- in **PBX -- Parameters --> Dial Strings --> MWI** -- to send either the extension number or the mailbox number, as well as the number of messages in the mailbox.

Message waiting indication light is sent to the extension specified in Ext. 1 field on this screen. See explanation of Ext.1 in Section 11.5, below.

Legal values: A / B / R / N

Default: A

Action: Click a button to select method type.

MWI2 -- 2nd Message Light

You can light an MWI for an additional mailbox. This is useful when there is a need to light a MWI for the mailbox's owner and also for the secretary, who has a different extension number.

Legal values: A / B / R / N

Default: N

Action: Enter up to a 7-digit mailbox number for MWI indication at a specific extension, and
Click a button to select method type.

Special MWI

You can light a message waiting indicator with a custom code. Check the Active check box and enter the digits you would like the system to dial for MWI on and MWI off.

This code will be used in addition to the first MWI and second MWI, unless they are explicitly disabled -- by being set to N.

Legal values: check / uncheck;
Default: unchecked
Action: Enter up to a 7-digit mailbox number for MWI ON and /or MWI OFF at a specific extension.
Click the Active check box to activate or deactivate the special MWI.

Department

This field relates the mailbox to a specific department, thereby giving the mailbox certain department properties, including the operator number, working hours and the department main menu. When a caller exits a mailbox (For example: after leaving a message and pressing a key to save it, or when accessing a message only mailbox and listening to its greeting), they will return to the main menu of the department.

Legal values: 1 to 9
Default: 1
Action: Select a department from the drop list.

Class of Service

This field shows the current Class of Service that has been assigned to this particular mailbox. It is through this field that you can assign different levels of features and privileges to the mailbox owner. Since you can assign different class of service, you can assign different privileges to different mailbox owners.

Legal values: 001 to 999
Default: 001
Action: Select class of service from the drop box.
You can click the **[COS] button** on the toolbar, to edit class of service parameters.

Mailbox Type

This field determines the type of mailbox:

- *Message mailbox*
Message mailbox is the simplest type of mailbox. This mailbox can receive messages and transfer calls to extensions. It has all the **eMaGEN** features, such as message notification, sending messages to other owners or groups, paging etc.

- *Script mailbox*
A script mailbox can contain pre-programmed sets of instructions that control a caller's options while they are in the mailbox. It is possible to create custom applications with relative ease, by utilizing simple scripting tools available in a menu. Either the system administrator or the system installer can perform this programming. See Section 14, Scripts, for more information.
- *Administrator mailbox*
An Administrator mailbox is a regular message type mailbox, with the additional privilege of having access to the administration interface.

This mailbox type is to be assigned to a person responsible for system administration. Some of the tasks being performed by the administrator are: changing operation modes, resetting passwords, recording greetings, defining group lists and changing system time. See Section 15, The System Administrator, for more information.

If a mailbox is defined as an Administrator mailbox, the mailbox owner enters the administrator menu by pressing the # key after the mailbox password, .

- *AMIS mailbox*
An AMIS (Audio Messaging Interchange Specification) Mailbox is used for message exchange between different voice mail systems.
- *Hotel mailbox*
A Hotel mailbox is a limited features mailbox, customized for hotel guests.

Legal values: Message, Script, Administrator, AMIS, Hotel

Default: Message

Action: Select mailbox type from the drop list.

Password

This is a display-only field which shows the password entered by the mailbox owner. The number of password digits allowed in the system is set in the **Site --> Settings --> Security --> Password length** field.

Legal values: Up to 9 digits

Default: 1234

Action: None -- display-only field.

Last Name

This field is where you enter the mailbox holder's last name, or a specific department name, such as Accounting.

Legal values: Up to 19 characters

Default: Blank

Action: Enter the desired mailbox holder's name.

First Name

This field is where you enter the mailbox holder's first name.

Legal values: up to 10 characters

Default: Blank

Action: Enter the mailbox holder's first name.

NOTE

The Directory Assistance feature is programmed in Section 10.6 under Departments. You can import the names from the mailbox table into the directory assistance table. Only names which appear in the directory assistance table will be included in the list.

When using directory assistance, the system will only read-out the mailboxes with their name recorded. A mailbox which matches the search digits, but whose name is not recorded, will be disregarded.

Call record timer

Some PBX's allow for a user to record calls by pressing a key. This timer defines the duration of a conversation that can be recorded. The range is between 1 and 999 seconds. Click the unlimited check box for unlimited record time.

Legal values: 0 to 999 seconds

Default: Unlimited

Action: Enter the number of seconds for call record.

Message monitor duration

Some PBX's allow for a message monitor function. The message monitor (also known as "Answering machine emulation") allows the owners to screen messages left in their mailboxes and access a caller out of voice mail by pressing a key. This timer defines the duration in which the message will be heard over the user's speakerphone. The range is between 1 and 999 seconds. Click the unlimited check box for unlimited monitor time.

Legal values: 0 to 999 seconds

Default: 15 seconds

Action: Enter the number of seconds for messages to be heard over the speaker, or, click the unlimited check box -- for unlimited monitor time.

Language

You can set a default language for each user. This is the language of the prompts users will hear when calling into their mailbox. If this field is empty, the user will hear the language which the department he entered through is set to.

Legal values: Available languages

Default: Blank

Action: Select a language from the drop box.

Fax DID

For inbound fax messages, you may define a DID number associated with the mailbox. An incoming fax to this number will be automatically stored in the mailbox.

Legal values: DID number

Default: Blank

Action: Enter the mailbox Fax DID number.

Copy To / Delay / Type

This field is where you may enter a destination mailbox to which any message left in the originating mailbox will be copied. When retrieved from the target mailbox all copied messages will announce "message from mailbox number [x]" (or message from the recorded name for the originating mailbox).

By default, only priority messages are copied to the "Copy to" mail-

box. However, you can specify other types of messages by checking the different message type option fields.

You can define a delay timer, after which the message will be copied. If the message was heard by the mailbox owner before this timer expires, the “copy to” operation will be cancelled for this message.

Applications: A sales manager wants to have a copy of all messages left in a salesperson's mailbox copied to his mailbox for later review and follow-up. More than one mailbox can be assigned for an extension. By copying the messages, it is possible to consolidate them to one mailbox, thus avoiding checking multiple mailboxes.

Legal values: Mailbox / 0 to 999 Minutes

Default: No entry

Action: Select a copy to mailbox from the drop list.
Enter copying time delay in Delay field.
Check/uncheck message type check boxes to select/cancel message types to be copied.

11.5 TRANSFER CALLS

Ext. 1/2/3

NOTE

This is the only entry that refers to the actual extension number.

emaGEN will attempt to transfer a call to a total of three physical extensions. This is a feature referred to as cascading.

The first entry of the three fields is defaulted to match the mailbox number. You may change this to another extension number if you like, or you may leave it empty, if it is not to transfer to an extension at all.

If more than 1 extension is entered here, **e**maGEN will try the next extension in the list. If **e**maGEN tries all three extensions and all are either *busy* or *no answer*, the caller will be offered the option to leave a message.

The cascading feature is very useful in situations where a person often spends time in more than one location on site (such as at a desk, in the warehouse and at a loading dock), and wishes to receive calls

before they end-up in the voice mailbox. In this case, **emaGEN** will serve as an attendant trying to locate the called party within the site.

NOTE

In order to enable a transfer to more than one extension, the transfer supervision field for this mailbox in Class of Service must be set to Full. See **Class of service --> Incoming Calls --> Transfer Supervision**, Section 12.3.

Legal values: 1 to 7 digits

Default: Field 1 - same as mailbox number
Field 2 - no entry
Field 3 - no entry

Action: Enter the extension number/s for this mailbox.

Transfer Mode

This field tells **emaGEN** whether or not to attempt to transfer calls to the physical extension/s related to the current mailbox. If set to N, and a caller dials this mailbox number, the mailbox owner's greeting will immediately be heard and the option to leave a message will be given to the caller.

When several mailboxes use the same extension, and to avoid confusion regarding who the call is for, you may use the Announce option in this field. Set the parameter to A, and when the call is transferred, **emaGEN** will announce the name of the owner (unlike Call Screening, where **emaGEN** announces the name of the caller), before actually connecting the call. This way, the users know to whom the call is intended.

In case a user wants calls to go through to the extension, during work hours, and directly to the mailbox, during off hours, set this field to Day. The system will check in the department definition time table, and transfer to the extension -- during daytime, and to the mailbox -- during night time.

Legal values: Y / N / A / D

Default: Yes

Action: Click a button to select the mode.

Call Screening

This field controls whether or not the mailbox will screen calls for the mailbox owner. If checked, callers are prompted to identify them-

selves. After having recorded the caller's name, **eMaGEN** calls the mailbox owner and plays it back to the mailbox owner. The mailbox owner now has the option of accepting the call or refusing it. If the call is refused, the caller is notified by the system that the party is not available, then given the option to leave a message.

Call screening is used for external call forward and follow me.

NOTE

This field only pertains to switches without a PBX-side call screening.

Legal values: Y / N

Default: N

Action: Click the box to check or uncheck.

Follow me

This pair of fields show whether or not the follow me (remote conference) feature has been activated. This option supercedes the transfer to extension feature. That is, if the mailbox owner has activated the follow me feature by checking this field and entering a remote telephone number, the **eMaGEN** auto attendant will try the follow me number instead of the internal extension.

This feature can be activated/deactivated by the owner through the telephone interface, and the number can be changed as well.

NOTE

The follow me functionality can be disabled in Class of Service. The maximum length of the follow me number is also determined in Class of Service. If the number entered has more digits than allowed in Class of Service, the follow me operation will not be performed.

Legal values: Unchecked/Unchecked

Default: Unchecked

Action: Click the box to check or uncheck follow me, and enter a telephone number where the mailbox owner can be reached. You do not need to enter a code to dial out – **eMaGEN** will use the code in the field defined in **PBX --> Parameters --> Dial Strings**.

PA paging mode

This field controls whether the mailbox owner initiate a call announcement over the PA paging system. This feature can be used at all times (Always) or only during night mode (Night). If this feature is permitted, the procedure will occur as follows:

- Upon a "Ring-No-answer" condition, a caller is notified that the called party does not answer.
- The caller is offered an option to page the called party.
- The **emaGEN** system seizes another **emaGEN** port and dials the code from the **PBX Parameters --> Dial Stings --> Paging zone access code** field.
- **emaGEN** announces the mailbox holder's name (or extension number if a name is not recorded) and asks the mailbox holder to dial the Voice Mail pilot number -- as defined in the **Site --> General --> Voice mail hunt group number** field -- and then dial ##.
- Upon the mailbox owner's response, **emaGEN** prompts to enter the extension number where he/she is located and then to hang-up.
- **emaGEN** transfers the caller to the extension that was entered by the Mailbox owner.

Legal values: None / Always / Night

Default: None

Action: Click the button to select.

11.6 WAKE UP CALLS

Wake Up Call N/H Weekday-Y/N Weekend-Y/N

A mailbox can be programmed to make wake-up calls (weekday/ weekend). The weekday time will be active for the days that have been defined as weekdays in **Site --> Settings --> System Parameters --> Weekday** definition field. Days not defined as a weekday will be considered weekend days.

The first field determines the type of wake up call. The two types are:

- *Normal:* The system makes a wake up call every day (weekend or weekday) until de-activated by the mailbox owner.
- *Hotel:* The system makes a wake up call only once, and than de-activates the feature. This mode is for hotel use, where a guest

requests a one-time wake up call, as opposed to a normal wake up call which is used daily by the owner.

The first field in Weekday and in Weekend is the activation switch, it can be checked or unchecked. The next two fields are the call out number and the call out time.

Legal values: N/H; Y/N; Y/N; up to 11 digits number

Default: No entry

Action: Click the mode button.
Check or uncheck the Weekday or Weekend activation box. Enter the time you wish to have **emaGEN** call you for your wake-up call.
Enter the desired number to be dialed in the appropriate Weekday or Weekend field.

Feature: This feature can be implemented by the mailbox owner (if permitted by COS) via the personal options menu -- callout options -- on your telephone set,

11.7 CONVERSION TABLE

Figure 11-4 Mailbox --> Conversion Table screen

The conversion table is designed to allow the user to reroute a call to a predefined mailbox. For each touch-tone (single key press), the user can enter a mailbox number, and the call will be transferred to this mailbox as soon as a key is pressed (during or after the greeting for this mailbox). This table allows users to generate menus just by recording a greeting with the desired directives and entering the mailbox numbers in the table.

Department override

If this field is checked:

- in a case in which there is an identical entry both in this table and in the department conversion table (see Department Definition, Section 10.1.2), which has the same functionality, this table will override the department conversion table;
- otherwise, the mailbox number will be taken from the department conversion table.

This field assures no conflict between the two tables.

Legal values: Y / N

Default: Unchecked

Action: Click the box to check or uncheck.

[1], [2], ... [9], [0]

These fields instruct **emaGEN** to transfer the call to a specific mailbox or script mailbox in response to a single digit keyed by the caller.

Legal values: Any valid mailbox number

Default: Blank

Action: Select mailbox number from the drop list.

Options:

In addition to redirecting the call to other mailboxes upon receiving a touch-tone, the user can put any of the following parameters in the conversion table. This will cause **emaGEN** to execute the task upon receipt of the particular Touch Tone.

- *Main Menu* - Go back to main menu
- *Cell* -- Transfer to callout number.
If this key is pressed, **emaGEN** will try to transfer the call to the telephone number specified in the callout number.
- *Greeting* -- Repeat Mailbox Greeting.
If this key is pressed, **emaGEN** will play again the mailbox greeting, and all the conversion options will be available.
- *Pager* -- Beep directly.
If this key is pressed, **emaGEN** will prompt the caller to enter their telephone number, and will activate the subscriber's pager. **emaGEN** will use bin number 1 in the schedule table, and will add the caller's number to the usual page sequence. This saves the subscriber a call to the voice mail to check the number of the caller. After the caller is prompted to enter their number, the call will terminate. **emaGEN** will relay it to the paging service.
- *Email* -- email directly.
If this key is pressed, **emaGEN** will prompt the caller to enter their telephone number, and will send this number via email. **emaGEN** will use the Send Mail address. This saves the subscriber a call to the voice mail to check the number of the

caller. After the caller is prompted to enter their number, the call will terminate. **emaGEN** will relay it to the paging service.

- *Record* -- Record immediately.
If this key is pressed, **emaGEN** will immediately begin recording the message and will skip the rest of the greeting.
- *Fax* -- Transmit a fax.
If this key is pressed, **emaGEN** will start receiving a fax and store it as a fax mail message.
- *Language* -- Change the language of the greeting the caller hears.

EXAMPLE:

Record the following greeting:

“Press 5 at any time to repeat this message.

Hello. I am not at the office right now, however you may press:

- 0 to speak to an operator,
- 1 to be transferred to my secretary,
- 2 to record a message,
- 3 to try me at my cellular number,
- 4 to beep me directly
or
- 9 to return to the main menu.”

Conversion table entries:

- 1 secretary mailbox
- 2 Record (record immediately)
- 3 Cell enter number in Follow Number
- 4 Pager make sure bin 1 is set properly)
- 5 Greeting repeat greeting)
- 9 Main Menu go to main menu)
- 0 Operator preset digit; and it is not necessary to enter this digit as a parameter.

11.8 MESSAGE NOTIFICATION

When a message is left in a mailbox, **emaGEN** checks the conditions defined in the scheduler -- appearing on the bottom of the **Mailbox --> Message Notification** screen, shown in Figure 11-5, below -- and determines where to send the remote message notification.

The scheduler also determines whether to activate the remote message notification immediately or at a later time.

Properties Conversion Table **Message Notification** Script Email Settings POP3 Accounts Email Reply Settings Forwarding Options Groups

Mailbox: 100 GO SAVE FIRST PREV NEXT LAST COS MAIN MENU

Call out numbers Activate Notification

Bin1	1	Beeper
Bin2	2	Internal
Bin3	3333	External
Bin4	4344	OprBeep
Bin5	5555	EMAIL
Bin6	6666	Internal
Bin7	7777	External

Days	Active	Regular	Priority	External	Email	From	Until	Bin	Tries	Bin	Tries	Bin	Tries
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	01 : 02	03 : 04	1	2	3	4	5	6
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	02 : 03	04 : 05	2	3	4	5	6	7
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03 : 04	05 : 06	3	4	5	6	7	1
4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	04 : 05	06 : 07	4	5	6	7	1	2
5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	05 : 06	07 : 08	5	6	7	1	2	3
6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	06 : 07	08 : 09	6	7	1	2	3	4
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	07 : 08	09 : 10	7	1	2	3	4	5

Figure 11-5 Mailbox --> Message Notification screen

Message notification can be activated for:

- priority (urgent) messages only,
- external messages (messages left by callers outside of the system),
- regular messages
and
- email messages.

emaGEN is able to send remote message notifications to a total of 7 different locations, stored in bins. Each bin can be referenced by any of the seven schedules that may be programmed. A bin can be present in more than one schedule, as a valid destination.

Activate notification

This field is the main switch for the message notification schedule, also known as the call out schedule. If checked, the mailbox will use the bin fields, and the schedule table below them, to determine what method to use to notify the mailbox owner that there is a waiting mes-

sage.

Legal values: Y / N

Default: Unchecked

Action: Click the box to check or uncheck.

NOTE

The Mailbox owner can activate/deactivate this feature from the personal options menu, on their own telephone sets.

11.8.1 Bin information fields

Bin

This is the bin location that will be placed in the scheduler table for timed activation.

Legal values: Fixed numbers Bin1 to Bin7

Default: Fixed numbers Bin1 to Bin7

Action: None

Phone

In this field you enter the phone number that is the destination to be dialed for message notification (associated with this particular bin number).

It is not necessary to enter a dial-out prefix like 9 for the local PBX dial-out group. Only prefixes that are NOT normally used, such as those to access a different PBX trunk group like 80, need to be entered here. If the destination is a pager, you can enter additional characters to be dialed after the necessary number of Pauses.

You can also enter an email address to which you want to send a notification. Please note that an email is only sent once, and does not repeat according to the schedule.

Dialing characters

To make the dial code generic, some of the following characters can be used to indicate certain parameters:

- E or X: indicates the extension number to dial
- M: Mailbox
- T: Total number of messages
- N: number of new messages
- S: number of saved messages
- &: Flash

- ,: Pause

Legal values: Up to 49 characters 0 / 1 / 2 / . / 9 / * / # / use ",," for pauses

Default: Blank

Action: Enter the phone number of your choice, and/or additional dialing characters -- see below -- for each bin number.

Type

This field tells **emaGEN** what dialing method to use. The choices are:

- *Internal:* Used for dialing internal extension numbers in the local PBX system.
- *External:* Used for dialing numbers external to the PBX system. **emaGEN** will automatically use a dial-out prefix programmed in the PBX Parameters --> Dial Stings --> Outbound Calls Prefix field. After dialing, **emaGEN** will analyze the results of the dialing, and decide if another call is needed (busy, no answer) or there is no need for another call (connect and user identification).
- *Beeper:* This choice tells **emaGEN** that this number reaches a beeper service. **emaGEN** will not analyze the results. Rather, it will stop dialing after the first try.
- *OpBeep:* For paging services that require a verbal message (as opposed to touch-tone signaling). The system will call the paging service and play a prerecorded message (e.g. "Subscriber number xxx -- call the voice mail").

Use the personal options menu, on your telephone set, to record the operator greeting.

- *Email:* Send a notification in the form of an email to an email address specified in the bin field. Email uses bin 1 only.

Legal values: Internal / External / Beeper / OpBeep / Email

Default: Blank

Action: Select from the drop box.

11.8.2 Schedule table entries

Each mailbox can use up to 7 different schedules to determine how its Remote Message Notification is handled. The entries are made on a line-by-line basis. The lines are referred to as Schedule-lines. Each schedule-line has its own day schedule, number of regular & priority messages, the hours that this schedule line is active, as well as three different bins (for the proper destination) which may be ac-

cessed. There is a TRY parameter for each bin entry to determine the number of attempts to reach the bin destination before trying the next bin. The bin entries on the active schedule line are accessed in sequence until a valid connection has been made.

Day

This field is where you specify the days on which **emaGEN** will call a programmed destination for message notification (for this schedule-line). For instance, If this schedule line is activated, an entry of 23456 will result in a message notification call out on Monday through Friday.

Legal values: 1-Sun / 2-Monday /... 7-Sat

Default: Blank

Action: Enter the digits that correspond to the days you wish this schedule to be followed.

Active

This field determines whether the schedule line is currently active for the related mailbox.

Legal values: Check / Uncheck

Default: Unchecked

Action: Click the box to check or uncheck.

Regular

This field determines if message notification should be activated for regular messages (internal or external messages, not marked as priority)

Legal values: Check / Uncheck

Default: Unchecked

Action: Click the box to check, for regular messages.

Priority

This field determines if message notification should be activated for priority messages (internal or external).

Legal values: Check / Uncheck

Default: Unchecked

Action: Click the box to check, for priority messages

External

This field determines if message notification should be activated for external messages. If this field is checked, but the regular field is not checked, only external messages will trigger a call out.

Legal values: Check / Uncheck

Default: Unchecked

Action: Click the box to check, for external messages.

Email

This field determines if message notification should be activated for email messages.

Legal values: Check / Uncheck

Default: Unchecked

Action: Click the box to check, for email messages.

From

An entry in this field determines the starting time for **emaGEN** to follow call out procedure for this schedule line, if activated.

Legal values: 00:00 to 23:59

Default: 00:00

Action: Enter the time you wish to have the schedule start calling out if, activated.

Until

An entry in this field determines the ending time for **emaGEN** to follow call out procedure for this schedule line, if activated.

Legal values: 00:00 to 23:59

Default: 00:00

Action: enter the time you wish to have the schedule stop calling out if activated.

Bin-(1 of 3)

This field tells **emaGEN** which is the first bin number to use for call out, when this schedule line is active.

Legal values: 1 to 6

Default: Blank
Action: Select from the drop list.

Try-(1 of 3)

emaGEN will attempt more than one message notification callout if so programmed. The additional attempts will be made only if the mailbox owner did not respond to the prior notification and had not entered the mailbox as a subscriber. As soon as the mailbox owner entered the mailbox as a subscriber (i.e. dialed # and the mailbox number, followed by the correct password), **emaGEN** will cease message notification attempts for this schedule line until new messages are left in the mailbox. At that point the cycle starts all over again.

This field tells **emaGEN** how many times to attempt a remote message notification for this bin, before proceeding to the next bin.

Legal values: 1 to 9
Default: 1
Action: Select from the drop list.

Bin-(2 of 3)

This field tells **emaGEN** what bin number to use second, if the first bin destination does not respond when this schedule-line is active.

Legal values: 1 to 6
Default: Blank
Action: Select from the drop list.

Try-(2 of 3)

This field tells **emaGEN** how many times to attempt a remote message notification for this bin before proceeding to the next bin.

Legal values: 1 to 9
Default: 1
Action: Select from the drop list.

Bin-(3 of 3)

This field tells **emaGEN** what bin number to use third if the first & second bin destinations do not respond when this schedule line is active.

Legal values: 1 to 6

Default: Blank

Action: Select from the drop list.

Try-(3 of 3)

This field tells **emaGEN** how many times to attempt a remote message notification for this bin before ending the current call out operation.

Legal values: 1-9

Default: 1

Action: Select from the drop list.

11.9 EMAIL SETTINGS

Email settings are defined for each mailbox on the **Mailbox --> Email Settings** screen -- shown in Figure 11-6, below.

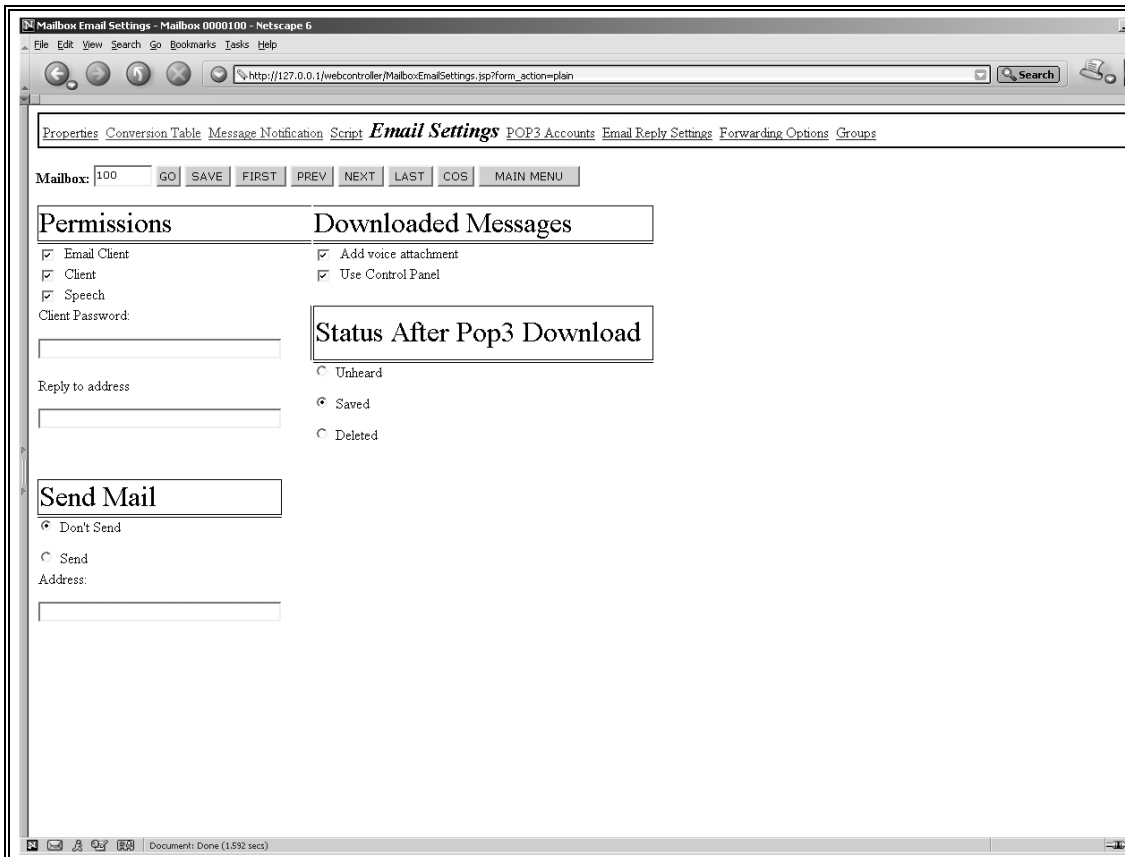


Figure 11-6 Mailbox --> Email Settings screen

emaGEN is a POP3/IMAP4 compliant server. Users can log in to **emaGEN** using any standard POP3 or IMAP4 email client (such as Outlook Express, Outlook, Netscape or others) and retrieve their email, voice and fax messages.

In addition, **emaGEN** can send message notification to an email address. This feature is referred to as Send-mail.

The difference between the POP3 implementation and IMAP4 implementation is the level of synchronization between the email client and **emaGEN** server.

With POP3, messages are downloaded from the server to the client. After they are downloaded, the messages are independent from the

server. Therefore, if the user deletes a message through the email client, it still remains in the server. If the user deletes a message through the telephone, the message still remains in the client.

With IMAP4 there is complete synchronization between the client and the server. All the server folders appear in the client view, and when messages are deleted or saved, the client automatically updates the server and vice versa.

11.9.1 Enabling the email client

To allow a mailbox to work as a unified messaging mailbox, that is, to be accessed by an email client, check the Email Client check box. **emaGEN** will allow this check box to be checked as long as there are available email clients in the system (license to use email clients is purchased per user).

Legal values: Check / Uncheck

Default: Unchecked

Action: Click the box to check, for priority messages

11.9.2 Setting up the email client for POP3

While setting up a mail account in each client software is done differently, you need to use the following information:

- *User ID:* the mailbox number.
- *Email address:* you can use any valid email address.
- *Password:* you can use either the numeric password of the mailbox or enter a user friendly password in the Client Password field.
- *Pop3 server:* the IP address of **emaGEN**.
- *SMTP server:* **emaGEN** is not used for sending outgoing mail, and therefore you can use any other valid SMTP address.

Since the POP3 protocol has no synchronization method between the server and the client, you can use the Message Status after Download POP3 option to maintain some level of synchronization:

- *Unheard:* When the client downloads messages from the server, the message status will remain unheard.

NOTE

To make sure that the client will not receive multiple copies of the message, select the option to leave copy of messages on server from the advanced settings of the email client.

- *Saved*: When the client downloads messages from the server, the message status will be changed to Saved.

NOTE

For this option to work, in the email client advanced options, the option to Leave copy of messages on server must be disabled.

- *Delete*: When the client downloads messages from the server, the message will be deleted.

NOTE

For this option to work, in the email client advanced options, the option to Leave copy of messages on server must be disabled.

11.9.3 Setting up the email client for IMAP

While setting up a mail account in each client software is done differently, you will generally need to use the following information:

- *User ID*: the mailbox number.
- *Email address*: you can use any valid email address.
- *Password*: you can use either the numeric password of the mailbox, or enter a user friendly password in the Client Password field.
- *IMAP server*: the IP address of **emaGEN**.
- *SMTP server*: **emaGEN** is not used for sending outgoing mail, and therefore you can use any other valid SMTP address.

Make sure the type of mail account is IMAP.

After setting up the account, you need to get the IMAP folders from the server and enable them. In some email clients, such as Microsoft Outlook, you will need to restart the client for the folders to be visible.

NOTE

IMAP is only available in the internet version of Microsoft Outlook, not in the corporate version.

Permanently deleting messages using IMAP

When using the IMAP client, you will notice a deleted folder. This folder stores all deleted messages, and can be used to undelete them. If you would like to permanently delete these messages, you can select the Purge Deleted Message option from the Edit menu of the email client.

11.9.4 Setting up Send-Mail

The Send-Mail feature will push messages into a POP3 compliant server. Any incoming voice or fax message will appear in the mailbox defined in the Send Mail field. To maintain synchronization between **emaGEN** and the mail server, set up the POP3 accounts to check the mailbox to which you send Send Mail.

The Push method for unified messaging is useful in a Synchronized Email server environment, such as Microsoft Exchange. Messages will be pushed to the server and then **emaGEN** will scan the Email server. When the message is removed from the Email server, it will automatically be removed from **emaGEN**. Anytime a message is deleted from **emaGEN**, it will be removed from the Email server (the delete field on the POP3 account setting should be checked).

You must define an SMTP server through which **emaGEN** can send the notification. This can be done through the SMTP settings in **emaGEN T3adm – change registry keys**.

11.10 POP3 ACCOUNTS

POP3 account definitions are made for each mailbox on the **Mailbox** --> **POP3 Accounts** screen -- shown in Figure 11-7, below.

Properties Conversion Table Message Notification Script Email Settings POP3 Accounts Email Reply Settings Forwarding Options Groups									
Mailbox:	100	GO	SAVE	FIRST	PREV	NEXT	LAST	COS	MAIN MENU
<input checked="" type="checkbox"/> Synchronize e-mail messages									
Account 1					Account 2				
Pop3 Server	111	Pop3 Server	222						
User ID	222	User ID	333						
Password	*	Password	**						
Delete	<input checked="" type="checkbox"/>	Delete	<input checked="" type="checkbox"/>						
Timeout (seconds)	444	Timeout (seconds)	444						
IP Port	555	IP Port	555						
Account 3					Account 4				
Pop3 Server	333	Pop3 Server	444						
User ID	444	User ID	555						
Password	***	Password	****						
Delete	<input checked="" type="checkbox"/>	Delete	<input checked="" type="checkbox"/>						
Timeout (seconds)	555	Timeout (seconds)	666						
IP Port	666	IP Port	777						
Account 5									
Pop3 Server	555								
User ID	666								
Password	*****								
Delete	<input checked="" type="checkbox"/>								
Timeout (seconds)	777								
IP Port	888								

Figure 11-7 Mailbox --> POP3 Accounts screen

The POP3 accounts are used to check email in any of five different email addresses. **emaGEN** can be set to automatically check these accounts every scheduled amount of time, and if new messages are received, it can light a message light or call out, using the schedule table.

In addition, **emaGEN** can be set to read out the email messages using text-to-speech (**emaGEN** Speech must be installed).

For each mail account you wish to retrieve messages from, set the IP address of the POP3 server, the User ID, and password. You should also set the POP3 port (default it is 110) and timeout (default is 100 seconds).

You can also specify if you want **emaGEN** to delete the message on the server or not.

11.10.1 Synchronize email

emaGEN downloads and stores email messages locally. If you would like the messages to be synchronized with the email server on which they were originally received, check the Synchronize Email box. This will ensure that if the message is deleted from the server by another email client (e.g. Outlook Express), the message will also be deleted from **emaGEN**.

11.11 EMAIL REPLY SETTINGS

Email Reply Settings are defined, for each mailbox, on the **Mailbox --> Email Reply Settings** screen -- shown in Figure 11-8, below.

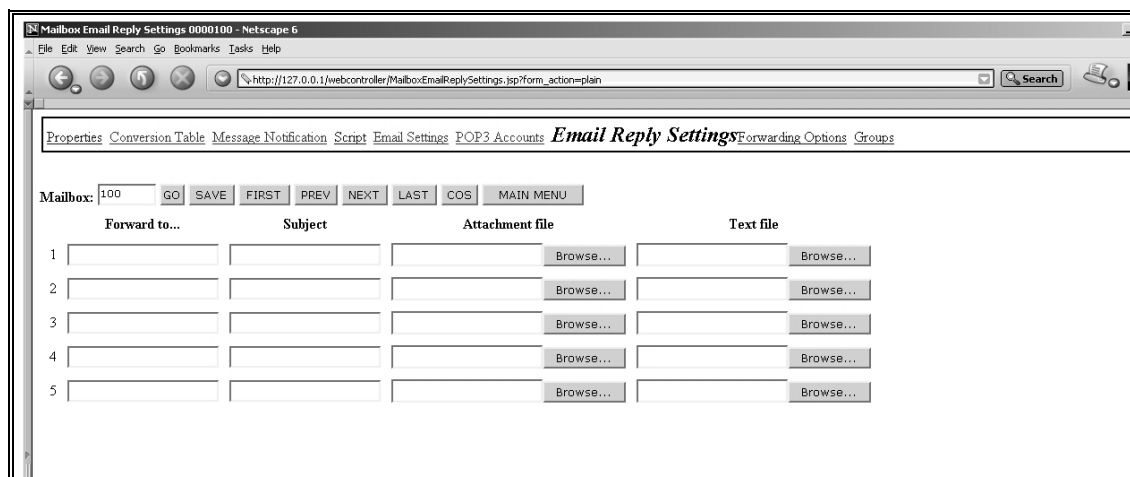


Figure 11-8 Mailbox --> Email Reply Settings screen

emaGEN allows users to reply or forward email messages. They can reply or forward with a recorded message (which will be sent as a wave file attachment) or with a predefined text file or attachment. You can set up to five different forward addresses and text or attachment files. The user will then be able to select on-the-fly the address and file they wish to use for forwarding.

11.12 FORWARDING OPTIONS

Forwarding Options definitions are made for each mailbox on the **Mailbox --> Forwarding Options** screen -- shown in Figure 11-9, below.

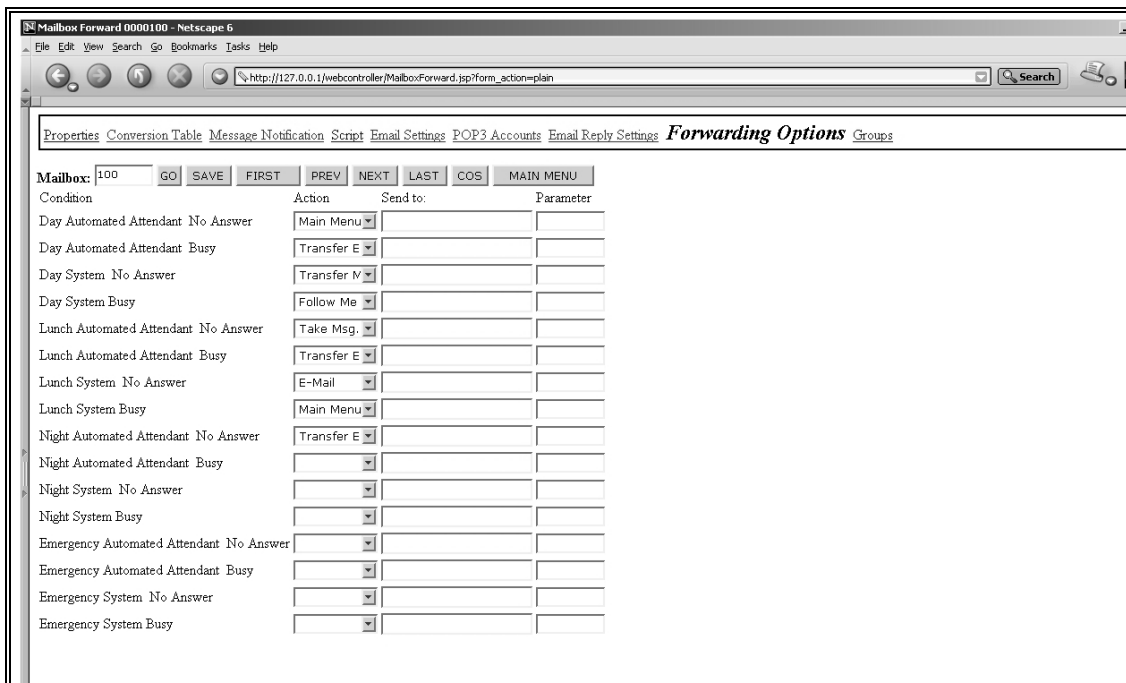


Figure 11-9 Mailbox --> Forwarding Options screen

emaGEN has a smart routing mechanism, by which you can control the routing of the caller according to the conditions of the call.

There are three defining conditions:

- operation mode,
- call origination
- call result.

You can route the call according to the combination of the three defining conditions. For example: if a call is received during the day and the auto-attendant determined the extension of the user was busy, it will execute the Day Automated Attendant Busy route.

The difference between Automated Attendant calls and System calls is the origination of the call to **emaGEN**.

- If the call was inside the automated attendant – it is considered an Automated Attendant condition.

- If the call arrived into **emaGEN** in the form of system integration (for example: a DID call that resulted in no-answer condition and forwarded to voice mail), it is considered a System condition.

Please note that the Forwarding Options table is checked by **emaGEN** before the actual greeting is played.

11.12.1 Actions

You can specifically define what action to take upon each condition described above. The possible actions are:

- *Main Menu* – send the caller back to main menu.
- *Transfer Ext.* – transfer the caller to the extension in the Send to: field (this is a non-supervised transfer to the actual extension).
- *Transfer Mbox.* – transfer the caller to the mailbox in the Send to: field (this options allow more flexibility than the Transfer Ext. option, as you can specify in the mailbox the type of supervision required. You can also use this option to transfer callers into a script or to leave a message in another mailbox).
- *Follow Me* – transfer the caller to an external number specified in the Send to: field.
- *Take Msg.* – proceed to take a message – play the appropriate mailbox greeting. Please note that this action will take a message in the current mailbox, and you cannot define a different mailbox destination.
- *Pager* – allows the caller to enter a telephone number which will be sent to the owner's pager. The pager to which the message will be sent to is specified in the first bin of the message notification page.
- *Email* – allows the caller to enter a telephone number which will be sent to the owner's email address. The email address to which the message will be sent to is specified in the first bin of the message notification page.

The parameter field is for future use.

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Section 12

CLASS OF SERVICE

12.1 GENERAL

Each Mailbox must be assigned a specific Class of Service (COS), which controls its activities.

The Class of Service is defined on the Class of Service screen -- shown in Figure 12-1, below.

The system default COS is 1. **emaGENT3** can maintain a total of 999 different classes of service.

The Class of Service screen can be accessed by any of the following methods:

- Click the Class of Service link -- on the Web Controller Main Menu screen, shown in Figure 6-1, above;
- Click the rectangular COS button -- in the button row near the top of each of the following screens:
 - Figure 11-1 and Figure 11-4 to Figure 11-9 Mailbox screens;
 - Figure 14-1, Script Generator screen.

Class: 2		SAVE	NEW	FIRST	PREV	NEXT	LAST	DELETE	MAIN MENU	
Name: Default										
Personal Options					Messages					
Greeting maximum length (0-99 seconds)	60	Maximum number of messages	100	(0-999)	Maximum message length	120	(5-999 seconds)	Unlimited message length		
Unlimited greeting length	<input type="checkbox"/>	Minimum message length	4	(0-99 seconds)	Maximum silence during recording	5	(1-20 seconds)	Alert caller on end of recording	10 (seconds)	
Allow group messages	<input checked="" type="checkbox"/>	Continue								
Allow wake up calls	<input checked="" type="checkbox"/>									
Change date on save	<input checked="" type="checkbox"/>									
Play new messages automatically	<input type="checkbox"/>									
Message delete confirmation	<input type="checkbox"/>									
Auto save	<input type="checkbox"/>									
Post greeting menu	<input type="checkbox"/>									
Play envelope information automatically										
Play envelope information BEFORE message	<input type="checkbox"/>									
Play envelope information AFTER message	<input type="checkbox"/>									
Play message order										
* FIFO	<input checked="" type="checkbox"/>									
* LIFO	<input type="checkbox"/>									
Incoming Calls					House Keeping Options					
Maximum calls on hold	5	Days to keep NEW messages	30	(1-365 days)	Days to keep SAVED messages	30	(1-365 days)	Days to keep FAX messages	30	(1-365 days)
Auto hold	<input type="checkbox"/>	Days to keep DELETED messages	1	(1-365 days)	Erase old messages automatically	<input type="checkbox"/>				
Call screening	<input checked="" type="checkbox"/>									
Follow me	<input checked="" type="checkbox"/>									
Maximum callout length (1-99 seconds)	30									
Transfer supervision										
* Blind	<input checked="" type="checkbox"/>									
* Partial	<input type="checkbox"/>									
* Full	<input type="checkbox"/>									
Number of rings before no answer	4									
Ringer MWI										
From	12:00 PM									
To	12:00 PM									
Every		minutes, ring		times						

Figure 12-1 Class of Service screen

12.2 PERSONAL OPTIONS

Greeting maximum length

This field determines the maximum length allowed for recording the mailbox greeting.

Legal values: 0 to 99 seconds

Default: 60 seconds

Action: Enter the desired maximum recording time.

Unlimited greeting length

For an unlimited greeting length, check the unlimited greeting length field.

Legal values: Y / N

Default: Blank

Action: Click the box to check or uncheck.

Allow group messages

This field determines whether the mailbox user is allowed to send messages to mailbox groups. Groups are defined in the Group Lists section.

Legal values: Y / N

Default: Y

Action: Click the box to check or uncheck.

Allow wakeup calls

This field determines if Wakeup call is allowed for this COS.

Legal values: Y / N

Default: Y

Action: Click the box to check or uncheck.

Change date on save

When saving a message, the date can either remain the original date (unchecked) or can be changed to the date when the message is saved (checked).

Legal values: Y / N

Default: N

Action: Click the box to check or uncheck.

Play new messages automatically

When New Messages is checked, if there are new messages, **emaGEN** will automatically start playing the messages, without waiting for a command from the user. Otherwise, the user has to press 1 in the main menu to listen to messages and 1 to listen to new messages.

Legal values: Y / N

Default: N

Action: Click the box to check or uncheck.

Message delete confirmation

This field determines whether **emaGEN** will prompt the caller to press a key to confirm deletion of a message.

Legal values: Y/ N

Default: N

Action: Click the box to check or uncheck.

Auto save

For future use.

Legal values: Y/ N

Default: N

Action: Click the box to check or uncheck.

Post greeting menu

This field determines whether **emaGEN** will play an instructional prompt after the greeting is played (the prompt will instruct the caller to Press 2 to leave a message and some other options available at the greeting).

Legal values: Y/ N

Default: N

Action: Click the box to check or uncheck.

Play envelope information automatically

Automatic play origin determines whether to play envelope information prior to every message or only to play upon request (press 8 during message for envelope information).

Legal values: Y / N

Default: N

Action: Click the box to check or uncheck.

Play envelope information Before / After message

This field determines whether **emaGEN** will play the envelope information either before or after the message is played.

Legal values: Before / After
Default: Before
Action: Click the selected button.

Play message order

This field determines the order of message playback to the mailbox owner. If set to FIFO (first in first out), the mailbox owner will hear the messages in the order of the oldest message playing first to the most current message playing last.

If set to LIFO (last in first out), the mailbox owner will hear the messages in the order of the newest message playing first to the oldest message playing last.

Legal values: FIFO / LIFO
Default: FIFO
Action: Click the selected button.

12.3 MESSAGES

Maximum number of messages

This field sets the maximum number of messages the system will store for the mailbox. Messages take up disk space, so the maximum number allowed should be carefully controlled.

Legal values: 0 to 999
Default: 100
Action: Enter the maximum number of messages
emaGEN will store for the mailbox holder.

NOTE

Enter 0 if the mailbox is to function as message only Mailbox.

Maximum message length

This is the maximum recording time allowed for messages recorded in this mailbox before the caller is required to add more time to the recording. When setting up scripts, this parameter determines the message length the caller is allowed to record.

If an unlimited recording time checked -- the next field below this -- the maximum message length field will remain blank.

Legal values: 5 to 999 seconds

Default: 120 seconds

Action: Enter the maximum recording time in seconds.

Unlimited message length

For an unlimited recording time, check the unlimited message length box.

Legal values: Check

Default: Unchecked

Action: Check the unlimited message length box.

Minimum message length

This is the minimum amount of recorded audio that **emaGEN** will consider to be a valid message.

Legal values: 0 to 99 seconds

Default: 2 seconds

Action: Enter the desired minimum recording time.

Maximum silence during recording

When **emaGEN** is recording a message, it listens for the silent period when the caller stops speaking in order to determine when to end the recording. If the silence period exceeds the value entered in this field, **emaGEN** will assume the caller has finished recording the message. **emaGEN** will then compress the silence period and store the message.

Legal values: 1 to 20 seconds

Default: 5 seconds

Action: Enter the desired silence period for message compression.

Alert caller on end of recording

emaGEN will advise a caller leaving a message that the message length is about to reach a pre set limit. This entry determines when

to alert the caller of the approaching limit (how many seconds are left for recording).

Legal values: 5 to 10 seconds

Default: 10 seconds

Action: SELECT from the drop list.

Continue

This field determines the action taken after a caller has finished recording a message:

- hangup - disconnect the call,
- continue - go back to the entry level menu,
- mailbox number -- execute a different mailbox (whether it is a script mailbox, transfer or regular message).

Legal values: Hangup / Continue / Mailbox number

Default: Blank

Action: Select from the drop box.

12.4 INCOMING CALLS

Maximum ports on hold

This field controls how many callers may be put on hold in **emaGEN** for a mailbox holder with this COS. Calls held in **emaGEN** tie up the port until the call can be transferred to the mailbox extension. This feature is part of the Call Queuing fields, defined in the **Site --> Settings** screen.

To automatically put the caller on hold (if the user extension is busy) – check the Auto hold box, below.

Legal values: 0 to 24 calls

Default: 0

Action: Select from the drop list.

Auto hold

To automatically put the caller on hold (if the user extension is busy) – check the Auto hold box.

Legal values: check / uncheck

Default: Unchecked

Action: Click the box to check or uncheck.

Call screening

The first field determines if the owner is allowed to use the call screening feature. If unchecked, the feature will not operate for this COS, overriding the entry in the mailbox screen. This field entry must be checked for the mailbox screen entry to take effect.

Legal values: Y / N

Default: Y

Action: Click the box to check or uncheck.

Follow me

The second field determines whether a mailbox owner with this COS is allowed to use the follow me feature. If checked, callers may be linked to off-PBX phones (such as the user's home phone). PBX Parameters information is required in order to implement this function.

NOTE

The follow me feature will override the transfer supervision settings, and will always be a fully supervised transfer.

Legal values: Y / N

Default: Y

Action: Click the box to check or uncheck.

Maximum callout number length

This field determines the maximum number of digits allowed in a callout operation. It is useful for toll restriction. You can prevent a user from dialing long distance by limiting the number of digits to a local number length.

Legal values: 1 to 99 digits / 0 = unlimited number length

Default: Blank

Action: Enter the desired number of digits, or enter 0 for unlimited number length.

NOTE

This field effects all Follow me functionality.

Transfer supervision

This field determines how **emaGEN** handles call transfers.

Blind: **emaGEN** will transfer the call and immediately drop it. The PBX is then responsible for the call termination. Make sure to redirect extensions to voice mail on busy and no answer.

Full Supervision: **emaGEN** will transfer a call and supervise it until it received an event that indicates answer, busy or no answer.

Partial Supervision: **emaGEN** will transfer a call and wait for the first ring. It will drop the call if it receives a first ring or a connect, but will retrieve the call if the extension was busy.

Legal values: Full / Partial / Blind

Default: Blind

Action: Click the button.

Number of rings before no answer

This field determines how many times the extension will ring before **emaGEN** decides the phone has not been answered and retrieves the caller for further actions. This entry should be tailored to the mailbox holder's normal routine. If the mailbox holder normally is near the extension, the entry should be low, typically 4 or 5 rings. If the mailbox holder typically works at a distance from the extension, increase the number of rings accordingly.

Legal values: 1 to 9

Default: 4 rings

Action: Enter the number of rings to wait before **emaGEN** retrieves the call.

NOTE

This setting is relevant only when the Full supervision level is defined for this mailbox.

12.4.1 Ringer MWI

If a mailbox has the MWI type set to R -- in the **Mailbox --> Properties --> Message Light** field -- then use the following parameters to set the times and intervals at which **emaGEN** will call the extension to notify about new messages.

From / To

This field determines the time period for this COS during which **emaGEN** will attempt to activate the message indicator for the mailbox.

Legal values: 12:00 AM / 11:59 PM

Default: 12:00 AM / 12:00 AM

Action: Enter the times in which it is relevant to ring the extension.

Every __ minutes, ring __ times

The first field determines how often to ring a station for message reminders. The second field determines how many times to ring the station.

Legal values: 1 to 99 minutes / 1 to 99 rings

Default: 0 / 0

Action: Enter the desired frequency in minutes and enter the desired number of rings.

12.5 HOUSEKEEPING

If a number of days is entered which is out of range, the default setting will be saved.

Days to keep new messages

This field determines the length of time to store a New message before automatic deletion.

Legal values: 1 to 365 days

Default: 14 days

Action: Enter the number of days to keep a New message stored.

NOTE

The lifetime of messages is only effective when the house keeping feature on the **Site --> Settings** screen is activated. House-keeping is the mechanism which controls the lifetime of the messages.

Days to keep saved messages

This field determines the length of time to store a Saved message before automatic deletion.

Legal values: 1 to 365 days

Default: 30 days

Action: Enter the number of days to keep a Saved message stored.

Days to keep fax messages

This field determines the length of time to store a Fax document before automatic deletion.

Legal values: 1 to 365 days

Default: 14 days

Action: Enter the number of days to keep a Fax document stored.

Days to keep deleted messages

This field determines the length of time to store a Deleted message before automatic deletion. During this period the user can undelete the message using the telephone interface or using IMAP unified messaging.

Legal values: 1 to 365 days

Default: 45 days

Action: Enter the number of days to keep a Deleted message stored.

Erase old messages automatically

emaGEN house keeping mechanism checks the lifetime of messages and does the following:

If Automatic Erase of Messages is checked, **emaGEN** will automatically erase a message that reached its maximum lifetime, without notifying the user.

If this field is unchecked, as soon as the user enters the mailbox, the message will be declared as going to be erased, and the user may either erase it or save it.

Deleted messages will be purged, regardless of this field.

Legal values: Yes/No

Default: No

Action: Click the box to check or uncheck.

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Section 13

GROUPS

13.1 GENERAL

It is often necessary to send a message to a group of people within a company or an organization. Such a group could be the members of a department (Sales department, service department, etc.) or members of a research team within the research department. When a group list is defined, a message can be sent once, yet reach all the members of the group.

emaGEN allows up to 99999 groups. A group may be linked to another group.

Groups are either:

- global -- available for all mailboxes,
or
- private -- each mailbox owner can establish their own groups.

The following explanation pertains to global groups, as well as to private groups.

You will find the:

- **Site --> Global Groups screen** -- shown in Figure 13-1 below -- accessed from a link on any one of the following **Site** Parameter screens:
 - Figure 7-1 through Figure 7-5,
 - Figure 10-4,
 - Figure 18-1,

and

- **Mailbox --> Groups screen** -- shown in Figure 13-2, below -- accessed from a link on any one of the following **Mailbox** screens:
 - Figure 11-1,
 - Figure 11-4 through Figure 11-9,
 - Figure 14-1.

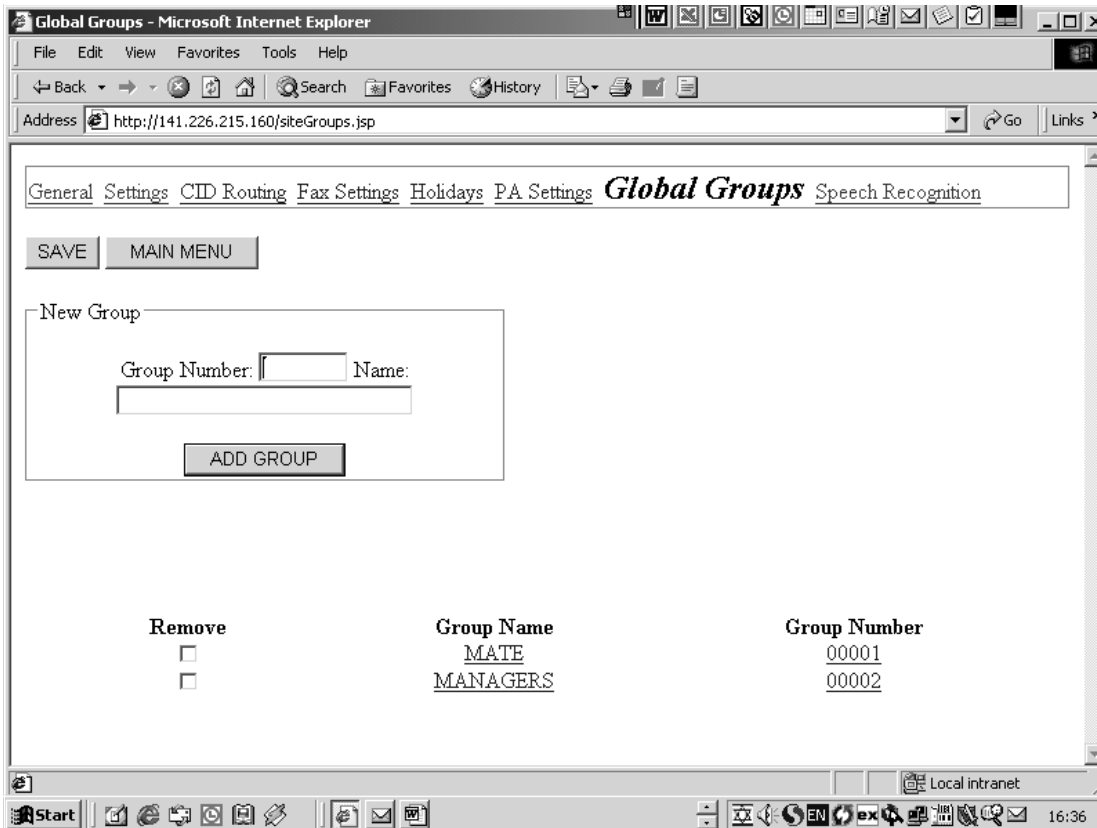


Figure 13-1 Site --> Global Groups screen

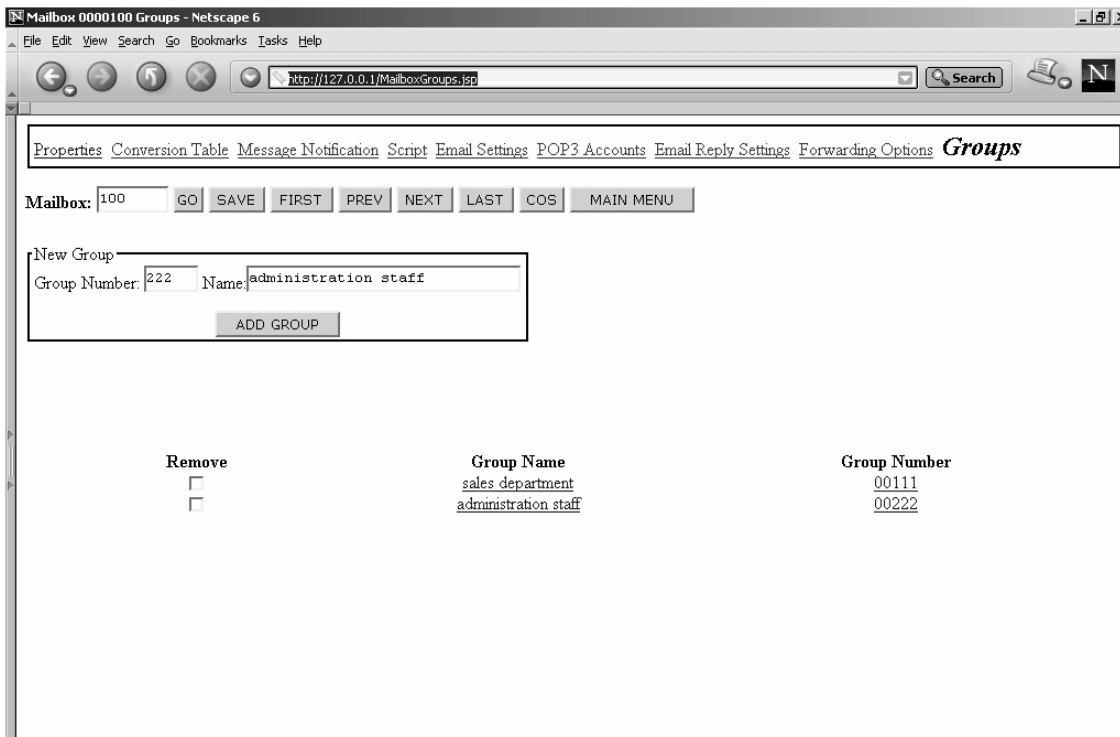


Figure 13-2 Mailbox --> Groups screen

13.2 CREATING A NEW GROUP

1. On the **Mailbox --> Groups screen** -- shown in Figure 13-2, above -- enter a group number (between 1 and 99999) and a name.
2. Click the **[ADD GROUP]** button.
The new group will appear in the list at the bottom of the page.

13.3 REMOVING A GROUP

On the **Mailbox --> Groups screen** -- shown in Figure 13-2, above -- next to the group numbers you will find a **Remove** check box.

1. Check the boxes of the group or groups you would like to remove.
2. Then, click the **SAVE** button.
The group will be removed from the list.

13.4 ADDING MEMBERS TO A GROUP

1. On the **Mailbox --> Groups screen** -- shown in Figure 13-2, above -- click the name of the group you would like to edit.
The **Mailbox --> Group Members screen** will then be displayed -- as shown in Figure 13-3, below.
2. Select a mailbox from the **Add Members** frame -- on the **Mailbox --> Group Members screen**.
You can select/deselect multiple mailboxes by holding the control button and clicking on a mailbox from the list.
3. Then, click the **ADD MEMBERS** button.

13.5 REMOVING MEMBERS FROM A GROUP

1. On the **Mailbox --> Groups screen** -- shown in Figure 13-2, above -- click the name of the group you would like to edit.
The **Mailbox --> Group Members screen** will then be displayed -- as shown in Figure 13-3, below.
The group will then be displayed.
2. Click the check boxes next to the mailbox numbers you would like to remove and then click the **SAVE** button.

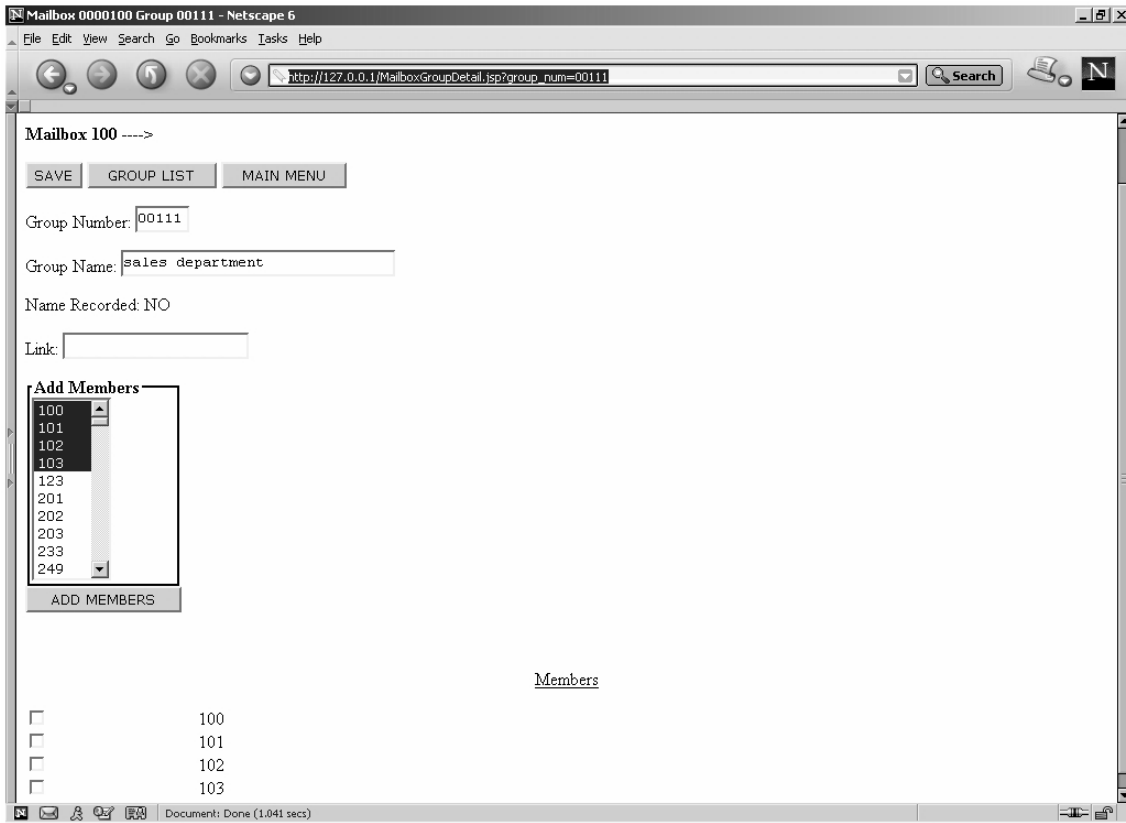


Figure 13-3 Mailbox --> Group Members screen

Section 14

SCRIPTS

14.1 INTRODUCTION

In addition to the standard department menus and mailbox greetings, **emaGEN** allows for customized routines, called Scripts. Scripts are used for directing callers around the system. Scripts may also be used to provide various choices to the caller, as well as being the standard tool for setting up "Audio Text" mailboxes and build custom applications.

This section provides an overview of how scripts operate, and how they can quickly and easily be used to build custom applications.

14.2 CREATING A SCRIPT -- AN OVERVIEW

Any mailbox in the system can be defined as a script. As such, the script 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 to access other areas of the system.

A script can be used to replace the usual opening greetings of a department. Once a caller is routed to the script, a list of choices may be given to the caller to allow access to other departments, transfer to other mailboxes, answer a questionnaire, access recorded information, etc.

It is possible to simultaneously operate scripts in different languages.

In order to create a script:

1. First, define a mailbox as a "script" in the **Mailbox --> Properties --> Type** drop box field.
2. Then click the Script tab at the top of the **Mailbox --> Properties** menu screen.

The **Mailbox --> Script** screen appears, as shown in Figure 14-1, below.

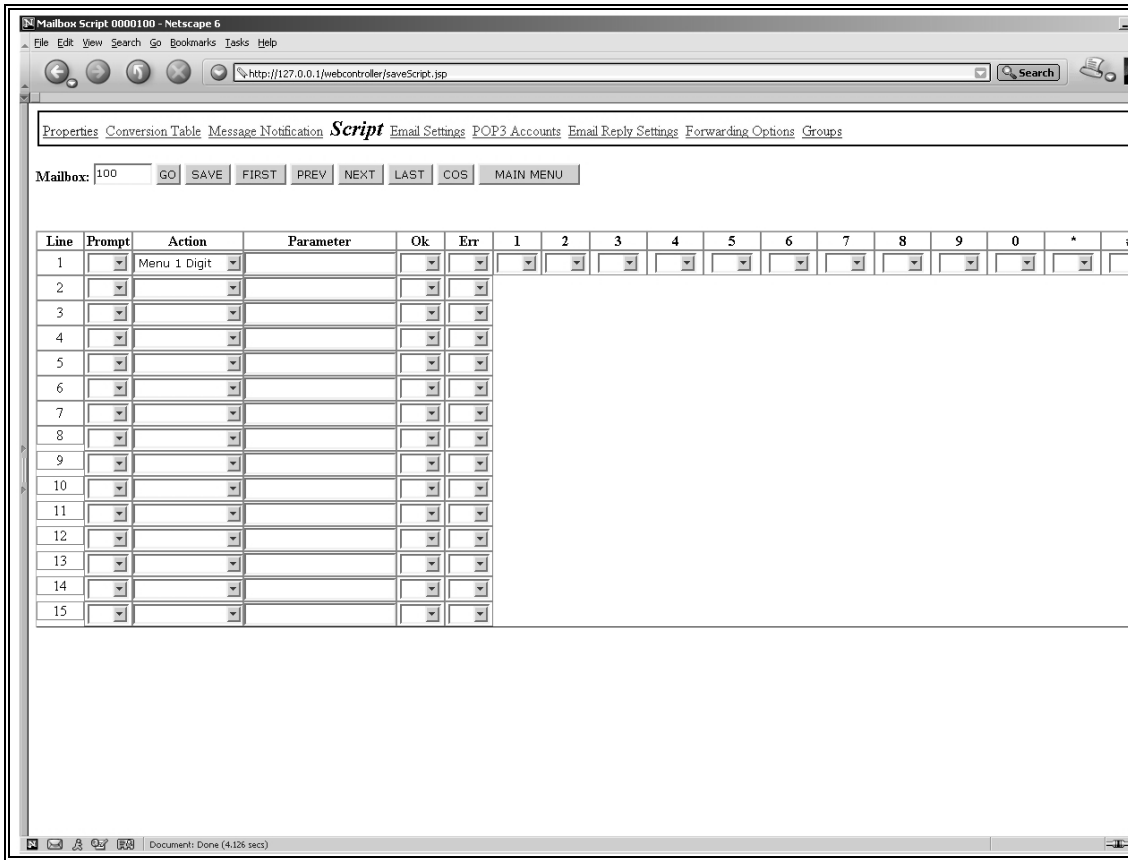


Figure 14-1 Mailbox --> Script screen

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 great 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.

14.3 RECORDING A SCRIPT VOICE FILE

1. Enter the script mailbox as a subscriber -- with #.
2. Follow the prompts to record a line file.
3. Record the file you desire. The file will be saved 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. Although such a recording is possible for **emaGEN**, it is not recommended.

14.4 SCRIPT PROGRAMMING

Line column

The line number in the first column is *not* programmable.

The line number is the Action Line number.

The line number may be used in other fields to instruct **emaGEN** to jump to, or return from, a specific Action Line instruction.

Legal values: 1 to 15

Default: Not applicable.

Action: Not applicable.

Prompt column

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, using the drop box. 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.

Legal values: 1 to 2 digits

Default: Blank

Action: Select from the drop box.

Action column

This field determines the action that **emaGEN** is to take if a caller is directed to this line. For each action function there can be a successful result or an error.

Accordingly, the OK and ERR fields are provided to handle the result of the action, whether it is successful (OK) or faulty (ERR).

The Action Function Descriptions in Section 14.4.1, below, describe what each function does, and what possible results it might have.

Legal values: See available options in Section 14.4.1, below.

Default: Blank

Action: Select from the drop box.

14.4.1 Action Function Descriptions

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, put 0 in the designated key field.

To hang-up, put 99 in the designated key field.

NOTE

To get the button drop boxes to open, you must select the Menu 1 Digit function and then save the script. Only then the drop boxes will appear.

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 proceeds to the number in the ERR field, after the script time-out. See the **Site --> Settings --> System parameters --> Script Timeout** field.

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 is a line which anticipates an entry of digits from the caller and then plays the file located by the digits entered (which was earlier recorded with the RECORD (NUM) function). The number of digits is set in the corresponding **[Param]** 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 order number. For example, a customer can call a car service center and enter a claim number to see if the car is ready.

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

OK: If the file was 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 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. The system then records 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, the flag /box# may be used after the number n, in order to record to a different mailbox rather than the current one, and play & delete from a different box. For Example: Record(Num) 4/box0000100 -- record a 4 digit named file into mailbox 0000100).

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 will 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 alert to the process. know what is happening. The Next field which is attached to the TRANSFER action line will accept a value up to the number of mailbox digits defined for the system.

OK: Not used in this action.

ERR: If Script time-out is reached, the script will proceed to ERR.

Transfer Parameters:

- n Waits for n digits and than transfers to the number received.
- Mn Appends n digits to previousT.T. entry, and transfers to the complete new number.
Example: Menu 1 digit received T.T.: 3, Transfer M2 received T.T. 4,5, the transfer will be to mailbox 345.
- Dd Appends n digits to previousT.T. entry, and transfers to the complete new number.
Example: Menu 1 digit received T.T.: 3, Transfer M2 received T.T. 4,5, the transfer will be to extension 345.
- #n Gets n digits and enters into that mailbox as a subscriber.
- *n Gets n digits and enters into that mailbox directly into recording a message.
- !n Gets n digits and transfers to the entered extension number (not to a mailbox).
- T#n Enter a given mailbox (n) as a subscriber (don't wait for T.T).
- T*n Enter a given mailbox (n) as an outside caller, to record a message (don't wait for T.T)

- T!n Transfers to a fixed extension number n (not to a mailbox).
- Tn Transfers to a fixed mailbox number n.
Example: Transfer T345 - transfers to mailbox 345.

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 in a different mailbox (other than the script mailbox itself).

You will then be able to listen to the messages when entering the mailbox as its owner.

OK: The notification to the mailbox was successful.

ERR: Mailbox does not exist or there was a problem with the saving to this mailbox.

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 /APP used after the n amount of seconds, n amount of seconds of recording will 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 will go to the OK field. If the current Time/Date/Day is not in the range, the function will go to the ERR field.

Parameters

- D - Day and the day numbers -- for example: D1234567)
- C - Date and the range of dates MMDDMMDD

Parameter examples

- C01010331 - between Jan 01 and March 31
- C01 - any day in January
- C0105 - only on January 5th
- C0005 - any fifth of the month
- Default time - for example, 0900-1500 - between 9am and 3pm

Parameters

D - Day and the day numbers (Example: D1234567)

C - Date and the range of dates MMDDMMDD

(Example: C01010331 -- between Jan 01 and March 31)

Default - time (Example: 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.

CID Routing

This function is used in conjunction with the CID Routing table in Site parameters.

If a number is found in the table, the table action is executed. For example, a call can be transferred to an ACD group according to a specific caller ID.

OK: Not used in this action.

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

14.4.2 OK / Err and Numeric entry column fields

OK / Err column fields

Each of these two column fields determines where in the script **ema-GEN** will continue, after an action line is completed.

Legal values: 1 to 15 / 0 / 99 / 97 / 96

Default: Blank

- Actions:* Select a value from the drop list:
- Enter 99 to hang up.
 - Enter 0 to return to the original main-menu.
 - Enter 1-15 to jump to another line in the script.
 - Enter 97 to play the directory assistance.
 - Enter 96 to return to the original main menu, as if it is a new call.

Numeric entry column fields 1 to 9, 0, *, #

When used in conjunction with Menu 1 Digit this field is a translator.

The caller presses a digit and the digit is translated by **eMaGEN** into a number (one or two digits long) that directs the caller to another Action Line, or hangs up if 99 is entered.

Legal values: 1 to 15 / 99 / 97 / 96

Default: Blank

- Action:* Select a value from the drop list:
- Enter 99 to hang up.
 - Enter 97 to play the directory assistance.
 - Enter 96 to return to the original main menu, as if it is a new call.

14.4.3 Script function examples

EXAMPLE 1:

Script Function: Personnel Interview

eMaGEN can perform preliminary job interviews. A newspaper ad can instruct callers to call a number and an extension (For example: 555-5555, Ext. 111). When 111 is dialed, the caller reaches Script Mailbox 111 with the following Script.

Line #	Voice File	Voice Prompt and Remarks
1	01	"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?" Record - 15 seconds
2	02	"What is your complete address?" Record - 20 seconds
3	03	"Please tell us your experience." Record - 80 seconds
4	04	"When can you start working for us?"

		Record - 10 seconds
5	05	"Thank you for your time. We will now connect you to a live operator." Transfer to fixed extension 345.

EXAMPLE 2:**Script Function: Automated Attendant and Customer information**

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 can call in to a repair shop to check the status of a repair by entering the receipt number. After entering the number, the customer will hear a recording done by the technician, in which the status of the repair is specified. The technician will call in to the same script, choose option 3 to record a status message or option 4 to delete a status message. Also available under this menu are all the transfer options, including to a fixed mailbox (the supervisor), 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 department number). For this script to serve as a main menu, in Department Definition fields I,J you should enter Y to start with script and the script number (100 in this case). Option 8 (which goes to line 13) is an example of how to move from one script to another.

Line #	Voice File	Voice Prompt and Remarks
1	01	Dial 1 to listen to status of repair, Dial 2 to transfer to a department, Dial 3 to record a repair status, Dial 4 to delete a repair status, Dial 5 if you know your party's mailbox number, Dial 6 to leave a message to the supervisor, Dial 7 if you are the supervisor, Dial 8 to transfer to a different script, Dial 9 to terminate this call, Dial 0 to talk with the supervisor, Dial * to leave a message to a subscriber, Dial # to enter as a subscriber
2	02	"Please enter your receipt number" Get 4 digits, play corresponding file
3	03	"You have entered an invalid number" Return to main menu
4	04	"Please enter a two digit department number"

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		Receive two digits, transfer to 2xx
5	05	"Please enter receipt number and record after the tone"
		Receive four digits and record repair status
6	06	"Please enter subscriber number"
		Receive three digits and transfer to the subscriber's extension
7	06	"Please enter subscriber number"
		Receive three digits and enter as the subscriber
8	06	"Please enter subscriber number"
		Receive three digits and leave a message to the subscriber
9	07	"Please hold"
		Enter as Supervisor
10	07	"Please hold"
		Leave a message to Supervisor
11	07	"Please hold"
		Transfer to the supervisor's extension.
12	10	"Please enter receipt number to delete"
		Receive four digits and delete message
13	11	"Please enter script box number"
		Transfer to a different script

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Section 15

THE SYSTEM ADMINISTRATOR

15.1 THE SYSTEM ADMINISTRATOR

The system administrator is a person within the company, assigned to oversee the normal operation of the voice mail and automated attendant system. The following are some of the primary functions of the system administrator.

- Create and assign new mailboxes for new subscribers.
- Assign the class of service level for each mailbox.
- Maintain the system software and hardware through the house-keeping functions.
- Record holiday greetings and assign dates.
- Record and implement the emergency mode.
- Record opening greetings (day, lunch, night and sub menus).
- Record on-hold announcements and company paging announcements.
- Make changes in voice prompts, if and when necessary.
- Control and maintain system security and password protection.
- Control the operation modes of the system.
- Assign operators for day, lunch and night modes.

15.2 ASSIGNING AN ADMINISTRATOR

To assign an administrator, you must first:

1. Define the number of the administrator's mailbox, in the **Site --> General --> Administrator mailbox** field, .
2. After defining this field, create a new mailbox with this number. See Creating a mailbox, Section 11.3.
3. Set the mailbox type in the **Mailbox --> Properties --> Type** drop box field, to be "Admin."

15.3 ADMINISTRATOR'S REMOTE OPERATIONS

The administrator can perform a wide range of operations via remote touch-tone phone. The administrator can record and activate an emergency greeting, change operation modes, record and edit company greetings and prompts, and edit mailbox subscriber's password.

To Access these operations, the administrator has to first enter the administrator's mailbox. This particular mailbox contains a menu option in the Subscriber's Menu, which is not available to a regular message mailbox owner. This menu option is silent (the opening prompt for the menu does not announce this option), and is selected by dialing the **[0]** key.

NOTE

In addition, the silent, unannounced, menu choice --" dial **[0]** for administration" -- routes the system administrator to the language of the administrator menu, in order to the Administration Menu.

A separate Administrator mailbox should be defined for each and every department in the system.

15.3.1 Administration menu

The administration menu is announced:

"For emergency greeting, Dial-1; to record a prompt, Dial-2; to edit password, Dial-3; to change operation mode, Dial-4; to record names, Dial-5; for group names, Dial-6; for system time and date Dial-7; for mailbox administration, Dial-8", as shown in the following table.

Administration menu		
Menu choice "Dial..."	Instruction "for..." or "to..."	This menu choice will route the system administrator to the ...
1	"for emergency greeting".	Emergency Greeting Menu.
2	"to record a prompt"	Prompt Selection Menu
3	"to edit password"	Destination Entry Menu

4	"to change operation mode"	Operation Modes Menu
5	"to record names"	Record name mailbox selection
6	"for group names"	Group name selection
7	"for system time and date"	Time or Date menu
8	"for mailbox administration"	Mailbox Administration menu

NOTE

In addition, the silent, unannounced, menu choice --" dial #" -- allows the system administrator to change the language of the administrator menu, in order to record external greetings in different languages.

15.3.2 Emergency greeting menu

The emergency greeting menu -- accessed from the Administration menu -- is announced:

"To listen to the greeting, Dial-1; to erase, Dial-2; to record a new greeting; Dial-3", as shown in the following table.

Emergency greeting menu		
Menu choice "Dial..."	Instruction "to..."	This menu choice will ...
1	" to listen to the greeting".	... allow the system administrator to listen to the last recorded emergency greeting.
2	"to to erase"	... erase the recorded emergency greeting.
3	"to edit password"	... enable the system administrator to record a new greeting, and will route the administrator to the Record Greeting Menu.

15.3.3 Record greeting menu

The record greeting menu -- accessed from the Emergency Greeting menu -- is announced:

"To listen to the greeting, Dial-1; to erase, Dial-2; to record a new greeting; Dial-3", as shown in the following table.

Record greeting menu		
	Instruction	After a greeting is recorded, the system administrator will be ...
	"Please record at the tone".	routed to the Greeting Review Menu.
	"To stop recording, dial any key".	

15.3.4 Greeting review menu

The greeting review menu -- accessed from the Greeting Review menu -- is announced:

"To save and activate, Dial-1; to review, Dial-2; to store, Dial-3; to cancel, Dial-0", as shown in the following table.

Greeting review menu		
Menu choice "Dial..."	Instruction "to..."	This menu choice will ...
1	"to save and activate".	... save and append the emergency greeting that has just been recorded, as well as activate the emergency mode. The Selection of this option will save the system administrator some extra steps, and will eliminate the need to go back to the Operation Modes Menu in order to activate the emergency mode
2	"to review"	... re-play the emergency greeting that has just been recorded.
3	"to store"	... store the emergency greeting that has just been recorded for future activation of the emergency mode.
0	"to cancel"	... cancel the last recording of a new emergency greeting. The original greeting will remain recorded, and the administrator will be routed back to the Emergency Greeting Menu.

15.3.5 Prompt selection menu

1. The prompt selection menu -- accessed from the Administration menu -- instructs the administrator:
"Please enter prompt followed by pound."
 - *You enter the desired prompt number and press [#].*
2. Once the administrator has entered the prompt number to be recorded, or re-recorded, the entry is confirmed, and the prompt selection menu continues:
"You have entered (...); to listen to the prompt, Dial-1; to erase, Dial-2; to record a new prompt, Dial-3."

Prompt selection menu		
Menu choice "Dial..."	Instruction "to..."	This menu choice will ...
1	"to listen to the prompt".	... re-play the prompt for the entered number.
2	"to erase"	... erase the existing prompt for the entered number.
3	"to record a new prompt"	... route the system administrator to the Record Prompt Menu.

15.3.6 Record prompt menu

The record prompt menu -- accessed from the Prompt Selection menu -- is announced:
"Please record at the tone. To stop recording, Dial any key. ", as shown in the following table.

Record prompt menu		
	Instruction	After a greeting is recorded, the system administrator will be ...
	"Please record at the tone".	... routed to the Prompt Review Menu.
	"To stop recording, dial any key".	

15.3.7 Prompt review menu

The prompt review menu -- accessed from the Record Prompt menu -- is announced:

"To save, Dial-1; to review, Dial-2; to cancel, Dial-0", as shown in the following table.

Prompt review menu		
Menu choice "Dial..."	Instruction "to..."	This menu choice will ...
1	"to save"	... save and append the new prompt that has just been recorded, as well as activate the emergency mode. If the administrator doesn't save the new prompt, the existing one will remain recorded and will have not been erased.
2	"to review"	... re-play the new prompt that has just been recorded.
3	"to cancel"	... cancel the last recording of a new prompt. The original prompt (if one existed) will remain recorded, and the administrator will be routed back to the Prompt Selection Menu.

15.3.8 Destination entry menu

1. The destination entry menu -- accessed from the Administration menu -- is announced:

"Please enter the mailbox number (...)"

- *You enter the desired destination entry mailbox number.*

2. Once the administrator has entered the destination entry mailbox number, the entry is confirmed, and the destination entry menu continues:

"You have entered (...) Password is: (...)"

The system announces the existing password and routes the administrator to the Password Menu.

15.3.9 Password menu

The password menu -- accessed from the Destination Entry menu -- is announced:

"To enter a new password, Dial-1; to erase, Dial-2", as shown in the following table:

Password menu		
Menu choice "Dial..."	Instruction "to..."	This menu choice will ...
1	"to enter a new password".	... enable the system administrator to enter a new password for this mailbox. After the entry of the new password, emaGEN will prompt the administrator to re-enter the password, to ensure that the correct password was entered.
2	"to erase your password"	... erase the existing password for this mailbox. emaGEN will prompt the administrator to confirm this menu choice by dialing the # key, since this option allows public access to messages greetings and all of the subscriber's settings. Erasing a password is not recommended, and the system administrator should use this option with discretion. For example, i.e. when a subscriber has forgotten the password and needs to enter the mailbox to set a new password.

15.3.10 Operation mode menu

When the system administrator chooses "to change operation mode" from the Administration Menu, a prompt announces the current operation mode -- so the administrator can make changes, if desired -- as follows.

"Current operation mode is (...). For day, Dial-1; for lunch, Dial-2; for night, Dial-3; for emergency, Dial-4; for automatic, Dial-5", as shown in the following table.

After a menu selection, a prompt announces the new selected mode as the current operation mode. Any selection in this menu will return the administrator to the Administration Menu.

Operation mode menu		
Menu choice "Dial..."	Instruction "for..."	This menu choice will activate the ...
1	"for day".	... day operation mode. In this mode, emaGEN will play all day greetings. Dialing [0] (zero) for an operator will transfer calls to the day-operator's extension.
2	"for lunch"	... lunch operation mode. In this mode, emaGEN will play all lunch greetings. Dialing [0] (zero) for an operator will transfer calls to the lunch-operator's extension.
3	"for night"	... night operation mode. In this mode, emaGEN will play all night greetings. Dialing [0] (zero) for an operator will transfer calls to the night-operator's extension.
4	"for emergency"	... emergency operation mode. In this mode, emaGEN will play the greetings. Dialing [0] (zero) for an operator will transfer calls to the appropriate operator's extension.
5	"for automatic"	... automatic operation mode. In this mode, emaGEN will go into the proper operational mode based on the clock settings in the department definition screen.

15.3.11 Record names mailbox selection

The record name mailbox selection -- accessed from the Administration menu -- announces:

"Enter mailbox number, or dial * to exit."

1. Enter the mailbox number.

If the name is already recorded, it is played, and then the system prompts:

"To rerecord Dial-1, to exit Dial-*".

If the name is not recorded, the system will read out:

"Mailbox number (...)".

2. When the mailbox number is read out, immediately record the name you want to assign that mailbox to.

15.3.12 Group name selection

The group name selection -- accessed from the Administration menu -- announces:

"To create a list dial 1, to record name dial 2, to delete a list dial 3, for member options dial 4, for link options dial 5, to continue dial *", as shown in the following table.

NOTE

The group options under system administrator menu pertain only to the general global groups. For a private list (for the system administrator) use the mailbox owner menu.

Group name selection	
Menu choice "Dial..."	Instruction "to ..."
1	"to create a new list"
2	"to record a name for a list"
3	"to delete a list"
4	"to add, delete and review members of a list"
5	"to create, delete and review a link for a list"

15.3.13 Time or date menu

The time or date menu -- accessed from the Administration menu -- announces:

"for system Dial-1; for system date Dial-2"

Select time or date

Time or Date menu		
Menu choice "Dial..."	Instruction "for..."	This menu choice will ...
1	"for system time"	emaGEN prompts you to "enter a four digit time, and Dial-* for AM or # for PM".

2	"for system date"	emaGEN prompts you to "enter a two digit month" -- Enter month. emaGEN then prompts you to "enter a two digit day" -- Enter day. emaGEN then prompts you to "enter a two digit year" -- Enter year.
*	"exit"	To exit at any point.

15.3.14 Mailbox administration

The mailbox administration menu -- accessed from the Administration menu -- announces:

"to add a mailbox Dial-2; to delete a mailbox Dial-3; to edit a mailbox Dial-4; to reset message waiting indicator Dial-5".

Mailbox Administration menu		
Menu choice "Dial..."	Instruction "to..."	This menu choice will ...
2	"to add a mailbox"	This selection allows the system administrator to call from a remote telephone and open a new mailbox. After selecting a new box number, emaGEN will prompt to enter the extension numbers for this box, class of service, department and digits for first and last name (for directory assistance). After entering all the details, emaGEN will readout the entries and allow you to modify. If all parameters are correct, press # to complete the operation
3	"to delete a mailbox"	Enter the desired mailbox number to be deleted. Press # to verify deletion. This will entirely erase the mailbox from the system.
4	"to edit a mailbox"	This operation is similar to adding a new mailbox, with the difference that in this case you should enter an existing mailbox number, rather than a new one. emaGEN reads out the current parameters, and allows you to change any of them.

5	"to reset message waiting indicator"	In case the phone system is shut down, and all message waiting indicators go off, this feature allows the administrator to order emaGEN to check all the mailboxes, and light message waiting indicators for all the mailboxes with messages in them. As soon as you dial 5, the feature starts working and adjust all mailboxes.
---	--------------------------------------	--

15.4 GENERAL COMPANY VOICE PROMPTS

	Description
A.	<p>These are the first prompts played in the system except for scheduled holidays.</p> <p>emaGEN will play these prompts automatically according to the clock settings.</p> <p>The prompts will be played if the setting for these prompts is activated.</p>
B.	<p>This prompt identifies the system department that is being called.</p> <p>111 is the prompt for the first of the nine departments available in one emaGEN system.</p>
C.	<p>This portion of the greeting deals with actions that a caller can take, such as dialing a number for an extension or for a listed department, etc. These actions are determined by the operating mode of the system (such as operator's extension, alternate operator, etc.). This prompt is available to all nine departments as numbers 121 through 129.</p>
D.	<p>This prompt, if recorded, is designed to instruct a caller to take different actions intended specifically for lunch time. This prompt will be played when the system enters into the lunch mode (either manually or when the automatic mode switches to the lunch setting) where different extensions are assigned to answer as operator and alternate operator. This prompt is available to all nine departments as numbers 131 through 139.</p>

E.	This prompt, if recorded, is designed to instruct a caller to take different actions intended specifically for night time (usually after working hours). This prompt will be played when the system enters into the night mode (either manually or when the automatic mode switches to the night setting) when different extensions are assigned to answer as operator and alternate operator. This prompt is available to all nine departments as numbers 141 through 149.
F.	This prompt is designed to be played in case of emergency, when the system is switched to the emergency mode. This prompt is available to all nine departments as numbers 151 through 159. If there is only one department in the system, the emergency greeting can be edited from the "for emergency greeting" menu option of the Administration Menu.
G.	161.ENG through 16999.ENG -- Sub Menu Greeting The purpose of this prompt is to instruct a caller how to reach another destination or an operator, when returning from a previous destination. This prompt is available to all nine departments as numbers 161 through 169.
H.	16 Holiday Greetings This prompt is available to all nine departments as numbers 121 through 129. These are system greetings. They are shared by all departments. If recorded and scheduled, these greetings will be played before all other prompts when a call comes in on a scheduled holiday.
I.	e maGEN allows each department its own on hold prompts. These can be promotional prompts and are recommended not to exceed 60 seconds per prompt. Please note these prompts are not the system music on hold. They are only heard by the caller if they are put on hold within e maGEN, in the following instances: <ul style="list-style-type: none"> • while overhead paging a user • in Call Queuing • while a caller is put on hold using emaGEN Client
J.	These are system prompts. They are shared by all departments. 8 different paging announcements are available to be played on a public-address system. (Refer to site V.M. parameter for scheduling and paging zones.)

Section 15: THE SYSTEM ADMINISTRATOR

K.	<p>291-299 - Directory Assistance List</p> <p>emaGEN allows each department to record the list of all the mailbox owners and their mailbox number, to be played in directory assistance when the caller requests a list of all members.</p> <p>-- Department 1 - 291 -- Department 6 - 296 -- Department 2 - 292 -- Department 7 - 297 -- Department 3 - 293 -- Department 8 - 298 -- Department 4 - 294 -- Department 9 - 299 -- Department 5 - 295</p>
L.	<p>291-299 -- ACD-Queue announcements</p> <p>Some switches will send information to emaGEN to play a particular file when a call is on hold in an ACD queue. These announcements are recorded as files with numbers identical to the number the switch sends.</p> <p>For example, if the switch sends announcement number 10, you will need to record prompt 10. for prompts 1 through 9 use 01 to 09 (i.e. always use a two digit number).</p>

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Section 16

VOICE PROMPTS

16.1 GENERAL

System greetings are recorded in OKI32 format (Dialogic VOX 8000hz sampling, mono, 16 bit).

All greetings are recorded using the system administrator option number 2 – record prompts.

The voice prompts for each language are stored in a separate directory, and the extension of the file name represents the name of each language. For example, the file name extension is:

- ENG for English;
- FRE for French;
- SPA for Spanish.

Each department has its own set of prompts, however, the following voice prompts system wide:

- the first three prompts -- 100,101 and 102;
- the holiday greetings -- 171 through 185 and
- the paging announcements (281-288).

The last digit or digits of a prompt number indicate the department. Thus, for example:

- prompt 111.ENG is the main greeting for department 1;
- prompt 1134.ENG is the main greeting for department 34;
- 11567.ENG is the main greeting for department 567.

16.2 VOICE PROMPT LIST

Voice Prompt No.	Description/Wording Example
100.ENG	"Good morning"
101.ENG	"Good afternoon"
102.ENG	"Good evening"
111.ENG through 11999.ENG	Main greeting for each department. "Thank you for calling e maGEN."
121.ENG through 12999.ENG	Day Time Action for Each Department. "With a touchtone phone you may dial your party's extension at any time. For directory assistance dial "9", or hold for an operator."
131.ENG through 13999.ENG	Lunch Time Action for Each Department. "With a touchtone phone you may dial your party's extension at any time. For directory assistance dial "9", or hold for an Operator."
141.ENG through 14999.ENG	Night Time Action for Each Department. "Our office is currently closed. However you may dial your party's extension at any time to leave a message. For directory assistance Dial "9"."
151.ENG through 15999.ENG	Emergency mode Action for Each Department. "We are closed today due to bad weather conditions. If you wish to leave a message, dial your party's extension, or to leave a general message, wait for the tone."
171.ENG through 185.ENG	Holiday mode Action (system wide). "We are closed for the holiday. If you wish to leave a message dial your party's extension, or to leave a general message, wait for the tone"
191.ENG through 19999.ENG	Hold Announcements.
281.ENG through 288.ENG	8 Paging Announcements (system wide).
291.ENG through 29999.ENG	Directory Assistance list. "For nnn dial xxx, for nnn2 dial xxx2, ...", where: nnn = name of mailbox owner, xxx = mailbox number of this owner.

Section 17

REPORTS

17.1 REPORT TYPES

emaGEN features various statistical reports, enabling the administrator to keep track of system activity.

The reporting tool is a web based tool, and can be viewed using any standard Internet browser. You can use all the standard browser options to browse, print or save the report to a file.

To access the **Reports --> Main Menu** screen, shown in Figure 16-1, below:

- simply point your browser to the IP address of **emaGEN**,
or
- in the local machine, use "localhost" as the URL.

Each of the various report types -- described briefly below -- can be accessed directly from the list appearing on the Reports Main Menu screen.



Figure 17-1 Reports --> Main Menu screen

17.2 MAILBOX LIST

This report includes the following basic information about each mailbox on the system.

Mailbox:	Mailbox number
Ext#:	Primary extension for this mailbox
Subscriber Name:	Subscriber's last and first name
Dep:	Department of mailbox
COS:	Class of service of mailbox
Usage:	Total messages left in mailbox since it was created
Tot_m:	Total messages currently in mailbox
New_m:	Number of new messages in mailbox
Sav_m:	Number of saved messages in mailbox

17.3 MAILBOX USAGE

This report provides information about incoming calls to each mailbox. It may be viewed in three different ways.

17.3.1 Mailbox usage by date

Select start and end date for the report.

The report shows all calls to each mailbox between the two selected dates.

Mailbox:	Mailbox reported
Call:	Sequential number of the incoming call
Date:	Date of incoming call
Call Duration:	Duration of incoming call
Mailbox Total:	At the end of each mailbox report, the total number of calls to this mailbox and their total duration are displayed.

17.3.2 Mailbox usage daily

Select start and end date for the report.

The report shows all calls to each mailbox between the two selected dates, including a daily total.

Mailbox:	Mailbox reported
Call:	Sequential number of the incoming call, reset each day
Date:	Date of incoming call
WD:	Day of the week
Time:	Time of day, ???NOT CLEAR -- HOURS AND MINUTES -- TBD???
Call Duration:	Duration of incoming call
Port:	The port in which the call came through
User:	Who used the box: 20 - Owner, 10 - Outside caller
Day Total:	At the end of each day, the total number of calls to this mailbox on this day and their total duration are displayed.
Mailbox Total:	At the end of each mailbox report, the total number of calls to this mailbox and their total duration are displayed.

17.3.3 Mailbox usage daily detail

Select start and end date for the report.

The report is similar to the Mailbox usage by date report, in addition to which it includes day of week, time, port and user.

17.4 SYSTEM GROUP LIST

This report shows all groups in the system and the mailboxes included in each of them.

Group #:	Group number reported
Name Recorded:	Is name recorded or not
Linked To:	Group number of the linked group
Group Name:	Name of the group
Members:	Numbers of all mailboxes included in this group

17.5 PORT STATISTICS

This report provides statistical information about the activity of each port.

Select start and end date for the report.

Port:	Port number
#Sub:	Number of calls by subscribers to this port
#Non-subs:	Number of calls by non-subscribers to this port
#Out:	Number of outgoing calls from this port
Total#:	Total number of calls to and from this port
Min_in:	Incoming call duration to this port (in one minute units)
Min_out:	Outgoing call duration from this port (in one minute units)
Total:	Total duration of calls to and from this port (in one minute units)
Trans:	Number of transfers done by this port
Conn.:	Number of outgoing calls that were connected

17.6 SYSTEM STATISTICS

This report provides statistical information about the entire system, according to specific dates.

Select start and end date for the report.

#Ports:	Number of ports in the system
#Sub:	Number of calls by subscribers to the system
#Non_subs:	Number of calls by non-subscribers to the system
#Out_calls:	Number of outgoing calls from the system
#Conn.:	Number of outgoing connected calls
#Total:	Total calls to and from the system
#Inbound	MIN.:Number of inbound minutes to the system
#Outbound min.:	Number of outgoing minutes from the system

#Total min.:	Total minutes the system was used (inbound and outbound)
#Avg.conn.min.:	Average connection time of all calls to and from the system
#Transfer:	Number of calls transferred from the system

17.7 HOURLY SYSTEM STATISTICS

This report provides statistical information about calls to and from the system, shown in hourly distribution.

Select start and end date for the report.

Hour:	The time of activity (starting at the number specified). For example, midnight to 1 AM is hour 1, that is, number 1; etc.
#Sub:	Number of calls by subscribers during this hour
#Non-subs:	Number of calls by non-subscribers during this hour
#Out:	Number of outgoing calls during this hour
Total#:	Total number of calls during this hour
Min_in:	Incoming call duration during this hour (in one minute units)
Min_out:	Outgoing call duration during this hour (in one minute units)
Total:	Total duration of calls during this hour (in one minute units)
Trans:	Number of transfers done during this hour
Conn.:	Number of outgoing calls that were connected during this hour
Busy:	Number of times all ports were busy simultaneously during this hour

17.8 OUTBOUND CALLS

This report shows all out bound calls from each mailbox.

Select start and end date for the report.

Mailbox:	Mailbox reported
Date:	Date of outbound call
WD:	Day of the week
Time:	Time of day
Result:	Result of call: connected, busy, no answer
Call Duration:	Duration of outbound call
Number Dialed:	The outbound number that the system dialed
Mailbox Total:	At the end of each mailbox list, the duration of all its outgoing calls is displayed

17.9 FULL REPORTS

This file contains all the raw data for each day the system is active. The Full Report file is an ASCII file and can be used for further processing.

The format of the file is:

item	bits	content details
port number	2	
time	6	
department	1	
mailbox	7	
week day	1	
duration	6	
user type	2	10=subscriber, 20=non-subscriber, 30=system(callout)
call transfer	1	1=yes, 0=no
call direction	1	1=outbound, 2=inbound
call result	2	7=busy, 8=no answer, 9=no ring, 10=connect, 11=operator intercept, 12=fax machine, 13=answering machine
sequence dialed caller ID	20	T=tone dial, P=pulse dial, "-"=pause

Section 18

FAX

18.1 INTRODUCTION

The Fax-On-Demand and Fax Mail options of the **emaGEN** system are a combination between the voice functionality of the system and the fax card, which serves as the fax interface.

It can be accessed by clicking the Fax Settings heading on the the **Site --> General** screen, shown in Figure 7-1, in Section 7, above.

18.2 FAX PARAMETERS

The **Site --> Fax Settings** screen -- shown in Figure 18-1, below -- contains parameters that configure the fax for your particular site, as follows.

Company Name

In this field you should enter the company name in the way you wish it to appear in the receiving fax.

Legal values: Up to 40 characters

Default: None

Action: Enter company name.

Outbound calls prefix

Use this field to specify any special sequence needed to access an outbound line (e.g. 9).

Legal values: Up to 7 digits

Default: None

Action: Enter prefix sequence.

[General Settings](#)
[CID Routing](#)
[Fax Settings](#)
[Holidays](#)
[PA Settings](#)
[Global Groups](#)

Company name

Outbound calls prefix

Default area code

Area code prefix

General delivery mailbox

Cover page

Transfer to mailbox when fax tone detected

Length of local number

Dialing method Pulse Tone

Device	Mailbox
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Figure 18-1 Site --> Fax Settings screen

Default area code

Use this field to enter the local area code. **emaGEN** will not dial the area code of a requested number if it matches the default area code.

Legal values: Up to 3 digits

Default: None

Action: Enter local area code.

Area code prefix

When an area code is dialed, it sometimes requires a prefix (1 in the US). This field specifies the area code prefix, if any.

Legal values: Up to 3 digits

Default: None

Action: Enter area code prefix.

General Delivery Mailbox

For fax-mail, when the **e**maGEN detects a fax signal on an incoming call, without any specified mailbox, it will automatically save the fax in this mailbox.

Legal values: Any valid mailbox
Default: None
Action: Enter General Delivery Mailbox number.

Cover Page

If you would like your faxes to be preceded by a cover page, enter a file name to be sent as a fax cover sheet.

Legal values: A file name
Default: None
Action: Enter cover page file name.

Transfer to mailbox

If **e**maGEN detects a fax signal when answering a line, it will transfer immediately to this mailbox, which is an extension connected to a fax machine.

Legal values: Any valid mailbox
Default: None
Action: Enter mailbox number.

Length of local call number

When analyzing a number to dial, **e**maGEN will not check a number for area code, unless it is longer than the length of a local number.

Legal values: Up to 30 digits
Default: None
Action: Enter length of local call number.

Dialing Method

Faxes can be sent using Tone or Pulse dialing. Select the method in which your phone network works.

Legal values: Tone/Pulse
Default: Tone
Action: Click to select either Tone or Pulse

18.3 FAX LINES

The fax lines list -- on the **Site --> Fax Settings** screen, shown in Figure 18-1, above -- is required to match between the fax devices and the actual analog extensions to which the fax device is connected. For each fax device, define the mailbox/extension it is connected to.

18.4 FAX MAIL

18.4.1 Receiving Faxes

If you have a dedicated fax card with DID's, a fax can be automatically received and placed in a mailbox with the corresponding DID number.

See the Fax DID field on the **Mailbox --> Properties** screen, Figure 11-1, in Section 11, above.

18.4.2 Retrieving Faxes

There are two options to retrieve messages:

- using unified messaging
- or
- through the phone.

A. Unified Messaging

For unified messaging, refer to the mailbox e-mail settings. Faxes are received by the e-mail client as an attachment to an e-mail, and can be viewed using any fax viewer (standard on windows 98/Me/2000). The fax can then be printed, stored or forwarded.

B. Telephone interface

The owner will hear the fax option in their mailbox and can specify a fax number to which those messages will be sent.

18.5 FAX-ON-DEMAND

18.5.1 General

Fax-On-Demand is executed through the script generator. It is essential to adapt the script implementation to the fax configuration. The commands in the script generator are capable of controlling whether to send immediately or to ask for a fax number and dial to

this number.

18.5.2 Same Call (One-To-One)

To implement this mode, make sure the fax card is connected directly to the voice port. A script, which handles this mode, should include a selection of the document number followed by a TransFax command.

18.5.3 Return Call (Dedicated line)

To implement this mode, make sure there is a fax card independent of all voice ports, and which is defined as FAX ONLY.

18.5.4 Same Call and Return Call combination

In order to use the two modes in the same system:

1. Make sure you have a dedicated card in addition to the on-line card.
2. Port definition must include FAX ONLY ports, as well as VOICE+FAX ports.
3. Use a special script command (Menu 1 Digit /S) to divert the call according to the relevant options.

What are the relevant options?

There are several cases which may occur, when using the combined mode:

1. All voice lines are equipped with a one-to-one fax card, and in addition there is one or more independent fax lines. In this case, a caller to each line will have the option to get on-line or return-call fax.
2. Some voice lines are equipped with one-to-one fax. A call comes in on a line equipped with fax: the caller will have both options.
3. Some voice lines are equipped with one-to-one fax. A call comes in on a line not equipped with fax: the caller can be told to call a different line for on-line or enter a number for return-call.
4. None of the voice lines is equipped with a fax card. Only dedicated fax is available. The system will prompt the caller to enter number for redirection.

18.5.5 Fax Function Descriptions

To create a fax-on-demand script, four functions are available:

- Choose Doc.
- Get Phone No.
- Trans. Fax.

- Menu 1 Digit,

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 to send the document to.

- 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 are:

- No Parameter -- Send the selected fax (Choose Doc.) to the selected number.
- /D -- Play the selected document number (to confirm entry).
- /P -- Play the selected telephone number (to confirm entry).
- /S -- Submit fax to queue in a dedicated line call.
- /O -- Send fax in an on-line call.

To send a specific document number (as required by the Menu 1 Digit command), add the document number to the:

- /O -- for example, if the document number is 110, then the command is TransFax/O110;
or
- /S -- for example, if the document number is 110, then the command is TransFax/S110.

OK: Fax sent.

ERR: Not able to send fax.

Menu 1 Digit /S:

This command checks the configuration of the current line and the fax setup of the entire system. It checks whether the current line can be used for on-line, and if other lines can also be used as on-line and as return-call.

It returns one of the following values:

1. This line is equipped with on-line fax and there are no dedicated faxes.
2. This line is equipped with on-line fax and there are also dedicated fax lines.
3. This line is not equipped with on-line fax but there are dedicated fax lines.
4. This line is not equipped with on-line fax, there are no dedicated fax lines, but there are other on-line fax lines.
5. There are no fax lines on the system.

The current value returns as an entry in the Menu 1 Digit. You should specify the five cases in the number boxes. According to the status, the script goes to the relevant option; for example, if the return value is 1 -- the script will continue to the line corresponding with entry 1.

Document Selection

The document can be selected in two ways:

- ChooseDoc - and a parameter indicating the number of digits to receive.
You should record a message "Please enter document number".
- Menu 1 Digit - record a message containing a list of available documents.
For each document assign a corresponding menu entry, which will go to a separate line in the script. This line should contain a TransFax with a specific document number.

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Section 19

*e*Manager PROGRAMMING FOR *ema*GEN IN *unite* SYSTEMS

19.1 GENERAL

This section provides a description of **unite** programming requirements for **ema**GEN, utilizing the **unite eManager**.

It is assumed that the technician or System Administrator performing the following system configuration procedures is thoroughly familiar with the use of the **unite eManager**.

For further information on **unite** system configuration programming, see the **unite** family of Systems Administration manual.

19.2 SYSTEM CONFIGURATION PROGRAMMING

19.2.1 CARD CONFIGURATION Screen

You use this screen to assign a location for the OCD card(s), which hold(s) the MIM(s) required for **ema**GEN operation.

Step 1

1. From the System Configuration heading Y, select the Card Configuration Screen.
The program displays the Card Configuration Y-S Screen.
2. Select a card position in the system cabinet for each OCD card used by **ema**GEN.

Keep in mind these considerations:

- Each OCD card can only hold three MIMs, serving a maximum of 12 **ema**GEN ports;
- If more than one OCD card is required for a 16 port **unite 400** system, or for a 28 port **unite 1000** system, you can

balance system load and improve performance by programming one of the OCD card to handle the **eMaGEN** ports supporting System Dial By Name. You may consider these reasons important enough to have a second OCD card even with an **eMAGEN** system of 12 or fewer ports;

- An OCD card can be located in any card position except for the slot reserved for the MPD card.

The selected OCD card position may be either:

- An undefined card position;
 - A card position previously defined for an OCD card, for purposes other than **eMaGEN** voice channels, if that OCD card has available space for the required number of MIMs to supply the needed voice channels for **eMaGEN**.
3. Move the cursor to the selected card position.
 4. Type **ocd** if this is a new OCD card position.

NOTES

If your **unite 400** system has the model STS MPD card in a single cabinet, you should have already adjusted the cabinet type to the Extended option.

For **unite 400** and **unite 1000** configuration programming, you should have already decided the number of cabinets in your system.

Step 2

1. Press the **[Edit Units]** icon with the cursor on the OCD card in the Card Configuration Y-S Screen.
The program displays the OCD Card Module Definition screen.
2. Move the cursor to each potential location for a MIM on the OCD card dedicated to **eMaGEN**.
3. Type **mim**, followed by ENTER, in each of the selected module positions.
4. Press the **[Save]** icon to save your data entry.

Step 3

1. Press the **[System Info]** icon while at either:
the Card Configuration Y-S Screen, referred to in Step 2, above,
or
the OCD Card Module Definition Screen referred to in Step 2, above.

Section 19: eManager PROGRAMMING FOR emaGEN IN unite SYSTEMS

The program displays the Units/Resources Information window, containing the question:

Units/Resources Info (U/R) :

2. Press the **[Resources selection]** button to obtain a display of system resources.

The screen displays information on the already assigned relays, sensors, DTMFs, and voice channels, located on installed OCD and MPD cards (STS model only in **unite 400** system) in your **unite** system.

NOTE

You cannot add any information to the Resources Information Screen.

Note the numbers of the voice channels that appear opposite the MIM(s) earlier programmed. This data has been automatically added by the program as a result of your programming of MIM locations on the OCD Card Module Definition Screen. You will require this data for subsequent programming steps.

3. Press the **[Units selection]** button to obtain a display of system unit and power information.

NOTE

You cannot add any information to the Units Information Screen.

From this screen, note the totals on the already assigned or used ports and highways, and the consequent number still available. Also note any limitations on station assignments as a result of power limitations. This information may be relevant to **emaGEN** port assignments, as described in the following section.

19.2.2 IVM/serial Applications Screen

You use this screen to assign serial port usage to the OCD cards assigned to the **emaGEN** ports and voice channels.

Step 1

1. From the System Configuration heading, select the IVM/Serial Applications Screen, Y-1.

Note that the first three use lines have applications automatically assigned by the system.

2. Move the cursor to the location field of the first available serial use line.
3. Enter the OCD card cabinet and slot number as assigned in Section 19.2.1, above.

Entering an unassigned card position or a position assigned to a card other than an OCD or COL/CHL/COG card brings an error message. For **emaGEN** programming purposes, data entry only deals with OCD cards.

The program automatically displays the default baud rate appropriate to the application.

4. Leave the parity field blank when entering IVM1 or IVM2 in one of the APP fields.
5. Enter IVM 1 in the APP1 field.

If you make the entry without a space, the system will automatically enter it. If you enter the value in a higher number application field (APP2-5), and there is an available lower number field, the program automatically moves the entry to the lowest field.

The entry IVM 1 designates the first OCD card holding MIM(s). The entry IVM 2 designates the second OCD card holding MIM(s). You would use the IVM 2 entry only if:

- There is a requirement for two cards in a 16 port system.
- You have installed a second card to balance system load.

If there is a need to designate a specific **emaGEN** application, it should be on a different serial use line.

Up to 10 OCD cards can be used in a **unite 1000** system, with a maximum of 28 IVM ports.

6. Press the **[Save]** icon to save your data entry.

If you need help in remembering OCD card locations:

- Press the **[System Info]** icon to display the CARDS INFO Screen.

Note the required information and press the **[Prev]** icon, to return to the IVM/Serial Applications Screen.

Step 2

- With the cursor on the IVM 1 or IVM 2 entry in the application field, press the **[Edit Units]** icon to display the **emaGEN** Definitions Screen.

This screen lists the 28 **emaGEN** voice mail ports possible, and

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provides blank fields for entering voice channel and DN numbers for each **emaGEN** voice mail port

To complete the screen:

1. Move the cursor to the first position in the Voice channel column, opposite **emaGEN** Card #1, Port number 1.
2. Type in the number of the first of the assigned voice channels viewed and noted in step 3 of Section 19.2.1 above.

You cannot enter a voice channel number unless you have defined the MIM in the section above. If the voice channel is assigned to another use or undefined, the program displays an error message to that effect.

After defining the voice channel:

3. Move the cursor to the DN field and assign the desired DN for the **emaGEN**.

If you attempt to assign a DN without assigning a voice channel first, the program displays an error message to that effect.

In selecting the DN for each **emaGEN**-PC port/voice channel, you can use any legal extension DN, including up to four digits from 0 to 9.

NOTE

The # and * characters should not be used as digits in a DN.

To view all DN numbers already defined, and thus unavailable for use in your **unite** system:

4. Press the **[DN List]** icon.
The program displays the DN LIST Screen.

Note that the screen displays the voice mail related DNs that are described below.

- View on this screen the details of all DNs already assigned.
5. Mentally select a block of unassigned DN numbers that satisfy the following requirements:
 - a consecutive group of DNs to be assigned to **emaGEN**-PC port/voice channels;
 - a single DN, to be assigned to the **emaGEN** hunt group. See Section 19.4, below.
 6. Press the **[Prev]** icon to return to the IVM Definitions Screen.

NOTE

You cannot add any information to the DN LIST Screen.

7. Continue in similar fashion, assigning voice channels and DNs to all the **eMaGEN** ports in your system.
8. Press the **[Save]** icon to save your data entry.

19.2.3 eMaGEN configurations

Following are summaries of different possibilities for the physical configuration of **eMaGEN**.

To install **eMaGEN** with up to 12 or 16 ports

You require:

- One **eMaGEN** card -- of either the Vantage Volare, Quartet or RDSP 432 type -- in the PC for each four ports.
- One MIM on an OCD card for each four ports.
- One RS232 signaling cable, connecting the first **eMaGEN** card to the first OCD card.

On the IVM/Serial Applications Screen (Y-I):

- Enter the location of the OCD card to which the RS232 cable is connected.
- Enter IVM 1 in the **APP 1** parameter for that location.

To solve a problem of heavy signalling traffic:

If you have installed **eMaGEN** and SMDR and your system exhibits a problem of heavy signaling traffic, you can solve this problem by using a second RS232 signaling cable.

This requires:

- One **eMaGEN-PC**
- Two **eMaGEN** cards installed in the PC
- Two OCD cards with sufficient MIM modules defined on them.
- Two RS232 signaling cables.

To program this configuration:

1. Use the first RS232 cable to connect the first OCD card to the first **eMaGEN** card. On the IVM/Serial Applications Screen (**Y-I**) enter the location of that OCD card and enter IVM 1 in the **APP1** parameter for that row.
2. Use the second RS232 cable to connect the second OCD card to the second **eMaGEN** card. On the IVM/Serial Applications Screen (**Y-I**), enter the location of that OCD card in the second row, for the SMDR application. Enter DBN in the **APP2** parameter for that row.

To solve a problem of very heavy signaling traffic:

If you have installed **emaGEN** and your system exhibits a problem of very heavy signaling traffic, you can solve this problem by using two RS232 cables. This requires:

- One **emaGEN-PC**
- Two **emaGEN** cards installed in the PC
- Two RS232 cables
- Two OCD cards with sufficient MIM modules defined on them.

To program this configuration:

1. Use the first RS232 cable to connect the first OCD card to the first **emaGEN** card. On the IVM/Serial Applications Screen (**Y-I**) enter the location of that OCD card and enter IVM 1 in the **APP1** parameter for that row.
2. Use the second RS232 cable to connect the second OCD card to the second **emaGEN** card. On the IVM/Serial Applications Screen (**Y-I**) enter the location of that OCD card and enter IVM 2 in the **APP1** parameter for that row.

NOTE

In order to assure proper functioning of the Speech Recognition feature, it is recommended that adequate memory be installed in the **emaGEN-PC**.

128 MB memory should be added to an **emaGEN-PC** with an initial memory of 128 MB, for every four additional voice ports installed in the system -- when upgrading from the initial four voice ports.

19.3 DEFINING THE **emaGEN** HUNT GROUP

Define the **emaGEN/IVM** hunt group:

Step 1

1. From the Station Group Features heading, select the Hunt Groups Screen.
The program displays the Hunt Groups I-H Screen.
2. Move the cursor down to the row with the first unassigned hunt group number, which will be used to designate the **emaGEN** hunt group DN.
3. To view all DN numbers and station types already defined in your

unite system:

Press the **[DN List]** icon.

The DN LIST Screen appears. Remember that the screen is for viewing only; you cannot add any information.

4. Select any available legal extension.
5. Enter the necessary parameters for the hunt group dedicated to **emaGEN**.

These parameters are:

- DN of the **emaGEN** hunt group;
 - The name of the **emaGEN** hunt group, consisting of up to five alphanumeric characters, such as, IVMHN, for example;
 - Hunt type, the type of search the **emaGEN** hunt group will make to identify the next extension to ring;
 - Busy forward extension, to which calls will be forwarded in the event the **emaGEN** hunt group is busy;
Although you can designate an attendant position, ICI queue, hunt group, announcer DN or a recorded announcement as the busy forward extension for the hunt group, for **emaGEN** purposes you assign a recorded announcement, RAN1 in the example.
 - Announce rate. You are able to enter data into the Announce rate field, which defines the time between announcements, only if you have entered a Recorded Announcement Number (RAN) in the Busy Forward field.
 - ICM Group and ICM Class. See Section 19.7.
6. Press the **[Save]** icon to save your data entry.

Step 2

1. Press the **[Edit Units]** icon.

The program displays the Allocate To Hunt Groups Screen, with the group DN and hunt number of the **emaGEN** hunt group at top center of the screen;

The screen also displays the number of remaining possible station entries in the upper right corner of the screen. There is a system maximum of:

- 256 entries in a **unite 128** system
- 512 entries in a **unite 400** system

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- 925 entries in a **unite 1000** system.

In the first field, enter the first DN to be assigned to the **emaGEN** hunt group:

2. Type the DN number.
3. Press ENTER.

The DN numbers which will belong to the group should be identical, in numbers and in sequence, with the DN numbers of the ports/voice channels that were assigned in Section 19.2.2, above.

4. Following the same procedure, type in the DN numbers of all the members of the **emaGEN** hunt group.
5. Press the **[Save]** icon to save your data entry.

To delete a DN from the hunt group:

1. Place the cursor on the DN number to be deleted.
2. Type [-]
The deleted DN number disappears from the Allocate To Hunt Groups Screen.

Step 3

This step allows you to verify the hunt groups to which the different stations are assigned and to ensure that all **emaGEN** DNs are assigned to the desired hunt groups.

1. Press the **[System Info]** icon.
The screen displays the Enter Station DN query window:
Enter station DN:
2. Enter the DN of any defined station in the system.
If the station has not been assigned to any hunt group, the program gives a message to that effect;

If the DN is undefined, the system gives an error message;

If the station has been assigned to at least one hunt group, the program displays the Hunt Group List Screen.

After noting the assignments:

3. Press the **[Prev]** icon to return to the Hunt Groups Screen.

19.4 DEFINING THE IVM HUNT GROUP

You use the IVM Hunt Groups screen to assign and define the:

- **e**maGEN hunt group DN
- maximum number of ports for **e**maGEN
- maximum number of ports for recorded announcer (RAN).

Maximum ports for **e**maGEN voice mail

Enter a number to define the maximum number of ports used for voice mail. This field is used to limit the number of voice mail ports that will receive calls. The remainder of the voice mail ports will be dedicated for recorded announcements.

The maximum number of ports in a **unite** system is 28.

If the number in this field is equal or greater than the number of voice mail ports, then no ports will be reserved exclusively for recorded announcements. See *Maximum ports for recorded announcement*, below.

Maximum ports for recorded announcement

Enter a number to define the maximum number of ports used for recorded announcement. This field is used to limit the number of voice mail ports that will be reserved for recorded announcements. The remainder of the voice mail ports will be reserved for the exclusive use of voice mail.

The maximum number of ports in a **unite** system is 28.

If the number in this field is equal or greater than the number of voice mail ports, then no ports will be reserved exclusively for voice mail. See *Maximum ports for voice mail*, above.

To define the IVM hunt group:

1. From the Station Group Features heading, select the IVM Hunt Groups Screen.

The program displays the IVM Hunt Groups Screen.

Enter the DN of the **e**maGEN voice mail hunt group defined in Step 1 of Section 19.4, above.

2. Enter the maximum number of ports for voice mail (see explanation above) -- 1 to 28 for a **unite** system.
3. The maximum ports for Recorded Announcements (see explanation above) -- 1 to 28 for a **unite** system.
4. Press the **[Save]** icon to save your data entry.

19.5 RING ROUTING

You must route trunk groups serving **emaGEN** subscribers in the **unite** system to the **emaGEN** hunt group, in order for incoming external calls to utilize **emaGEN** features.

Ring routing programming is described below, in Section 19.5.

NOTE

Divert calls to **emaGEN**/IVM in the following screens:

- Station Attributes (F-A) (DND forward parameter)
- Interflow/overflow Programming Screen (C-P-[**Edit Units**] icon) (Inflow port parameter).

To ring route regular and half private trunk groups:

1. From the Trunk Groups heading, select the GR-RF Screen . The program displays the REG.HP/GROUPS FEATURES Screen.
2. If there is an entry in the ATT Route parameter, delete it.
3. Enter the IVM Hunt group DN in the Day Route and Night Route parameters for the appropriate trunk groups.

To ring route private trunks:

1. From the Private Trunks heading, select the Private Trunk Features screen. The program displays the Private Trunk Features P-T Screen.
2. If there is an entry in the ATT Route parameter, delete it.
3. Enter the IVM Hunt group DN in the Day Route and Night Route parameters for the appropriate trunk(s).

To ring route TIE/DID trunks:

1. From the Programming screens menu select the DID Routing screen heading. The program displays the DID Routing Screen.
2. If there is an entry in the ATT Assign parameter, delete it.
3. Enter the IVM Hunt group DN in the Day Routing and Night Routing parameters for the appropriate trunk groups.

19.6 ASSIGNING A MAILBOX NUMBER AND TENANT STATUS

Assign to each appropriate trunk and/or trunk group:

- An **emaGEN** mailbox number;
- Its status as belonging to one of:
 - up to four tenants in a **unite 128 or unite 400** tenant system,
 - up to 24 tenants in a **unite 1000** tenant system
 - or
 - Automated Interview.

When this is done, the system routes incoming calls on the trunk or trunk group to the specified mailbox for the specified tenant.

The following screens contain parameters for Voice Mailbox and IVM Tenant:

- REGULAR/HP GROUP FEATURES, see Section 19.5, above.
- PRIVATE TRUNK FEATURES, see Section 19.5, above.
- DID ROUTING, see Section 19.5, above.

For each trunk or trunk **emaGEN** group on the above screens for which you want to allocate an **emaGEN** mailbox:

- Type the mailbox number, up to four digits, into the Voice Mailbox parameter.

For each trunk or trunk group on the above screens that you want to assign to one of the **emaGEN** tenants:

- Type into the IVM tenant parameter either
The tenant number, to which you want to assign the trunk or trunk group:
 - T1 to T4 -- in **unite 128 or unite 400**,
 - or
 - T1 to T24 -- in **unite 1000****OR**
- Type **ai**, if you want to dedicate the trunk or trunk group to the automated interview feature.

19.7 ASSIGNING INTERCOM RESTRICTION

A **unite** system (including **emaGEN**), is able to support up to:

- four tenants on a single **unite 128 or unite 400** system,
or
- 24 tenants on a single **unite 1000** system.

If there is a tenant configuration, ICM (intercom) restriction is applied separately for each tenant. If there is no tenant configuration, all extensions default to tenant #1.

ICM group

An ICM group is a restricted internal calling group. You can establish up to:

- four ICM (intercom) groups on a single **unite 128 or unite 400** system
or
- 16 ICM groups on a single **unite 1000** system.

For additional information on ICM restriction see the Feature description manual.

ICM class

The ICM class designation is used to restrict calling within ICM groups. The ICM group and ICM class designations only affect the making and receiving of internal calls. For each Class of Service, you may assign one ICM class to one of the four, or 24 ICM groups -- depending on your specific **unite** system. An extension, assigned a particular COS, can call only those extensions in the designated ICM group (i.e. only those in the same vertical ICM# column) and only those with the ICM group having the same or higher ICM class as defined for that COS. (The highest ICM class is 1. The lowest ICM class is 4).

For example, if COS 1 is assigned to ICM group 1 and is assigned ICM class 3, extensions with COS 1 can call any extension with a COS assigned to ICM group 1 and assigned an ICM class of 3 or 4. In this example, an extension in COS 1 is NOT able to call any extensions in ICM groups 2, 3 or 4 or those extensions in ICM group 1 with an ICM class of 1 or 2

From the Station Group Features heading, select the Hunt Groups screen. The system displays the Hunt Groups I-H Screen.

1. Enter the number (1-4 or 1-16 -- depending on your specific **unite** system) of the ICM group to which you want the IVM hunt group to belong in the IVM group parameter.

2. Enter the number (1-4) of the ICM class in the ICM Class parameter.

19.8 STATION FEATURE PROGRAMMABLE BUTTONS

You must program the two programmable buttons used for *ema-GEN* features, **[CALL SCREEN]** and **[CALL RECORD]**. You can also program a programmable button for **[MESSAGE MONITORING]**.

Assign Voice message **[VM]** buttons to all extensions other than Executive set with expanded display.

19.8.1 Programmable Keys Selection and Station Maps Screen

You use this screen to define the programmable buttons for each type of station in your *unite* system and organize them by map types.

- From the Station Features heading, select the Programmable Keys Screen.

The program displays the Programmable Keys F-P Screen.

This screen lists the default and numbered maps currently defined in the system. In addition to the default maps, your *unite* system allows you to define up to the following number of maps -- each map assigned to a specific type of station:

- 39 different maps -- in *unite 128*,
- 45 different maps -- in *unite 400*,
- 145 different maps -- in *unite 1000*.

Table 19-1, below, lists station types, their names, and their abbreviations.

Modifying a default map will change every station of that type having the default setup. Modifying a specific map will change all stations assigned that map number.

Note that the cursor only moves up and down in the Map type field.

If you wish to use a currently defined map:

1. Move the cursor to the map type definition opposite the number of the station map for which you want to define either or both of these programmable features.
2. Press the **[Edit Units]** icon.
The program displays the selected station map.

Table 19-1: Station types

Abbreviation	Station Names
<i>Avanti telephone sets</i>	
ED	Avanti 3025
	Avanti 3020
SM	Avanti 3015D
SM	Avanti 3015
	Avanti 3000 set
<i>Digital telephone sets</i>	
BA	4 Button Set
SD	Display Speakerphone set / Speakerphone Set
EX1	Executive station with display
EXD	Executive station / Executive station with expanded display
<i>Analog telephone sets</i>	
BK	Basic analog telephone
FB	Four button plus telephone
ST	Standard telephone
EX	Station 10 Executive Analog telephone

If you wish to define a new map:

1. Move the cursor to a blank map type field and enter the desired map type.
After definition, the cursor moves down to the next empty map type field.
2. Move the cursor back to the type you just entered.
3. Press the **[Edit Units]** icon;
The program displays the default station map for that map type, allowing to you modify it, as necessary.

To program the **[CALL RECORD]**, **[CALL SCREEN]**, and **[MESSAGE MONITORING]** buttons:

1. Place the cursor on the button you want to program as a **[CALL RECORD]** button.
2. Type **cr**, the code for the Call record feature, followed by ENTER.
3. Place the cursor on the button you want to program as a call screen button.

4. Type **cs**, the code for the Call screen feature, followed by ENTER.
5. Place the cursor on the button you want to program as a Message monitoring button.
6. Type **mm**, the code for the Message monitoring feature, followed by ENTER.

NOTE

A message monitoring button may only be defined on speakerphone sets.

7. Press the **[Save]** icon to save your map and button assignments after completion of all **[CALL RECORD]**, **[CALL SCREEN]** and **[MESSAGE MONITORING]** button programming.
The program downloads the data and all associated stations are reset.

All telephone sets defined to have this map number will now have programmed **[CALL RECORD]**, **[CALL SCREEN]**, and **[MESSAGE MONITORING]** buttons, in the positions defined above.

To view the various station map numbers and types currently assigned:

- Press **[F3]** while on the Station Definition Screen.
The screen displays a listing of the map numbers with associated station type and station DNs.

To copy a map definition to or from another map:

1. Press the **[Transfer Units]** icon, while on the Programmable Keys Screen, to begin the copy procedure.
The program prompts: Copy map To or From?
2. Enter **t** or **f** as appropriate.
The program prompts:
Enter map number to copy to (or from)
3. Enter the appropriate map number.
4. Enter the map number,
or
Type **def** for a default map.
5. Press ENTER.
The map definition is copied;
If there is no default map for the type you have entered, the program gives you an error message.
6. Press the **[Save]** icon to save your map and button assignments.
The program downloads the data and all associated stations are reset.

NOTE

You may also wish to assign a voice message function code. See the Function Access Codes S-F Screen.

19.9 ATTENDANT FEATURES PROGRAMMING

There are two items which may be necessary to program in the Attendant Features Programming Screen:

- The Call Record button;
- The Attendant Definition for shared use of **emaGEN** among tenant systems (see Section 19.12).

19.9.1 Programmable Keys and Attendant Definition Screen

A programmable button used for the **emaGEN** Call record feature must be programmed for the attendant. This screen defines the attendant position and its programmable buttons.

1. From the Attendant heading, select the Attendant Definition Screen.
The program displays the Attendant Definition A-A Screen, which prompts you to choose the number of the map to define.
2. Move the cursor to the map number, from 1 to 4, on which you want to program one of the buttons as a **[CALL RECORD]** button.
3. Press the **[Edit Units]** icon to have the program display the selected Attendant Map Screen.

To program the **[CALL RECORD]** button:

1. Place the cursor on the button of the Attendant Map Screen you want to program as a **[CALL RECORD]** button.
2. Type **cr**, the code for the Call record feature, followed by ENTER.
3. Press the **[Save]** icon to save your programmable button assignment.
The program downloads the data and the attendant station is reset according to the modified map

19.10 AUTOMATIC CALL DISTRIBUTION PROGRAMMING

You must define the parameters relevant to **emaGEN** Announcer Plans within ACD configuration programming both to both provide recorded announcements and to support the optional Automatic

Call Distribution feature. You define Announcer Plans and then use them as a parameter in the relevant ACD Screens.

19.10.1 ACD Routing Plans Screen

You use this screen to define the parameters of each ACD routing plan, one of which is an announcer plan with recorded announcements.

The screen informs you of the number of available plan entries. the maximum number of ACD plans is:

- 32 for **unite 128**
- 48 for **unite 400**
- 48 for **unite 1000**

1. From the Auto. Call Distribution heading, select the ACD Routing Plans Screen.

The program displays the ACD Routing Plans C-P Screen.

2. Define the relevant parameters for each ACD routing plan that you establish,

or

Add the relevant **emaGEN** information, if the routing plan has already been defined.

These parameters are:

- DN for the ACD routing plan;
- Name of the ACD routing plan;
- Main group number, the ACD group that first receives an incoming call;
- Priority value, establishing the priority of a call arriving from this routing plan into the call answering queue. The priority value can be from 1 to 99, with 1 as the highest priority. The default priority value is 1;
- Announcer plan, the number of the announcer plan serving this ACD routing plan. The announcer plans themselves are programmed using the Announcer Plans Screen, as described in Section 19.10.3 below.

NOTE

Message station is the number of the mailbox where you want callers to an ACD plan to be able to leave a message. A call is forwarded to this mailbox after it has been in the queue long enough for the time entered in the Inflow timer parameter on the Inflow/overflow Programming A-P-[**Edit Units**] icon Screen to elapse. The Inflow

port parameter in this screen must contain the DN of a VS&F device, IVM or an IVM hunt group. The ACD plan's mailbox must also be entered in the **emaGEN**/IVM PC.

3. Press the **[Save]** icon to save your data entry.

19.10.2 Interflow/overflow Programming Screen

You use the Interflow/overflow Programming Screen to define interflow and overflow parameters, one of which may be a voice mail hunt group. These parameters are an essential part of ACD operation. You are able to define a different set of interflow and overflow parameters for each ACD routing plan.

It makes no difference for the purpose of this screen whether or not the ACD system uses the optional predictive overflow feature in addition to the regular or non-predictive overflow.

1. Press the **[Edit Units]** icon.

The program displays the Interflow/overflow Programming Screen.

2. Press the **[Save]** icon to save your data entry.

You use this screen to define the following fields:

- Interflow time, the time period after which unanswered calls sent by this routing plan will ring at the interflow port;
- Interflow port, the DN of the **emaGEN** hunt group or the attendant position to which the call will be forwarded after the interflow time is exceeded. The **emaGEN** hunt group has been defined as described in Section 19.4 above;
- First overflow time, the amount of time that a call can remain unanswered in the main ACD group queue before it is forwarded to ring in the first ACD overflow group queue as well;
- First overflow group, the number of the ACD group, in addition to the main group, to receive unanswered calls from this ACD plan, after the first overflow time has been reached;
- First overflow priority, the priority given to a call overflowing to the first overflow group when it enters that group queue;
- Second overflow time, the amount of time that an unanswered call can remain in the both the queue of the main and first overflow ACD groups before it begins to ring in the second ACD overflow group queue as well;
- Second overflow group, the number of the second ACD group, in addition to the main and first overflow groups, to receive unanswered calls from this ACD plan, after the second overflow time has been reached;

- Second overflow priority, the priority given to a call overflowing to the second overflow group when it enters that group queue;
- Third overflow time, the amount of time that an unanswered call can remain in the queues of the main, first, and second ACD groups before it begins to ring in the third ACD overflow queue as well;
- Third overflow group, the number of the third ACD group, in addition to the first three groups, to receive unanswered calls from this ACD plan, after the third overflow time has been reached;
- Third overflow priority, the priority given to a call overflowing to the third overflow group when it enters that group queue.

19.10.3 Announcer Plans Screen

You use this screen to define the parameters for each of the ACD announcer plans you specified earlier on the Routing Plans Screen. The parameters on the Routing Plans Screen determine how an incoming ACD call is answered. Its secondary screen specifies the actual recorded announcements that are played while the call is waiting.

The screen informs you of the number of available plan entries. The maximum number of Announcer plans is:

- 16 for **unite 128**
- 24 for **unite 400**
- 24 for **unite 1000**

1. From the Auto. Call Distribution heading, select the Announcer Plans Screen

The program displays the Announcer Plans C-N Screen.

Note that the program puts default values in each field for all possible plans.

2. Accept the default values for fields or enter the desired value.

These fields are:

- *Ringback delay*: the number of seconds that the caller hears a ring tone before the call is transferred to an ACD queue;
- *Forced announcement*: Whether a preliminary recorded announcement will be played in its entirety before an agent answers, even if the agent is available earlier;
- *Music source*: whether callers hear MOH or a ring back tone when waiting between announcements;
- *Tone on station ring*: whether callers hear a tone while the ACD station is ringing.

3. Press the **[Save]** icon to save your data entry.

19.10.4 Announcement Program Screen

You use the Announcement Program Screen to build the desired Announcement Program or order of announcements played by each of the Announcer Plans, whose parameters you defined in the section above.

You are able to define a maximum of 50 elements for each Announcement Program. The screen informs you of the number of available entries. This capacity gives you the ability to alternate numerous messages in different orders and with different delay periods.

1. Press the **[Edit Units]** icon.
The program displays the Announcement Program Screen.

2. Press the **[Save]** icon to save your data entry.

You use this screen to define the following fields:

- *Announcer*: whether the announcement comes from an announcer DN or is one of the nine recorded announcements;
- *Post announcing delay*: the time delay before either a specific announcement is repeated or the next announcement is played;
- *Times*: the number of times that you want a specific announcement repeated.

19.11 PABX/CENTREX

The Automated attendant External call forward feature makes provision for mailbox subscribers who wish to have incoming calls forwarded to a PABX/CENTREX extension.

First define the trunk groups or trunks as accessing Centrex or PABX. Do this by entering CN or PB in the Trunk Flash parameter on the:

- Private Trunk Features P-T Screen, or
- Regular/HP Group Features Screen.

Once the trunk flash feature of the trunk groups or trunks serving **emaGEN** has been defined as accessing Centrex or PABX, the corresponding system timers must also be set.

19.11.1 System Timers Screen

Depending on whether your system accesses external lines configured behind Centrex or a PABX, you need to set the appropriate system timer.

1. From the System Parameters heading, select the System Timers Screen.
The program displays the System Timers S-T Screen.
2. Set the Centrex or PABX Flash timer to 0.30 seconds, as appropriate.
3. Press the **[Save]** icon to save your data entry.

19.12 IMPLEMENTING A NETWORKED *emaGEN* SYSTEM

Networked **unite** systems can share a common **emaGEN** system. This requires a few differences in the **unite** system configuration programming at the networked exchanges.

19.12.1 IVM hunt group in a network

Each exchange is part of a network, having one **emaGEN** system connected to one of the branches of the network. (For this configuration, it is recommended to allocate several trunks to **emaGEN** on a T1 line).

You can program the system so that extensions in any branch of the network can access **emaGEN**. At each branch, you will program two screens, apart from the IVM Hunt Group Screen, and possibly a third, if different tenants are sharing the **emaGEN** services:

- Network Prefixes N-P
- System Speed Dial Numbers S-S-N.
- Attendant Definition A-A for tenants sharing an **emaGEN** system.

In the Network Prefixes Screen enter the prefix of the branch of the network to which **emaGEN** is connected and that branch's Route number.

Alternately, you can choose to use the IVM hunt group DN (see next paragraph) itself as the prefix, with the proper route number to the branch of the network to which IVM is connected.

In the IVM Hunt Group Screen in the IVM Hunt Group DN parameter, enter the number of the System speed dial bin that accesses **emaGEN**.

NOTE

This is represented by a number such as S1:302, where 1 is the number of the system speed dial table and 302 is the number of the bin. Note that you cannot access **emaGEN** using a different speed dial bin programmed with the same contents. Only the speed dial bin specified in the IVM Hunt Group Screen accesses IVM.

In the System Speed Dial Numbers S-S-N Screen in the Programmed Number parameter, enter the digits of the prefix of the branch of the network to which **emaGEN** is connected, immediately followed by the DN of the IVM hunt group.

If you chose the option of making the IVM hunt group DN the prefix of the network branch, then you need only enter the IVM hunt group DN. No other prefix is necessary.

If there are tenants sharing the **emaGEN** services, a distinction must be made between the respective extensions of each tenant. This is accomplished via the Attendant Definition A-A Screen, where you enter the prefix of the branch of the network to which **emaGEN** is connected in the last column: PBX Number.

NOTE

DID Routing to IVM Hunt Group in a Network This configuration also allows you to route DID calls to the IVM hunt group in another branch of the network. After programming the screens described above, you program the DID Routing R Screen to allow callers on DID lines to be routed to **emaGEN**. Enter 'S' and the number of the specific system speed dial bin that you used for accessing **emaGEN** in the Day Routing or Night Routing parameter.

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