Smooth Operator 3.2 Installation Guide

COMPASS
TECHNOLOGY INCORPORATED

CT93-1256

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Preface

The purpose of the *Smooth Operator Installation Guide* is to provide detailed technical information and guidance for the successful installation and configuration of Smooth Operator software. This manual contains comprehensive step-by-step procedures and explanations on the installation, configuration, and diagnostics of the software.

Be sure to review your manual carefully in order to derive maximum benefit from your software.

User Audience

The *Installation Guide* is intended for Compass partners. The *Installation Guide* is written for users who should be familiar with the basic operation of computers, as well as with standard DOS commands such as DIR, COPY, DISKCOPY, CHKDSK, BACKUP, and RESTORE. However, Smooth Operator users do not have to be programmers or computer experts. For information on DOS commands and the operation of specific equipment, refer to the DOS tutorial in this guide or basic computer manuals.

Section Summaries

The subject matter covered in this manual is organized as follows:

Section 1

Introduction.

Section 2

System hardware requirements and detailed information for System configuration.

Section 3

Step-by-step instructions for installing Smooth Operator software and associated modules (e.g., the Switch Integrator, System Setup, Localfax).

Section 4

Descriptions for configuring your Smooth Operator System.

Section 5

Information on configuring Smooth Operator to integrate with the phone system.

Section 6

Information on troubleshooting techniques and error messages.

Section 7

Information on running System diagnostics and disk maintenance utilities.

Section 8

An MS-DOS tutorial.

Section 9

A Microsoft Windows tutorial.

Section 10

Smooth Operator's phrase file listings and information on using the System's multilingual capabilities.

Appendix A

A supplement describing Smooth Operator's Fax Retrieval add-on module, using both the Intel SatisFAXtion and the Brooktrout fax boards.

Appendix B

A supplement describing the advanced features of Compass Call Analysis (CCA).

Appendix C

A supplement that allows you to take a Self-Guided Tour through the Smooth Operator System.

Documentation Conventions

The following documentation conventions are used in this manual:

<Tab>

Moves control to the next field or button.

<Shift-Tab>

Moves control to the previous field or button.

<Alt-*letter*>

Moves control to a particular button on the screen. *Letter* represents the character (usually the first) that is highlighted or underlined in the button name.

<Enter>

Accepts the input for an entire screen or selects the highlighted or "active" button.

<Esc>

Returns control to a previous screen or menu.

<Spacebar>

Toggles selections as On or Off, effectively activating or deactivating System features.

`Courier Typeface`

Requests input from the keyboard

Related Documentation

The following manuals provide additional information that will help the user better understand the information presented in the *Installation Guide.*

Smooth Operator Subscriber's Guide

Smooth Operator Supervisor's Guide

Important Note:

Before reading the *Installation Guide*, new partners are urged to first read the *Subscriber's Guide* in order to become familiar with the System features. Next, read the *Supervisor's Guide* to become familiar with the System setup and configuration.

All documentation should be reviewed before a new partner attempts to install the first System.

Copies of these manuals can be obtained by contacting:

Compass Technology Inc.
Live Oak Office Center
2201 Cantu Court #116
Sarasota, Florida 34232
Attn: Dealer Services
(813) 371-8000 ext. 126
(813) 377-5600 (FAX)

Notes:

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Notes:

Section 1

Introduction to Smooth Operator 3.2

New partners are urged to read this documentation before attempting to install the voice board(s) and Smooth Operator software. However, before reading the *Installation Guide*, please read the *Subscriber's Guide* to become familiar with the System's features and the *Supervisor's Guide* to become familiar with the System's setup and configuration.

Overview

Smooth Operator is an automated attendant and voice and fax messaging system that controls call handling. As an automated attendant, Smooth Operator greets incoming callers with a pleasant voice and instructs them on how to proceed through the System using the voice-messaging features. This type of technology gives total control of a call to the user. If an extension is busy or there is no answer, Smooth Operator can take a voice message from the caller or transfer the call to another extension.

The automated attendant features in Smooth Operator can also provide callers with company directories, automatically transfer callers from rotary phones to a receptionist, and answer calls with after-hours or holiday greetings. The attendant can screen callers for the subscriber, provide music or product messages while a caller is on hold in a queue, and redirect a call either before it is transferred to an extension or only if the extension is busy or not answered.

Smooth Operator's voice messaging features eliminate "telephone tag" and incorrect or lost messages. Voice mail allows subscribers to send, receive, delete, skip, redirect, review, and update messages. Additionally, Fax Mail allows subscribers to both send and receive faxed messages. Subscribers can pause, fast-forward, and rewind messages; send copies of messages to other subscribers; designate messages as listen-only, private, or urgent; confirm message reception; and deliver and forward messages.

Smooth Operator is a voice-prompted, menu-driven system. Through voice prompts, the System conveys information which includes the options you can choose from to proceed. As you become familiar with the voice prompts for the options you use most often, you can interrupt the prompts by pressing the telephone keypad button for an option before the prompt is completely voiced.

A series of three manuals have been written for Smooth Operator:

Smooth Operator Subscriber's Guide
Smooth Operator Supervisor's Guide
Smooth Operator Installation Guide

The *Installation Guide* provides detailed technical information for the successful installation and configuration of the Smooth Operator software. This guide also discusses such topics as:

Switch Integrations with Smooth Operator
Phrase Files and How to Professionally Record Phrases
CO/Session and Other Diagnostic Utilities
Troubleshooting
How to Efficiently Use Technical Support

Note:
When you purchase DOS 5.0, Microsoft provides free technical support for the first 90 days.

It is also recommended that you have your PC and DOS manuals available as additional reference material. If you have questions or problems related to DOS, please call Microsoft DOS technical support at (900) 896-9000. The cost is $2.00 per minute.

FCC Part 15 Requirements

The components of the Smooth Operator System described in this manual have been deemed to comply with FCC Part 15.

This equipment has been tested and found to comply with the limits for Class B computing devices in accordance with the specifications in Subpart J of Part 15 of the FCC rules. These specifications are designed to provide reasonable protection against interference.

Some telephone companies require you to notify them if you connect electronic communications equipment to the telephone lines. Provide your telephone company with the FCC registration and Ringer Equivalence Numbers (REN). The sum of the RENs from all equipment on one phone line must be less than five (5). Note that the Smooth Operator ringer equivalence is approximately 0.5.

FCC Part 68 Requirements

The components of the Smooth Operator System described in this manual have been deemed to comply with the requirements of Part 68 of the FCC rules. The equipment has a label that contains the FCC registration and Ringer Equivalence Numbers (RENs) for the board.

Some telephone companies require you to notify them if you connect electronic communications equipment to the telephone lines. Provide your telephone company with the FCC registration and Ringer Equivalence Numbers. The sum of the RENs from all equipment on one phone line must be less than five (5). Note that the Smooth Operator ringer equivalence is approximately 0.5.

Important Note:

The REN is used to determine the number of devices you may connect to your telephone line and still have assurance that all of those devices will ring properly when your number is called. In most, but not all, areas, the sum of the RENs of all devices should not exceed five (5). To be certain of the number of devices you may connect to your line as determined by the RENs, call your local telephone company and request information on the maximum REN for your calling area.

The local telephone company must be notified prior to installation that this registered device is being installed. You must also provide the following information to the telephone company in order for it to select the correct type of service for its lines:

a. The service type: Loop Start

b. The jack required: Multiple RJ-14

c. The order you want incoming lines to be in when they are connected to your jacks.

d. The Ringer Equivalence Number: 0.5A

The telephone company may make changes in its technical operation or procedures. If these changes affect the use of this equipment, the telephone company is required to give you advance notice.

Notes:

Section 2

Installing Smooth Operator Hardware

This section provides detailed technical information for successfully configuring and installing your hardware to run effectively with Smooth Operator 3.2. It includes such steps as determining hardware needs, verifying the phone system and the PC, configuring and installing voice and fax boards, attaching the sentinel device, and connecting phone and fax lines.

Installing the Hardware

The Smooth Operator hardware installation process involves many steps. These steps are listed in the Hardware Installation Checklist below. It is strongly recommended that you carefully read and review the information provided on each step by referencing the noted pages. Once you become familiar with the Smooth Operator installation procedure, you may simply want to check off the items on the list as they are completed.

Please note that all items on the Hardware Installation Checklist must be completed before installing the software (Section 3).

Hardware Installation Checklist

_____	Determine the System's application	(Page 2-2)
_____	Determine hardware requirements	(Page 2-3)
_____	Assemble materials	(Page 2-6)
_____	Verify phone system	(Page 2-7)
_____	Verify PC	(Page 2-8)
_____	Make backup copies of all software	(Page 2-9)
_____	Configure voice boards	(Page 2-9)
_____	Configure fax boards	(Page 2-14)
_____	Install voice board(s) and fax board(s)	(Page 2-17)
_____	Connect phone and fax lines	(Page 2-17)
_____	Install SatisFAXtion Software (optional)	(Page 2-21)
_____	Install Windows (optional)	(Page 2-21)
_____	Install/test peripheral equipment	(Page 2-21)
	(Mouse, modem, tape backup, etc.)	
_____	Install/test UPS	(Page 2-21)
_____	Run virus detection software	(Page 2-22)
_____	Install sentinel	(Page 2-22)

Determine the Application

Before installing a Smooth Operator System, it is important to know what type of application the end-user expects the System to accomplish. This helps determine if the Fax Retrieval or Fax Mail modules, Microsoft Windows, or the SMDI integrations are needed, as well as which System features will be used on this System. A list of items to know before beginning the installation follows.

Application Checklist

Type of Business	_____
Type of Phone System	_____
Number of Phone Extensions	_____
Hunt Groups	_____
Number of Mailboxes	_____
Classes of Service	_____
Number of Ports	_____
Automated Attendant	_____
Attendant Menu	_____
System Prompts	_____
Custom Call Queuing Phrases	_____
Multiple Languages	_____
Greetings by Port	_____
Message Delivery	_____
Days and Hours of Operation	_____
Fax Retrieval	_____
Fax Mail	_____
Microsoft Windows Interface	_____
SMDI Module	_____

Determine Hardware Requirements

Smooth Operator 3.2 is designed to take full advantage of your PC's hardware. The hardware requirements listed below are the **minimum** acceptable requirements for adequate System performance. By upgrading your hardware, you will improve your System's performance—in some cases, dramatically.

Minimum Hardware Requirements

CPU	See pages 2-4 and 2-5 for System requirements.
Clock speed	See pages 2-4 and 2-5 for System requirements.
Memory	See pages 2-4 and 2-5 for System requirements.
Monitor	EGA or better required if using Smooth Access, the Microsoft Windows interface.
Hard drive	C: and/or D: drive. See page 2-4 to determine size.
1 floppy drive	Either a 1.2 megabyte 5¼ inch drive or a 1.4 megabyte 3½ inch drive is necessary to install software and perform System backups.
1 parallel port	For the sentinel protection device
1 serial port	OPTIONAL - Used for remote diagnostics
1 Intel SatisFAXtion board	OPTIONAL - Used with Fax Retrieval module
Brooktrout fax boards	OPTIONAL - For Fax Mail/Fax Retrieval modules
1 or more voice boards	Either Rhetorex or Dialogic
UPS	Uninterruptable power supply (minimum 200 watts)
Maintenance package	Compass Utility Pak or Norton's Disk Doctor and Speed Disk

Important Note:

Smooth Operator 3.2 will only recognize a voice board if the EPROM has been programmed to contain the Compass "signature." If you are upgrading from version 2.12 to series 3.x, it may be necessary to also upgrade your voice board.

Hard Drive Size

In order to determine the amount of disk storage space needed to operate your particular System, use the following formula:

a. Number of subscribers	_____
b. Average message length in seconds	45
c. Number of new and saved messages per subscriber (avg.)	5
d. Message seconds (a x b x c)	_____
e. Audiotex time in seconds (avg.)	1800
f. Total time in seconds (d + e)	_____
g. Total recorded hours (f÷3600)	_____
h. Megabytes needed for messages (g x 10 for Dialogic boards, g x 12.5 for Rhetorex boards)	_____
i. Megabytes needed for Smooth Operator software, prompts, and up to 1000 subscribers	10
j. Megabytes needed for each additional 1000 subscribers (5 for each additional 1000)	_____
k. Enter 10 megabytes if using Smooth Access, the Microsoft Windows 3.1 interface	_____
l. Enter 5 megabytes if using Fax Retrieval	_____
Total Megabytes Needed (h + i + j + k + l)	_____

CPU, Memory, and Other Hardware Requirements

Depending on the System you are running, you should determine other minimum hardware requirements from Table 2-1 (Standard DOS Smooth Operator) and Table 2-2 (Windows 3.1 Smooth Operator). Note the increased memory requirements for fax applications. **Remember, these tables describe the minimum PC requirements.**

Ports	CPU	Clock Speed MHz	RAM	Extended Memory	Cache	Ext Mem for Fax
4	386SX	16	640 KB	1 MB		1 MB
6	386SX	16	640 KB	1 MB		1 MB
8	386SX	20	640 KB	2 MB		1 MB
12	386SX	20	640 KB	2 MB		1 MB
16	386DX	20	640 KB	3 MB		1 MB
20	386/486	33/25	640 KB	3 MB		1 MB
24	386/486	33/25	640 KB	3 MB	1 MB	1 MB

Table 2-1 Standard DOS Smooth Operator

Ports	CPU	Clock Speed MHz	RAM	Extended Memory	Cache	Ext Mem for Fax
4	386SX	16	640 KB	3 MB		1 MB
6	386SX	16	640 KB	3 MB		1 MB
8	386	20	640 KB	3 MB		1 MB
12	386	25	640 KB	3 MB		1 MB
16	386/486	33/25	640 KB	3 MB	1 MB	1 MB
20	386/486	33/25	640 KB	3 MB	1 MB	1 MB
24	486	33	640 KB	3 MB	2 MB	1 MB

Table 2-2 Windows 3.1 Smooth Operator

Chart Notes:

1. When available and requested during installation, one megabyte of memory is used as a RAMDrive for use with the most-accessed voice phrases, in order to speed response and reduce wear on the hard disk. RAMDrive is a memory-resident DOS program that enables memory to be used as a temporary disk drive. A RAMDrive is faster than a hard drive, because the PC can read information from memory very quickly. If available, at least one additional megabyte is also installed as a SMARTDrive, the DOS 5.0 disk-caching utility which allocates memory (cache) in which to store information read from the hard drive. When an application attempts to read this information, SMARTDrive provides it from its cache instead.

2. The memory requirements shown in Tables 2-1 and 2-2 are the minimum acceptable requirements for their corresponding Systems. Do not attempt to run Smooth Operator with memory capacities less than those charted here.

3. Windows requires a lot of memory. Smooth Operator will run with the amounts shown in the tables but is slow because of continual writing to the hard drive. Additional memory allows Windows to use the extended memory rather than the hard disk. Actually, the more memory the better (to a practical limit of eight megabytes).

   For example, suppose you have four megabytes of memory on your System. Smooth Operator will reside in 450K of the base 640K RAM (the first megabyte). If a RAMDrive was selected during installation, it uses the second megabyte. If SMARTDrive was chosen, it uses the third and fourth megabytes.

Assemble Materials

Following is a list of materials which should be assembled before beginning the hardware installation.

Materials Checklist

_____ Assembled PC, including:
- _____ CPU (Memory and hard disk should already be installed.)
- _____ CPU power cord
- _____ Monitor
- _____ Monitor power cord
- _____ Keyboard
- _____ Printer and cable (OPTIONAL)

_____ Smooth Operator software
_____ Smooth Operator manuals
_____ Voice and fax board(s)
_____ Sentinel
_____ UPS
_____ Microsoft Windows 3.1 diskettes and manual (OPTIONAL - for Smooth Access)

_____ Butt set
_____ Digit grabber
_____ Ground strap
_____ Modular cables (4 connector)
_____ Power strip
_____ 2500 set (at least one)
_____ Phone system documentation
_____ Line simulator
_____ DOS installation diskettes and manual
_____ Hard disk utility software and manual
_____ One or two boxes of high density diskettes for System backup
_____ Mouse, software, and manual (OPTIONAL)
_____ Modem, software, and manual (OPTIONAL)
_____ Tape backup, software, and manual (OPTIONAL)
_____ Tool kit (Phillips and flathead screwdrivers, wire strippers, crimping tool, punch down tool, etc.)
_____ Calculator

Note:
We recommend the PHD Telecommunicator from Ziad. Call (614) 464-1900 for more information on this butt set and digit grabber product.

COMPASS Tech Support phone number (813) 371-8000 ext. 600

COMPASS Partner Number _ _ - _ _ _ _

Verify Phone System

Before beginning your Smooth Operator 3.2 installation, verify the following items for the phone system. Following this checklist ensures that Smooth Operator will run smoothly and efficiently once it is installed.

Pre-Installation Checklist for Phone System

_____ Connect voice mail modular plug from phone system into a 2500 set.
_____ Verify dial tone.
_____ Use phone system documentation to determine the following codes (as required):

Fax prefix code _____
Intercom paging code _____
Release code for intercom paging _____
Transfer prefix code _____
Custom transfer code _____
Transfer busy release code _____
Transfer no answer release code _____
Release code for call screening, busy _____
Release code for call screening, no answer _____
Release code for call screening, reject _____
Release code for call screening, transfer _____
Call waiting code _____
Release code for call waiting _____

Code to access outside line _____
Custom message delivery code _____
Message waiting light prefix ON code _____
Message waiting light prefix OFF code _____
Message waiting light suffix ON code _____
Message waiting light suffix OFF code _____
Total inband signaling digits to use from switch _____
Location of inband signaling code _____
Code for go to voice mail _____
Code for immediate record _____
Code for immediate transfer _____
Code for immediate subscriber login _____
Code for busy extension _____
Code for no answer extension _____
Code for go to voice mail and get mailbox _____
Code for go to auto attendant and get mailbox _____
Location of mailbox number for default code _____
System hang-up string _____
Hook flash interval _____

_____ Use 2500 set to manually enter codes and verify procedures
_____ Prepare a list of hunt groups
_____ Prepare a list of active phone system features (i.e., distinctive ring, auto answer)

Verify PC

Before beginning your Smooth Operator 3.2 installation, ensure that the following items have been verified for the PC. Following this checklist helps to ensure that Smooth Operator runs smoothly and efficiently once it is installed.

Pre-Installation Checklist for Computer and Software

_____ Verify computer setup (plugged in, power on, C:\> prompt on screen).
_____ Install DOS 5.0 files to hard disk (if necessary).
_____ Type `VER`, press <Enter>, and confirm DOS version.
_____ Type `DIR/W` and verify \DOS directory exists.
_____ Type `CD\DOS`, then `DIR/W` to verify DOS files.
_____ Type `CHKDSK` to verify hard disk size. Total bytes_____MB.
_____ Run hard disk optimization program (such as PC Tools Compress).
_____ Type `MEM/C` to verify memory status. Bytes free_____MB.
(Note: Smooth Operator requires 450 KB of RAM.)
_____ Type `DATE` to verify correct date.
_____ Type `TIME` to verify correct time.
_____ **Leave computer on for burn-in period of at least 48 hours.** This ensures that the PC is functioning properly before installing Smooth Operator software.

Make Backup Copies of Software

It is very important to keep backup copies of all master software diskettes, including those for Smooth Operator, Microsoft Windows, and the SatisFAXtion software. Because disk file corruption occurs without warning, making backup copies of your software is a good habit.

To make backup copies of any software diskettes, use the DOS DISKCOPY command. For example, suppose you need to make backup copies of the Smooth Operator software diskettes. You should insert the first source diskette (the one to copy from) in the A: drive and a target diskette (the one to copy to) into the B: drive. Then type `DISKCOPY A: B:`. The files on the source diskette are copied to the target diskette. If the A: and B: drives are different sizes, you should use the XCOPY command rather than DISKCOPY. Refer to your DOS manual for complete details. If you only have one floppy drive, the System prompts you to swap between the source and target diskettes until all of the information has been copied.

For more information on using the DISKCOPY command, refer to your DOS manual.

Configure the Voice Board(s)

Your voice board contains switches that must be configured to operate properly with Smooth Operator.

Configuring the Rhetorex Board

Check with your PC manual to determine an available I/O address. All boards are factory-set to a default address of 300 hex. This address should be satisfactory for the first board in a Smooth Operator System.

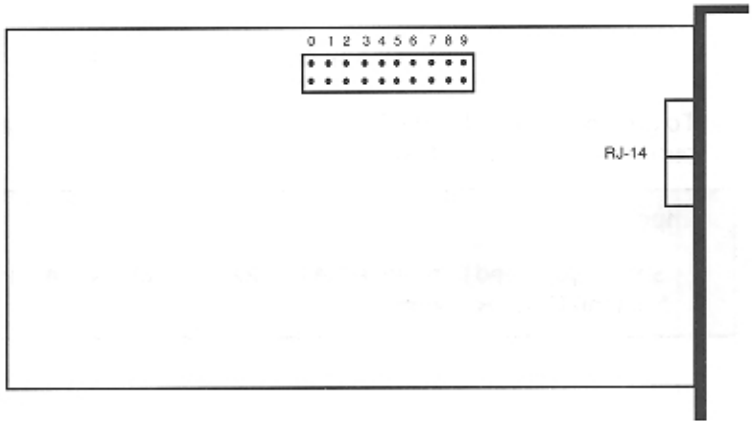


Figure 2.01 - The Rhetorex board

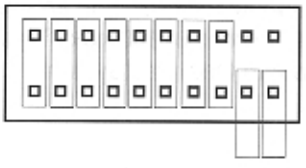
To determine the board's configuration, insert Smooth Operator installation diskette 1 into the A: or B: drive on your computer. Type `A:SHOWJUMP` or `B:SHOWJUMP` at the DOS prompt. When you enter the base I/O address in hex, the proper board configuration is displayed on the monitor. Make any necessary adjustments to the board.

You must configure each board that you will be using. To display the configuration information for a second board, type `301` and press <Enter>. Continue to type hex settings 302 through 305 until you have properly configured each board.

	BASE I/O	JUMPERS OPEN
First board	300 Hex	8, 9
Second board	301 Hex	0, 8, 9
Third board	302 Hex	1, 8, 9
Fourth board	303 Hex	0, 1, 8, 9
Fifth board	304 Hex	2, 8, 9
Sixth board	305 Hex	0, 2, 8, 9
Factory default setting:	300 Hex	8, 9

Below is an example of the default setting, with jumpers 8 and 9 open.

Figure 2.02 - Jumper settings on the Rhetorex board



Jumper 0 1 2 3 4 5 6 7 8 9

To determine other base I/O addresses once the software has been installed, type `SHOWJUMP` from the C:\CVR> prompt.

Important Note:

Should you need to remove the Rhetorex driver from memory, type `RDSPEXIT` from the C:\CVR> prompt.

Configuring Dialogic Boards

Parts of the following discussion were extracted, with permission, from the Dialog/4x Multi-Line Voice Communication System User's Guide.

There are many types of Dialogic boards. However, almost all of them are configured the same for Smooth Operator's purpose. The only exception is the D/12x (12-port board). For illustrative purposes, both the D/4x and D/12x boards are shown below.

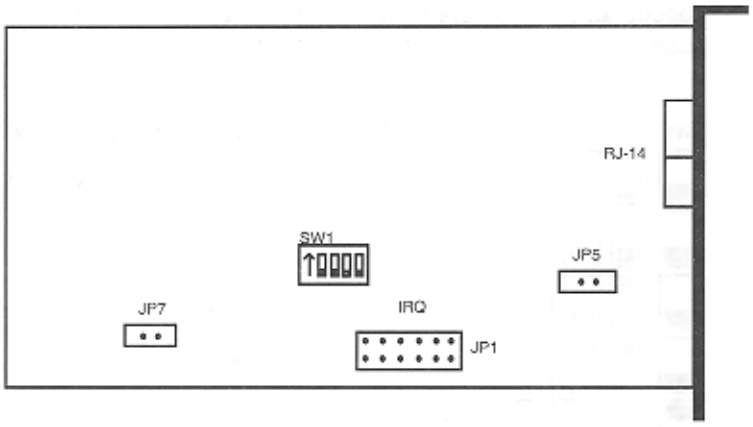


Figure 2.03 - Dialogic D/4x Board

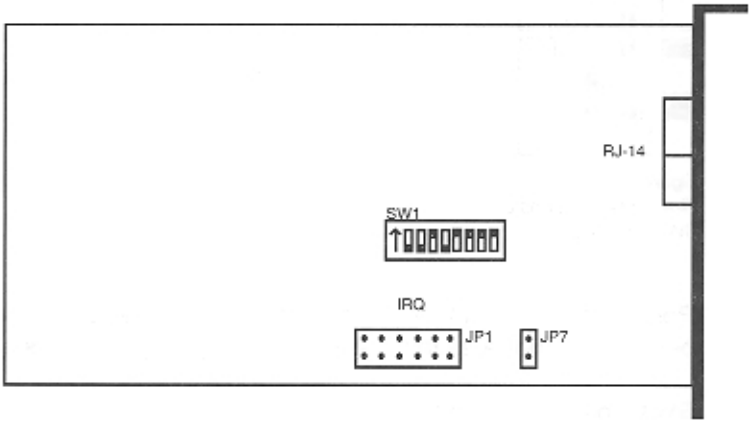


Figure 2.04 - Dialogic D/12x Board

Before installing any Dialogic board(s), the SW1 dip switch and the JP1 and JP7 jumpers must be configured. An illustration of the D/4x board, including the relative positions of the switches and jumpers you need to set, appears in Figure 2.03. Figure 2.04 illustrates the D/12x board. Note that the boards have additional factory-set jumpers which do not need to be changed for a normal installation of Smooth Operator.

Setting the SW1 Dip Switch

The PC and the D/4x board communicate with each other through a shared memory block that resides within the memory address space of the PC. You can modify the physical address offset where this memory block is located by changing the first three dip switches of SW1. On a D/4x board, the SW1 switch has four dip switches; on a D/12x, it has eight dip switches. On either board, the SW1 switch is red with white dip switches and located on the right side of the board.

When installing only one board, the factory settings for the configuration switches are acceptable. If you are installing more than one D/4x board, refer to Figure 2.05 to configure your SW1 dip switch accordingly.

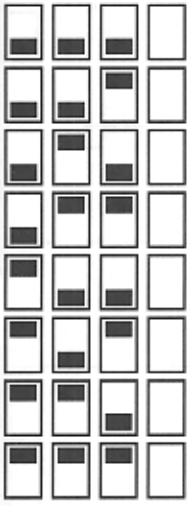
Switch Position	Board #	Offset Address - SW1 BASE (Hex)
	1	0000 (Factory Setting)
	2	2000
	3	4000
	4	6000
	5	8000
	6	A000
	7	C000
	8	E000

Figure 2.05 - First three positions of SW1 dip switch

Position 4 of the SW1 dip switch should always be configured "off-hook" as shown below. This indicates that the lines will ring busy if the System goes down.

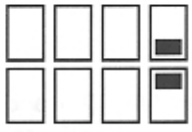
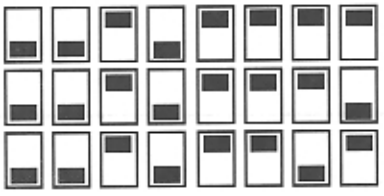
SW1 Position	Line	State
	"on-hook"	(no answer)
	"off-hook"	(busy)

Figure 2.06 - Fourth position of SW1 dip switch

For the D/12x board, the eight-position dip switch should be configured as follows. Please note that an ON setting indicates the switch should be pushed up.



Board #	Address - SW1 BASE (Hex)	
1	340-343	(Default)
2	344-347	
3	348-34B	

Figure 2.07 -
SW1 Settings for D/12x board

Your Dialogic voice board contains jumper block configuration switches which must be set in order to operate properly with Smooth Operator. These switches have IRQ (interrupt request level) settings which must be configured according to the System.

Setting the JP1 Jumper Block

The JP1 jumper block is located in the lower right corner of the Dialogic board. In order to configure the jumper block, choose from interrupt levels 2 through 7. The recommended levels are 3, 5, or 7. However, for this particular System, JP1 should normally be set to IRQ7. Depending upon your situation, you may need to experiment with the various settings. Typically, the interrupt levels on this jumper block are set as follows:

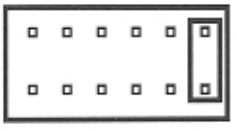
IRQ3 = COM1
IRQ4 = COM2
IRQ5 = LPT2
IRQ6 = Floppy Disk Drive
IRQ7 = LPT1

Important Note:

Be sure to note the IRQ setting you select. You will be prompted for this information during the software installation procedure.

The IRQ settings are positioned from left to right, with 2 being the left-most position. Here is an example of an interrupt level 7 setting:

Figure 2.08 -
Setting the JP1 jumper



IRQ = 2 3 4 5 6 7

The IRQ level should be set the same for multiple Dialogic boards in the same Smooth Operator System.

Setting the JP7 Jumper

The JP7 jumper block is located in the lower left corner of the board. If you are installing more than one voice board, simply remove the JP7 jumper on all but the first board.

Configuring the Fax Board(s)

Configuring the Intel SatisFAXtion Board

No hardware adjustments are necessary on the Intel SatisFAXtion Board when used for Fax Retrieval.

Configuring the Brooktrout TR112 and TR114 Boards

The TR112 and TR114 boards are 2- and 4-port fax expansion cards for use with the Rhetorex board and the Smooth Operator Fax Mail and Fax Retrieval applications. Please note that Fax Mail is not supported under Smooth Access, the Microsoft Windows interface. Illustrations of these boards are shown below.

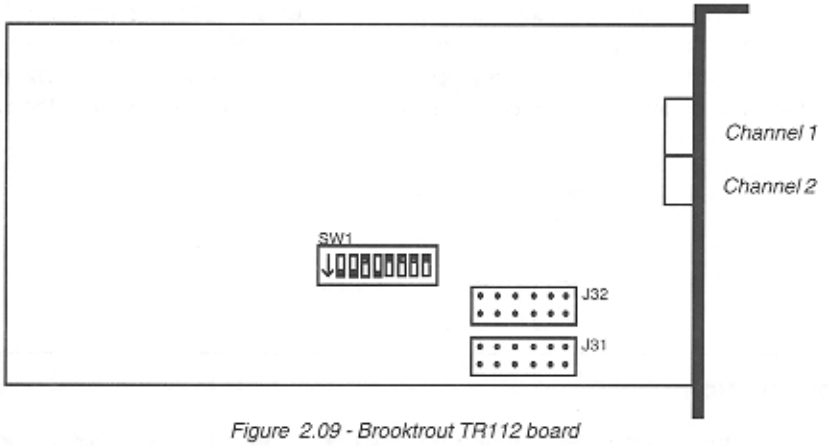


Figure 2.09 - Brooktrout TR112 board

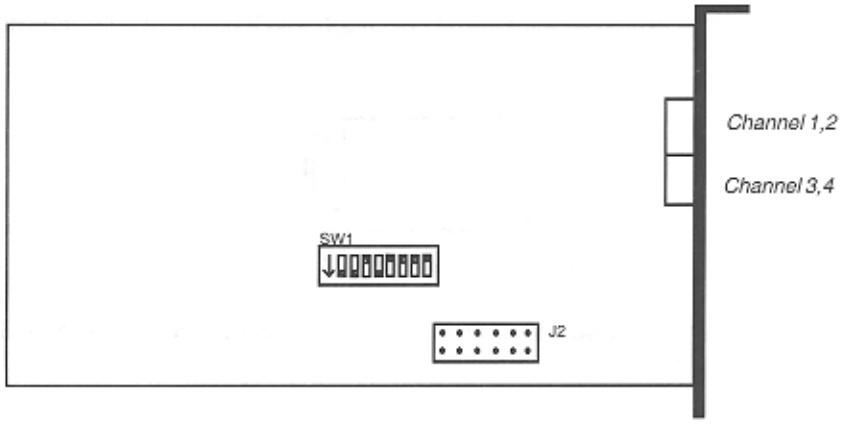


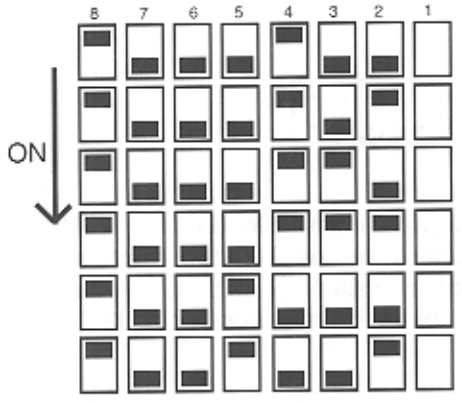
Figure 2.10 - Brooktrout TR114 board

The memory address and interrupt level on both the TR112 and TR114 boards need to be configured for the Fax Mail feature. In most cases, the default settings are sufficient. In additional, the TR112 must be set for the proper DMA (Direct Memory Access) channel.

Setting the SW1 Dip Switch

The PC and the Brooktrout boards communicate with each other through a shared memory block that resides within the memory address space of the PC. You can modify the physical address offset where this memory block is located by changing the dip switches of SW1.

TR112 Board - The default setting, 250, is acceptable for the first TR112 board. However, if you are installing more than one TR112 board, the address must be changed as shown in Figure 2.11. The SW1 switch is located in the lower, right-hand corner of the board and contains eight dip switches. The diagram below illustrates the switch when the card is held in the upright position with the component side of the card facing you and the bracket side to the right (as in Figure 2.09). Settings for switch 1 do not affect the base I/O address, and, therefore, are not shown.



Switch Position	Board #	Offset Address	
	1	250	(Factory Setting)
	2	258	
	3	260	
	4	268	
	5		
	6		

Figure 2.11 - SW1 settings

TR114 Board - The default setting, 220, is acceptable for the first TR114 board. However, if you are installing more than one TR114 board, the address must be changed as shown in Figure 2.12. Again, the SW1 switch is located in the lower, right-hand corner of the board and contains eight dip switches. The diagram below illustrates the switch when the card is held in the upright position with the component side of the card facing you and the bracket side to the right (as in Figure 2.10). Settings for switch 2 do not affect the base I/O address, and, therefore, are not shown. Switch 1 is used for internal testing and should always be set to ON. Switch 3 enables an interrupt pull-up and should be set to ON for **one and only one** TR114 card.

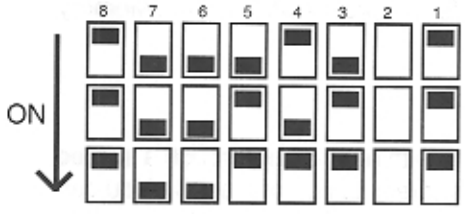


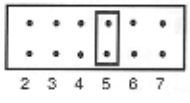
Figure 2.12 - SW1 settings

Setting the Interrupt Level

For both the TR112 and the TR114 boards, the default interrupt level of 5 should be acceptable in most cases. If you set the interrupt to a setting other than the default, you will need to edit the BTKERNAL.CFG file in the \CVR directory. Change the line that reads `INTNUM=5` to `INTNUM=n`, where *n* is the interrupt level.

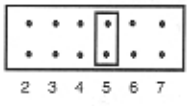
TR112 Board - The J32 jumper controls the hardware interrupt level. The J32 is also in the lower, right-hand corner of the board. The same interrupt level is used on all TR112 cards installed in a System. To select an interrupt, place the jumper on the pair of pins above the correct interrupt number on J32.

Figure 2.13 - J32 jumper



TR114 Board - The J2 jumper controls the hardware interrupt level on the TR114 board. The J2 is also in the lower, right-hand corner of the board. The same interrupt level must be used on all TR114 cards installed in a System. To select an interrupt, place the jumper on the pair of pins above the correct interrupt number on J2.

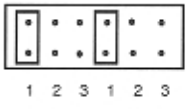
Figure 2.14 - J2 jumper



Setting the DMA Channel

On the TR112 board only, the J31 jumper controls the Direct Memory Access (DMA) Channel. Direct Memory Access is used to transfer data to the host PC. Two jumpers are required to select the DMA channel. Again, the default (channel 1) should be used.

Figure 2.15 - J31 jumper



If you set the DMA channel to a setting other than the default (1), you will need to edit the BTKERNAL.CFG file in the \CVR directory. Change the line that reads `DMACHAN=1` to `DMACHAN=n`, where *n* is the DMA channel.

Also, DMA cannot function properly if switch 1 of SW1 is set to OFF or if it is set to ON on more than one installed TR112 card. This switch must be set to ON on **one and only one** TR112.

Install the Voice and Fax Board(s) in the PC

WARNING:

When handling the voice and fax board(s), **be sure** to wear a grounding wrist strap. This item helps to control static electricity. Failure to use this product as directed could result in the destruction of the electronic device!

Before removing the PC's cover, be sure to turn the PC's power to off as well as the power for any peripherals. Remove the cover from the PC. Select an expansion slot for installing the board. Remove the screw holding the cover on the slot. The screw is located at the rear of the PC chassis, top center. Insert the board into the expansion slots by holding the board at the top of each corner. Apply equal pressure to both sides of the board, and push down firmly to seat the board. The board should easily slide down most of the way. If you feel any resistance, check the alignment of the board. Fasten the board's metal bracket with the retaining screw previously removed. Make sure the RJ-14 jacks are accessible from the rear of the PC chassis before securing the board.

Important Note:

If you are planning to install either Smooth Operator's Fax Retrieval or Fax Mail module, it is best that you install the hardware **now**.

Install the fax board using the same procedure described above. There should be no need to adjust any switches on the fax board. If you are not installing a fax board, replace the PC's cover, and fasten it in place with the retaining screws.

Connect the Telephone and Fax Lines

Connecting Phone Lines

The voice board has two RJ-14 jacks. Each jack carries two telephone lines. The top connector is for channels 1 and 2; the bottom connector is for channels 3 and 4. Channels 1 and 3 are the inside pair of wire; channels 2 and 4 are the outside pair. Please refer to Figure 2.16, which illustrates the RJ-14 modular jack.

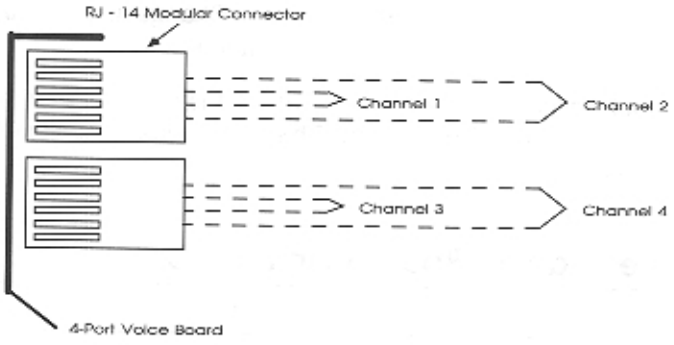


Figure 2.16 - RJ-14 Modular Jack

Note:
Examples of RJ-14 to RJ-11 splitting cables are Radio Shack catalog number 279-401 and Fordham Radio (Hauppauge, NY) part number TA1343.

If you have single-line terminations (RJ-11 type), you need RJ-14 to RJ-11 splitting cables. These cables are available from most electronic stores. Each splitting cable consists of an RJ-14 female jack and a "Y" cable terminated with two RJ-11 jacks. If you have RJ-14 terminations, you need a pair of standard four-wire modular cables. For other types of telephone line terminations, you need the proper adapters or cables which terminate in RJ-14 modular plugs.

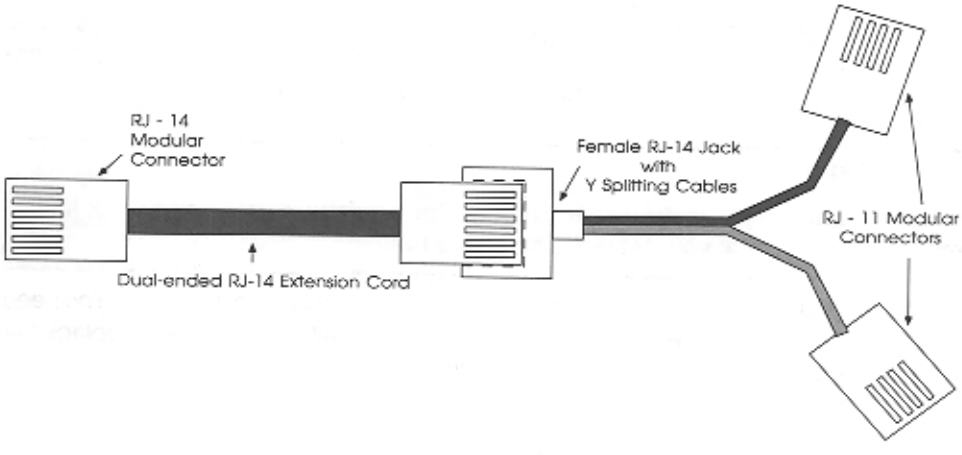


Figure 2.17 - RJ-14 to RJ-11 splitting cables

With the gold contacts facing the left side of the machine (as viewed from the rear), connect the RJ-14 end of the modular telephone cable to any of the phone connectors on the back of the board (see Figure 2.16). The cable should slide in easily and stay in place when the connection is made. Connect the remaining end of the telephone cable to your telephone line termination.

Connecting the Intel SatisFAXtion Fax Lines

If using a SatisFAXtion board, you must connect the fax board to an outside line or an extension that accesses an outside line through an RJ-11 type telephone jack. If the phone system you are using does not have a modular jack, buy an adapter to convert your jack into an RJ-11 jack. These adapters are available at most phone and electronics stores. Find the telephone cable provided with your fax board. Plug either end into the connector labeled "LINE" on the fax board, and plug the other end into an extension. Also, run a cable from the fax board to an extension jack. Figure 2.18 illustrates the proper line connections.

Warning:

Plugging the telephone cables into the wrong connector can damage the Intel fax board.

When you connect the phone line to your fax board, be sure the cover is on the computer and the computer is unplugged from the wall socket or UPS.

Next, plug the computer's power cord into an outlet, preferably a UPS. To check that the phone lines are correctly connected, attach a telephone to the fax board. Lift the telephone receiver and listen for a dial tone. If you do not hear a dial tone, check the connections.

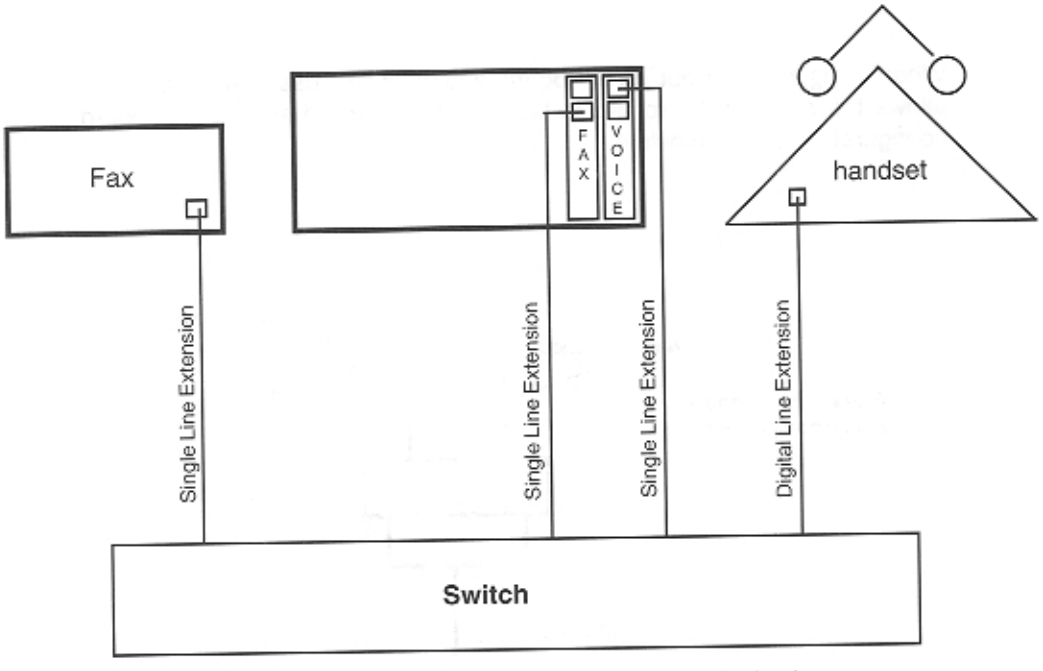


Figure 2.18 - Phone line connections for Smooth Operator's FAX Retrieval

Connecting the Brooktrout Fax Lines

When using a Brooktrout TR112 board, you must also use a two-line, three-way jack with a four-wire inline coupler. This allows the analog signal to be routed to both the voice board and the fax board. The configuration is shown below.

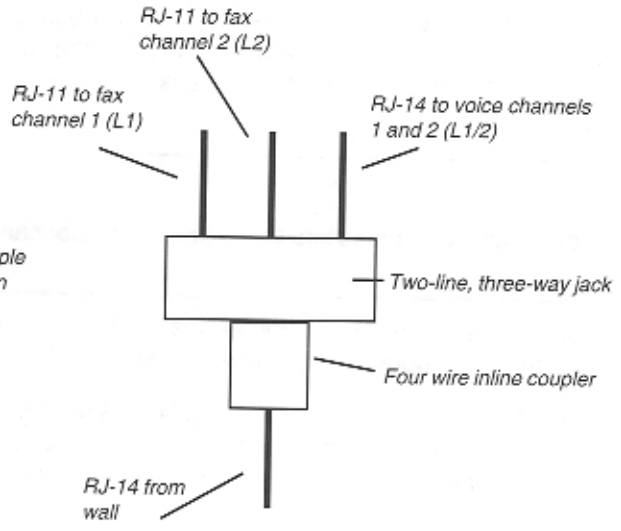


Figure 2.19 - Example splitter configuration

When using a Brooktrout TR114 board, you must also use a two-line splitter. This allows the signal to be routed to both the voice board and the fax board. The configuration is shown below.

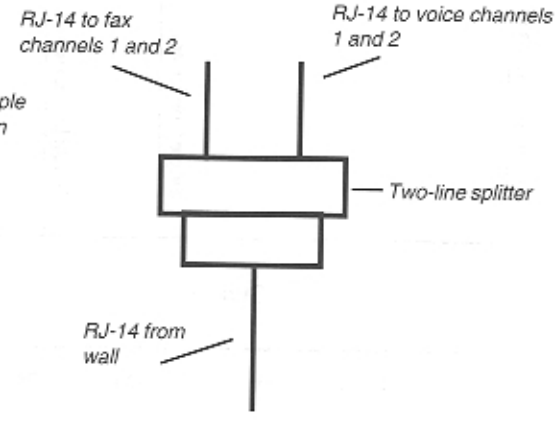


Figure 2.20 - Example splitter configuration

Install the Intel SatisFAXtion Software

If you will be using the Fax Retrieval module with an Intel SatisFAXtion board for your Smooth Operator System, you must install the SatisFAXtion software that came with the Intel fax board before installing Smooth Operator software. Please refer to Appendix A, *Fax Retrieval*, for complete instructions.

Install Microsoft Windows

If you will be using Smooth Access, the Microsoft Windows interface for the Smooth Operator entry screens, you should install the Windows software before installing Smooth Operator software. Please refer to your Windows manual for complete instructions.

Install and Test Other Peripherals

If you plan to use a mouse, a modem, or a tape backup with your System, the peripherals should be installed and tested using the instructions found in their respective manuals.

Install and Test Uninterruptable Power Supply (UPS)

Important Note:

Please refer to the manual you received with your UPS for more detailed instructions on its use and setup.

An uninterruptable power supply is vital to ensure proper System performance. When a power failure occurs, it can corrupt data in any number of open files. By using a UPS, your chances of data corruption are minimized.

Smooth Operator can also integrate with a UPS that has communication ports to minimize file corruption even further. In the event of a power failure, the UPS will notify Smooth Operator that it is maintaining the System's power supply. There is no disruption in System performance.

In addition, when the UPS determines it has reached a low battery condition (Error Code 15), Smooth Operator will proceed with a normal shutdown, disabling available lines first. All callers on the System will be disconnected after one minute. The error code is passed to the RUNSMO3.BAT file, which triggers the UPS.EXE file. This program monitors the UPS for a signal indicating that power has been restored. When power has beed returned, the System reboots automatically.

Refer to the instructions on page 4-8 for creating a UPS.CFG file to integrate your UPS with Smooth Operator.

Note:
We recommend the PC Mite 35 by UPSonic or the APC Smart UPS 450 (for 386 machines) or 600 (for 486 machines).

To provide UPS integration, we also recommend the UPS cable (part number 1-73657) from Triplite. Call (312) 329-1777.

Note:
Because of rebooting restrictions imposed by Microsoft Windows, UPS integrations are not supported under Windows.

Run Virus Detection Software

Note:
We recommend Viruscan by McAfee. Call (408) 988-3832.

Before installing the Smooth Operator software on your System, it is always a good idea to run virus scanning software on the PC. This type of preventive maintenance should become a habitual part of your System maintenance. Since many viruses can be spread or are triggered when the PC is booted from any diskette in the A: or B: drive, please take the necessary precautions for your PC.

Install the Sentinel

Note:
The sentinel must remain attached to the parallel port during software installation and while the software is running. Smooth Operator constantly monitors the parallel port for the sentinel's presence.

The sentinel unit you receive with Smooth Operator serves as a copy-protection device. Since the software does not operate properly without it, the sentinel **must** be connected to the parallel port on your PC. Be sure the parallel port is properly installed and configured. If, for example, two ports on your PC are both configured as LPT1, the software may not be able to find the sentinel. You can connect another parallel device, such as a printer, to the sentinel. Note that while you run Smooth Operator, the power must be turned On for any devices connected to the sentinel. An illustration of the sentinel unit is shown below:

Figure 2.21 - The Sentinel

Please note that you must have the correct sentinel to run certain versions of the Smooth Operator software. For example, special sentinels are needed to run the Fax Retrieval, Fax Mail, Power Pager, and SMDI modules.

Throughout this manual, ports and channels are noted as follows:

	Channel	Port
Board 1	1	0
	2	1
	3	2
	4	3
Board 2	1	4
	2	5
	3	6
	4	7

Section 3

Installing Smooth Operator Software

This section describes the step-by-step procedure for installing Smooth Operator software. It is important to note that before installing the software, you must first complete the hardware installation process described in Section 2.

Software Installation Checklist

Like the hardware installation, the software installation process involves many steps, listed in the Software Installation Checklist below. It is strongly recommended that you carefully read and review the information provided on each step by referencing the noted pages. Once you become familiar with the Smooth Operator installation procedure, you may simply want to check off the items on the list as they are completed.

If you are upgrading from a previous version of Smooth Operator, complete the following numbered steps before proceeding to the Software Checklist.

1. Run PCTools Compress or Norton's Speed Disk.
2. Back up your current Smooth Operator System, either on the hard drive or on floppy disks.
3. If your tonetable in AccuCall is called TONETAB1, rename it or the file will be overwritten during the new installation.
4. If you are upgrading from version 3.1, run Quick Assist.

Software Checklist

Software Installation

Before attempting to install Smooth Operator, be sure that you have completed all items on the Hardware Installation Checklist (Page 2-2). This includes configuring the voice board switches, installing the voice board(s) and the sentinel unit, and connecting the phone and fax lines. Also, if you are using an Intel SatisFAXtion board for the Fax Retrieval Module and/or the Microsoft Windows interface, the SatisFAXtion and Windows software must be installed before beginning the Smooth Operator installation.

Important Note:

The installation program contains a module designed to convert Smooth Operator 2.12 files into a format compatible with Smooth Operator 3.2. If you are planning to run the Previous Version File Conversion, you are strongly urged to back up all Smooth Operator 2.12 files as a precautionary measure before you begin the Smooth Operator 3.2 installation.

Also, Smooth Operator 3.2 only recognizes a voice board if the EPROM has been programmed to contain the Compass "signature." If you are upgrading from 2.12 to a 3.x System, it may be necessary to also upgrade your voice board.

The software is contained on a set of five to eight high-density diskettes, depending upon the type of voice board(s) and the size of the diskettes (3.5 inch or 5.25 inch) you are using. The files must be installed using the installation program provided for you; they cannot simply be copied onto your hard disk. Be sure to plug in the PC (preferably into a UPS) along with any peripherals and turn the power on. Then, follow the instructions below:

1. Insert Smooth Operator Installation diskette 1 into either the A: or B: disk drive.

2. At the DOS prompt, type either `A:INSTALL` or `B:INSTALL` (depending on the drive you are using), and press <Enter>.

3. An information screen appears which briefly describes the installation procedure. When you press a key to continue, another screen describes proposed changes to the AUTOEXEC.BAT and CONFIG.SYS files. These two files establish the running parameters for DOS, the PC's disk operating system. Because Smooth Operator has certain requirements which must be set in these files, answer Yes to change these files if this is a first-time installation of the 3.2 software. If this is a reinstallation or upgrade of 3.2 software, the files have probably already been customized for your System. Select No so the files will not be changed.

   If you select Yes to change the files, the original files are saved as AUTOEXEC.BAK and CONFIG.BAK. All changes are saved, and the computer reboots after completing the installation. If you select No, the original files remain intact. Suggested changes are saved to files named AUTOEXEC.EXM and CONFIG.EXM for your review. In this case, the computer does not reboot after installation.

4. Then, you are asked if you have installed the Intel SatisFAXtion software or if you will be using Fax Mail. Answer Yes or No. If you select Yes, the System asks if you will be using the SatisFAXtion board (Fax Retrieval only) or a Brooktrout board (both Fax Mail and Fax Retrieval). Use the arrow keys to make your selection.

Note:
Beginning with release 3.03, there have been significant changes made concerning the use of the EMM386 driver. The CONFIG.EXM and AUTOEXEC.EXM files should be examined after installation and appropriate changes should be included in your AUTOEXEC.BAT and CONFIG.SYS files.

5. If you have more than one hard drive, you are asked to select the drive to which the Smooth Operator files should be installed. The installation program presents a list of all local fixed drives from which you can make your selection.

6. Next, the System prompts you to enter the following hardware information: total amount of memory and the number of ports on your voice board. If using a Dialogic board, you are asked to select the type of board. Finally, the installation program asks for the number of fax ports and the hardware interrupt level of the both the voice and fax boards. The interrupt level for the voice board was configured during the hardware installation. Follow the System prompts and enter the requested information.

7. After entering the requested information, you are prompted, "Do you want to install the 3.2 program files?" The installation of the program files is the first in a series of steps. By organizing the installation process into these steps, Smooth Operator allows you to install or re-install all or only certain modules at any time. The installation steps are:

   Remember:
   Selections made during the installation process determine if some modules are available to you.

   Program File Installation (includes Localfax for fax applications)
   SMDI Integration
   Configuration Utility (includes the Switch Integrator, System Setup, and Previous Version File Conversion)
   Reboot
   Call Analysis

   The first time you install Smooth Operator 3.2, it is important that you go through all modules specific to your System, beginning with the Program File Installation.

   Note:
   You can also change certain modules by running the module as a stand-alone utility. To do so, refer to the instructions in the indicated page reference.

   After the software has been installed at least one time, you may decide you want to make modifications to one of the modules. You can skip right to that particular module by following the steps outlined above. Answer No to the System Installation Prompts until you reach the desired option. For example, if you would like to change the switch integration information after a System has been installed, follow steps 1 through 7 above. When the installation program prompts, "Do you want to install the 3.2 program files?" answer No, and the installation skips the copying of files, allowing you to "jump" through the installation program to make desired changes.

Begin installing your software starting with the Program File Installation.

Step 1: Program File Installation

During the installation process, two directories are created on your hard drive: \CVR and \CVR1. Your Smooth Operator software operates from these directories.

1. When the System asks, "Do you want to install the 3.2 program files?" select Yes.

2. The installation process places files in both the \CVR and \CVR1 directories. If you are upgrading from a previous version of 3.x software (or reinstalling this version of the software), the installation normally only installs a file if it is newer than the already installed file. There are some exceptions. Certain files, which may have been customized (such as the SO3-D2.* phrase file) are never replaced. Some, which are vital to the installation process, are always replaced. Some files in the \CVR1

directory have System information defined, such as classes of service or passwords. For such files, you are asked if you want to replace them.

3. If the installation program detects Microsoft Windows in the path on your PC, a screen appears giving you the option to install Smooth Access, "Do you want to install Smooth Access, the Microsoft Windows interface for the System?" If you answer Yes, the System allows you to run Smooth Operator under the Windows interface. If enough memory is available, certain Windows-specific files are loaded, and changes are made to other Windows files (WIN.INI, SYSTEM.INI, PROGMAN.INI).

4. During the actual file installation, the screen displays two boxes. The top box indicates the files that are being read from the diskettes and written to your hard drive. The bottom box, the Progress Indicator box, indicates the current completion status of the file being read or written to, as well as the overall completion status of the software installation.

5. Continue to load the software diskettes as the System prompts you. Once all the diskettes are installed, the System prompts you to answer a series of questions which allows the System to properly configure Smooth Operator.

The Fax Retrieval Localfax Utility

If your System includes the Fax Retrieval and/or Fax Mail add-on module(s), you will automatically run a short utility program that enables your System to determine the actual outdial sequence used in response to a V-Tree Fax Retrieval request or to deliver Fax Mail messages.

A standard 10-digit phone number has the format *aaapppnnnn*, where *aaa* represents the three-digit area code, *ppp* is the three-digit prefix, and *nnnn* is the last four or "subscriber" digits. For example, if a phone number is 813-555-1234, 813 is the area code, and 555 is the prefix.

Follow the prompts to enter the local area code at the top of the screen. In the fields below, you can enter either three digits (representing *ppp*, a three-digit prefix), four digits (representing 1*ppp* for 1 plus a three-digit prefix), or six digits (representing an area code/prefix combination, *aaappp*). If you have six-digit data (*aaappp*), where the first three digits are the same as the local area code specified at the top of the screen, Localfax offers to convert the data. If you select Yes to convert the data, the first three digits are removed to make a three-digit entry (*ppp*).

In addition to defining local numbers using Localfax, the Use Localfax Setup question must be selected during the System Setup in order to define the entire dialing string that should precede the final four digits of a phone number. The data in Localfax determines whether a 1 should be used before dialing a number. If Use Localfax is not selected, Localfax will dial 1 before all 10-digit outdial sequences.

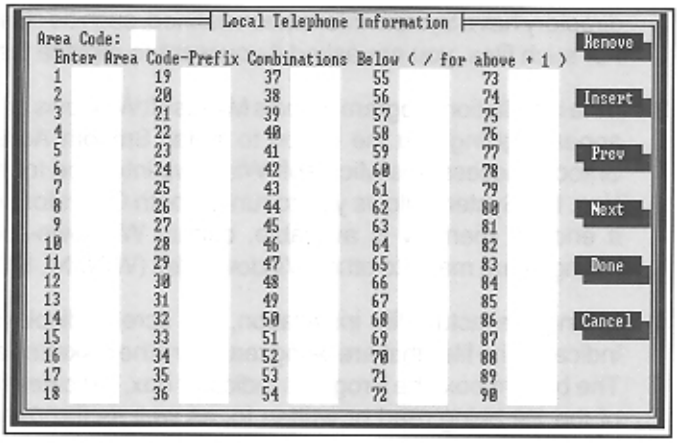


Figure 3.01 - The Localfax Utility

When comparing phone numbers entered by callers to Localfax, the following searches are performed:

1. If the caller's requested area code (*aaa*) is not equal to the local area code defined in Localfax, Localfax searches for a match of *aaappp* in its data. If *aaappp* is found, the System dials aaapppnnnn without the preceding 1 since it is local. If a match is not found, the System dials 1aaapppnnnn.

2. If the caller's requested area code is the same as the defined local area code, Localfax will:

   a. Search for an *aaappp* match. If a match is found, the System dials aaapppnnnn.

   b. Search for *ppp* in a four-digit entry (1*ppp*). If a match is found, the System dials 1pppnnnn.

   c. Search for a *ppp* match. If a match is found, the System dials pppnnnn.

   d. If there are no matches from the above searches, the System dials 1aaapppnnnn.

Use the up and down arrow keys to move around on the screen. To save keystrokes, you can press the </> key (forward slash) when typing the area code and prefix combinations. This key inserts the number you entered one line above and increments the number by one.

When you finish, press <Alt-D> or click on Done.

Running Localfax as a Stand-alone Utility

Localfax can also be run as a stand-alone program by typing LOCALFAX from the C:\CVR> prompt.

7. Next, the System prompts, "Do you want to put the voice files in a RAMDISK?" Specify either Yes or No. If you enter Yes, you are asked to select the drive of the RAMDrive, usually D:. If the RAMDrive does not exist on the drive you specify, the System asks if you want one to be created. It is recommended that you use a RAMDrive if you have more than two megabytes of RAM on your System.

When the System creates a RAMDrive, it uses one megabyte (1024K) of extended memory to house the SO3-ALL.VOX or SO3-ALL.VAP voice file. Information concerning memory requirements can be found in Section 2. For more information on the SO3-ALL.* file and other voice files, see Section 10.

8. Next, the System automatically creates 10 directories needed to store messages and greetings. These directories are named \REC00 through \REC09. If Fax Mail is being used, 10 fax directories are also created, named \FAX00 through \FAX09. If the Intel SatisFAXtion board is being used, only one fax directory, \FAX00, is created.

9. At this point, the System modifies the AUTOEXEC.BAT and CONFIG.SYS files on your computer, preparing them to run Smooth Operator. If you chose not to modify these files, the original files remain intact, and the proposed files are saved as AUTOEXEC.EXM and CONFIG.EXM.

Step 2: SMDI Integrations

Certain switches require a Simplified Message Desk Interface (SMDI) integration. SMDI is an add-on module available with Smooth Operator 3.2 which makes it easier for you to configure your switch for this type of integration. **Select this module only if you have the SMDI disk**. To run the SMDI Integrations module, answer Yes when prompted to use SMDI Integration. If your switch does not require an SMDI Integration (or if you have not purchased this add-on), answer No to skip this module and continue the installation. Please note that the SMDI module requires a sentinel which is different from a normal Smooth Operator sentinel.

1. If you choose to run SMDI, an introductory screen will appear. Press any key to continue. If you have an ITT or Hitachi switch, make the appropriate selection from the Integration Configuration screen that appears. If you have another type of switch, select SMDI. When the System prompts you, place the SMDI Installation diskette into the A: or B: drive, and press <Enter>. Answer Yes when the System asks if it may create a new SMDI.CFG file (or ITT.CFG or HITACHI.CFG) for storing integration information. An illustration of the Integration Configuration screen appears below:

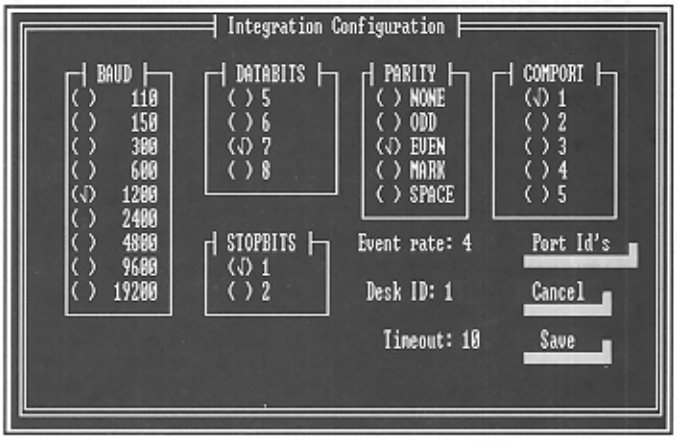


Figure 3.02 - The SMDI Integration Configuration screen

2. Using the <Tab> key to change fields, fill in the appropriate values on the screen. These values depend on your System's configuration and are strictly defined if your System connects directly to a central office (CO) or switch. If you are using an SMDI integration with a VoiceBridge or have an ITT or Hitachi system, use the values which follow:

Note:
Fore more information about these values, refer to Section 5.

	VoiceBridge	ITT	Hitachi
BAUD	1200	1200	300
DATABITS	7	8	7
STOPBITS	1	1	1
PARITY	EVEN	NONE	EVEN
COMPORT	(Enter COM port)	(Enter COM port)	(Enter COM port)
EVENT RATE	5	4	9
DESK ID	(Enter Desk ID #)	(Does not require)	(Does not require)
TIMEOUT	10	9	8

3. When you finish entering the appropriate values, <Tab> to the Port IDs field, and press <Enter> (or press <ALT-I>). The Port Identification screen is displayed.

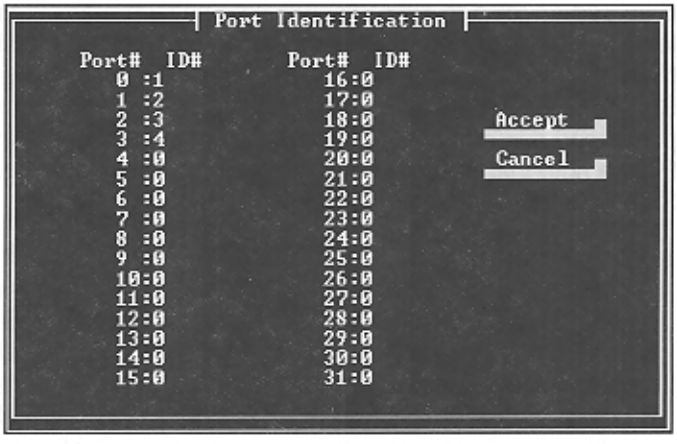


Figure 3.03 - The SMDI Port Identification screen

4. On the Port Identification screen, enter the identification number that corresponds to each port on your System. The default values are those shown in Figure 3.03.

5. When you finish, <Tab> to the Accept button, and press <Enter> (or <ALT-A>). The Integration Configuration screen appears. Select Save from the Main Menu screen (or press <ALT-S>) to save the values you specified for your System. You are now prompted to continue.

6. Please refer to the parameter information found in Section 5, *More About Integrations*, if you have one of the following switches:

   AT&T
   Centrex
   Hitachi
   ITT
   Mitel
   NEC
   Northern Telecom
   Rolm

Running SMDI as a Stand-alone Utility

The SMDI integration may be run at a later time. To do so, place the SMDI diskette in the A: or B: drive, and type `A:\SWITCH` or `B:\SWITCH`.

Step 3: Configuration Utility

After all of the program files have been installed and the Localfax and SMDI utilities have been configured, a menu appears with several options that complete the installation process. Again, if this is a first time installation, it is recommended that you install all pertinent options.

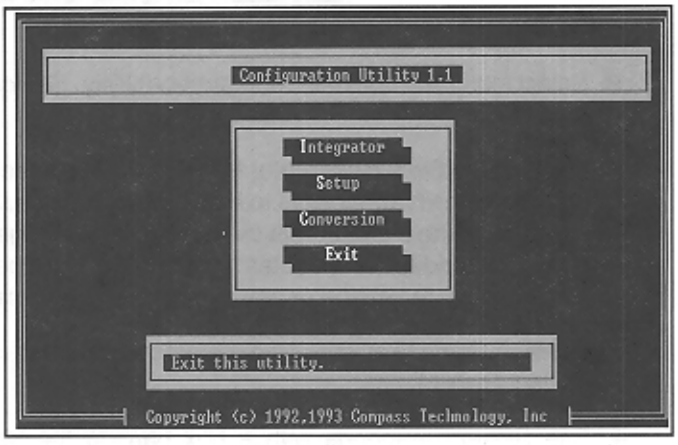


Figure 3.04 - The Configuration Utility

The Switch Integrator Module

The Switch Integrator module can assist you when you install and set up your System. It enables the System to preset many of the software's default parameters to values appropriate for your particular switch. This allows you to move through the System Setup module much faster and reduces the possibility that you may make invalid entries in some of the more complicated Setup fields.

If you are installing Smooth Operator 3.2 for the first time, or even if you are simply upgrading from Smooth Operator 2.12 software, **it is important that you do not skip this module during the software installation process.**

Important Note:

If you are reinstalling the System, please be aware that any codes which were manually entered in the System Setup will be overwritten if you choose to run the Integrator module.

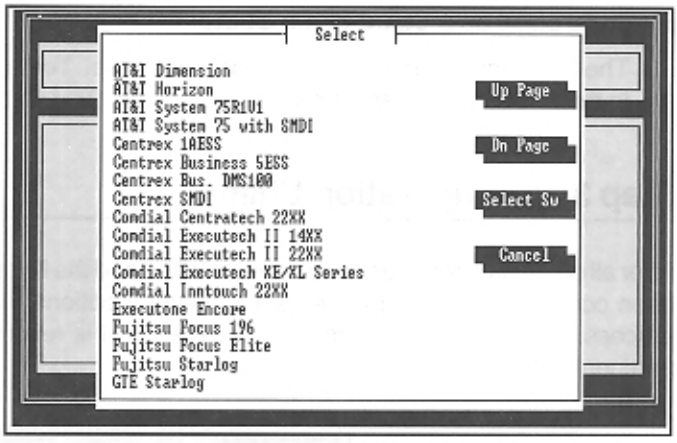


Figure 3.05 - The Integrator's Switch Selection screen

1. Select Integrator from the Configuration Utility. Select OK on the initial information screen.

2. Running the Switch Integrator takes only a few seconds. Simply use the mouse or up and down arrow keys to highlight your particular switch. Please note that if you are using a switch with the Simplified Message Desk Interface, you should select the model that indicates "with SMDI." Also, be careful to select the proper switch software version or any special board integrations.

3. Once you have highlighted the correct switch, press <Enter> or click on Select Sw (Select Switch).

4. The System responds with a box naming the selected switch and buttons providing the following three options: Install Switch, See/Modify Codes, or Previous Screen.

Note:
If your switch is not listed in the Integrator, you should consult your switch documentation for the correct codes. Then, be sure to send in your registration diskette so we can update the Integrator.

Install Switch. When you select Install Switch, the Integrator provides you with a list of integration requirements and switch programming notes. Select OK when you are finished reading the notes, and the Integrator installs the selected switch requirements.

See/Modify Codes. If you wish, select See/Modify Codes to show the codes the Integrator applies for your selected switch. You can modify any of the codes by clicking the mouse button or using the <Tab> key to move to the desired field.

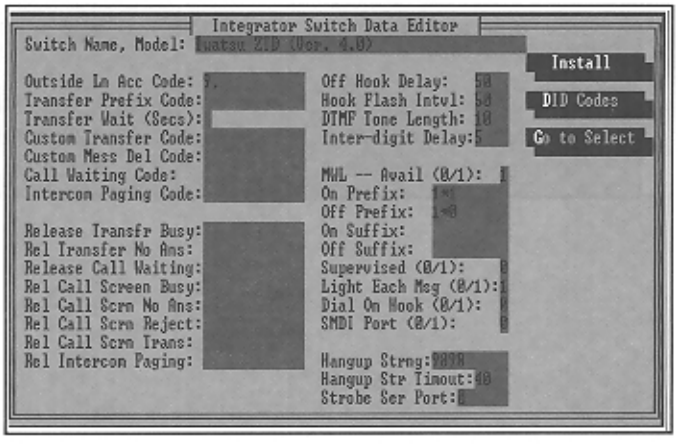


Figure 3.06 - The See/Modify Codes screen

This screen also gives you the options to Install the selected switch, display DID Codes or Go to Select. Choosing DID Codes allows you to edit the displayed codes the same way you did on the See/Modify Codes screen.

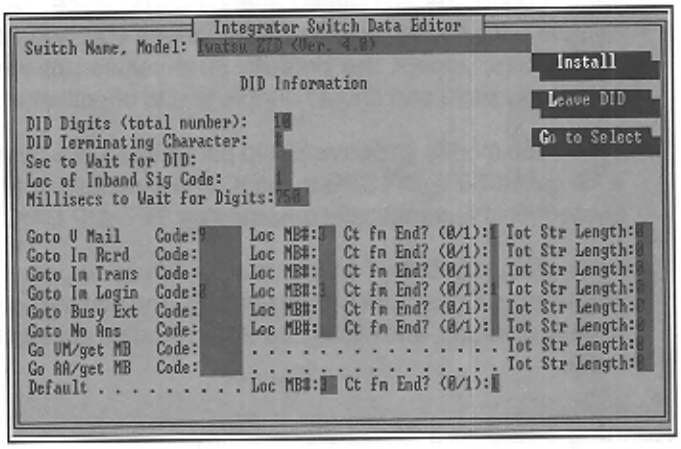


Figure 3.07 - The DID Codes screen

If you change any of the displayed codes, they will be put into the appropriate SET_UP.CFG or OPERATOR.SYS file (when Install is selected). However, the changes will not be placed into the switch data file, SWDATA.TXT. Your button choices also include Install, Leave DID Codes, and Go to Select. Regardless of the screen you choose it from, the Install button completes the Installation process of the Integrator. Likewise, the Go to Select button allows you to return to the Integrator listing of available switches. When you select Leave DID Codes, the Integrator returns you to the See/Modify Codes screen.

Previous Screen. The last choice on the screen described at the beginning of this step is Previous Screen. Choosing this option returns you to the Integrator listing of available switches.

Important Note:

If you have one of the following switches, (AT&T, Centrex, Hitachi, ITT, Mitel, NEC, Northern Telecom, or Rolm PBX), refer to Section 5, *More About Integrations.* This information can help you attain a complete Smooth Operator integration.

Running the Switch Integrator as a Stand-alone Utility

Should you decide that you need to make changes to the Switch Integrator module after the Smooth Operator System has been installed, it is not necessary to run through the installation program again. You can simply type `INTEGRAT` from the C:\CVR> prompt, and press <Enter>.

If you are re-integrating or changing the phone switch for a particular System, the Integrator will warn you before overwriting your Integration setup.

System Setup

Note:
Throughout the setup questions, a "Default=Yes" may mean activating the feature by checking the box in the System Setup. A "No" may represent an unchecked box. However, some questions require the word "Yes" or the word "No" to be entered in the space provided.

The System Setup module should be selected if the installation has loaded 3.2 files and is not a 3.2 upgrade. The System Setup consists of many variables you must set to control the automated attendant and voice mail features available on your System. If you are unsure of the values you need to specify for certain Setup parameters, **accept the default.** The values provided as defaults are the most commonly used and should enable you to effectively run Smooth Operator.

When you modify and save Setup parameters, the System saves the information to a file called SET_UP.CFG in the \CVR1 directory. If this file already exists on your System, it is automatically renamed as SET_UP.BAK.

After executing Setup, an information screen appears. Press any key to go to the Main Menu. Options for making, saving, and printing changes, setting all parameters to default values, and exiting the Setup module are available from the System Setup menu.

Running Setup as a Stand-alone Utility

You can access the Setup module during installation from the Configuration Utility menu, by typing `SETUP` from the C:\CVR> prompt or through the Options pulldown menu while running Smooth Operator. The latter is available only to Supervisors with level 3 security when Smooth Operator is running.

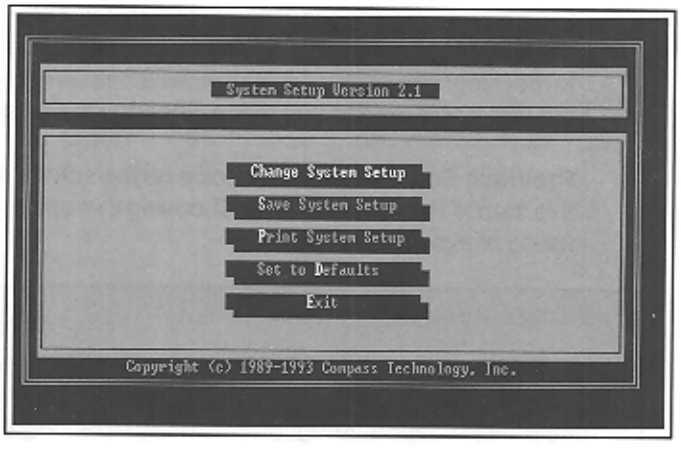


Figure 3.08 - The System Setup Module main menu screen

Change System Setup

The options available from the Change System Setup screen are the same as those which can be run from the Options pulldown menu once the software is installed.

When you select Change System Parameters from the main Setup screen, you have the opportunity to change the System parameters. The General Parameters begin on page 3-14. To change a parameter, use the up and down arrow keys to highlight the line. Press <Enter> to activate the selection box. Then, type the appropriate value and press <Enter>. Parameters with checkboxes [ ] can be activated or deactivated with the <Spacebar>.

Use the Previous Page button (Page Up key) and Next Page button (Page Down key) to scroll through the screens. "Grayed out" choices are unavailable due to previous choices invalidating that line. Options are divided into several sections in order to group similar parameters. At any time, you can request further information about a parameter by pressing the <F1> key.

Save System Setup

All variables are saved to the OPERATOR.SYS and SET_UP.CFG files in the \CVR1 directory.

Print System Setup

If a printer is connected to your computer, the Setup can be printed out for later analysis or for a permanent record of your settings.

Set System Defaults

Important Note:

Use this option with caution! Some settings may be different due to the data provided by the Integration program during System Setup. Choosing the Set To Defaults option from the initial System Setup Screen sets parameters to the shown default values, but may prevent Smooth Operator from interfacing with your switch.

Setting the System defaults resets the System, including all changes which were made by the Integrator. Integrator settings can be reinitialized by taking the System down to a DOS prompt (C:\CVR>) and typing INTEGRAT. When integration is completed, reboot the System.

Exit Setup

Before exiting, the program ensures that any changes which have been made have also been saved.

General Parameters

1. Enable Automated Attendant

If this parameter is selected, the automated attendant is activated. The automated attendant handles phone calls in a manner similar to a receptionist. Its capabilities include answering the phone with a customized greeting, routing calls to the desired extensions, providing directories of all extensions, and allowing call handling features for subscribers. Default = YES

2. Number of Digits in a Mailbox

Enter the number of digits in a mailbox number. Most switches require a mailbox length of at least three digits. To better integrate Smooth Operator with your switch, it is recommended you make each subscriber's mailbox number the same as his extension number. Minimum = 1; Maximum = 9; Default = 4 (This parameter does not reset when choosing Set System Defaults.)

3. Number of Languages

Note:
When using multiple languages, you must load the appropriate voice files onto your System. See Section 10 of this guide.

Enter the number of languages to use with the System. When using multiple languages, you must load the appropriate voice files onto your System. In addition, you must define the multilingual prompts on the System Prompts screen, and/or select an alternative language in a mailbox's class of service. (See Section 10 for more information.) Minimum = 1; Maximum = 5; Default = 1

4. Tutor for New Mailboxes

If this parameter is selected, the tutor for new mailboxes is active. The tutor guides a new mailbox user through the steps of changing a password and recording prompts the first time the mailbox is accessed. Default = YES

5. Shutdown System at Midnight

Note:
For more information on the Shutdown System at Midnight parameter, see Midnight Error Codes on page 4-6.

If this parameter is selected, the System is shut down at midnight to run user-supplied backup programs or other disk utilities. Note that some type of system, such as a batch file for a tape backup program, must be designed to perform these functions and then restart Smooth Operator. A sample Day of Week batch file (DOW.BAT) is shown on page 4-7. Default = NO

Receptionist Parameters

6. Default Receptionist Mailbox Number

Specify the mailbox to which callers are returned when they request to speak with an operator by either pressing <0> or exceeding the number of errors allowed when accessing the System. Default = 1000, or 100 if the Number of Digits in a Mailbox Number is set to three (3). (This parameter does not reset when choosing Set System Defaults.)

Note:
When configuring the System, it is best if you create the operators' mailboxes first.

7. After Hours Receptionist Mailbox Number

Enter the mailbox to which after hours calls should be routed (usually the operator). At this mailbox, any active Call Handling features will take effect. For example, you could activate an Optional prompt to block all calls to this mailbox. If no Call Handling features are active, the caller is instructed to leave a message. The message is stored in the mailbox until the operator can reroute it to the appropriate mailbox. If you do not want calls after hours to be answered by a different receptionist, simply enter the Default Receptionist Mailbox Number again. Default = 1000, or 100 if the Number of Digits in a Mailbox Number is set to three (3). (This parameter does not reset when choosing Set System Defaults.)

8. Inform Subscriber Transfer is from Attendant

If this parameter is selected, a subscriber hears the message *"One moment, you have a call"* or *"There is a call for <subscriber's name>"* before a call is transferred to his extension from the System. Otherwise, the caller is immediately transferred. Default = YES

9. Announce Subscriber's Name when Transfer from System

If this parameter is selected, a subscriber will hear *"There is a call for <subscriber's name>"* rather than *"One moment, you have a call"* when a call is being transferred by the attendant. Note that Inform Subscriber Transfer is from Attendant must be set to Yes if using this feature. If the Power Pager option is installed on your System, this parameter will always be activated, regardless of its setting. Default = NO

Note:
To activate this feature for individual mailboxes, use the Subscriber Settings screen.

10. Disconnect All Rotary Callers

If this parameter is selected, the System politely disconnects all callers who are calling from a rotary phone. The System considers a rotary call to be any call from which it hears no Touch-Tone digits. This parameter should hasten the disconnect of such ports. If using this feature, the standard office greeting should provide another number for rotary callers to dial. If this feature is not selected, rotary calls are transferred to the receptionist. Default = NO

11. Number Attempts Rotary Transfer to Busy Receptionist

Enter the number of times the System should attempt to transfer a rotary caller to a busy operator's extension. If the call cannot be transferred to the operator, it will be directed to the operator's mailbox. Minimum = 0; Maximum = 9; Default = 3

12. Enable Receptionist Grunt Detection

If this parameter is selected, callers may use simple words such as "Yes" to transfer to a receptionist. This is useful for callers with rotary phones who cannot successfully access the System but want to be transferred to an operator. Also, this is useful for detecting if a caller has hung up before transferring the call to the operator. Default = NO

13. Maximum Number of Errors

Enter the number of errors permitted by a caller or subscriber when using the System. When a caller exceeds this number, he is either transferred to a default extension (if Transfer Calls to Receptionist after Maximum Errors is selected), usually the operator or politely disconnected. If this parameter is set to zero, the caller is disconnected after making the first entry error. Minimum = 0; Maximum = 9; Default = 3

14. Maximum Number of No Entries

Enter the maximum number of "no entries" that a caller or subscriber can make before the System assumes the caller has hung up then releases the line. If a caller does not enter any keypresses at the initial prompt, this count is not used. The caller is transferred to the operator. If this parameter is set to zero, the caller is disconnected after the first no entry situation. Minimum = 0; Maximum = 9; Default = 3

15. Transfer Calls to Receptionist after Maximum Errors

Enabling this feature transfers callers who exceed the Maximum Number of Errors to the receptionist. If this option is set to No, callers will be "politely" disconnected from the System. Default = YES

General Transfer Parameters

Note:
If these parameters are not selected, the System responds, "I'm sorry, but that mailbox was not found on this System."

16. Transfer Invalid Mailboxes During Business Hours

If this parameter is set to Yes, all calls to an invalid mailbox number during business hours will be transferred to the switch. This feature is used when a phone extension does not exist as a mailbox. Default = NO

17. Transfer Invalid Mailboxes After Business Hours

If this parameter is set to Yes, all calls to an invalid mailbox number after business hours will be transferred to the switch. This feature is used when a phone extension does not exist as a mailbox. Default = NO

Time/Date Parameters

18. Start of Morning Hours

Specify the start of morning hours in military format. The morning start time must be between 0000 (midnight) and 2359 (11:59 PM). This parameter defines the hours during which the Morning greeting will be used. Default = 600 (6:00 AM)

Note:
Business hours, used in conjunction with the time-of-day greeting, are described in Section 4 of the Supervisor's Guide.

19. Start of Afternoon Hours

Specify the start of afternoon hours in military format. The afternoon start time must be between 0000 (midnight) and 2359 (11:59 PM). This parameter defines the hours during which the Afternoon greeting will be used. Default = 1200 (Noon)

20. Start of Evening Hours

Specify the start of evening hours in military format. The evening start time must be between 0000 (midnight) and 2359 (11:59 PM). This parameter defines the hours during which the Evening greeting will be used. Default = 1800 (6:00 PM)

21. Enable Chinese Date

If this parameter is selected, the Chinese format for dates is used. This format voices the complete date in numerical terms ("one, five" instead of "January fifth") and uses the Chinese equivalent of "in the morning" and "in the afternoon" instead of "AM" and "PM" If not selected, the standard American "month-day-year" format is used. Default = NO

Message Timing Parameters

22. Number of Seconds to Rewind Message

Enter the time interval, in seconds, by which System subscribers can rewind messages. Minimum = 0; Maximum = 99; Default = 5

23. Number of Seconds to Pause Message

Enter the time interval, in seconds, by which System subscribers can put messages on hold. Minimum = 0; Maximum = 99; Default = 5

24. Number of Seconds to Fast Forward Message

Enter the time interval, in seconds, by which System subscribers can fast forward messages. Minimum = 0; Maximum = 99; Default = 5

25. Maximum Time to Record Mailbox Prompts

Enter the maximum amount of time, in seconds, to allow subscribers to record a mailbox prompt or folder label. Note that this parameter does not affect the amount of message recording time for mailboxes, only the prompts. Minimum = 0; Maximum = 999; Default = 90

26. Minimum Message Length in Seconds

Enter the amount of time, in seconds, that defines the shortest allowable message. Any messages shorter than this value will be discarded. This can be used to control silent messages caused by switches that do not provide positive disconnect information. Minimum = 0; Maximum = 10; Default = 0

Subscriber Parameters

27. Enable Extended Password Security

Note:
Use Extended Password with caution. If there is a long delay before pressing the <#> key, the System may disconnect the caller.

If this parameter is selected, the extended security feature for password entry is used. This feature enables a subscriber to press the <#> key after entering his password when gaining access to his mailbox. Because the System allows for variable length passwords, the <#> key informs the System that the subscriber has finished entering his password, helping to protect against unauthorized access to a mailbox. If the subscriber does not press <#>, the System will timeout after the last digit and permit access to the mailbox. If this feature is not selected, a subscriber gains access to his mailbox as soon as he enters the last digit of his password. Default = NO

28. Permit Subscribers to Leave Messages to Themselves

If this parameter is selected, subscribers are permitted to send messages to themselves. Although this feature works well as a message reminder (especially when used with Message Delivery to a home phone number), it uses valuable disk space and is not recommended for small Systems. Default = YES

29. Permit Listen-Only Messages to be Reviewed

A listen-only message is normally deleted after a subscriber has listened to it. With this feature selected, a subscriber has the option of reviewing the message again before it is deleted. Default = NO

30. Enable Confirmation of Deleted Messages

If this parameter is selected, the subscriber will be prompted to confirm message deletions with an additional keypress. This feature can become tiresome for the experienced user, especially since deleted messages can be recovered during

the same session. However, it does provide an added safety measure against the unintentional deletion of messages. Default = YES

31. Voice Warning when Messages Expire

If this parameter is selected, subscribers are notified when messages are automatically deleted after the number of days to save has expired; otherwise, the messages are deleted with no notice. This prevents subscribers from wondering why messages are "disappearing" from their mailboxes. If automatic message deletion presents a problem for some subscribers, it is suggested that the number of days to save both new and saved messages be increased. Default = NO

32. Voice Warning when Message Time is Less than 2 Minutes

If this parameter is selected, a warning is voiced when a mailbox's total time to record messages drops below two minutes. This warning alerts the subscriber that messages should be deleted from the mailbox. Otherwise, the total recording time may be reached, and callers wishing to record messages are told that the mailbox is full. Default = YES

33. Maximum Number of Forwarded Extensions Permitted

Enter the maximum number of forwarded extensions permitted on the System. For example, if set to two, extension 100 can forward calls to extension 200, and extension 200 can forward all calls to extension 300. Extension 300 will be permitted to set Call Forwarding, but calls to the extension will not be forwarded. Minimum = 0; Maximum = 99; Default = 10

34. Set Initial Password for New Mailboxes to 1111

If this parameter is not selected, the Supervisor is asked to enter the initial password when creating a mailbox by phone. If set to Yes, a default password of 1111 is assigned when creating mailboxes via the phone, and the Supervisor will not be prompted to enter the initial password. Please note that this does not affect the initial password when creating mailboxes on the screen; this password will always default to 1111. Default = YES

Caller Parameters

35. Permit Callers to Leave Multiple Messages

If this parameter is selected, a caller can leave more than one voice mail message per call into the System. Otherwise, a caller is disconnected after sending the first message. Please note that this only applies to outside callers; subscribers are always permitted to send multiple messages. Default = YES

36. Permit Caller Access to Directory Services

Specify if the directory feature should be active. If this parameter is set to Yes, callers can access subscriber directories. Subscriber access to directory services should be activated via a class of service. Default = YES

Fax Parameters

37. Local Fax Machine Telephone Number

Specifies the phone number for local retrieval of Fax Mail messages. If this number is greater than or equal to the Number of Digits in a Local Phone Number, the Fax Prefix Code is used to access the outside line for fax message delivery. If it is less than the Number of Digits in a Local Phone Number, the Custom Message Delivery Code is used. For Systems without Fax Mail, the System will do a blind transfer to this extension whenever fax tones are detected during the System's initial greeting to an incoming call. Such sites will receive a fax message in the default receptionist's mailbox. In order for this immediate tone detection to function properly, the active tone table, usually COMPASS.TON, must have the fax tone defined. The COMPASS.TON shipped with the System already has this tone defined. Default = (Blank)

Important Note:

The following fax options can only be used with the Smooth Operator Fax Retrieval and Fax Mail modules.

38. Fax Board Type (0-None, 1-Intel, 2-Other)

Indicate the type of fax board you are using on your System. Enter 0 for no fax board, 1 for an Intel SatisFAXtion board (used with V-Tree Fax Retrieval), or 2 for the Brooktrout fax board (used with both V-Tree Fax Retrieval and Fax Mail). Default = 0

39. V-Tree Fax Retrieval

Specify if Fax Retrieval should be used. Fax Retrieval allows you to distribute faxed copies of information via a V-Tree. Refer to Section 2 for hardware configuration and the *Subscriber's Guide* and *Supervisor' Guide* for creating a V-Tree with Fax Retrieval. Default = NO

40. Use Immediate Fax Delivery Mode in V-Trees

Note:
Cover pages are not used with Immediate Fax Delivery Mode.

Specify if Fax Retrieval is sent on the requesting telephone call, sometimes referred to as "one call" or "same call" fax delivery. If this feature is enabled, callers must be warned in V-Tree prompts that they must be calling from a fax machine. This capability is not available on the Intel SatisFAXtion board. Default = NO

41. Fax Mail Allowed

Specify if Fax Mail is permitted on the System. Fax Mail allows a caller or subscriber to attach a faxed document to a voice message. The document is stored in the recipient's mailbox for later retrieval. Note that this feature is available to a subscriber at the Supervisor's discretion. This capability is not available on the Intel SatisFAXtion board. Default = NO

42. Use a Fax Cover Sheet

Indicate whether a fax cover sheet should be transmitted with each outbound fax. Default = NO

43. Number of Attempts when Sending a Fax

Specify the number of times to attempt to send a fax to a busy or unanswered destination fax machine. If the System uses an Intel SatisFAXtion board, this parameter **must** be equal to the Number of Dialing Retries entered in the Advanced Setup of the SatisFAXtion software. Minimum = 0; Maximum = 9; Default = 5

44. Fax Delivery Retry Delay (Minutes)

Specify the time, in minutes, before again attempting to deliver a fax to a busy or non-responsive destination fax machine. Minimum = 1; Maximum = 60; Default = 2

45. Fax Prefix Code

Specify the outside line access code for fax delivery. This is the number you normally press to access an outside line. For most phone systems, the number nine is pressed, followed by an approximate two-second wait for the dial tone. Use a comma to alert the System to pause momentarily before dialing. Default = 9,

46. Use Localfax

If this option is selected, the System uses data provided by the Localfax program for determining how to dial local area and prefix combinations. Default = YES

Fax Extensions

47. Transfer to Extensions (Requires RESTART)

This parameter, needed only with Fax Mail, must be used if the number of fax ports does not equal the number of voice ports. In this case, the following Extension Connected to Fax Channel *n* parameters must be used. If the number of voice ports equals the number of fax ports, set this parameter to No and disregard the next 12 parameters. Default = NO

48-59. Extension Connected to Fax Channel 0 - 11

Enter the extension numbers connected to a specified channel, up to the maximum number of ports. For example, if you are using four fax ports, then specify extensions for fax channels 0 through 3. These parameters should only be used with Fax Mail and if Transfer to Extensions is set to Yes. Default = (Blank)

Call Queuing Parameters

60. Maximum Number of Callers Allowed in Queue

Specify the total number of callers permitted to hold in all queues at one time. This ensures ports are available for other incoming calls or for any required outdialing (such as Message Delivery or Message Waiting Lights). Minimum = 0; Maximum = number of ports; Default = 5

61. Voice "Extension is (Still) Busy" while in Queue

If selected, this parameter instructs the System to voice *"I'm sorry, but that extension is still busy"* or *"I'm sorry, but that extension is busy right now"* to callers while they are holding in the queue. Default = YES

62. Voice Caller's Position in Queue

If selected, this parameter instructs the System to voice the caller's position in the queue, for example *"You are number three in the queue."* All callers in the queue will hear such a prompt, except the first caller, who hears the Call Transfer prompt. Default = YES

63. Voice "Please Hold while Call is Transferred"

This parameter, if selected, prompts the caller to *"Please hold while your call is being transferred"* before the System attempts a transfer. This should not be turned off unless similar information is provided to the caller by the Call Transfer prompt. Otherwise, callers may be confused if they hear a click before the transfer is attempted. Default = YES

64. Voice and Accept Keypress Options while in Queue

If selected, this parameter gives a caller waiting in a queue a number of options, depending on other System settings: *"To continue holding, press star. To try another extension, press one. To leave a voice mail message, press two. To be transferred to a live operator, press zero. Or, to disconnect, press pound."* A Custom Phrase may be used in place of these options (see next question). If set to No, the only way for a caller to leave a queue is to hang up. Default = ON

65. Custom Call Queuing Phrase for Receptionist

Specify whether a customized Call Queuing phrase is used for the receptionist. If you choose to have a custom phrase for the receptionist, you must record it as phrase 93 in the SO3-D1.VAP (Dialogic) or SO3-D1.VOX (Rhetorex) file using the V-Edit voice editor. Otherwise, the System uses a default phrase: *"To continue holding, do nothing. To try another extension, press one. To leave a voice mail message, press two."* Note that all of the voice files are stored in the \CVR directory. Default = NO

66. Require Caller to Press Star to Stay in Queue

If this parameter is selected, a caller is required to press the <*> key to hold in a queue. Otherwise, the caller can remain in the queue by simply holding on the line. This parameter has no effect if Voice and Accept Keypress Options while in Queue is set to No. Default = NO

67. Number of Seconds for First Caller in Queue to Wait

If Call Queuing phrases are not being used, specify the number of seconds between attempts for the first call in the call queue to be transferred to the desired extension. This indicates how often the System looks to see if the extension is available or on hook. If your switch uses a re-order tone for hangup detection and Voice and Accept Keypress Options while in Queue is Off, this paramter should be set to at least 10 to avoid having a caller remain in the first position of the queue even after he has hung up. Minimum = 1; Maximum = 99; Default = 1

Intercom Paging Parameters

68. Intercom Paging Code

Enter the Intercom Paging access number normally pressed to start Intercom Paging through the telephone switch. Default = (Blank)

Note:
To use zone paging, refer to the Subscriber's Setting screen for each mailbox.

Important Note:

The Intercom Paging Code must be configured similar to a Custom Transfer Code. Please see the description under Custom Transfer Code.

69. Release Code for Intercom Paging

Specify the Intercom Paging release code, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

70. Repeat Intercom Paging Phrase

If this parameter is selected, the Intercom Paging phrase (*"There is a call for <mailbox owner's name>."*) is voiced twice instead of once. Default = NO

71. Number of Retries when Paging is Busy

Specify the number of times the System should attempt to activate the paging function on the switch if it initially fails due to a busy condition. Default = 3

72. Maximum Attempts to Page (Power Page Only)

Enter the maximum number of times a caller can choose to page a subscriber whose extension is either busy or not answered. Default = 3

73. Paging Wait Time (Power Page Only)

Enter the number of seconds a caller should be kept on hold after paging a subscriber. This value allows the subscriber time to respond to his page by entering the Power Pager codes. Default = 30

Call Transfer Parameters

74. Transfer Prefix Code

Specify the transfer prefix code, if required by the telephone switch. Check with the switch documentation to determine if this code is required. If it is not, leave the field blank. Default = (Blank)

75. Custom Transfer Code

When a switch cannot be configured with the standard Smooth Operator flash hook and release codes, the user can create a transfer sequence by using the commands and codes shown below. Default = (Blank)

Note:
Any values in the Transfer Prefix, Transfer Busy, and Transfer No Answer Release Code fields are overridden by any value in the Custom Transfer Code field unless the custom transfer code ends with 'R.'

Commands	Codes
& = Flash	T = DTMF
, = Pause	M= MF
- = On Hook	P = Pulse
+ = Off Hook	& = Flash
D = Dial with call progress	, = Pause
H = Hard hangup	
N = Dial without call progress	
R = Release code needed on busy or no answer	
X = Extension (place extension in dial string)	
C# = Transfer code following	
# = Number of characters in code	

Important Note:

A code is ignored unless followed by a "D" or an "N." If a release code is needed on a busy, no answer, or connect, an "R" must follow the "D".

When a busy signal is detected, the transfer busy release code is used. When a no answer signal is detected, the transfer no answer release code is used. In cases where a connect code is needed, the code should immediately follow the "R".

For example, the custom code for a transfer on a Rolm switch with busy and no answer release codes is **&,XDR.** This instructs the System to flash hook, wait (approximately two seconds), get the extension number from the current mailbox. Then, on a connect, the System will simply hang up.

Use extreme caution when creating customized transfer codes, since other codes may be overwritten.

Here are examples of custom transfer codes.

Rolm with Busy and No Answer Release Codes:

Transfer:	&,XDR Wait approximately two seconds Flash hook Get the extension number from the current mailbox On a connect, do nothing but hang up
Busy:	&,C2*8N Wait Flash hook Get a two-digit code (*8) Dial the two-digit call with no call progress
No Answer:	&,C2*7N Wait Flash hook Get a two-digit code (*7) Dial the two-digit call with no call progress

Transfer with Connect Code:

Transfer:	&,XDR&,C4*999N Wait Flash hook Get the extension number from the current mailbox Dial with call progress Get appropriate release code for busy or no answer On a connect: Wait Flash hook Get four-digit code (*999) Dial four-digit code with no call progress
Busy:	&, Wait Flash hook
No Answer:	&, Wait Flash hook

U.K. Transfer:

Transfer:	-+++-XD,$ On hook Off hook approximately 80 ms On hook Get extension from mailbox Dial with call progress (Steps 1-3 simulate the 80 ms flash hook used in the U.K.)

Busy/No Ans: -+++-
On hook
Off hook approximately 80 ms
On hook

76. Number of Seconds to delay before Transferring

Specify the amount of time, in seconds, after receiving a call that the System should be off-hook before attempting a transfer. The default setting should be adequate unless you experience call transfer problems. Minimum = 0; Maximum = 9; Default = 0

Note:
Any values in the Transfer Prefix, Transfer Busy, and Transfer No Answer release codes are overwritten by any value in the Custom Transfer Code unless the Custom Transfer Code ends with an "R".

77. Transfer Release Code when Busy

Specify the transfer release code for a busy extension, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

78. Transfer Release Code when No Answer

Specify the transfer release code for a no answer extension, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

79. Permit Voice Mail after Busy or No Answer

If this parameter is selected, a caller is permitted to leave a voice mail message for a subscriber whose extension returns a busy signal or no answer. Default = YES

80. Flash Time Interval (FLINTVL)

FLINTVL establishes the length of time, in 10 millisecond units, that the hookswitch must be depressed before the System recognizes it as a flash hook signal. Consult the switch documentation to determine the correct value. Default = 50 (half a second)

81. Pause Interval for Comma in Dial String (PAINTVL)

PAINTVL specifies the duration, in 10 millisecond units, represented by a comma in a dial string. A comma represents a pause before dialing the next digit in the dial string. Default = 200 (two seconds)

82. Inter-digit Delay Time (TONEDLY)

TONEDLY specifies the time, in 10 millisecond units, necessary between DTMF signals when dialing (transferring). Default = 5

83. Duration Time of Valid DTMF (TONELEN)

TONELEN specifies the duration, in 10 millisecond units, of a DTMF digit when dialing (transferring) or outcalling. Default = 10

84. Enable Call Progress (CALLPROG)

CALLPROG specifies whether the System should dial the number without listening for a busy/no answer/connect signal. If set to Yes, the System places all outgoing calls and transfers to a number or extension and listens for a busy/no answer/connect signal. If set to No, the System does not listen for these signals, performing a blind transfer on all calls. A blind transfer may be used when transferring calls to another application, such as Automatic Call Distribution (ACD), instead of an extension. Default = YES

85. Start Delay for Call Progress (STARTDLY)

STARTDLY specifies the amount of delay time, in 10 millisecond units, after the System dials a phone number before starting Call Progress. Default = 10

Call Screening Parameters

86. Call Screening Release Code when Busy

Specify the call screening release code for a busy extension, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

87. Call Screening Release Code when No Answer

Specify the call screening release code for a no answer extension, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

88. Call Screening Release Code when Reject

Specify the call screening release code for a rejected call, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

89. Call Screening Release Code when Transfer

Specify the call screening release code for a transferred call, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

Call Waiting Parameters

90. Call Waiting Code

Specify the Call Waiting code required by the telephone switch. Default = (Blank)

91. Number of Attempts for Call Waiting

Specify the number of times that the System should notify an extension that another call is ringing before returning to the call with a busy or no answer response. Minimum = 0; Maximum = 9; Default = 3

92. Release Code for Call Waiting

Specify the call waiting release code, if required by the telephone switch. Check with the switch documentation to determine if this code is required. Default = (Blank)

Message Delivery Parameters

93. Number of Digits in Local Telephone Number

Enter the number of digits of a number in the local dialing area. In the United States and Canada, this number is usually 7. However, in other countries, the number of digits may be different. Default = 7

94. Code for Accessing an Outside Line

Specify the outside line access code for Message Delivery. This is the number you normally press to access an outside line. For most phone systems, the number nine is pressed, followed by an approximate two second wait for the dial tone. Use a comma to alert the System to pause momentarily before dialing the Message Delivery phone number or beeper number. The Code to Access an Outside Line is used for all outdialing operations: Message Delivery, Message Waiting Lights, Auto Forward, Future Delivery, and Wake-up Calls. Default = 9, (nine comma)

95. Custom Message Delivery Code

Specify the internal Message Delivery code. If Message Delivery is being made to an internal extension (less than the Number of Digits in a Local Phone Number), this code may be necessary. If Message Delivery is being made to an external phone number (at least the Number of Digits in a Local Phone Number), the Code for Accessing an Outside Line will be used. Default = (Blank)

96. Number of Seconds to Wait before Message Delivery

Determine the number of seconds between the moment someone picks up a phone that the System called for Message Delivery and the moment the System voices the Message Delivery greeting. Minimum = 0; Maximum = 9; Default = 1

97. Dial Tone Timeout During Message Delivery (DTONWAIT)

DTONWAIT sets a time limit, in 10 millisecond units, to wait for a dial tone when placing an outbound call (for Message Delivery and beeper notification). This determines if the channel is truly available for outbound calls. When the System detects a dial tone after the specified time limit, an outbound phone call can be placed. If a dial tone is not detected, the System assumes that there is an inbound call. Minimum = 0; Default = 200 (two seconds)

98. Maximum Rings During Message Delivery (RINGS)

RINGS sets the number of rings to occur before the System assumes a no answer condition. This command is used for autodial operations, such as outbound calls (for Message Delivery, etc.). Note that the Maximum Number of Rings designated in the Class of Service overrides this entry. Minimum = 0; Default = 5

Message Waiting Light Parameters

99. Permit Message Waiting Lights

Specify whether the Message Waiting Light phone feature is active or inactive. Default = NO

100. Message Waiting Light Prefix ON Code

Enter the prefix code required by the switch to activate a Message Waiting Light. Default = (Blank)

101. Message Waiting Light Prefix OFF Code

Enter the prefix code required by the switch to deactivate a Message Waiting Light. Default = (Blank)

102. Message Waiting Light Suffix ON Code

Enter the suffix code required by the switch to activate a Message Waiting Light. Default = (Blank)

103. Message Waiting Light Suffix OFF Code

Enter the suffix code required by the switch to deactivate a Message Waiting Light. Default = (Blank)

104. Message Waiting Light Supervised

Specify whether a call should be supervised or not when lighting a Message Waiting Light. A supervised call is one in which the System "listens" to the line to determine if there is a busy or no answer condition. If a call is not supervised, it ignores the line status. Default = NO

105. Light Message Waiting Light for Every Message

If this parameter is selected, the System lights the Message Waiting Light each time a new message is received, even if the Message Waiting Light has not been turned off from a previous message. It is usually recommended that you do not use this feature. Default = NO

106. Message Waiting Light Dials Number On Hook

If this parameter is selected, the System puts the port on hook when lighting an extension's Message Waiting Light. Default = NO

Uninterruptable Power Supply Parameters

107. Enable UPS Integration

If this parameter is selected, you can integrate your UPS with Smooth Operator. If integrated, Smooth Operator monitors your UPS. If your power is out and your UPS battery is low, Smooth Operator shuts down to prevent file damage. Default = NO

108. UPS COM Port

If UPS Integration was selected, enter the computer's COM port to which the UPS is connected. Minimum = 0; Maximum = 4; Default = 0 (no connection)

Inband Signaling Parameters

Note:
Inband signaling digits will not be recognized by Greetings by Port unless there is a company and Division specified in the answering mailbox

109. Total Number of DID Digits (DIDCOUNT)

DIDCOUNT specifies the total number of inband signaling digits to use. When using variable length DID systems, this parameter needs to be set for the longest string length. Minimum = 0; Default = 0

110. DID Terminating Character (DIDTERM)

DIDTERM specifies the character to use to terminate an incoming inband signaling call. The terminating character is usually "#". Note that this parameter is usually used with variable length DID systems. Default = #

111. Seconds to Wait for DID (DIDTIME)

DIDTIME defines the number of seconds to wait after receiving the first inband signaling digit before timing out. If the inband signaling string times out, the cause is most likely an invalid mailbox number. In this case, the inband signaling string is ignored. Minimum = 0; Default = 5

112. Location of Inband Signaling Code

Specify which digit in an incoming inband signaling string is the first digit for the inband signaling code. Enter -1 if the System is to search the entire string. Minimum = -1; Maximum = 99; Default = 0

113. Number of Milliseconds to Wait for Digits

Specify the number of milliseconds for inter-digit delay in inband signaling strings. This value is doubled when waiting for the first digit in the string. If the System, after waiting this length of time, does not detect another digit, it will process the string. If the System does detect another digit, it will reset the timing counter and wait for the next digit. Minimum = 0; Default = 0

Important Note:

The Location of Mailbox Number and the Start at End of String fields work together. For example, if the incoming string is 9*1123 and the mailbox number is 123, the Number of DID Digits to use = 6, the DID Code = 9*1, the Location of Inband Signaling Code = 1, and if Start at End = Yes then the Location of Mailbox Number = 3. If Start at End = No, then the Location of Mailbox Number = 4.

114. Code for Go to Voice Mail

Enter the code sent by the switch which instructs Smooth Operator to transfer a caller directly to the mailbox which follows the code. When this code is used, the caller hears the Personal Greeting prompt (i.e., *"Hi, this is Mark. I'm either away from my desk or on another call. Please leave your name..."*). Default = (Blank)

115. Location of Mailbox Number for Go to Voice Mail

Specify which digit in the string for go to voice mail is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

116. Start at End of String for Go to Voice Mail

Specify whether to start from the beginning or end of the inband signaling string for go to voice mail when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

117. Total Length of Go to Voice Mail String

Enter the number of characters and digits in the Code for Go to Voice Mail String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

118. Code for Go to Immediate Record

Enter the code sent by the switch which instructs Smooth Operator to transfer a caller to the mailbox number which follows the code. The caller can then begin recording after the beep without listening to any mailbox greeting. Default = (Blank)

119. Location of Mailbox Number for Go to Immediate Record

Specify which digit in the string for immediate record is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

120. Start at End of String for Go to Immediate Record

Specify whether to start from the beginning or end of the inband signaling string for immediate record when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

121. Total Length of Go to Immediate Record String

Enter the number of characters and digits in the Code for Go to Immediate Record String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

122. Code for Immediate Transfer to Extension

Enter the code sent by the switch which instructs Smooth Operator to transfer a caller directly to the extension which follows the code. When this code is used, the caller hears, *"Please hold for <mailbox owner's name prompt>."* Default = (Blank)

123. Location of Mailbox Number for Immediate Transfer

Specify which digit in the string for immediate transfer is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

124. Start at End of String for Immediate Transfer

Specify whether to start from the beginning or end of the inband signaling string for immediate transfer when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

125. Total Length of Immediate Transfer String

Enter the number of characters and digits in the Code for Immediate Transfer String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

126. Code for Immediate Subscriber Login to Mailbox

Enter the code which instructs Smooth Operator to allow a subscriber immediate access into his mailbox when dialing from his own extension. When this code is used and Auto Station Login is off, the caller hears, *"Please enter your password."* If Auto Station Login is on, the caller hears, *"You have <number> new messages."* Default = (Blank)

127. Location of Mailbox Number for Immediate Login

Specify which digit in the string for immediate login is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

128. Start at End of String for Immediate Login

Specify whether to start from the beginning or end of the inband signaling string for immediate login when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

129. Total Length of Immediate Subscriber Login String

Enter the number of characters and digits in the Code for Immediate Subscriber Login String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

130. Require Password for Automatic Station Login

If this parameter is selected, a subscriber calling from his own extension, must use his password to gain access to his mailbox. For this feature to work properly with your switch, you must run the Integrator module. Automatic Station Login Password is available only on integrated systems. Default = NO

131. Code for Busy Extension

Enter the code sent by the switch which informs the System that a call dialed a busy extension and instructs the System to handle it according to what that mailbox has defined for a busy extension. When a caller dials an extension that is busy, he will hear either *"I'm sorry, that extension is busy"* or a Call Handling feature which blocks calls when the extension is busy. Default = (Blank)

132. Location of Mailbox Number for Busy Extension

Specify which digit in the string for busy extension is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

133. Start at End of String for Busy Extension

Specify whether to start from the beginning or end of the inband signaling string for busy extension when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

134. Total Length of Busy Extension String

Enter the number of characters and digits in the Code for Busy Extension String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

135. Code for No Answer Extension

Enter the code sent by the switch which informs the System that a call dialed an extension with no answer and instructs the System to handle it according to what that mailbox has defined for a no answer extension. When a caller dials an extension with no answer, he will hear either *"I'm sorry, there is no answer at that extension"* or a Call Handling feature which blocks calls when there is no answer. Default = (Blank)

136. Location of Mailbox Number for No Answer Extension

Specify which digit in the string for no answer extension is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

137. Start at End of String for No Answer Extension

Specify whether to start from the beginning or end of the inband signaling string for no answer when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

138. Total Length of No Answer Extension String

Enter the number of characters and digits in the Code for No Answer String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

139. Code for Go to Voice Mail and Get Mailbox

Enter the code sent by the switch that instructs a System to transfer a caller to voice mail to retrieve the mailbox number. When this code is used, the caller hears, *"Please enter the destination mailbox number ..."* Default = (Blank)

140. Total Length of Go to Voice Mail/Get Mailbox String

Enter the number of characters and digits in the Code for Go to Voice Mail/Get Mailbox String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

141. Code for Go to Automated Attendant and Get Mailbox

Enter the code sent by the switch that instructs a System to transfer a caller to the automated attendant mailbox entry point. When this code is used, the caller hears, *"Please enter the mailbox number of the person you would like to speak with..."* Default = (Blank)

142. Total Length of Go to Auto Attendant/Get Mailbox String

Enter the number of characters and digits in the Code for Go to Auto Attendant/ Get Mailbox String. For example, if the Code is '$' and the mailbox is 1000, the resulting string is $1000, so this parameter should be set to 5. This parameter is optional, and its use will be determined by the type of switch. When set to 0, no testing of the string length is performed. Default = 0

143. Location of Mailbox Number for Default Code

Specify which digit in the default inband signaling string is the first digit in the mailbox number. This entry is dependent on whether the count starts from the beginning or the end of the string (see next parameter). Minimum = 1; Maximum = 99; Default = 1

144. Start at End of String for Default Code

Specify whether to start from the beginning or end of the default inband signaling string when counting digits to locate the start of the mailbox number. If set to Yes, the digit count will start from the end of the string. Default = NO

145. Off Hook Delay Time (OFFHDLY)

OFFHDLY is the amount of time, in 10 millisecond units, necessary to wait after instructing the voice board to go off hook. You should lower this value if the System continually misses the first digit in an incoming string. Minimum = 0; Default = 50

Hangup Detection Parameters

146. Dial Tone Detection Time (DTONDET)

DTONDET determines the length of time, in 10 millisecond units, the System is to "listen" to a dial tone once a caller has hung up before dropping the line. This time limit is needed so that dial tones are not interpreted as phrase information. If the value is zero, dial tone detection is turned off, and false disconnects will be avoided.

Setting this value too low may cause voice data to be interpreted as a dial tone, resulting in cutoffs. Setting the value too high results in excessive off hook time between calls, which can adversely affect System performance. Minimum = 0; Maximum = 1200; Default = 1200

147. Hangup String (HANGUPSTR)

The Hangup String is the sequence of digits the switch sends to indicate that the call has terminated. If using a hangup string, be sure that the Hangup String Timeout is greater than zero. For example, the Toshiba DK24 uses "D", and the Iwatsu ZTD uses "55****", while the AT&T uses "##". Some switch hangup strings are hard-coded, others are programmable. Refer to switch documentation for more information. Default = (Blank)

148. Hangup String Timeout (HANGUPDLY)

The Hangup string delay is the number of 10 millisecond units to wait between digits that will possibly validate a hangup string. This value helps to eliminate false detects. Default = 0

149. Minimum Duration for Drop in Loop Current (LCDTIME)

LCDTIME specifies the length of time, in 10 millisecond units, necessary to recognize a true drop in loop current. If set to zero, this parameter is disabled. Default = 30

150. Maximum Silence Before Hanging Up (MAXSIL)

During message recording, MAXSIL specifies the number of milliseconds that the System should record silence until it determines the caller has hung up and disconnects. Default = 600

Channel Specific Parameters

151. Inbound Application (INBOUND)

INBOUND assigns applications to incoming ports. If more than one application is in use on a System computer, this command is required. Each digit corresponds to a port on the voice board. For example, if you have a four-port System and each port is to be answered by Smooth Operator, the command should be set to 1111. If a position equals zero, the corresponding port is not answered. "1" and "0" are currently the only valid entries for INBOUND. Default = 11111111

152. Outbound Application (OUTBOUND)

OUTBOUND assigns types of telephone services (call types) to outgoing ports. Each digit corresponds to a port on the voice board. Only installed ports are listed. OUTBOUND must be set for Message Delivery, Message Waiting Lights, Auto Forward, Fax Mail delivery, Future Delivery Messages, and Wake-Up Calls.

Each position must contain either a "0" or "2". If a postion contains a zero, no outbound calls can be made on that port. If a postion contains a two, the corresponding port may be used for outbound calls (such as Message Delivery, Message Waiting Lights, etc.) For example, if you have a four-port System and OUTBOUND is configured as 0022, outbound calls will only be made on channels 3 and 4. It is recommended that some ports stay at zero so incoming calls can read ports. Otherwise, outbound ports can block inbound calls. Default = 22222222

153. Channel Init Mode (INITMODE)

INITMODE determines whether a port should wait for inband signaling digits or a ring. Only installed lines are displayed. Each position equals the operating mode of the corresponding channel:

C for SMDI ports

D for inband signaling line, normally off hook, waiting for inband signaling digits

N for normal line, normally on hook waiting for rings

P for pulse inband signaling, normally off hook, waiting for inband signaling digits

T for tone inband signaling, normally off hook, waiting for inband signaling digits

W for wink start

INITMODE supports SMDI-type switches which do not use normal means for alerting the voice mail system of incoming calls or that a caller has hung up. If the switch instead uses the COM port to indicate calls and hangups, the INITMODE should be set to C for each port supporting the voice mail ports of the switch. Default = NNNNNNNN

154. Number of Incoming Rings (INRINGS)

INRINGS specifies the number of rings each port should receive before an incoming call is answered by the System. Each character represents the number of rings for each corresponding channel. For example, if INRINGS is set to 2211, ports 0 and 1 are answered by the System after two rings, while ports 2 and 3 are answered after one ring. Default = 11111111

Important Note:

On some phone systems (especially those without true hunt groups), INRINGS should be set to 1234... to prevent multiple lines from being answered at the same time.

155. Go OFF Hook When Port Disabled (OFFHDIS)

OFFHDIS specifies if a port should be placed off hook when it is disabled. If set to Yes, phone lines are placed off hook (busy) when the port is disabled or the System is shutdown. If set to No, the ports will ring when dialed, but will not answer since they are disabled. Default = YES

156. Maximum Call Duration (PROGTIME)

Note:
If using Fax Mail on your System, be sure that PROGTIME provides sufficient time for the caller to send a fax.

PROGTIME sets a maximum time limit, in minutes, for calls. Since the System counts its minutes only when the System time changes minutes, the actual time for terminating a call can be anywhere from *n*-1 to *n* minutes after the call has started. Minimum = 0; Default = 30

157. DTMF Length to Interrupt a Prompt (PLAYDTMF)

PLAYDTMF specifies the length of a DTMF signal, in 10 millisecond units, during the voicing of a prompt, necessary to interrupt a playback. If this parameter is set too high, the System may fail to recognize the DTMF. If the parameter is set too low, the System may pick up talkoff (interpreting voice as DTMF). Minimum = 0; Default = 5

158. Printer LPT Port (PRINTER)

PRINTER indicates the use of a printer. Enter 1, 2, or N, where 1 or 2 corresponds to the LPT1 or LPT2 connection, and N corresponds to no printer. Default = 1

159. DTMF Duration to Interrupt Record (RECDTMF)

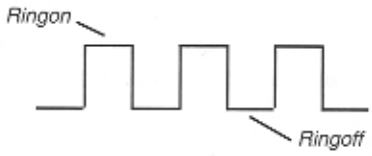
RECDTMF specifies the length of a DTMF signal, in 10 millisecond units, during recording, necessary to interrupt the recording. If this parameter is set too high, the System may miss the DTMF. If the parameter is set too low, the System may pick up talkoff (interpreting voice as DTMF). Minimum = 0; Default = 5

160. Default Input Timeout (TIMEOUT)

TIMEOUT is the amount of time in seconds that the System is to wait for input before a caller is again asked to make the entry. This variable presently has very little affect on System performance. Minimum = 0; Default = 20

161. Duration of Ring Off (RINGOFF)

RINGOFF specifies the amount of time, in 10 millisecond units, between rings. Refer to the switch documentation to determine this value. Minimum = 1; Default = 5



162. Duration of Ring On (RINGON)

RINGON specifies the amount of time, in 10 millisecond units, a ring must be on to be considered a valid ring cycle. Refer to the switch documentation to determine this value. Minimum = 1; Default = 3

163. Maximum Answer Time (MAXANSR)

MAXANSR specifies the maximum allowable time, in 10 millisecond units, for a salutation before returning a connect signal. MAXANSR applies to answering machine applications, such as survey pollings, etc. Minimum = 0; Default = 1000 (10 seconds)

PC Configuration Parameters

164. Virtual Disk for Voice File (VDISK)

VDISK specifies the location of the memory file (SO3-ALL.VAP or SO3-ALL.VOX) if using a RAMDISK. Default = C: (No RAMDISK)

165. Sound Tone on Answer (ANSTONE)

ANSTONE provides audible notification on the PC of an incoming call. When this parameter is activated, the PC produces a short audible tone each time an incoming call is received. Default = NO

166. Minutes Before Blanking Screen (DSPBLANK)

DSPBLANK sets the number of minutes of keyboard inactivity before the display screen blanks. The command helps protect the phosphorous elements in the screen. To return to the screen image, press any key. If this parameter is set to 99, no blanking occurs. Minimum = 1; Maximum = 99; Default = 5

167. Number of Calls Between Checkpoint File Updates (CKPRATE)

CKPRATE specifies the number of calls received before the Checkpoint file is saved. The Checkpoint file periodically records critical System data (such as business hours, Supervisor passwords, prompt assignments, multilingual information, and System distribution lists) so that an application can resume the System characteristics should the System experience a power failure. Changing this parameter must be done carefully, balancing System performance against safety. Minimum = 0; Maximum = 99; Default = 5

168. Rate to Poll the Voice Driver (EVENTRATE)

EVENTRATE specifies the number of cycles between checking for keystrokes. *N* equals the number of cycles. A cycle consists of scanning all voice channels. The default should be acceptable for most purposes. Default = 40

Simplified Message Desk Interface Parameters

169. Use SMDI (SMDIUSED)

SMDIUSED specifies if SMDI should be used. If this parameter is selected, the System will expect a supporting TSR (Terminating Stay Resident) program. Default = NO

170. Use Communications Message Waiting Light Software (COMMMWL)

COMMMWL is used to light Message Waiting Lights through an SMDI port instead of DTMFs. If selected, Message Waiting Light commands are sent to the TSR controlling the COM port. Default = NO

171. Strobe Interval in Seconds (STROBE)

STROBE sets the number of 10 millisecond intervals that a signal is sent to the switch in SMDI configuration to notify the switch that voice mail is running. Default = 0

Low-level Voice Board Parameters

Note:
You can refer to Appendix B for further details on these parameters.

The following parameters are set by the call analysis program and should not require altering. With the exception of HIGLTCH, LOGLTCH, and LOOPDLY, these parameters are for Dialogic boards only and should not require adjustment if set with call analysis.

172. ALOWMAX

A Low Maximum. Upper limit for the first two silence periods if the first nonsilence period exceeded hisiz. Default = 700 (7 seconds)

173. BLOWMAX

B Low Maximum. Upper limit for the first two silence periods if the first nonsilence period is less than hisiz. Default = 530 (5.3 seconds)

174. HI1BMAX

High 1 Busy Maximum. Maximum time allowed for sizehigh to be considered part of a busy signal. Default = 90 (900 milliseconds)

175. HI1TOLA

High 1 Tolerance Above. Upper tolerance for nonsilence periods that match sizehigh silence period (%). Default = 13 (13%)

176. HI1TOLB

High 1 Tolerance Below. Lower tolerance for nonsilence periods that match sizehigh silence period (%). Default = 13 (13%)

177. HIGLTCH (Both Rhetorex and Dialogic)

High Glitch. Time used to deglitch nonsilence period. Used to eliminate spurious nonsilence intervals. Should not require adjustment if used with call analysis. Default = 19 (190 milliseconds)

178. INTERCEPT

Allows proper interpretation of a false connect signal. Allowable values are ON (detection completed at the end of the connect tone), OFF (connect tone ignored), and FAST (detection completed at the beginning of the connect tone). Default = ON

179. LO1BMAX

Low 1 B Maximum. Maximum time for first silence period to be considered part of busy signal. Default = 90 (900 milliseconds)

180. LO1RMAX

Low 1 Ring Maximum. Maximum time allowed for shortlow to be considered part of double ring. Default = 90 (900 milliseconds)

181. LO1TOLA

Low 1 Tolerance Above. Upper tolerance for silence periods that match first silence period (%). Default = 13 (13%)

182. LO1TOLB

Low 1 Tolerance Below. Lower tolerance for silence periods that match first silence period (%). Default = 13 (13%)

183. LO2BMAX

Low 2 Busy Maximum. Maximum time for second nonsilence period to be considered part of busy signal. Default = 90 (900 milliseconds)

184. LO2RMIN

Low 2 Ring Minimum. Minimum inter-ring delay (time required for longlow of double rings). Default = 255 (2.550 seconds)

185. LO2TOLA

Low 2 Tolerance Above. Upper tolerance for silence periods that match second silence period (%). Default = 13 (13%)

186. LO2TOLB

Low 2 Tolerance Below. Lower tolerance for silence periods that match second silence period (%). Default = 13 (13%)

187. LOGLTCH (Both Rhetorex and Dialogic)

Low Glitch. Time used to deglitch silence period. Used to help eliminate spurious nonsilence intervals. Should not require adjustment if set with call analysis. Default = 15 (150 milliseconds)

188. Loop Current Delay after Dialing (LOOPDLY) (Both Rhetorex and Dialogic)

Delay after dialing before beginning Loop Current Detection. Default = 100 (1 second)

Previous Version File Conversion

If the System detects Smooth Operator 2.12 files on your computer, you are given the option to convert them to version 3.2 by running the Previous Version File Conversion module. If you convert 2.12 files, Supervisors will not have to recreate subscriber mailboxes, subscribers will not have to re-record V-Trees and personalized prompts, and new and saved messages will remain intact on the System.

WARNING:

As a precaution, it is strongly recommended that you back up all Smooth Operator 2.12 files in the \CVR1 directory before running the Previous Version File Conversion module. **This conversion utility permanently modifies version 2.12 files and does not generate a pre-modification backup.** If the System encounters any problems while converting files, all or part of your System data may be lost if you have not made backups of your 2.12 files.

To convert 2.12 files, simply follow the System prompts and enter the requested information. While the utility runs, it generates a copy of your Smooth Operator 2.12 mailbox database and stores it in the System-created directory, C:\~UPGRAD~. The conversion module can be run as a stand-alone program by typing CONVERT from the C:\CVR> prompt. When the process is complete, you are returned to the Configuration Utility menu.

Step 4: Rebooting the System

After installing the necessary modules, the System will automatically reboot if changes are made to AUTOEXEC.BAT and CONFIG.SYS files. If changes were not made to the AUTOEXEC.BAT and CONFIG.SYS files, you must manually reboot by pressing the Reset button on your PC. By rebooting the System, all changes made during the System installation are activated. After you reboot, you are given the option to run Call Analysis. The call analysis option is presented each time you reboot the System until the call analysis program has been executed at least one time. Your computer then prompts you with a menu of options:

1 — Run Smooth Operator

2 — Run Setup

3 — Return to DOS

If you are installing Smooth Operator for the first time, you must run a call analysis program for your voice board. If you are updating to Smooth Operator 3.2 from a previous version, you may need to run call analysis again, even if you are using the same voice board(s).

Note:
Call Analysis is not always necessary if you are doing special board integrations.

Step 5: Call Analysis

If you will be using the automated attendant feature in Smooth Operator or if the System will be outdialing, it must be able to recognize the specific sounds of your telephone switch. Most importantly, the System must recognize the ring and the busy signal. By recognizing these sounds, the System knows when a call is answered through the telephone switch and when an extension is busy. Because the ring and the busy signal differ among telephone switches, you must run a call analysis program to interpret these sounds and configure the System to work with your telephone switch.

To run a call analysis program, you must have access to one extension from your telephone switch (preferably two for CCA). This extension cannot be in a hunt or rollover group or in use by any other person during the call analysis process. Additionally, any Auto Answer, Call Forwarding, or Camp-On features must be deactivated during the test.

CCA - Compass Call Analysis for both the Rhetorex and Dialogic Boards

Compass Call Analysis (CCA) enables an application to evaluate the progress of an outbound call and make decisions based on the kind of responses that are received. CCA parameters can be adjusted using the Advanced options to optimize the performance or meet the needs of a particular application.

CCA monitors the progress of a call — what happens on the line after a phone number is dialed. It can detect six different conditions:

No Ringback: Detects no recognizable cadence pattern.
No Answer: Detects a ringing line that was not answered.
Busy: Detects a busy signal.
Connect: Detects a line that has been answered.
Fast Busy: Detects a fast busy or reorder tone.
SIT: Detects a Special Information Tone — an invalid number has been dialed or there is a problem completing the call.

CCA is composed of three different processes used to determine the progress of the call. The processes function simultaneously during CCA. Each process uses its own parameters, which can be adjusted to maximize the efficiency of Call Analysis and your application.

Cadence detection looks for a repeating pattern in the signal. Cadences usually detected include the ring, busy, and fast busy signals. Once a cadence has been established, it can be classified by comparing the periods of silence and nonsilence to established parameters.

Frequency detection is used to identify single-frequency tones, such as Special Information Tone (SIT) sequences. It can detect single-frequency tones below 2100 Hz.

Loop current detection is used to return a connect signal when a drop in loop current is detected.

There are differences in the Rhetorex and Dialogic versions of CCA, but functionally they are very similar. Compass Call Analysis has been designed to operate in either Auto or Advanced mode. Auto mode can be used to run CCA for all signals (no ringback, ring, busy, fast busy, and connect) using the default parameters.

As a general rule, Auto Analysis should be sufficient. The parameters associated with Advanced mode should not be altered without first reading Appendix B, which describes Advanced mode and the Theory of Operation.

1. The voice board driver must be loaded before CCA can begin. This step is handled automatically by the installation procedure. Then the CCA program is started. Notice that once CCA is executed, it goes through a number of initialization commands to determine which channels have a dial tone.

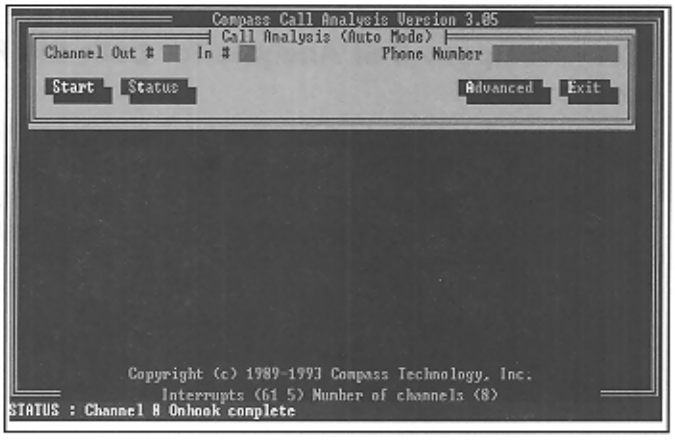


Figure 3.09 - Compass Call Analysis Initialization

Important Note:

Should you need to execute CCA at a later time, first load the driver by typing `RHETDRV` for Rhetorex boards or `D40` for Dialogic boards.

2. After initializing the channels, CCA proceeds to Auto Mode Analysis. Notice that this screen offers Advanced options; these are discussed in Appendix B. On this screen, the Start button proceeds with Auto Analysis. In almost all cases, Auto Analysis will pass all tests and no further parameter adjustments will be necessary. If, however, any of the tests fail, you will need to adjust the parameters discussed in Appendix B.

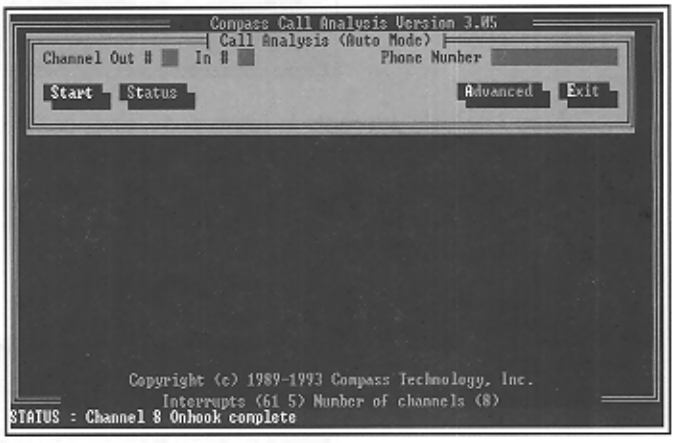


Figure 3.10 - Compass Call Analysis Main screen

3. Enter the corresponding number of the ports to use for both the inbound and outbound lines during analysis. For example, on a four-port board, port 1 could be used for the outbound channel, and port 2 could be used for the inbound channel. Note the outbound port (as well as the inbound channel, if used) must have dial tone, and the inbound and outbound ports cannot be the same.

4. Next, enter the extension number that is connected to the In port (the bottom jack on the voice board) in the Phone Number field. Then select Start to begin Auto Analysis. Start can be selected by pressing <Alt-S>, using the <TAB> and <Shift-TAB> keys until the button is highlighted and pressing <Enter>, or using the mouse to point and click on the Start button. Auto Analysis begins.

Important Note:

If you are using Fax Mail, the tone for calling fax machine detection will automatically be created and added to your tone table by CCA. If, however, you need to run AccuCall, you must manually add this tone to your System.

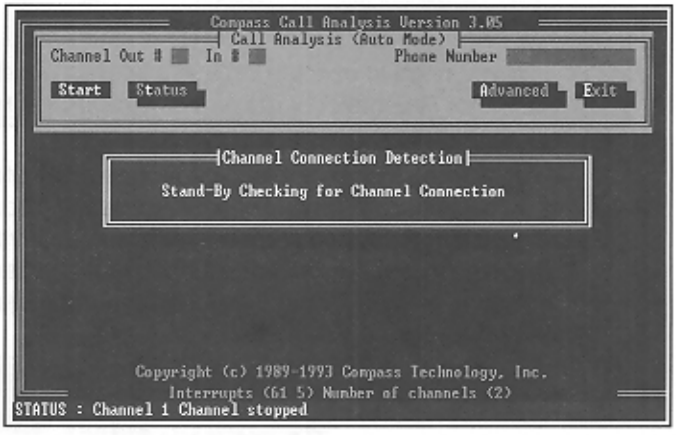


Figure 3.11 - Auto Analysis Process

Auto Analysis attempts to learn busy, ring, connect, and fast busy signals. As soon as each signal is detected, analysis continues with the next. Once Auto Analysis is complete, you can review any tests which failed and make the necessary changes in Advanced mode.

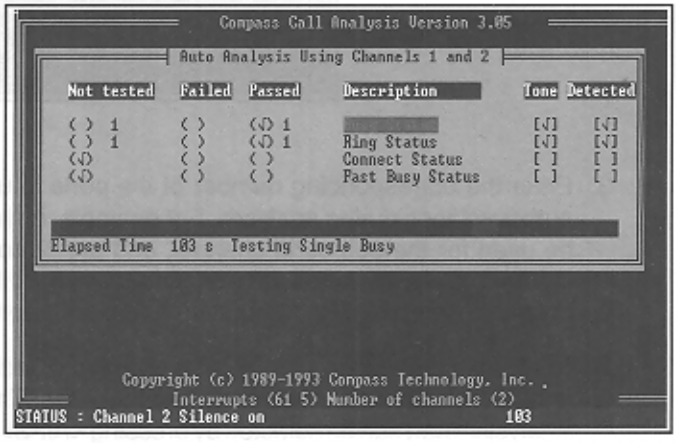


Figure 3.12 - Auto Analysis Process

5. Once Auto Analysis is complete, the CCA Summary is shown. This chart shows which of the analysis detections passed and which failed. You can select Next or Previous to show results for additional channels. The Clear button will remove all analysis results (useful before running CCA again).

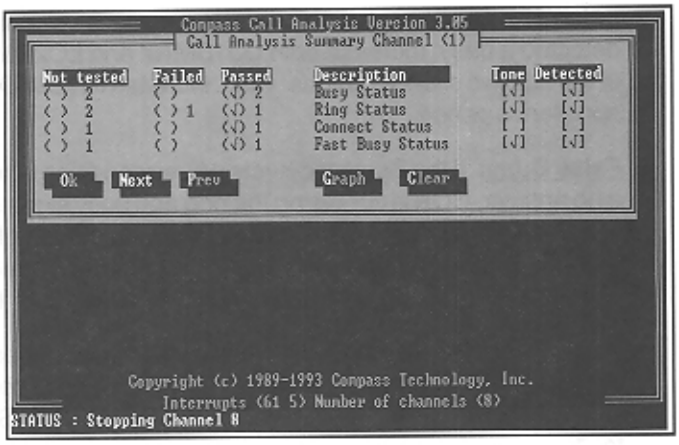


Figure 3.13 - Call Analysis Status screen

6. Once you have reviewed the Call Analysis Summary, determine any changes that should be made by reviewing the *Common Call Analysis Problems and Solutions* below. Select the Ok button to return to the Main screen. From the Main screen, you can select Advanced to further analyze your phone system's signals or to adjust CCA parameters. From the Main screen, you can press <Esc> or select the Exit button to quit.

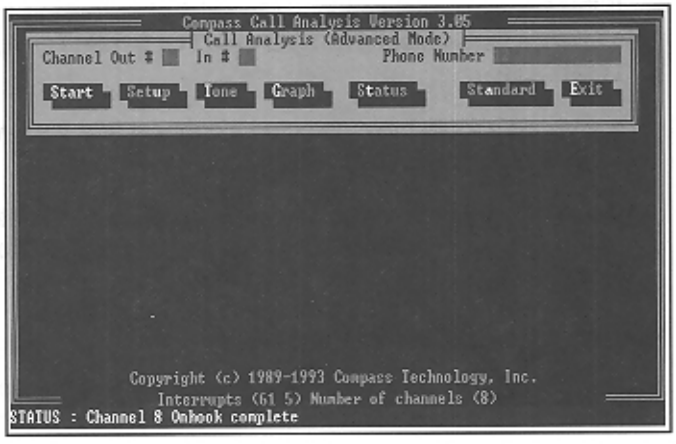


Figure 3.14 - Advanced Mode Menu

Common Call Analysis Problems / Solutions

Call analysis problems occur when the detected termination differs from the actual event. The following guidelines will assist in solving the most common call analysis problems. All of these parameters can be changed using CCA's Advanced Mode; therefore, it is essential that you thoroughly review Appendix B.

False Ringback: If CCA mistakenly detects a no answer condition as a no ringback, increase CNOSIG so that it is greater than the first or second nonsilence periods.

False No Answer: If CCA detects a no answer condition when it should have detected a busy, increase both LO1BMAX and LO2BMAX to be greater than either of the first two silence periods. Also, increase HI1BMAX so that it is greater than any nonsilence period.

False Busy: If the System detects a busy condition when it should have recognized a no answer, CCA is confusing the ring and busy signals. Decrease LO1BMAX and LO2BMAX until they are just greater than the length of the silence period between busy signal tones. Decrease HI1BMAX until it is just greater than the length of a busy signal tone. Also, be sure that LO2RMIN is less than the inter-ring delay.

False Connect: Call Analysis could give a false connect for either a no ringback, no answer, busy, or connect condition. The first thing to confirm is a presence of a drop in loop current. If so, increase LCDLY (LOOPDLY in Setup) or disable it by setting to -1.

If analysis should have detected a no answer condition, and if there was no loop current drop and the actual event consisted of single rings, decrease LO2RMIN so that it is less than either of the first two silence periods. If the actual event consisted of double rings, increase LO1RMAX so that it is greater than the shortest silence period, and make sure LO2RMIN is less than the longest silence period.

If analysis should have detected a busy condition, make sure that LO1BMAX and LO2BMAX are greater than either of the first two silence periods.

If the false connect continues to exist after making these changes, increase the tolerance parameters (HI1TOLA, HI1TOLB, LO1TOLA, LO1TOLB, LO2TOLA, and LO2TOLB).

If analysis should have detected a connect and there was no drop in loop current, increase UPPERFRQ to 1800.

False Intercept: If a false intercept was mistakenly detected for a no answer, busy, or connect, set LOWERFRQ to 1740 and UPPERFRQ to 1800 (detection of third tone only).

Running CCA as a Stand-alone Utility

You can run Compass Call Analysis at any time by typing `CCA` from the C:\CVR> prompt. Be sure to clear the previous settings before running CCA again.

AccuCall - Call Analysis for the Rhetorex Board

Rhetorex's AccuCall program is also provided to handle unforeseen situations which CCA may not be able to handle. It will not normally be required.

Important Note:

Before you start Rhetorex's AccuCall call analysis program, be advised that it is complex.

The next several pages have broken down the process of running AccuCall into steps. **Follow each step carefully and completely. Do not attempt to skip any steps.**

Do not modify parameters in the program unless you are instructed to do so. The parameters you do need to modify have been explained in detail and suggested values are given in many cases. **Your parameter settings can be recorded on page 3-56.**

The AccuCall program begins with the Main Menu screen shown below.

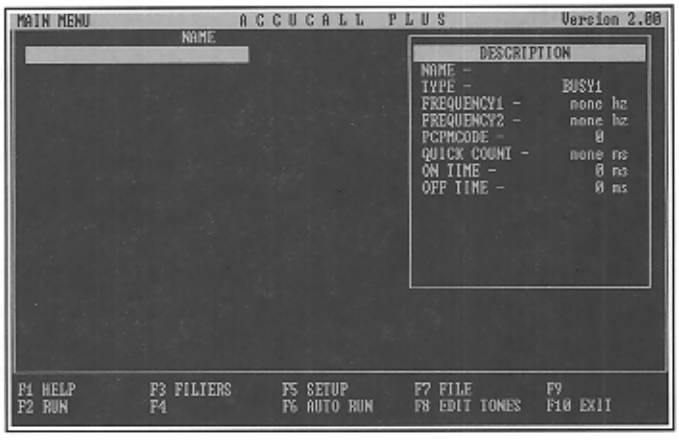


Figure 3.15 - The AccuCall main menu screen

1. **Press the <F5> key** to proceed to the Setup screen shown below.

Figure 3.16 - The Setup screen

It should not be necessary for you to change anything in the Environment Parameters, Global Parameters, or the Channel Parameters on the Setup screen. The only parameters you may need to edit in the Setup screen are those in the Run/Auto Run section shown below. Use the up and down arrow keys to change these fields.

Run/Auto Run Parameters

Note:
The value of the Hardware Interrupt field should be equal to the interrupt set on the board.

Hardware Interrupt: Enter the Interrupt Request Line the Rhetorex Digital Signal (RDSP) device driver uses when transferring information to the RDSP board. Valid values are "2" through "7". We recommend you use the default "7".

Out Dial Channel Number: If you are using only one phone line for testing, change this value to equal the "active" channel (or port). This is the channel to which the phone line is connected.

Auto Run/Run Verification Count: Enter "1" as the number of times the Auto Run operation should be executed when determining a call-monitoring tone frequency and cadence.

Auto Run Minimum Cycles: Enter "10" as the minimum number of call progression-cadence cycles that Auto Run should analyze during each call.

Auto Run Align Frequencies: If detected frequencies are to be aligned with existing filters in the filter table, enter Yes in this field. Use the <Spacebar> to change this selection.

Auto Run Quick Frequency Scan: If the signal of the destination phone has a cadence that changes after a short period (such as one tone burst) or no cadence, enable the quick scan. On some switches, for example, a busy signal eventually yields to a fast busy. You can set the quick scan to capture the cadence before it changes. Use the <Spacebar> to change this selection.

Log Results to Disk: Set this to Yes if you want AccuCall to generate a printable log file containing AccuCall test information, such as the frequencies produced by your switch.

Use Internal Speaker: Set this parameter to Yes if you want the PC to generate an audible tone while testing the call frequencies.

Phone Number: Enter the phone number you wish to dial. Use a comma (,) to insert necessary delays into the dial string. Each comma represents approximately two seconds.

2. After making the necessary changes to the Setup Screen, **press <F7>** to save the setup. Next **press <F6>** to advance to the Auto Run Screen shown below:

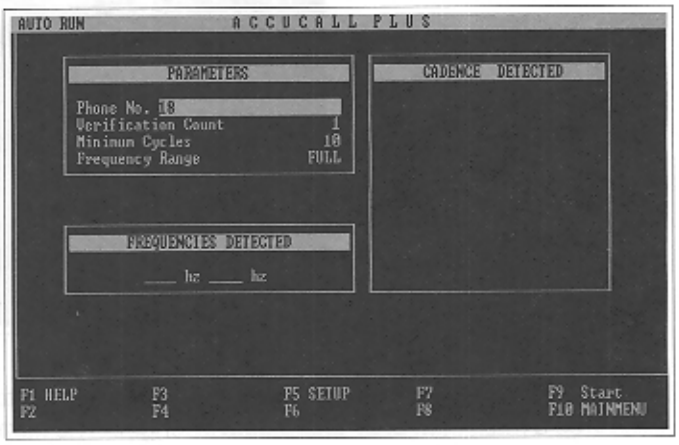


Figure 3.17 - The Auto Run screen

3. Make sure the receiver is off hook at the extension you are using. **Press <F9>** to start. You will see a graphic representation of the busy signal in the Cadence Detected box shown below.

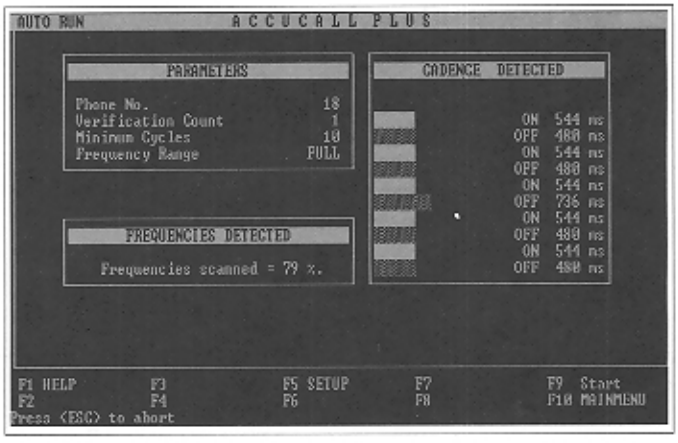


Figure 3.18 - The Auto Run screen with Cadence Detected

4. When you are prompted by the System, **press the <F8> key** to proceed to the Edit Tone screen shown in figure 3.19.

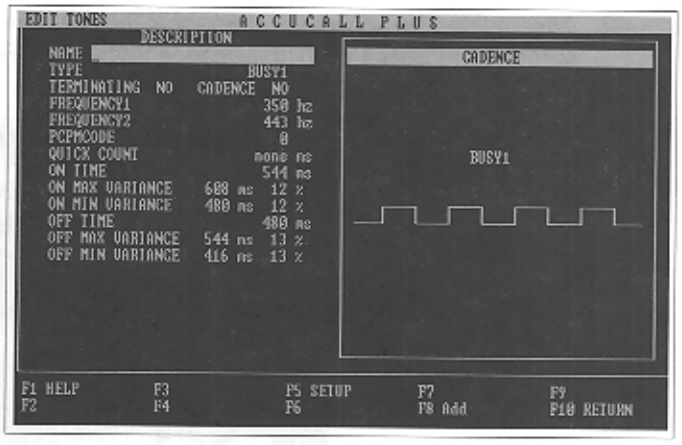


Figure 3.19 - The Edit Tone screen

5. On the Edit Tone screen, you must assign a name to the tone. The name should be a maximum of 27 characters in length. The name should also be descriptive of the tone (RING, BUSY, etc.). It might also include the PBX manufacturer, type of ring, or even a specific phone number. Fields on this screen, which may need modifying, are listed below.

TYPE

Each tone has a type of classification. You can use the graphical representation of the tone for assistance in selecting the proper type.

- BUSY1 (normal busy)
- BUSY2 (double busy)
- RING1 (normal ring)
- RING2 (double ring)
- OTHER

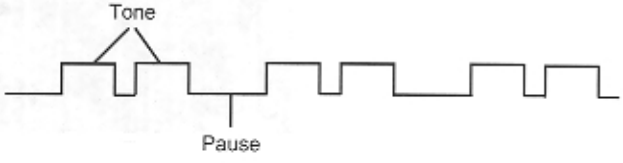


Figure 3.20 - Typical Busy2 or Ring2

6. Use the <Spacebar> to select a classification. Match the tone to the graphic representation.

7. In most cases, you will not need to specify the busy or ring signals you are analyzing as TERMINATING. A terminating tone is one from your switch that says the call is used for disconnect. Some tones need to be identified as TERMINATING during playback or record operations if the call is to terminate when the tone is detected. For example, you may need to designate a fast busy as TERMINATING on some switches. Note that if you do identify a tone as TERMINATING, at least one frequency must be detected in the Auto Run <F6> test. This frequency must be in one of the first three positions in the <F3> Filter Table.

8. Refer to the FREQUENCY1 and FREQUENCY2 fields. Use the <Spacebar> to select Yes for the CADENCE if the word None appears in both frequency fields. If the frequencies of a tone are unknown, call progress monitoring analyzes the cadence without frequency analysis.

9. Refer to the FREQUENCY1 and FREQUENCY2 values. **There must be a minimum 40 Hz spread between any detected frequencies.** If there is not, adjust the FREQUENCY1 and FREQUENCY2 settings on the screen as little as possible to achieve the spread. If the two tones in question are within 10Hz of each other, change the lower frequency value of the two to equal the higher frequency value.

PCPMCODE

10. In the PCPMCODE field, you must assign a numeric identifier to the tone. Specify identifier "7" for all busy tones and identifier "8" for all ring tones. If the tone is undefined, the device driver returns PCPMCODE 9; if an answer is detected, the driver returns PCPMCODE 10.

11. Next, **press <F8>** to add the tone and **<F8> again** to save the tone. **Press <F6>** to advance to the Auto Run screen. Put the receiver on hook to analyze the ring.

12. **Press <F9>** to start. When you are prompted, **press <F8>** to add the tone. Type a name for the tone and fill in the appropriate values for TYPE, TERMINATING, CADENCE, FREQUENCIES, and PCPMCODE as described on the previous page and above.

13. If any two frequencies are within 40Hz of each other, you must adjust the frequency values on the Edit Tone screen. If the two tones in question are within 10Hz of each other, change the lower frequency value of the two to equal the higher frequency value. If the two frequencies are greater than 10Hz apart (but less than 40) change the frequency values of each as little as possible to achieve a 40Hz spread. When you finish, **press <F8>** to add the tone and **<F8> again** to save the tone.

14. Next, **press <F10>** to return to the Auto Run screen and **<F10> again** to return to the Main Menu. From the Main Menu, **press <F3>** to proceed to the Filters screen shown below.

Note:
Once you name a tone, it appears on the Main Menu screen. If you need to edit the tone later, select it from this screen by using the arrow keys.

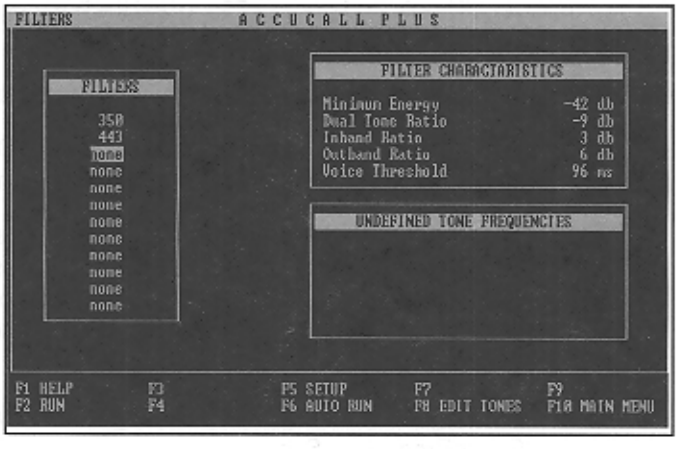


Figure 3.21 - The Filters screen

15. On the Filters screen, refer to the numbers in the Undefined Tone Frequencies box. These are the frequencies AccuCall detected during the call analysis you performed. You will need to type all these frequency values in the Filters box. Before you begin, verify that no two values are within 40Hz of each other.

    Remember, to edit the ring or busy tone you tested, you can **press <F10>** to return to the Main Menu, then highlight the tone you wish to edit and **press <F8>**. When you are finished making any necessary adjustments to the frequencies, **press <F8>** to accept the new values and **<F7>** to replace the existing saved values. Now **press <F10>** to return to the Main Menu and **<F3>** to go back to the Filters screen where you can fill in the new values.

    Once the detected frequencies are entered, it is recommended that the remaining filters be filled in, incrementing by approximately 200Hz. For example, if existing frequencies are 350, 443, and 493, enter additional frequencies are 600, 800, 1000, 1200, etc.

16. When you finish adding the frequencies to the Filters box, **press <F2>** to run and the Run screen appears as shown below.

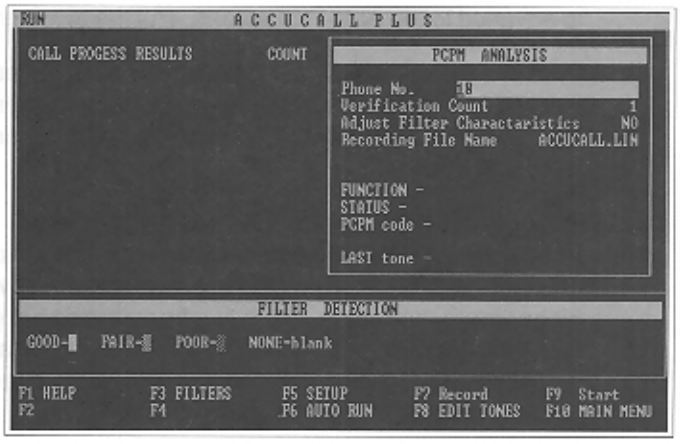


Figure 3.22 - The Run screen

17. Next, AccuCall tests the ring and busy signals it analyzed to make sure its analysis was correct. Keep the receiver on hook to test the ring signal. **Press <F9>** to start. Verify that the test returns a PCPMCODE of "8". After the ring test, take the receiver off hook, and **press <F9>** to test the busy signal. This time the test should return a PCPMCODE of "7".

18. To setup up a termination tone, follow the steps listed below:

    a. If the busy tone is also the tone which Smooth Operator would hear if a caller hangs up, simply edit the busy tone and set the Terminating field to Yes.

    b. If the tone emitted is different than a normal busy (for example, a fast busy), learn the new tone in the Auto Run screen. Assign the tone a PCPMCODE of 31, set Type to Other, and set Terminating to Yes. Any frequencies detected for the termination tone should be the first frequency in the Filter Table.

    c. If the termination tone is a fast busy or a re-order tone, use the Auto Run Quick Frequency Scan.

d. If the termination tone is a solid or "D" tone, it need not be learned by AccuCall; simply enter "D" in the HANGUPSTR field in Setup.

19. To setup up a calling fax tone, follow the steps listed below:

a. There is no need to have the AccuCall program "learn" the tone. You can simply create a tone on the Edit Tones screen. Enter a Name (for example, Calling Fax), enter the Type as Other, and set the PCPMCODE to 13. Set Terminating to Yes, and Cadence to No.

b. Enter `1075` as Frequency 1; no Frequency 2 is required. Then, on the Filters screen, enter `1075`.

c. Be sure to change the Inband Ratio field in the Filter Characteristics box to `-6`.

20. **Press <F10>** to return to the Main Menu. From the Main Menu, **press <F7>** to advance to the File screen. On this screen, assign a name to the tonetable you just created. You should enter a descriptive name (perhaps the switch name).

21. **Press <F8>** to save, **<F10>** to Exit the AccuCall program, and Yes to quit.

22. From the C:\CVR> prompt, type `CONFIGUR`. If you chose to name your tonetable other than TONETAB1, **press <F4>** and type in the name you gave this Accucall Tonetable followed by <Enter>. **Press <F10>** to go to the Main Menu. An illustration of the Configure screen on the main menu appears in Figure 3.23.

Figure 3.23 - The Configure screen

23. Also on the Configure screen, verify that the hex addresses for each board installed are correct and that the Entry Point field is set to 61H if you have a VGA board. If you do not have a hex address entered for each board, you may encounter the errors "Voice board not found" or "The system is recognizing fewer ports than you have installed." Additionally, the Real Memory parameter should have 32K for each board installed, and Hook should be set to Off. This indicates that callers will hear a busy signal if the System is down.

24. When you finish making necessary modifications, **press <F10>** to exit the program. Select Yes at the Save Changes prompt. You might want to enter the tone information in the chart provided on the next page.

AccuCall Values

Name:	Name:
Type: Busy 1 Other	Type: Ring 1 Other
Terminating: Y/N Cadence: Y/N	Terminating: Y/N Cadence: Y/N
Frequency 1: hz	Frequency 1: hz
Frequency 2: hz	Frequency 2: hz
PCPM code: 7/8	PCPM code: 7/8
Quick count: ms	Quick count: ms
On time: ms	On time: ms
On max variance: %	On max variance: %
On min variance: %	On min variance: %
Off time: ms	Off time: ms
Off max variance: %	Off max variance: %
Off min variance: %	Off min variance: %

Name:	Name:
Type: Busy 2 Other	Type: Ring 1 2 Other
Terminating: Y/N Cadence: Y/N	Terminating:Y/N Cadence:Y/N
Frequency 1: hz	Frequency 1: hz
Frequency 2: hz	Frequency 2: hz
PCPM code: 7/8	PCPM code: 7/8
Quick count: ms	Quick count: ms
On time: ms	On time: ms
On max variance: %	On max variance: %
On min variance: %	On min variance: %
Off time: ms	Off time: ms
Off max variance: %	Off max variance: %
Off min variance: %	Off min variance: %
On 2 time: ms	On 2 time: ms
On 2 max variance: %	On 2 max variance: %
On 2 min variance: %	On 2 min variance: %
Off 2 time: ms	Off 2 time: ms
Off 2 max variance: %	Off 2 max variance: %
Off 2 min variance: %	Off 2 min variance: %

FREQUENCY TABLE

	Ring N/A	Busy	Fast Busy
F1			
F2			

Common AccuCall Problems/Solutions

If either of the PCPMCODEs returned are incorrect, AccuCall is not differentiating between the tones. Follow these steps:

a. Edit the tones and set CADENCE to Yes for tones with close frequencies.

b. Adjust the <F5> setup Channel Parameters, Glitch, and Spike down to 80. Re-learn the tones within the Auto Run test. If this returns the correct PCPMCODEs, then set the HIGLITCH and LOGLITCH to 8.

c. Edit the tones and increase the percentages by five percent for minimum/maximum variances ensuring that the variances are set to at least 20 percent. Retry the run tests, and, if necessary, increase the percentages again.

d. Pull some frequencies out of the Filter Table and out of the Tones. Ensure that no frequencies are within 40 Hz of each other and that the frequencies within the tones are matching the frequencies within the Filter Table.

e. Calculate the averages of the highest and lowest values for both the ON TIME and OFF TIME cadences on the Auto Run screen. Enter each average value on the <F8> Edit Tone screen. Set the variances to approximately 30%.

f. Check to ensure the AccuCall Tonetable has been saved and loaded into the CONFIGUR screen. Ensure that the file name is spelled correctly and is a valid DOS file name located in the \CVR directory.

g. Make sure the RHETDRV has been unloaded and reloaded. Also make sure the computer has rebooted after loading the tonetable into the CONFIGUR file and Smooth Operator has been brought on-line.

h. Rerun the AccuCall Run tests and select Adjust Filter Characteristics to Yes, and rerun the tone tests to ensure the correct PCPMCODEs are returned. Save the AccuCall Tonetable. Unload or reload the RHETDRV or reboot.

i. Drop Glitch and Spike to no lower than 80 in the AccuCall <F5> setup, and rerun the RUN tests to ensure the correct PCPMCODEs are returned. Set HIGLITCH and LOGLITCH to 8, then save the AccuCall Tonetable. Unload and reload the RHETDRV or reboot.

If you experience delayed call transfers when running Smooth Operator, be sure to follow these steps.

a. If your highest frequency scanned is 650 or lower, add values 700, 750, 800, 850, and so on, through 1050 to the <F3> Filter Table in AccuCall.

b. Set OUTDIAL to Voice, VOXLIMIT to "2", SPIKES to "3", and DROPOUTS to "3" on the Configure Main Menu screen. To make these changes, you must use the up and down arrow keys to highlight the parameter you wish to change, edit the field, then press <Enter> to save the changes.

If AccuCall detects a do not disturb tone, but the System will not, change HIGLTCH and LOGLTCH to 8. You can also use these settings if the System disconnects on a reorder tone except when recording (i.e., the reorder tone is recorded with the message).

Running AccuCall as a Stand-alone Utility

You can also run the AccuCall program at any time by typing `ACCUCALL name_of_tonetable` from the C:\CVR> prompt.

CPC for Dialogic

Dialogic's CPC program is also provided to handle unforeseen situations which CCA may not be able to handle. It will not normally be required.

Before running Call Progress Characterization (CPC) for the Dialogic board, you must load the GENLOAD program by typing `GENLOAD` from the C:\CVR> prompt. This program needs to be reloaded each time the System is rebooted. Next, the voice board driver should be loaded. From the C:\CVR> prompt, type `D40DRV -H7 -I6C -G20`, where -h7 is the hardware interrupt level, -i6c is the software interrupt level, and -g20 allocates storage for tone templates.

To run CPC, you must have access to one extension from your telephone switch. This extension cannot be in a hunt or rollover group or in use by any other person during the call analysis process. Additionally, the Auto Answer, Call Forwarding, and Camp-On features must be deactivated during the test.

From the C:\CVR> prompt, type `CPC -R10 -I(IRQ#)` and press the <Enter> key. *IRQ#* represents the hardware interrupt level set on the voice board. At the "Enter the phone number to dial for line 1..." prompt, enter the available extension number. CPC then dials the extension 10 times as it identifies the ring signal. The phone must be on hook at the extension. When the process is complete, the cursor will be at the C:\CVR> prompt. If the phone continues to ring, simply lift the receiver and hang it up again.

Next, take the receiver off hook at the extension you are using. This allows the CPC program to detect a busy signal. From the C:\CVR> prompt, type `CPC -B10 -I(IRQ#)` and press the <Enter> key. At the "Enter the phone number to dial for line 1..." prompt, enter the extension number. CPC dials the extension 10 times to listen for a busy signal. During this process, you will not hear any sounds. When the process is complete, hang up the receiver. The cursor will return to the C:\CVR> prompt.

Section 4

Configuring Smooth Operator

This section describes how to configure your Smooth Operator System, including how to start the System without rebooting, using batch files and UPS integrations, and running the recommended burn-in procedure.

Starting Smooth Operator

If at some time it is necessary for you to start Smooth Operator from the DOS prompt (without using the installation program), follow these steps:

1. Change to the \CVR directory by typing `CD\CVR` from the C:\> prompt and pressing the <Enter> key.
2. Type `RUNSMO3` from the C:\CVR> prompt and press <Enter>.

Starting Smooth Access

If it is necessary for you to start Smooth Access, follow these steps:

1. At the DOS prompt, type `WIN`.

   The Smooth Access interface will automatically load if you installed Microsoft Windows 3.1 first, then Smooth Operator, and then Smooth Access. If, however, you loaded the Microsoft Windows 3.1 program after installing Smooth Operator, the Smooth Access files were not loaded during the Smooth Operator installation.

   Re-install Smooth Operator, answering Yes to the load files question, No to the update files question, and Yes to the install Smooth Access question. Answer No to every question concerning replacing files. The necessary files are automatically loaded.

2. Open the Smooth Operator group by double-clicking on the Smooth Operator icon from the Program Manager. The Smooth Operator group window appears.
3. Double-click on the Smooth Operator application icon. This will execute Smooth Operator's textual version, described in Sections 1 through 10 of the *Supervisor's Guide*.
4. Minimize the Smooth Operator application window by pressing <Alt-Esc>.
5. Execute Smooth Access by double-clicking on its icon. The Smooth Access interface for Smooth Operator will appear.

Confirm AUTOEXEC.BAT and CONFIG.SYS Files

After you perform a complete Smooth Operator 3.2 installation using the installation program, the AUTOEXEC.BAT and CONFIG.SYS files on your computer should be similar to those shown on pages 4-3 and 4-4.

AUTOEXEC.BAT

```
@ECHO OFF
C:\WINDOWS\SMARTDRV.EXE C   (If your System is using Windows)
PATH C:\DOS;C:\CVR;C:\WINDOWS;C:\MOUSE;C:\PCTOOLS;C:\HOST
PROMPT $P$G
SET COMSPEC=C:\DOS\COMMAND.COM
SET TEMP=C:\DOS
SET PCTOOLS=C:\PCTOOLS   (If using PCTools)
\DOS\SHARE /L:35
C:
CD\HOST   (for CO/Session - included with turnkey system)
HOST   (for CO/Session - included with turnkey system)
CD\CVR
QUERY -A
-CWAIT15.CTL   (for CO/Session - included with turnkey system)
WINFACE
QUERY -A
IF ERRORLEVEL==3 GOTO END
IF ERRORLEVEL==2 GOTO SETUP
QASSIST /B1 /D
LOGUTIL
RHETDRV   (for Rhetorex installations)
CALL D40   (for Dialogic installations)
C:\FAX=CASMGR.EXE C:\FAX\CASMGR.CFG   (for Intel Fax Retrieval)
CALL LOAD integration_name   (for SMDI installations)
IF EXIST \CVR\FIRST.CCA CALL \CVR\RUNCCA.BAT
BTKERNEL BTKERNEL.CFG   (For Brooktrout boards)
IF EXIST \CVR1\FXDRIVER.DAT DEL \CVR1\FXDRIVER.DAT
(Brooktrout)
ED -S \CVR1\FXDRIVER.DAT -U FD.CFG   (For Brooktrout boards)
WIN   (For Windows only)
IF ERRORLEVEL 50 DOW   (For Windows only)
IF ERRORLEVEL 20 GOTO QBOOT   (For Windows only)
IF ERRORLEVEL 15 UPS   (For Windows only)
RUNSMO3
GOTO END
:SETUP
SETUP
:END
CLS
```

Note that the SatisFAXtion software automatically adds FAXPOP and CASMGR to this file. FAXPOP is removed by the Smooth Operator installation program if the fax software is installed first. **CASMGR must remain**. Also, a mouse driver filename may be inserted in this file. The location and name will vary depending on the brand of mouse installed.

CONFIG.SYS

Software installed: Smooth Operator, DOS Version 5.0

```
DEVICE=C:\DOS\SETVER.EXE
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\SMARTDRV.SYS 1024 256
DEVICE=C:\DOS\RAMDRIVE.SYS 1024 /E
REM DEVICE=C:\DOS\EMM386.EXE 576 FRAME E000 /X=D000-DFFF
BUFFERS=30
FILES=60
STACKS 10256
DEVICE=C:\MOUSE\MOUSE.COM   (May differ depending on mouse)
SHELL=C:\DOS\COMMAND.COM C:\DOS /E:384 /P
FCBS 16,8
DOS=HIGH
DEVICE=C:\FAX\SATISFAX.SYS IOADDR=address (Intel)
```

This assumes at least three or four megabytes total memory. Certain lines, especially the RAMDrive and SMARTDrive lines, may have REM at their beginning, effectively removing them, depending on memory availability, use of Windows, number of ports, and whether or not use of RAMDRIVE was selected.

Confirm the RUNSMO3.BAT file

The RUNSMO3.BAT file should appear as follows:

```
@ECHO OFF
COPY C:\CVR\SO3-ALL.VOX D:\    (Rhetorex with RAMDrive)
COPY C:\CVR\SO3-ALL.VAP D:\    (Dialogic with RAMDrive)
SMOOTHX OPERATOR -H7  (Rhetorex or Dialogic, 6KHz phrases)
SMOOTHX OPERATOR -H7 -R8  (Dialogic, 8KHz phrases)
SMOOTHX OPERATOR -H7 -R8 -SX  (D/42-SX board, 8KHz phrases)
If this is a Windows System, the following commands are not used:
IF ERRORLEVEL 50 DOW
IF ERRORLEVEL 20 GO TO QBOOT
IF ERRORLEVEL 15 UPS
GO TO END
:QBOOT
CLS
QUERY -A -CQUERY1.CTL
IF ERRORLEVEL==2 GOTO END
C_BOOT
:END
```

Command Line Options

There are several command line options you can add to the SMOOTHX command line in the RUNSMO3.BAT file. This file is located in the \CVR directory. Each command line option is listed below:

-H*n* Sets the interrupt level, where *n* is a number 2 through 7. (The recommended hardware interrupt level is IRQ7.)

-SX Specifies that the System will be using D/42-SX (or equivalent) voice boards. -SX can only be used with Mitel SX Series systems that have Dialogic boards.

-SL Specifies that the System will be using D/42-SL (or equivalent) voice boards. -SL can only be used with Northern Telecom SL Series Systems that have Dialogic boards.

-R*n* Specifies the digitizing rate for playback and record operations for Systems with Dialogic boards, where *n* can equal either 6 or 8 kilohertz. Default = 6

Log File Utility

To ensure proper Smooth Operator maintenance, a Log File Utility is called in the RUNSMO3.BAT file to automatically compress and archive the OPERATOR.LOG file. When the OPERATOR.LOG file has grown beyond a specified size (default = one megabyte), the LOGUTIL.EXE utility compresses the log and renames it to \CVR1\OPERATOR.1. To archive the compressed files, the utility renames the \CVR1\OPERATOR.1 to \CVR1\OPERATOR.2 and renames the \CVR1\OPERATOR.2 to \CVR1\OPERATOR.3 and so on up to \CVR1\OPERATOR.5. An existing OPERATOR.5 file (the oldest version) will be deleted. Thus, the utility gives Smooth Operator the ability to archive up to five compressed log files. The LOGUTIL.EXE automatically runs each time the Smooth Operator System is re-booted (for example following a shutdown at midnight.)

You must also use the utility to uncompress a log file. Provided are the command line parameters needed to uncompress log files. These paramters can be added to the RUNSMO3.BAT file command line.

LOGUTIL.EXE Command Line Parameters

-S*n* Where *n* is the number of megabytes to which the log file may grow before being compressed and archived. Default = 1

-D Instructs Smooth Operator to just delete OPERATOR.LOG and **not** compress and archive the log.

-U*n* Where *n* is the extension of the archived compressed log file to Uncompress. Valid range = 1 to 5

-Fn Where *n* is the filename given to the uncompressed archive log file. Default = ARCHIVE.TXT

Verify Setup

At this time, it is a good idea to verify the information entered in the System Setup before starting the System for live use. To make changes to the Setup parameters, type `SETUP` from the C:\CVR> prompt, and press <Enter>. Remember to save your changes when you are finished.

Using Other Batch Files for System Maintenance

Midnight Error Codes

Smooth Operator returns an error code to DOS when you specify Yes for the Setup parameter Shutdown System at Midnight or if you manually bring down the System. You can use this error code to automatically trigger a batch file that runs a utility, such as PCTools Compress. The System then reboots and executes Smooth Operator again. The five error codes that Smooth Operator returns to DOS are:

```
IF ERRORLEVEL 61 WEEKEND
IF ERRORLEVEL 60 HOLIDAY
IF ERRORLEVEL 50 DOW
IF ERRORLEVEL 20 C_BOOT
IF ERRORLEVEL 15 UPS
```

When you install Smooth Operator, the RUNSMO3.BAT file is customized for your System. This file contains the lines defining error codes 50 and 20. Though Smooth Operator may also return error codes 60 and 61 to DOS, these two codes are not included in RUNSMO3.BAT because they default to code 50. These error codes are described in greater detail below.

If the software goes down on a weekday and no problems are detected by Smooth Operator, the program returns error code 50. In the RUNSMO3.BAT file, notice that this error code triggers the batch file DOW.BAT. This is a simple batch file created to break out each day of the week and indicate certain utilities which should run on specific days.

Error code 20 is returned if Smooth Operator detects a problem during System Shutdown, there is a power failure, or the incorrect or no sentinel is attached to the System. This error code triggers a file called C_BOOT.COM that automatically reboots the computer and restarts Smooth Operator. Because C_BOOT.COM is responsible for bringing your System back up after it is shut down by the Shutdown System at Midnight parameter, the C_BOOT line must be included at the end of any batch files you want the System to run, unless the batch files are executed with a CALL routine.

If the software goes down on a Saturday or Sunday and no problems are detected by Smooth Operator, the program returns an error code 61. If you install Smooth Operator using the installation program, this error code is set up to default back to error code 50. Likewise, if the installation program is used to set up Smooth Operator, error code 60 (which the System issues when the program goes down problem-free on a holiday), also defaults to error code 50.

The DOW.BAT is provided for you to use as a template. You will be able to easily input additional batch files that trigger utilities you wish to run on specific days. If, for example, you want to run disk compression and a tape backup every Sunday, you can edit the DOW.BAT file. The DOW.BAT file is executed every evening, and, on Sundays, disk compression will be run.

Edit the DOW.BAT file to look like this:

```
@ECHO OFF
ALLDAY
UNLOAD SMDI   (or UNLOAD ITT or UNLOAD HITACHI)
RDSPEXIT   (for Rhetorex boards)
FDEXIT   (for Brooktrout fax boards)
BTKERNEL -K   (for Brooktrout fax boards)
RELEASE   (for Dialogic boards)
SUNLOAD   (for CO/Session)
IF ERRORLEVEL 6 GOTO SAT
IF ERRORLEVEL 5 GOTO FRI
IF ERRORLEVEL 4 GOTO THU
IF ERRORLEVEL 3 GOTO WED
IF ERRORLEVEL 2 GOTO TUE
IF ERRORLEVEL 1 GOTO MON
IF ERRORLEVEL 0 GOTO SUN
:SAT
ECHO TODAY IS SAT
GOTO END
:FRI
ECHO TODAY IS FRI
GOTO END
:THU
ECHO TODAY IS THU
GOTO END
:WED
ECHO TODAY IS WED
GOTO END
:TUE
ECHO TODAY IS TUE
GOTO END
:MON
ECHO TODAY IS MON
GOTO END
:SUN
ECHO TODAY IS SUN
COMPRESS C: /CC
TAPE BACKUP C:\*.* /I /J /T="Smooth Operator System
Backup"
:END
C_BOOT
```

DTMF.DEF for Foreign Keypads

If you are installing this System in a country whose telephone keypad does not follow the format as that in the United States (where the '2' key is labeled 'ABC', the '3' key is labeled 'DEF', etc.) there is a way to define the foreign keypad for use in proper directory searches.

Create a file in the \CVR directory that defines each letter of the alphabet to a keypad button. This file must consist of the letters of the alphabet followed by a space and the keypad number to which that the letter is assigned. For example, if you create the following file, the letters A, B, C, and D are assigned to the '1' key, the letters E, F, G, and H are assigned to the '2' key, etc.

```
A 1
B 1
C 1
D 1
E 2
F 2
G 2
H 2
...
```

If you have a UK version of Smooth Operator, there is a file named DTMF.ALT in the \CVR directory. This file includes the keypad assignments shown above, continuing through Y and Z being assigned to the '7' key. Simply renaming this file to DTMF.DEF activates these assignments.

UPS Integration

Smooth Operator can integrate with your UPS to minimize file corruption and damage to the PC hardware. In the event of a power failure, the UPS will notify Smooth Operator that it is maintaining the System's power supply.

1. When using UPS integration, you must create a file named UPS.CFG in the \CVR1 directory. The file should have the following format:

Note:
The UPS must have communication ports to support integration.

`DTR n`	(where *n* equals "1" for Data Terminal Ready; "0" otherwise)
`RTS n`	(where *n* equals "1" for Request to Send; "0" otherwise)
`MASK0 00000000`	(Normal mask)
`MASK1 00000000`	(Power out mask)
`MASK2 00000000`	(Low battery mask)

The DTR and RTS parameters are used to signal the UPS that Smooth Operator is monitoring the port. The MASK statements are binary images of the three different states that the UPS can signal. **You must review your UPS documentation to determine the settings of these parameters.**

2. Remember to have UPS Integration set to Yes in the System Setup. Also, you will need to specify the port to which your UPS is connected.

   There are a number of standard UPS.CFG files that are placed on your System during the installation process. To use these, type `UPSCFG` from the C:\CVR1> prompt. The following *.CFG files are extracted:

TAESUNG.CFG	TAESUNG Industries UPS 5500
PCMIGHT.CFG	PC Might 35
VICTRON.CFG	VICTRON MICRO UPS Series
MINMAN.CFG	Minute Man
ALPHA.CFG	Alpha
TRIPLITE.CFG	TRIPLITE
APC.CFG	American Power Conversion

   Simply rename the appropriate *.CFG file to UPS.CFG.

3. When there is a power failure, the UPS notifies Smooth Operator that it is supplying power to the System. There is no disruption in System performance. Should the power supply of the UPS begin to dwindle, the UPS notifies Smooth Operator of its low battery condition (MASK2). Smooth Operator then proceeds with a normal shutdown, disabling available lines first. Any callers on the System are disconnected after one minute. When Smooth Operator is shut down because of a low battery condition (error code 15), the UPS.EXE file is executed. This program monitors the UPS for restoration of power and reboots the System upon its return.

Adding Additional Voice Boards to the System

If you need to add more voice boards to your System after it has been installed, simply follow the instructions below:

Rhetorex Boards

1. Before actually installing the board, remember to change the jumper settings based on the addresses found on page 2-10.
2. Type `CONFIGUR` from the C:\CVR> prompt. Add 64 to the value in the RealMemory field for each additional board.
3. Add the address of the new board in the Ports box on the right of the screen.
4. Press <F10> to save the configuration and exit from the CONFIGUR program.

Dialogic Boards

1. Before actually installing the board, remember to change the SW1 switch settings, found on page 2-12.
2. Edit the DIALOGIC.CFG file, found in the \CVR directory. You will need to add an additional line for each new board you are installing, changing the address value on each line.
3. Edit the D40.BAT file, also found in the \CVR directory. Change the value next to the -b parameter to add 64 for each new board.

WinExit

WinExit is a utility program (WINEXIT.EXE) that runs under Microsoft Windows 3.0 or 3.1 to monitor Smooth Operator's condition. When Smooth Access, running under Windows, is shut down under any condition, WinExit will exit Windows and return to DOS within two minutes. Please note that Smooth Operator must be running for a minimum of two minutes after WinExit has been loaded before it will detect a System shutdown.

When WinExit detects that Smooth Operator has been shut down, it forces Windows to shut down and returns an error code to the RUNSMO3.BAT file. This error code can be used to execute the DOW.BAT (Day of Week) file, for example. The DOW.BAT file provides a template into which you can easily insert additional batch files. For example, you may want to create a batch file that runs a disk optimization utility every Saturday. Such a batch file would be inserted after the :SAT label in the DOW.BAT file. After all batch files for Saturday are run, control is directed to the end of the DOW.BAT file, which reboots the PC and reloads Smooth Operator.

Burn-In Procedure

The Smooth Operator System should be exposed to the following burn-in procedure to ensure the integrity of both the PC and the voice board.

1. This procedure assumes that the PC has already been burned-in for a period of 48 hours. Also, be sure to run a hard disk utility program (such as PC Tools Diskfix/ Compress), and correct any errors that you may encounter.
2. Execute the Smooth Operator program. Create two mailboxes. In each of the mailboxes' Class of Service, allow the V-Tree option and set Maximum Messages to 1000 and Message Time to 30 seconds. (Refer to the *Supervisor's Guide* for instructions on using the System's screens.)
3. In one of the mailboxes, record a V-Tree that plays a 30 second greeting on the first level, records a message to the other mailbox, and then disconnects.
4. Select Greetings by Port from the Options Menu. Activate each port and assign the mailbox that contains the V-Tree to both the During and After Hours mailboxes.
5. **Disconnect all phone lines from the voice board.**

6. Select Command Line from the Options Menu. Type `EXERCISE ALL` and press <Enter>. This causes all ports to come off hook and execute the V-Tree. Allow the process to continue for eight hours.

7. After eight hours, type `FORCE` at the Command Line. This terminates the EXERCISE procedure. There should be approximately 800 messages in the message mailbox. The MAXSIL parameter causes each message to be approximately six seconds long.

8. If no problems or errors were encountered, the System's integrity is acceptable. If problems were encountered, note the problems and messages for troubleshooting.

9. Run the hard disk utility program again. Verify that there are no errors.

10. Delete the two mailboxes. At the Command Line, type `MIDNIGHT`. This causes the System's midnight maintenance activities to begin, causing the messages in each mailbox to be deleted.

After completing the burn-in procedure, it is safe to proceed with the System administration responsibilities (i.e., create mailboxes, design an attendant menu, customize distribution lists) described in the *Supervisor's Guide*.

Registration Card

Be sure to complete the registration card enclosed with the System and return it to the proper address.

Smooth Operator Files

While Smooth Operator is taking calls, transferring callers, collecting messages, and performing a variety of other functions, it continually accesses and updates several files stored on the System. These files are briefly explained below:

COMPASS.TON

Shipped with Rhetorex version only to include tone table for immediate fax receive.

CONTROL.DAT, CONTROL.KEY

Files that control the System's access to other System files.

CONVERT.EXE

An executable file that starts the Smooth Operator 2.12 file conversion program.

DIRECTRY.KEY

A file containing alphabetical directory information.

DISTLIST.DAT

A file containing distribution list information.

EDPMI.OVL

The DOS protected mode interface manager for the extended version.

EVENT.KEY, EVENT.DAT

Schedule files for Wake-up Calls, Message Delivery, and Message Waiting Lights.

INTEGRAT.EXE

An executable file that starts the integrator module during installation.

LISTER.EXE

A file listing program used by Smooth Access.

LOCALFAX.EXE

An executable file that starts the Fax Retrieval utility for entering telephone area code/ prefix combinations.

MESSAGE.DAT

A file containing message control information.

MSGCONF.DAT

A file containing Message Confirmation information.

OPERATOR.CKP

A file containing statistical information used by the System.

OPERATOR.LOG

An output error log file.

OPERATOR.P

A control file for the System.

OPERATOR.SYS

A file containing System Setup parameters such as OUTBOUND and INBOUND.

PORTS.DAT

A Greetings by Port configuration file.

QASSIST.EXE

An executable file that starts the Smooth Operator file maintenance utility.

RUNSMO3.BAT

A batch file that starts the execution of Smooth Operator.

SET_UP.CFG

A file containing Setup information such as the number of digits in a mailbox.

SMOOTHX.EXE

A DOS extended mode executable file.

SMOWIN.EXE

Smooth Access, a Windows 3.1 executable file for Smooth Operator.

SO3-ALL.VAP, SO3-D1.VAP, SO3-D2.VAP

Smooth Operator voice files used with Dialogic voice boards.

SO3-ALL.VOX, SO3-D1.VOX, SO3-D2.VOX

Smooth Operator voice files used with Rhetorex voice boards.

SUBSCRIB.DAT

A file containing mailbox information.

SWDATA.TXT

A data file used in the Integrator module.

VBOX.DAT

A file containing volatile mailbox information.

VFTREE.DAT

A file containing voice and fax tree information.

WINEXIT.EXE

A file that monitors Smooth Access for shutdowns.

WINFACE.EXE

An interface between DOS and Microsoft Windows 3.1.

WINPURGE.EXE

A file-purging program used by Smooth Access.

Notes:

Section 5

More About Integrations

If you plan on integrating Smooth Operator with your phone system, it is very important that you read the following section regarding integrations. Integrations can be done on a variety of levels, including the use of inband signaling codes, SMDI (Simplified Message Desk Interface), and board integrations.

What is Integration?

The term "integration" is often used in the voice mail industry. To better understand the capabilities and advantages that integration provides to voice mail, it is necessary to properly define it.

In a non-integrated voice mail environment, users must manually enter mailbox numbers. This includes outside callers directed to a telephone extension by a receptionist. Without integration, the telephone system is only a tool to access the voice mail system. The PBX and the voice mail system work independently, with no access to information concerning the status of the other system.

However, an integrated voice mail environment links the voice mail system with the PBX. This allows two separate systems to appear as one — communication is achieved between both systems. By providing this capability, users no longer need to enter mailbox numbers. Information is supplied by the PBX about who is calling, the extension they are trying to reach, etc. The voice mail system can inform the PBX of mailbox status so message lights on the extension may be set and cleared.

Basically, there are three methods of integrating Smooth Operator with your switch: inband integration, SMDI integration (with or without a VoiceBridge), and board integrations. These three methods of integration are discussed below.

Inband Integrations

Inband signaling, redirect tones, and Direct Inward Dialing (DID) are the three types of tone strings Smooth Operator receives and must interpret before it can properly route a call. (Inband signaling and redirect tone strings are handled the same way by Smooth Operator.) Inband integrations refer to all three types of tone strings.

If using inband integration, you can simply use the Integrator module in the installation process to insert the necessary switch codes into the correct fields of the Setup module. This action inputs certain values in some fields of the System Setup so Smooth Operator knows where to look for specific codes and/or mailbox numbers in incoming tone strings. These codes can also be inserted manually, without the Integrator. If you need to configure the System for your switch after completing the installation program, type `INTEGRAT` at the C:\CVR> prompt and press <Enter>.

You can also insert switch codes by using the Setup utility. This program is run during System installation, but can also be accessed via the Options pulldown menu or by typing `SETUP` and pressing <Enter> from the C:\CVR> prompt.

Global Inband Parameters

There are three global parameters that are necessary for inband integrations: Total Inband Signaling Digits to Accept from Switch, Location of Inband Signaling Code, and Number of Milliseconds to Wait for Digits. The values you must specify for these parameters vary depending on the type of phone switch you have. To find the values for these parameters, refer to your phone switch documentation. The information you need to find follows.

Total Inband Signaling Digits to Accept from Switch: Enter the maximum number of DTMF tones your switch will send to Smooth Operator under any condition.

Location of Inband Signaling Code: Specify which digit in an incoming inband signaling string is the first digit for the inband signaling code. Enter -1 if the code is not consistently in the same location and if the System is to search the entire string.

Number of Milliseconds to Wait for Digits: Specify the number of milliseconds the System is to wait between DTMF tones before assuming there are no more digits. Note that this value is doubled when waiting for the first digit in the string.

The following are some examples of DID, inband signaling, and redirect tone strings:

DID (Direct Inward Dialing)

Typically, if your phone system uses DID strings, you can enter the values shown below for these Setup parameters:

Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	0
Code for Go to Voice Mail	None
Code for Go to Immediate Record	None
Code for Immediate Transfer to Extension	None
Code for Immediate Subscriber Login to Mailbox	None
Code for Busy Extension	None
Code for No Answer Extension	None
Code for Go to Voice Mail and Get Mailbox	None
Code for Go to Automated Attendant and Get Mailbox	None

The value for Location of Mailbox Number for Default Code and Start Count from End for Default Code vary depending on the type of DID string received by your switch. Note that these two fields work together. To fill in these values, consider an example where the DID string comes in as a standard seven-digit phone number such as 9876543, and the destination extension number is the last four digits of this string (6543). In this DID example, you would specify the following values for these Setup parameters:

Location of Mailbox Number for Default Code	4
Start Mailbox Number Count from End for Default Code	No

The value "4" is specified for the Location of Mailbox Number for Default Code because the mailbox number starts with the fourth digit in the incoming string:

```
      ↓
9876543
```

No is specified for Start Mailbox Number Count from End for Default Code because the mailbox number starts with the fourth digit in the incoming string as counted from the beginning of the string:

```
      ↓
9876543
1 2 3 4
```

Note that this parameter can also be set to Yes in this example because the mailbox number also starts in the fourth position when you begin the count from the end of the string:

```
      ↓
9876543
4 3 2 1
```

If the extension was only three digits long (i.e., 543), you could either set the Location of Mailbox Number to "5" and Start Count at End to No or you could set Location of Mailbox Number to "3" and Start Count at End to Yes.

If you want all incoming DID calls to go directly to voice mail, simply use the default values for all the parameters shown on page 5-3.

Inband Signaling and Redirect Tones

Note:
Many of these codes are programmable by the switch, so the Integrator will not be able to add the codes to your Setup.

When your switch incorporates inband signaling and redirect tone strings, there are no set values you can input for many of the program Setup parameters. These values depend on the model of switch you have. First, you should select the proper switch from the Integrator utility during installation. If you have problems integrating while using these codes, refer to your phone switch documentation to determine the strings your switch sends to Smooth Operator during certain call conditions. These strings dictate the values you set for many Setup parameters. The following examples are designed to show you some of the varied incoming string conditions, an action you may want to execute with each string and some of the corresponding Setup parameters. Please note that the examples include strings sent by Iwatsu ZTD and TIE Onyx switches, and extension numbers are assumed to be three digits.

xxx The extension number of the forwarded phone or mailbox to be opened

nnn The extension number of the phone that originated the call

cc The central office line number of the incoming call

Condition: Direct call from station
Action wanted: Login to mailbox
String sent by switch: ***1*nnn*

Values to specify in Setup:

Total Number of Digits	7
Code for Subscriber Login to Mailbox	***1
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.
Location of Mailbox Number for Immediate Login	5
Start Mailbox Number Count from End for Immediate Login	No

Condition: Busy/no answer forwarded to voice mail port
Action wanted: Go to voice mail
String sent by switch: ***3*nnnxxx*

Values to specify in Setup:

Total Number of Digits	10
Code for Go to Voice Mail	***3
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.
Location of Mailbox Number for Go to Voice Mail	3
Start Mailbox Number Count from End for Go to Voice Mail	Yes

Condition: Busy forward to voice mail port
Action wanted: Handle busy
String sent by switch: ***4*nnnxxx*

Values to specify in Setup:

Total Number of Digits	10
Code for Busy Extension	***4
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.
Location of Mailbox Number for Busy Extension	3
Start Mailbox Number Count from End for Busy Extension	Yes

Condition: No answer forward to voice mail port
Action wanted: Handle no answer
String sent by switch: ***5*nnnxxx*

Values to specify in Setup:

Total Number of Digits	10
Code for No Answer Extension	***5
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.
Location of Mailbox Number for No Answer Extension	3
Start Mailbox Number Count from End for No Ans. Extension	Yes

Condition: Direct call from station to voice mail port
Action wanted: Login to mailbox
String sent by switch: 9*3*xxx*#

Note:
"#" is the default terminator for the incoming string and is not counted as a digit.

Values to specify in Setup:

Total Number of Digits	6
Code for Subscriber Login to Mailbox	9*3
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.
Location of Mailbox Number for Immediate Login	3
Start Mailbox Number Count from End for Immediate Login	Yes

Condition: Direct central office call ringing to voice mail port
Action wanted: Voice mail entry
String sent by switch: 9*4c*c**D#*

Values to specify in Setup:

Total Number of Digits	7
Code for Go to Voice Mail and Get Mailbox	9*4
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.

Condition:	Direct central office call ringing to voice mail port
Action wanted:	Automated attendant entry
String sent by switch:	9*4*cc**D#

Values to specify in Setup:

Total Number of Digits	7
Code for Go to Automated Attendant and Get Mailbox	9*4
Location of Inband Signaling Code	1
Number of Milliseconds to Wait for Digits	Switch depend.

Important Note:

It is assumed that the next two examples are from the same switch.

Condition:	Central office call forward from direct ringing station
Action wanted:	Go to voice mail
String sent by switch:	9*2*cc**xxx#

Values to specify in Setup:

Total Number of Digits	9
Location of Mailbox Number for Default Code	3
Start Count from End for Default Mailbox Number Code	Yes

Condition:	Intercom call forwarded to voice mail port
Action wanted:	Go to voice mail
String sent by switch:	9*1*nnn**xxx#

Values to specify in Setup:

Total Number of Digits	10
Location of Mailbox Number for Default Code	3
Start Count from End for Default Mailbox Number Code	Yes

Termination Codes

Some switches send a termination code (many times a single tone known as a "D" tone) to notify Smooth Operator when a call has terminated. Check your phone switch documentation to determine if your switch sends a termination code. If it does, specify either "D" or the code itself in the HANGUPSTR field found in the System Setup from the Options pulldown menu. Do this after you install Smooth Operator. Also, in the HANGUPDLY field, input the required maximum delay between the digits of the System hang-up code. Smooth Operator refers to this value to distinguish between a hang-up code and keypad responses entered by a caller.

Inband Signaling Troubleshooting

If you believe your codes have been configured incorrectly, or if you are not sure of the string you are receiving, access the Command Line Interface and type `DIGRAB`

ON, or edit the SET_UP.CFG file in the \CVR1 directory and set X43 to "1". This will cause Smooth Operator to behave like a digit grabber and display the digits on the Command Line Interface. To turn the digit grabber off in the Command Line Interface, you can either type DIGRAB OFF, or change the value of X43 to "0".

Timing:

The value in the DIDTIME field is doubled for the first digit. For example, if set to 500 milliseconds (ms), Smooth Operator will wait 1000 ms before voicing a greeting if no digits appear within one second. If a digit appears within the first 1000 ms, then the second digit must appear 500 ms after the first.

Note:
Try setting the timing parameters high. Once the System is functioning, you can adjust the parameters.

Missing Digits:

If the first digit is continually missing, then the OFFHDLY parameter should be lowered to approximately 25 ms. OFFHDLY is the number of milliseconds before Smooth Operator will begin listening to the digits after going off-hook to answer the incoming call. **Do not** lower the OFFHDLY parameter to less than 25 ms; this may cause erratic behavior.

If the System seems to be intermittently missing digits, the digits may be coming too quickly. In this case, the PLAYDTMF can be reduced, and the switch could possibly be programmed for a longer duration between the digits.

Important Note:

Rhetorex and Dialogic boards cannot detect inband signaling digits if they are sent less than 50 ms between each other. Therefore, several of the switches can be programmed to send digits at a slower rate, or pauses may be inserted.

SMDI Integration

If you plan on using an SMDI integration, you will need to use the SMDI utility that was shipped as an add-on module to your System and an SMDI sentinel. You may or may not need the VoiceBridge hardware to accomplish such an integration. Refer to the following notes on certain switches, as well as related integration bulletins.

Note:
SMDI integrations use inband signaling codes.

During the installation of an SMDI System, the installation program will ask if you wish to install the SMDI module. Answer Yes. Unless you have an ITT3100 or Hitachi switch, select SMDI. The System will prompt you to enter the SMDI installation diskette into your floppy drive and press <Enter>. Answer Yes when the System asks if it may create a new SMDI.CFG (or ITT.CFG, HITACHI.CFG file for storing integration information.) First select the appropriate switch from the Integrator module. Next, be sure to select the switch with SMDI. Refer to page 3-7 for further details.

Note:
SMDI Integrations are not supported under Windows.

The SMDI.CFG File

The SMDI.CFG file sets the following parameters:

BAUD — Sets the bits per second, the speed at which the data is transferred. Possible settings include: 110, 150, 300, 600, 1200, 2400, 4800, 9600, and 19200.

PARITY — Selects the algorithm used to calculate the parity bit in a word. Possible settings include: NONE, ODD, EVEN, MARK, or SPACE.

DATABITS — Defines the number of bits in each byte or character (word). Possible settings are 5, 6, 7, and 8.

STOPBITS — Sets the number of bits used to signify the end of the word (byte), either 1 or 2.

COMPORT — Specifies the communications port where the data link will be established.

TIMEOUT — Sets the inter-character timeout period, the amount of time to wait between characters before assuming a bad or failed packet and aborting. Also, if Smooth Operator receives ring voltage, this parameter is used to determine the number of cycles to wait for data before answering anyway. Possible settings are 0 through 32768 seconds.

EVERY — Sets the rate at which the SMDI terminates and the stay resident program is called. Possible settings are 1 through 60 ticks. (There are 18.2 ticks per second.)

MWLPRFX — Used only with Centrex sites, this is the prefix to add to message waiting light packets.

DESKID — Specifies a three-digit number, usually 001, which is used to identify packet information coming across the COM port.

PORTID*nn xxxx*

Specifies the packet identification for a specific port. For example, PORTID0 0001 configures port 0 to 0001. Possible settings for *nn* are 0 through 32; *xxxx* may be 1 through 9999.

MWLTIMEOUT

Specifies the length of time to wait for Smooth Operator to respond after a message waiting light function. Possible settings are 1 through 32768.

DATAWAIT — Specifies the number of cycles to hold data before passing it to Smooth Operator. This parameter should be used on sites where data arrives before the call. Possible settings are 0 through 32768.

DTR *on/off* — Sets DTR high (on) or low (off).

RTS *on/off* — Sets RTS high (on) or low (off).

CTS *on/off* — Sets the CTS to high (on) before sending any data.

DISPLAY *on/off*

Determines whether to show scrolling debut information.

The settings in this file can be altered by editing the file with a text editor, or you can type `ICONFIG switch_type` from the C:\CVR> prompt, where *switch_type* is either SMDI, ITT, or HITACHI.

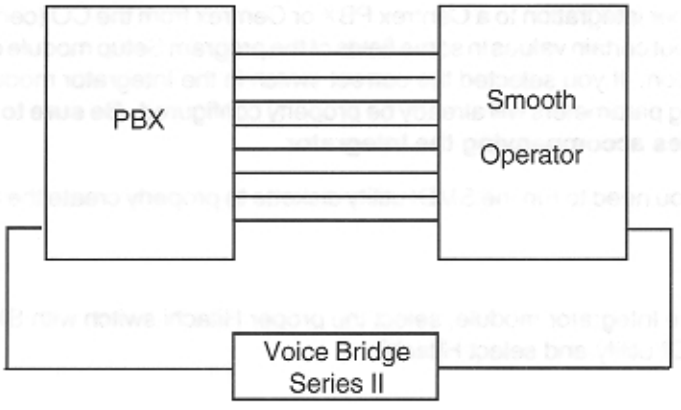
VoiceBridge

VoiceBridge is a product developed by Voice Technologies Group. This product enables you to fully integrate Smooth Operator 3.2 with a variety of switches. Use VoiceBridge to achieve a complete integration with Smooth Operator if you have one of the following switches:

AT&T System 75, System 85, and Definity
NEC Neax 2400
Northern Telecom SL-1
Northern Telecom Meridian 1
Rolm 8000, 9000, 9751

VoiceBridge links Smooth Operator with these telephone systems so transactions between Systems can be automated. This automation enables two separate Systems to appear as one and communicate effectively, allowing Smooth Operator to take full advantage of special features available with the switch (e.g., Message Waiting Lights).

Documentation included with the VoiceBridge product is comprehensive and easy to follow. Refer to this information when setting up your switch for use with Smooth Operator. The physical setup is shown below.



When using the VoiceBridge product, remember to add the code that SMDI sends into the inband signaling string. The available codes are:

C	From extension
B	Forward on Busy
N	Forward on No Answer
F	Forward All
T	Voice Mail Transfer
D	Call Terminated
A	Automated Attendant

This code should be placed at the beginning of the inband signaling string. The Location of Code parameter should be set to "1", and the Location of Mailbox Number parameter is switch-dependent. The port on both the switch and on Smooth Operator must also correspond.

AT&T System 75, System 85, and Definity

For a full integration, the following hardware is required for these AT&T PBX systems:

— 7405 digital station set
— Standard Centrex SMDI interface and the VoiceBridge product
— VT102 emulation protocol terminal to program VoiceBridge. (You can perform this function by using a PC and ProComm or other software.)
— If using the VoiceBridge series 2, the box simulates a 7405. Therefore, the digital station set is not required. Also, the ability to program the VTG II on the LCD display and keypad eliminates the need for a VT102 emulator protocol terminal as well.

For proper integration to an AT&T PBX, you should select the switch (with SMDI) from the Integrator module. This allows most of the necessary Setup parameters to be properly configured.

Then, you will need to run the SMDI utility diskette. Select SMDI to create the SMDI.CFG file with the proper settings.

Centrex

For proper integration to a Centrex PBX or Centrex from the CO (central office), you must input certain values in some fields of the program Setup module during software installation. If you selected the correct switch in the Integrator module, most of the following parameters will already be properly configured. **Be sure to carefully read the notes accompanying the Integrator.**

Then, you need to run the SMDI utility diskette to properly create the SMDI.CFG file.

Hitachi

From the Integrator module, select the proper Hitachi switch with SMDI. Then, run the SMDI utility and select Hitachi.

ITT 3100

For full integration, an ITT 3100 PBX must be equipped with 6.2 software and have hardware for an RS-232 connection. For complete details on switch setup, see the ITT manual. **To avoid any damage to the System be sure to wear a grounding strap when setting up the switch!**

Integrated ports must be programmed on the switch as VMVOICE ports. These ports will not ring when dialed. The communication port tells Smooth Operator when to go off-hook. The ITT switch also receives its disconnect information through the communication port.

Note:
Disconnect supervision through the SMDI connection (the serial link through the COM port) can be disabled by adding a `-D` *to the line that loads the ITT integration in the RUNSMO3.BAT file. Disconnect supervision needs to be disabled if call screening is used or if you have modem boards. If you are using call screening, use either modem boards or silence detection for a positive disconnect.*

With the ITT 3100, you can access voice mail in one of two ways: by dialing the number dedicated to voice mail or by dialing your own extension and pressing <#> during the initial greeting.

You can program an extension to forward to voice mail by pressing "61". Then press "1" for always, "2" for busy, or "3" for no answer. Enter "110" for voice mail or "112" for login. (These numbers are the System defaults set up by ITT 3100 and can be changed.)

To use the automated attendant with the ITT, use a standard, single-line port on the switch and connect to a port with INITMODE set to "N".

Note that to get Open Request, the Type 0 trunk must be programmed as a DISATGND or DISATLOP. The caller hears a dial tone when the switch answers and can then dial "110" to access voice mail. (This is the System default voice mail number and can be changed.)

For proper integration to the ITT3100, you must input certain values in some fields of the System Setup module during software installation. These values are properly set if you select the ITT3100 switch with SMDI from the Integrator module.

After running the Integrator, select the ITT system within the SMDI utility.

NEC Neax 2400

For a full integration, the following hardware is required for the NEC PBX System:

— NEAX Message Center Interface link
— Standard Centrex SMDI interface and the VoiceBridge product
— VT102 emulation protocol terminal to program VoiceBridge. (You can do this using a PC and ProComm or other software.)

For proper integration to an NEC PBX, you must input certain values in some fields of the System Setup module during software installation. If you select the NEC Neax 2400 with SMDI from the Integrator module, these parameters are set for you.

In addition, you need to run the SMDI module, selecting SMDI. This creates the proper SMDI.CFG file.

Rolm

For a full integration, the following hardware is required for the Rolm PBX system:

— 244PC digital station set
— Standard Centrex SMDI interface and the VoiceBridge product
— VT102 emulation protocol terminal to program VoiceBridge. (You can do this using a PC and ProComm or other software.)
— If using the VTGII, there is no need for a 244PC since the VTGII emulates the digital station set. Also, all programming of the VoiceBridge is done directly on the device, eliminating the need for a VT102 emulation protocol.

For proper integration to a Rolm PBX, you must input certain values in some fields of the System Setup module during software installation. These parameters are set for you if you select the proper switch with SMDI from the Integrator module.

Also, you need to run the SMDI utility, selecting SMDI, to create the proper configuration file.

SMDI Troubleshooting

If you are having problems with SMDI integration, confirm the items below before calling Technical Support.

1. In the AUTOEXEC.BAT file, the statement `CALL LOAD integration_name` must appear before the `RUNSMO3` command. If Windows is being used, the statement should also appear before the `WIN` command.
2. Be sure that all cables and wires have no loose connections. Try using another data cable to confirm that your cable is not bad. Also, be sure that the data cable is plugged into the port that the integrations program was configured for.
3. Be sure that the integrations program is properly installed. Type `CHECK` from the C:\CVR> prompt to verify.
4. Make sure that there is data coming across the cable. Load a terminal emulation program such as ProComm, set the parameters to that of the switch or VoiceBridge unit, and dial into the voice mail hunt group. Then, check the display to see if there is any data being displayed.
5. There is a debug version of SMDI called DSMDI (or DITT for the ITT3100). Edit your AUTOEXEC.BAT and change the `SMDI` command to `DSMDI` (or `ITT` to `DITT`). This displays the data that has been received across the COM port. You can also edit the SET_UP.CFG file in the \CVR1 directory and set the X43 value to "1", or type `DIGRAB ON` from the Command Line Interface. This displays the data that Smooth Operator receives from the switch on the Command Line Interface.
6. If the Smooth Operator port comes off-hook but the phone continues to ring, confirm your settings for Port ID and Desk ID.

Special Board Integrations

Some switches can perform integrations with the use of a special voice board.

Mitel

For Smooth Operator integration, the Mitel PBX must be an SX20 or higher (SX50 through SX2000). Each of the Mitel D/42-SX voice boards require Superset line controller cards for four Superset ports. These are the same ports used to connect the Mitel Supersets. Integration also requires Mitel's Generic 217 (or higher) software.

If you are using the D/42-SX board for a Mitel integration or the D/42-SL board for an SL-1 integration, you do not need to run call analysis.

For proper operation, each PBX port connected to a D/42-SX board must be programmed with a class of service using the following features:

Superset Immediate Line Detection	**enabled**
Sub-Attendant	**enabled**
Hands Free Enable	**disabled**
Automatic Call-Back Busy	**disabled**
Automatic Call-Back No Answer	**disabled**
Messaging	**enabled**
Station Transfer	**enabled**

When Smooth Operator is first executed, it pauses up to 60 seconds while the D/42-SX board links to the PBX. If the System finds disabled lines, check the connection to the PBX.

Smooth Operator should **never** be disconnected from the PBX while the program is running. If, for some reason, you need to disconnect from the PBX, type SHUTDOWN from the Smooth Operator command screen. Reboot the System once the PBX is reconnected.

The Mitel PBX allows users to spell their names on the Superset LCD display. On some Mitels, the user's name must be prefixed with his extension number.

The Mitel PBX requires an extension to ring before a Message Waiting Light is activated. If a user picks up the phone while Smooth Operator is turning the message light On, the message light will not be activated. For a busy condition, you can give an extension two appearances to avoid this and only forward on a no answer condition. Call forwarding *will* forward the message waiting light on some Mitels.

Several features are available when the D/42-SX voice board is used with Smooth Operator. Here is a list of the features along with the parameters which must be set in order to activate them. The following values will be entered in the Setup fields if you select the Mitel with D/42-SX from the Integrator utility:

Message Waiting Light		Yes
Code for Immediate Subscriber Login to Mailbox		$
Location of Mailbox Number for Immediate Login		3
Code for Go to Voice Mail		$FROM
Location of Mailbox Number for Go to Voice Mail	8 (usually)	9 (sometimes)
Total Inband Signaling Digits to Accept from Switch		7
Location of Inband Signaling Code		-1
Number of Milliseconds to Wait for Digits		50
Code for Go to Automated Attendant and Get Mailbox		$T

Positive Disconnect

Positive Disconnect automatically provides true disconnect detection. This allows Smooth Operator to disconnect an external call much faster, allowing more calls per port per hour. Internal calls use dial tone detection. To use this feature, you must set the LCDTIME Setup parameter to "6". (The default is 30.) After you install Smooth Operator, set this parameter on the System Setup screen accessible from the Options pulldown menu.

Northern Telecom

The following software packages are necessary for full integration with Northern Telecom switches: Message Center, Basic ACD, and Enhanced End-to-End Signaling. Note that IVMS software is not required.

For proper operation, each PBX port connected to a Northern Telecom D/42-SL voice board must be programmed with a class of service using the ADD (Automatic Digit Display) feature. Also, note that the D/42 firmware is designed to operate with the Basic ACD feature enabled on the PBX. With ACD, a single phone number is assigned to a group of extensions. When that number is dialed, the first non-busy extension receives the call. One restriction placed on ACD extensions is that calls cannot be placed on the same lines that receive calls.

During Setup, remember that each D/42-SL port must be assigned to an extension with two lines. Define an ACD data block using the proper overlay for your PBX. Assign key 0 as an ACD agent on all extensions connected to D/42-SL ports. This is the line on which the D/42-SL port receives incoming calls. Key 4 must be programmed for SCR (Single Call Ringing). This is the line that the D/42-SL will use to place calls. Refer to your PBX documentation for information on programming your PBX.

The Northern Telecom SL-1 Digital Display phone has several programmable keys. Program the following keys on extensions connected to the D/42-SL:

KEY	FUNCTION	DESCRIPTION
0	ACD	Automatic Call Distribution
1	TRN	Call Transfer
2	MIK	Message Indication
3	MCK	Message Cancellation
4	SCR	Single Call Ringing
7		Make Set Busy
9	RLS	Release

When Smooth Operator is first executed, it pauses up to 60 seconds while the D/42-SL boards link to the PBX. If the System finds disabled lines, check the connection to the PBX.

Smooth Operator should never be disconnected from the PBX while the program is running. If, for some reason, you need to disconnect from the PBX, type SHUTDOWN from the Smooth Operator command screen. Restart the System once the PBX is reconnected.

Several features are available when the D/42-SL voice board is used with Smooth Operator. Here is a list of the features along with the parameters which must be set in order to activate them. These parameters are set for you if you select the Northern Telecom with D/42-SL.

Message Waiting Light	Yes
Code for Immediate Subscriber Login to Mailbox	$
Location of Mailbox Number for Immediate Login	3
Code for Go to Voice Mail	
Location of Mailbox Number for Go to Voice Mail	3
Total Inband Signaling Digits to Accept from Switch	7
Location of Inband Signaling Code	-1
Number of Milliseconds to Wait for Digits	50
Code for Go to Automated Attendant and Get Mailbox	-

Positive Disconnect

Positive Disconnect automatically provides true disconnect detection. This allows Smooth Operator to disconnect an external call much faster, allowing more calls per port per hour. Internal calls use dial tone detection. To use this feature, you must set the LCDTIME setup parameter to "6" (the default is 30). You can set this parameter on the System Setup screen accessible from the Options pulldown menu after you install Smooth Operator.

Notes:

Section 6

Troubleshooting

This section provides a list of steps which should be followed when configuring, installing, or troubleshooting Smooth Operator features. The steps are arranged under the following topics: System, System Features, Selecting Items, Supervisor Actions, Subscriber Actions, Mailboxes, Mailbox Features, and Messages. If you want to configure one of the features discussed here, be sure that all requirements on the list are fulfilled. The "checklist" provided for each feature will also prove to be a helpful reference tool for activating System features.

How to Troubleshoot

Follow these basic steps to effectively troubleshoot your problem:

1. Collect data and investigate.

   Collect sufficient data to fully define the parameters of the problems (e.g., what is working and what is not).

2. Evaluate the collected data.

3. Isolate the trouble source.

4. Determine cause for failure.

   Check potential trouble sources relevant to that particular problem (e.g., Was there a power surge? Was customer action responsible? Are cables and wires properly connected?)

5. Take action to correct or repair the problem.

6. Re-test to ensure the problem has been corrected.

The following categories contain the types of problems encountered by users, along with their solutions or remedies. Remember, while running the System or some System modules, the <F1> key provides context-sensitive help, including help on Setup options. Pressing <Shift-F1> provides an alphabetical help menu.

System

Callers are being disconnected from the System:

- — Increase the Maximum Number of Errors Permitted in the System Setup.
- — Increase the Maximum Number of No Entry Conditions in the System Setup.
- — If the feature which disconnects rotary callers is active, instruct all calls from rotary phones to call another number.
- — The System may interpret the caller's voice as a dial tone. Try setting the DTONDET parameter higher.

Calls are not transferring properly:

- — Check the Transfer Prefix Code, Transfer Release Code when Busy, Transfer Release Code No Answer, and Custom Transfer Code in the System Setup.
- — Confirm that the Number of Seconds to Wait Before Transferring Caller value is set, as well as the CALLPROG parameter.
- — Be sure that the switch accepts connection to 2500 sets.

Calls to certain ports do not answer:

- — Be sure that the INBOUND parameter is set to "1" for that port.
- — If the port was disabled using the DIS command, enable it by typing `ENA n` at the Command Line Interface, where *n* equals the number of the port.

The Channel Status Display will not display more than the first four installed ports:

— Use the Next Channel Status to display more than four ports. Each time you select Next Channel Status, the next four ports will be displayed (up to the maximum of 32 ports).

Computer continually reboots after software installation:

— From the C:\CVR> prompt, type CONFIGUR and press <Enter>. Change the entry point from 6D (Hex) to 61H.
— Make sure that the sentinel is installed.

The System is not detecting DTMFs:

— Check the PLAYDTMF value. If it is too high, the System may not recognize a DTMF. If it is too low, the System may interpret a voice as a DTMF.
— Check the RECDTMF value. This parameter controls the length of the DTMF needed to interrupt a recording.
— Check the TONEDLY parameter value. This parameter controls the amount of time necessary between valid DTMFs.
— Check the TONELEN parameter value. This parameter controls the necessary length of the DTMF.

Receiving Error Message "Fax Retrieval not supported" or "Fax Mail not supported" or "Power Pager not supported":

— Usually the wrong sentinel unit has been installed. Contact the Technical Support Group.

Receiving Error Message "SMDI driver not supported":

— Usually the wrong sentinel unit has been installed. Contact the Technical Support Group.

Receiving Error Message "Software driver cannot find the voice board":

— On some VGA boards, a 16-bit board cannot be used in a 16-bit slot with a 16-bit jumper setting. Try using an 8-bit slot or an 8-bit jumper setting.
— Set auto detect on the VGA card to Off.

Receiving Error Message "Voice board not found":

— If you have a Rhetorex board and you encounter this problem, you must run a program called Configure. From the C:\CVR> prompt, type CONFIGUR. On the Configure screen, use the up and down arrow keys to add the hex address for each installed board. For example, 300 for board 1, 301 for board 2, 302 for board 3, etc. To update your computer's memory, select <F3> and add 32KB for each board after the first. Here is one example of a two board configuration:

Real Memory	Ports
64KB	300H
	301H

Receiving Error Message "Voice file <\CVR\SO3-ALL> Not found":

— The Multilingual voice phrase files are incorrectly named. Refer to Section 10 for information on naming such files.

Cannot exit the Smooth Operator System:

— Select Exit from the File pulldown menu. Choose Shutdown.
— If Exit with Shutdown does not work, select Command Line from the Display pulldown menu. Type SHUTDOWN at the Command Line Interface. This disables any unoccupied ports and terminates the program after all current calls are completed.
— If all else fails, type FORCE at the Command Line Interface, or select Exit with Force from the File pulldown menu. **Caution!** Use this only as a last resort since it terminates calls without warning.

Cannot use the mouse:

— Confirm that the mouse driver is executed during System bootup.

"Ghost calls" are occurring (i.e., ports are coming off hook even though there may not be a line plugged into that port)

— Be sure that all ports specified for outdialing (set to "2" in the OUTBOUND Setup parameter) have a dial tone. If not, the System assumes a call collision scenario (i.e., a call is incoming when it is trying to place an outbound call).

The propeller stops spinning:

— Attempt to exit the System by selecting Exit from the File pulldown menu.
— If you cannot exit, select Command Line from the Display pulldown menu. Type SHUTDOWN from the Command Line Interface.
— If Shutdown has no effect, type FORCE.
— If neither Shutdown nor Force works, press <Ctrl-Break> or <Ctrl-Alt-Delete>.
— If <Ctrl-Break> or <Ctrl-Alt-Delete> does not work, try using the reset button to reboot.
— If all else fails, reboot the PC by turning the power off and back on.

The receptionist receives many blank messages which are not the result of the caller hanging up:

— Be sure that all ports specified for outdialing (set to "2" in the OUTBOUND Setup parameter) have a dial tone. If not, the System assumes that a call is incoming when it is trying to place an outbound call.
— Try increasing the Minimum Message Length parameter.
— Enable grunt detection.

Reports will not print:

— Confirm that the reports are instructed to be sent to the printer on the Report Specification screen.
— Be sure the PRINTER parameter on the System Setup screen specifies that a printer is attached to the System.
— Make sure the printer is ready to print: the printer has power, is on-line, and contains paper.
— The printer may be hung. Use the CLRPRT command from the Command Line Interface to clear the printer.

Cannot send reports to disk:

— Confirm that reports are instructed to be sent to a disk file on the Report Specification screen.
— Be sure that a disk path and filename are specified on the Report Filename screen.

— Be sure that a formatted disk is in a valid System drive and that the drive door is closed or the disk has "clicked" into place.

Software recognizes fewer ports than are actually installed:

— Check installation of voice boards and supporting software. See Section 2 for further information on specific voice board settings.
— Board lacks the Compass "signature." Contact the Technical Support Group.

Note:
If Windows 3.1 is being used, the SMARDRV command is in AUTOEXEC.BAT as SMARDRV.EXE without arguments.

System is sluggish:

— Type the CONFIG.SYS file to verify that SMARTDRV.SYS is properly installed on the System. If your System has 1MB of extended RAM (2MB total), the following line should appear in the CONFIG.SYS file:

```
DEVICE=C:\DOS\SMARTDRV.SYS 512
```

— If your System has a total of 3MB of RAM, the following lines should appear in the CONFIG.SYS file:

```
DEVICE=C:\DOS\SMARTDRV.SYS 512
DEVICE=C:\DOS\RAMDRIVE.SYS 1024
```

— If your System has a total of 4MB of RAM, the following lines should appear in the CONFIG.SYS file:

```
DEVICE=C:\DOS\SMARTDRV.SYS 1024 256
DEVICE=C:\DOS\RAMDRIVE.SYS 1024
```

— Run PCTools Compress or Norton's Disk Doctor and Speed Disk.

An Unrecoverable Application Error occurs when using Smooth Access and printing in Windows:

— Be sure that the Windows Print Manager is activated. Refer to your Windows documentation.

The System has a voice echo:

— Check the interrupts on the fax and voice boards, and confirm that they are set differently.

System Features

Attendant Menu prompt does not work:

— If using Supervisor's prompts, be sure that the Attendant Menu prompt number is specified on the System Prompts screen.
— Make sure that Greetings by Port is not active for that port.
— Confirm that an Attendant Menu is designed. A keypad button on the screen should have a valid corresponding mailbox number next to it.
— Confirm that message prompt numbers are specified on the System Prompts screen in the Attendant Menu Language 1.
— Make sure that the prompt is recorded. Record the Attendant Menu prompt by accessing the Supervisor's Menu via the phone.
— Verify that phones are sending valid DTMF signals.
— Adjust the RECDTMF and PLAYDTMF values.

System greeting prompts (Morning, Afternoon, Evening, Closed) do not work:

- — Make sure that the desired Morning, Afternoon, and Evening start times are specified in the System Setup under the Options pulldown menu.
- — Be sure that Selected Hours is chosen and that the desired business hours are entered on the Business Hours screen from the Attendant pulldown menu.
- — If using Supervisor's prompts, confirm that the message prompt numbers are specified on the System Prompts screen.
- — If the messages are not already recorded, do so by accessing the Supervisor's Menu via the phone.
- — Remember that the greeting prompts are only used during business hours. For example, if the Morning Start Time is specified as 7:00 AM, but business hours do not begin until 8:00 AM, the Office Closed Greeting will be voiced to callers between 7:00 AM and 7:59 AM.

Greetings by Port does not work:

- — Be sure that the desired port(s) are configured **and** activated on the Greetings by Port screen.
- — Confirm that the Personal Greeting prompts for both the During and After Hours mailboxes are recorded. The Personal Greeting prompt is used to answer calls to those ports for Greetings by Ports.
- — Make sure that the proper business hours are indicated for each port.

Holiday greeting prompt does not work:

- — Be sure that the date in question is specified as a holiday on the Holiday entry screen.
- — Confirm that the System date is correct.
- — If using Supervisor's prompts, check to see if a message number is entered on the Holiday screen for use with this particular date.
- — Confirm that message prompt numbers are specified on the System Prompts screen.
- — If the message number is not already recorded, record a corresponding message by accessing the Supervisor's Menu via the phone.
- — If a holiday greeting voices on a non-holiday date, access the Holiday entry screen, and check to see if the Retain field is selected for the date in question. If so, this date was specified as a holiday in a previous year but is not this year. For example, in 1992, Thanksgiving was on November 26. You would not want to retain this date to 1993, when Thanksgiving is on November 25.

Multilingual Smooth Operator does not work:

- — Confirm that the multilingual capability is activated via the System Setup.
- — Be sure that the phrase files for each language are recorded, digitized, and saved as the correct filename.
- — If using Supervisor's prompts, be sure that a Language Select prompt is specified on the System Prompts screen.
- — If the Language Select prompt is not already recorded, do so by accessing the Supervisor's Menu via the phone.
- — Be sure that the Attendant Menu and Message Delivery prompts in each language being used are recorded. Simply specify the appropriate prompt numbers on the System Prompts screen, and then access the Supervisor's Menu via the phone. Press <2> to change System prompts, and record the corresponding prompt numbers.

Selecting Items

Fields and buttons do not work:

— If a button does not work, press <Alt> plus the first highlighted character of the button name.
— Use the <Tab> or <Shift-Tab> key to move the cursor to the field or button, and press <Enter>.
— Use the mouse to point and click on the field or button.

Cannot select items within parentheses ( ) or brackets [ ]:

— Move to the field with the <Tab> or <Shift-Tab> key or with one of the other options described above for selecting a field or button. Press <Spacebar> to activate the toggle (On/Off) for that field.
— Remember, you can only select one item of a set notated with parentheses ( ). However, in a set notated with brackets [ ], any number (including all or none) of the options can be selected.

Pulldown menus do not work:

— Use the <Tab> or <Shift-Tab> key to move the highlighted bar among the menus. Press <Enter> once the desired option is highlighted.
— Use the left and right arrow keys to move the highlighted bar among the menus. Press <Enter> once the desired option is highlighted.
— Type the first highlighted character of the menu name (or hold down the <Alt> key and the first highlighted character of the menu name). Use the <Alt> key sequence if the Command Line Interface is active.
— Use the mouse; point and click on the desired menu.
— The pulldown menus cannot be selected if the Mailbox Status display is active.

Supervisor Actions

Cannot access certain menus and functions on the System's Main Menu screen:

— In order for certain features to be accessed, you must be logged in as a Supervisor.
— The user must enter the correct level of security password to access certain features.
— Make sure that the correct level of security access is entered. To access all functions except those on the Options pulldown menu, enter the level 2 security password (Default = 12345). To access all System functions, including those on the Options pulldown menu, enter the level 3 security password (Default = 67890).
— If another Supervisor changed the password and the new password was forgotten, call the Technical Support Group for further instructions.

Cannot change Class of Service during mailbox creation or editing:

— Remember that a defined Class of Service can only be created or changed under the Options menu by a level 3 supervisor.
— A level 3 supervisor can change a Class of Service for an individual mailbox by 1) selecting the Class of Service that most closely matches the desired features; 2) choosing Custom on the Class of Service screen; and 3) making the necessary changes to the Class of Service.

— Remember, only Supervisors with the same company as the subscriber mailbox can edit that mailbox over the phone.

Cannot Edit a mailbox:

— If a Supervisor experiences problems editing a mailbox, make sure the correct level 2 or 3 Supervisor password was entered.
— A Guest Mailbox cannot be edited, nor can you edit a mailbox that is occupied.
— Only Supervisors with the same company as the mailbox owner can edit that mailbox over the phone.

Subscriber Actions

Cannot access certain features:

— Be sure that the features are activated (if necessary) in the System Setup.
— Confirm that the features are allowed for the mailbox via its Class of Service.
— The mailbox owner should activate these features via the phone while in his mailbox. Refer the subscriber to the *Subscriber's Guide* for information on using System features.
— Remember that a Guest Mailbox only has access to the send and receive features.

Cannot edit a sent message:

— Verify that Sent Message Editing is permitted for the mailbox via its Class of Service.
— A sent message cannot be edited if it has already been received (listened to) by its recipient.

Cannot login to a mailbox:

— Dial the System's extension or phone number, and press <#> after the main System greeting. Enter the mailbox number followed by the password. The default subscriber password is 1111.
— The subscriber must enter <#> after the password if the extended security feature is active.
— If the subscriber is told that the password entered is invalid, try to log in again (in the event that the password was entered incorrectly).
— A Guest Mailbox is deleted with its sponsor mailbox. Confirm the status of the sponsor mailbox if you experience problems logging into a mailbox.
— The Supervisor can assign a new password through either the Edit Mailbox screen or the phone if the subscriber cannot remember what his password is.
— Perhaps the mailbox has become corrupted. Refer to Section 7 for information on using Quick Assist.

Cannot save messages:

— Confirm that the mailbox is permitted to save messages via its Class of Service.
— Make sure that the Number of Days to Save is not set to zero.
— Remember that listen-only messages cannot be saved.

Cannot send and/or receive messages:

— Confirm that the mailbox is permitted Send or Receive via its Class of Service.
— If the mailbox is a Guest Mailbox, it can send messages only to its sponsor mailbox.

— If the Total Message Time or the Number of Messages permitted via the Class of Service is reached, the subscriber may experience send or receive problems. Delete messages or increase these message limitations.

Cannot record prompts:

— Confirm that the Record Prompts feature is permitted for the mailbox via its Class of Service.

Mailboxes

Cannot delete statistical information:

— Use the Clear Mailbox function from the Mailbox pulldown menu to clear a specific mailbox or a range of mailboxes.
— You can Reset the Mailbox by using the Supervisor keypad functions over the phone. To do so, press <1> from the Supervisor Main Menu for mailbox functions and <4> to reset a mailbox.

A mailbox fails to appear in company directories or reports:

— If a mailbox fails to appear in company directories or reports, the mailbox Company field was entered inconsistently. Check the fields for spelling errors.
— If a mailbox appears in all company directories or reports, the Company field was left blank. Edit the mailbox, and make an entry in the Company field.

Callers are told that the mailbox is full:

— The Maximum Number of Messages or the Total Message Time is reached. Messages should be deleted to allow for more recording time in the mailbox, or the Number of Messages or Total Time values can be increased.
— Perhaps the mailbox has become corrupted.

Cannot include a certain mailbox in any reports or the Search Window:

— If a mailbox fails to appear in any reports or the Search window, a mailbox name was not specified during creation. Edit the mailbox, and type an entry in the Name field.

Mailbox Features

Auto Forwarding does not work:

— Make sure Auto Forward Delay is set to one minute or greater.
— Be sure that at least one port is set to '2' in OUTBOUND.

Call Forwarding does not work:

— Determine how many extensions are being forwarded, and make sure the Maximum Number of Forwarded Extensions is not being exceeded.
— Confirm that Call Handling is permitted in the Class of Service.
— Check that Call Forwarding is activated for the mailbox by either the subscriber or the Supervisor (through the Subscriber Settings screen).
— Make sure that the extension is being forwarded to a valid extension number.

— Be sure the correct call condition is being satisfied for the Call Forwarding to work properly: Busy, No Answer, Busy or No Answer, or all calls.

Call Handling does not work:

— Confirm that the mailbox is permitted Call Handling privileges via its Class of Service.
— Make sure the subscriber has activated Call Handling.
— Be sure that the Supervisor has not deactivated a Call Handling feature for the subscriber via the Subscriber Settings screen.
— Be sure that the subscriber fulfills the Call Handling requirements: records Optional prompts, enters a forwarding extension, or creates a V-Tree.
— Confirm that the correct Call Handling condition is set. Select Call Handling for: No Answer, Busy, Busy or No Answer, or all calls.

Call Queuing does not work:

— Make sure Call Queuing is permitted for the mailbox via its Class of Service.
— Check that Call Queuing is activated for the mailbox by either the subscriber or the Supervisor (through the Subscriber Settings screen).
— If using Supervisor's promtps, confirm that the 10 Call Queuing phrases are specified on the System Prompts screen.
— If the 10 Call Queuing phrases are not already recorded, do so by accessing the Supervisor's Menu via the phone.
— Confirm that the Number of Seconds to Wait for the First Caller in the Queue is set in the System Setup.
— Be sure that the Number of Callers Allowed in Queue is not set to zero (0) in the System Setup.

Call Screening does not work:

— Confirm that the appropriate Call Screening Busy, No Answer, and Release codes are entered in the System Setup.
— Be sure that Call Screening is permitted for the mailbox via its assigned Class of Service.
— Be sure that the Supervisor did not deactivate Call Screening for the subscriber on the Subscriber Settings screen.
— If the System returns a rejected call to the attendant, try holding the call longer after it is rejected. (This applies to proprietary phone sets such as the Mitel Superset). Set Call Screening reject release code.

Distribution Lists do not work:

— Be sure that Distribution Lists are permitted for the mailbox via its Class of Service.
— Confirm that a distribution list is created.
— When sending a message to a distribution list, be sure to enter <*> followed by the distribution list number. Personal distribution lists are numbered 0 - 9. System distribution lists are numbered 10-19. *98 contains the mailbox numbers of all subscribers in your department, and *99 contains the mailbox numbers of all subscribers in your company.

Fax Mail Options not voiced:

— Be sure that the fax driver is loading when the System is started. If you get the message "No fax channels found", you probably did not answer Yes to the question about Fax Mail during the installation process.

— Fax Mail is a sentinel-controlled module; Make sure you are using a sentinel that supports Fax Mail.
— Make sure Fax Board Type is set to '2' in the System Setup.
— Confirm that Fax Receive and Fax Send are selected in the mailbox's Class of Service.

Fax Mail Options are voiced but do not work:

— When a fax operation is requested, does the red light on the back of the Brooktrout board come on? If not, make sure the board is seated properly in the computer, and check the board's interrupt level and addresses.
— If the red light does come on, and you have a one-to-one relationship with fax and voice channels, confirm that you are properly cabled to the channel with the light.
— If the red light comes on, and you have less than a one-to-one relationship between voice and fax channels, confirm the extension number. Perhaps a transfer was made to another extension.

Fax Retrieval does not work:

— Confirm that the following options are set on the System Setup: Fax Board Present, Use a Fax Cover Sheet, Number of Times to Try to Send a fax, and Fax Prefix Code.
— Be sure that a line is specified for outbound calls (OUTBOUND) in the System Setup on the Options pulldown menu.
— Be sure that the System has faxes that are ready to be sent. If not, refer to Appendix A for instructions on preparing documents.
— Be sure that both the fax and V-Tree options are permitted for the mailbox via its Class of Service.
— The subscriber must have created and activated a V-Tree involving the fax option.
— Be sure that the fax port and interrupts are set correctly.
— Fax Retrieval is a sentinel-controlled module; make sure you are using a sentinel that supports Fax Retrieval.

Global Distribution Lists do not work:

— Be sure that Global Distribution Lists are permitted for the mailbox via its Class of Service.
— Confirm that Global Distribution Lists have been created by a Supervisor.
— When sending a message to a distribution list, be sure to enter <*> followed by the distribution list number. Personal distribution lists are numbered 0 - 9. System distribution lists are numbered 10-19. *98 contains the mailbox numbers of all subscribers in your department, and *99 contains the mailbox numbers of all subscribers in your company. For *98 and *99 to properly work, department and company names must be used consistently.

Intercom Paging does not work:

— A paging system must be available for Intercom Paging to be employed.
— Confirm that an Intercom Paging Code is specified in the System Setup.
— Make sure that the mailbox is assigned Intercom Paging via its Class of Service.
— Be sure that an Intercom Paging Code is specified on the Subscriber Settings screen.
— If Intercom Paging was activated by either the subscriber (through his mailbox) or the Supervisor (through the Subscriber Settings screen), confirm that the Supervisor has not overridden the setting on the Subscriber Settings screen.

Message Confirmation does not work:

- — Be sure that Message Confirmation is permitted for the mailbox via its Class of Service.
- — Remember that only messages tagged for Message Confirmation when sent can actually be confirmed.
- — Remember that Message Confirmation is checked from the Main Menu.

Message Delivery does not work:

- — Be sure that the mailbox is assigned a Class of Service which permits Message Delivery.
- — Make sure that a line for outbound calls is specified with the OUTBOUND parameter under System Setup.
- — In the System Setup, be sure that the Code to Access an Outside Line (for example, **9,**) is specified. If Message Delivery is to an internal extension (less than the Number of Digits in a Local Phone Number), the switch may require a Custom Message Delivery Code.
- — Confirm that the Message Delivery feature was activated via the subscriber's mailbox. If it was, make sure that it was not deactivated on the Subscriber Settings screen.
- — Make sure that the Message Delivery entries are active.
- — Check to see that appropriate On and Off Times and Days are specified.
- — Be sure that the phone number is valid. Confirm any special characters which may have been entered: No Call Progress, Flash Hook, Pause, DTMF, MF, or Pulse.
- — Be sure that the mailbox is permitted either local and/or long distance delivery in its Class of Service.
- — Make sure the Call Back Number is correct.
- — Confirm that the line number entered in the Line 1 field is designated as an OUTBOUND line.

Message Waiting Lights (MWLs) do not work:

- — Confirm that the Message Waiting Light code is specified in the System Setup.
- — If required, be sure that Prefix and Suffix ON and OFF codes are specified in the System Setup.
- — Make sure that MWLs are specified as Supervised or Non-supervised in the System Setup.
- — In the System Setup, confirm whether the MWLs should or should not be lit for every message.
- — If doing SL-1 integrations, be sure that MWL Dials Number ON Hook is set to Yes.
- — Be sure that MWLs are permitted for the mailbox via its Class of Service.
- — If SMDI is used, check the cable and the SMDI configuration file.
- — MWLs require the use of an outbound line. Make sure that a port in the OUTBOUND parameter is set to "2".
- — Remember that MWLs will not work on every System. Both the subscriber's phone and switch must support the use of MWLs. Make sure that the phone switch is properly configured to work with the phone.
- — Be sure that the Code to Access an Outside Line is correct. If so, be sure the PAINTVL parameter has the correct value for length of pause.

Voice Folders do not work:

- — Confirm that Voice Folders are permitted for the mailbox via its Class of Service.
- — Be sure that the folders are defined and have recorded label names.
- — Confirm that messages are being saved to the proper folders.

V-Trees do not work:

- — Be sure that the mailbox is permitted V-Trees via its assigned Class of Service.
- — Confirm that a V-Tree exists in the appropriate mailbox.
- — Be sure that the V-Tree is activated via the mailbox's Call Handling menu.
- — Make sure that the correct Call Handling condition is being entered. V-Trees can be used to block calls before the extension is dialed, or only if the extension returns a busy or no answer signal.
- — Listen to the V-Tree from the Special Features Menu to determine if all options have been assigned an action code.

Wake-Up Calls do not work:

- — Be sure that Message Delivery is permitted for this mailbox via its Class of Service.

Messages

Messages are disappearing from subscribers' mailboxes:

- — If Auto Forward is active, confirm that the feature is configured to retain a copy of the forwarded message.
- — When the Number of Days to Save Messages has expired, messages are automatically deleted. To "warn" subscribers of deleted messages, activate the Voice Warning When Messages Expire feature in the System Setup.
- — The Number of Days to Save Messages can be set to 99, allowing saved messages to remain on the System indefinitely.
- — A message will be removed from the saved message queue when its age is equal to the Days to Save Saved Messages, where its age is equal to the number of days in the new message queue plus the number of days in the saved message queue. Therefore, if the Days to Save Saved Messages is set to 10, and a message is received on the third day after it was sent, its potential saved life would equal seven days. If the message is listened to again from the saved message queue on day four of its existence, it could only be saved for six additional days.

Recovering accidentally deleted messages:

- — If the mistake is noticed before the mailbox session is ended, the subscriber can follow the procedure for recovering deleted messages. Press <5> from the Main Menu to hear all messages deleted during the session. Then, press <1> to recover a deleted message.
- — The Supervisor has the option to activate confirmation of deletions. This requires a subscriber to confirm the action before a message is deleted.

Using Technical Support Effectively

Compass Technology's Technical Support Group prides itself on its ability to quickly and efficiently assist customers. We now offer three levels of technical support to our customers: routine assistance, emergency assistance, and non-working hours emergency service.

For **routine assistance** you can reach Compass Technical Support by calling (813) 371-8000 between 8:30 AM and 7:30 PM (EST) Monday through Friday.

Emergency assistance is available between 8:30 AM to 7:30 PM (EST) Monday through Friday.

Non-working hour emergency assistance will be available between 7:30 PM and 8:30 AM (EST) Monday through Friday and 24 hour service Saturday and Sunday. This service will be billed at $100 for the first hour or any part thereof and $50 for each additional hour or part thereof, without regard to the problem resolution.

Before calling in for technical support, please have the following information ready:

—Customer name
—Site name
—Type of equipment used
—Board type and number of ports
—System documentation
—Customer number
—Callback phone number
—Software version number
—Phone system information

By observing this protocol, you will receive adequate support in a timely manner.

When you hear the automated attendant greeting, *"Hello, thank you for calling Compass. Your call is being handled by our Smooth Operator....."*, dial extension 600. Your call will be transferred to a mailbox where you can record a message describing your problem. Messages are constantly monitored and forwarded to available customer support engineers.

If your call is of an urgent nature, the System will direct you to press <2> on your phone set. Follow the instructions, and your voice message will be sent to a special, high priority queue. Your call will be returned within thirty minutes (under normal circumstances).

If all customer service representatives are busy, you will hear a V-Tree that instructs you on how to proceed. After making selections based upon your support issue, you are instructed to leave a message. **Please leave a detailed message that includes your full name, your company's name, your customer number, site name, a return phone number, and a complete description of your support issue.** This allows our support personnel to review your company's past support issues and research potential solutions to your current problem before returning your call, eliminating unnecessary phone time.

Technical Support calls are returned in the order in which they are received. Anticipated response time is within one hour. On those occasions when your call is not returned within the hour, remember that other customers are being helped. When your call is returned, you will also receive the same careful attention.

Technical Support Hints for Better Service:

The following hints will help to insure prompt, more efficient service to our customers. Please be patient. By following these instructions, your call will be answered and your problem solved that much faster. Thank you for your cooperation!

DO NOT repeatedly dial extension 600 in an attempt to catch Customer Service representatives between calls. After completing a support call, representatives are instructed to immediately monitor the new message queue in mailbox 600. Your chances of reaching a representative using this method are highly unlikely.

DO NOT leave a message in a representative's personal mailbox. As previously mentioned, representatives are instructed to monitor the new message queue in mailbox 600. All support messages received in a personal mailbox are forwarded to mailbox 600 which places them at the **bottom** of the new message queue!

DO NOT dial <0> to reach the receptionist's extension. By holding at the receptionist's phone, you will hinder your chances to quickly reach a representative. The Technical Support Group is located in a different part of the building; therefore, the receptionist does not know if, or when, a representative is available to take your call.

Notes:

Section 7

File Utility Software

Section 7 discusses the benefits of installing and using the CO/Session remote diagnostic software package. This section also emphasizes the importance of installing and using disk maintenance utilities, particularly the Compass Utility Pak, Norton Disk Doctor, and Speed Disk. Other utilities, specifically developed for Smooth Operator, are also discussed. These utilities are designed to help you maintain Smooth Operator files, as well as rebuild files in the event they suffer damage due to problems with your computer system.

The Compass Utility Pak

The Compass Utility Pak is a collection of software utilities which can simplify the maintenance of Smooth Operator. The collection contains CO/Session, PC Tools, and Check It.

CO/Session

CO/Session is a remote computing software package that allows two PCs to work together, one remotely controlling the other via modems. The package actually enables you to see the screens and manipulate the files on another computer, using both your keyboard and/or a mouse.

Using CO/Session software can lead to dramatic time and money savings when troubleshooting because it eliminates the need to travel to the customer's site when performing customer support functions.

CO/Session, version 6.01 and later, is available through most computer software dealers. The documentation that accompanies the package includes a step-by-step explanation of the installation process.

Important Note:

To perform diagnostics on a computer at a different location, CO/Session must be installed on both Systems. Also, it is **strongly recommended that you use 9600 baud modems** when performing remote diagnostics with CO/Session. Interaction between the two machines will be extremely sluggish if the baud rate of the modems is lower.

Running CO/Session with Smooth Operator

When you install CO/Session on a computer running Smooth Operator, your System must be set up to load the CO/Session driver after the voice board driver. If you first install the CO/Session software, and then install the Smooth Operator package, your computer should automatically load the drivers in the proper order. To verify the System is set up correctly, check the AUTOEXEC.BAT file. In the file, make sure the CO/Session commands appear immediately **after** the line that loads your voice board driver. The QUERY -A -CWAIT15.CTL command provides a 15 second delay to enable CO/Session to complete its initialization before Smooth Operator loads. These commands should be in the AUTOEXEC.BAT file on the host computer:

```
CD\HOST
HOST
CD\CVR
QUERY -A -CWAIT15.CTL
```

To run the program on the remote machine, simply type the following commands, pressing the <Enter> key after each:

```
CD\REMOTE
REMOTE
```

CO/Session and Remote Printing

Printing reports from Smooth Operator is possible with CO/Session both at the host site and the remote site. However, it is best to print the report from the remote (calling) site, where the printer is readily accessible should there be a problem (printer off line, etc.)

To print at the Remote PC:

1. Confirm that the printer is on line and has paper.
2. Connect to the Host.
3. From the Main Menu, press <F4> or P for the Print Menu. From the Print Menu, press <F1> or R for Remote Print Options. Next, press <F2> or P for Printing On.
4. Return to the Print Menu. Press <F2> or H for Host Print Options. Then, press <F3> or R for Remote Printing Only. Change the printer port (default LPT1:) if necessary.

To prevent printing from the Remote PC:

1. Connect to the Host. Press <Alt-Left Shift>.
2. From the Main Menu, press <F4> or P for the Print Menu. From the Print Menu, press <F2> or H for Host Print Options. Then, press <F1> or I to Ignore Printing.
3. Change the printer port (default LPT1:) if necessary.

To prevent printing from the Host PC:

1. Load the HOSTMENU program. Press <Alt-Left Shift>.
2. Press <F4> or P to access the Print Menu. Next, press <F1> or I to Ignore Printing.
3. Change the printer port (default LPT1:) if necessary.
4. Press <Enter>. Answer Yes to save the changes. Exit from the program.

Running CO/Session with Smooth Access

Be advised that when you run CO/Session with Smooth Access, the Windows 3.1 interface of Smooth Operator, you will not have the same complete control capabilities supported when CO/Session is run with Smooth Operator under the DOS interface. When running Smooth Access, the remote or controlling computer can see the screen of the other computer, but it cannot manipulate keyboard and mouse input. **Someone at the site must be available to type commands and select menu options while you instruct over a telephone.**

PC Tools

PC Tools is a collection of utilities that assists in the maintenance of your computer. Please note that it is not necessary to install all modules of the PC Tools software package as described in the PC Tools manual. To use PC Tools with Smooth Operator, follow these instructions:

1. Insert Disk 1 into the A: or B: drive.
2. Type `COPY A:COMPRESS.EXE C:\DOS` or `B:COMPRESS.EXE C:\DOS`
3. Insert Disk 2 into the A: or B: drive.
4. Type `XCOPY A:DISKFIX.* C:\DOS` or `XCOPY B:DISKFIX.* C:\DOS`
5. Edit the AUTOEXEC.BAT file to contain the following command:

```
SET PCTOOLS=C:\PCTOOLS
```

6. Add the following directories to the PATH statement in the AUTOEXEC.BAT file:

```
C:\PCTOOLS;C:\HOST
```

7. Edit the DOW.BAT file to contain the following commands which can be entered under a certain day's label in the file. See page 4-7 for further details.

```
COMPRESS C: /CC
TAPE BACKUP C:\*.* /I /J /T = "Smooth Operator System
Backup"
```

These commands will allow you to complete a surface scan and disk compression of the C: drive.

Check It

To use the Check It utilities, follow these instructions:

1. Insert the first diskette into the A: or B: drive.
2. Type the following commands from the C:\> prompt, and press the <Enter> key after each entry.

```
MD CHECKIT
CD CHECKIT
XCOPY A: or XCOPY B:
```

3. To run Check It remotely via CO/Session, type the following commands from any DOS prompt, and press the <Enter> key after each.

```
CD\CHECKIT
CHECKIT -REMOTE
```

4. To run Check It on the local PC, type the following commands from any DOS prompt, and press the <Enter> key after each.

```
CD\CHECKIT
CHECKIT
```

Norton Disk Doctor

The Norton Disk Doctor package helps you easily diagnose and repair damaged disks. The program automatically tests a disk to determine the integrity of the partition table, the DOS boot record, the file allocation table, and the directory and file structure. Norton Disk Doctor also tests the free space on the disk, searching for lost chains and cross-linked files. The program informs you of any errors it finds and gives you the option to correct them.

Norton Disk Doctor serves as a valuable tool to help you uncover problems that prevent you from effectively running Smooth Operator. You can purchase the program as part of the Norton Utilities version 6.0 or greater package, available through most computer software dealers.

You should run Norton Disk Doctor on a routine basis using the DOW.BAT file (described in Section 3). Because it will be run automatically, we recommend that you do not select password protection when installing the utility. Below is the recommended syntax for command line use. Refer to the manual for further details.

```
NDD [drive:] . . . [/C] [/Q] [/R[A]:pathname] [/X:drives]
```

`drive` is the disk drive to diagnose or repair.

`/Q` is the option for the quick test (all tests except the surface test).

`/R[A]:pathname` is the option to write (or append) a report of all tests to the file specified in the pathname.

For example, the following command executes the utility and performs all tests except the surface test on the C: drive. A summary report is written to the NDDRPT file in the \CVR1 directory.

```
NDD C: /Q /R:\CVR1\NDDRPT
```

Speed Disk

Speed Disk is a hard disk optimization utility that reorganizes the physical layout of all files and directories on a disk to minimize movement of the read-write head. Minimizing head movement speeds your computer and enables it to run programs, such as Smooth Operator, more efficiently and responsively.

Like Norton Disk Doctor, Speed Disk is available as part of the Norton Utilities package. This utility should also be run on the Smooth Operator System on a routine basis, perhaps each week, using the DOW.BAT file described in Section 4. Following is the syntax for command line use. Refer to the Norton Utilities manual for further details.

```
SPEEDISK [drive:] [/U]
```

`drive` is the drive to repair.

`/U` indicates that files should be unfragmented.

For example, the following command will repair all fragmented files on the C: drive:

```
SPEEDISK C: /U
```

Quick Assist

Note:
The Quick Assist file maintenance utility is not supported under Microsoft Windows.

A Smooth Operator file maintenance utility is included with your System. To access this utility, type `QASSIST` from the C:\CVR> prompt. Please note that Smooth Operator cannot function while you use this utility; therefore, you must shut down the System during its operation.

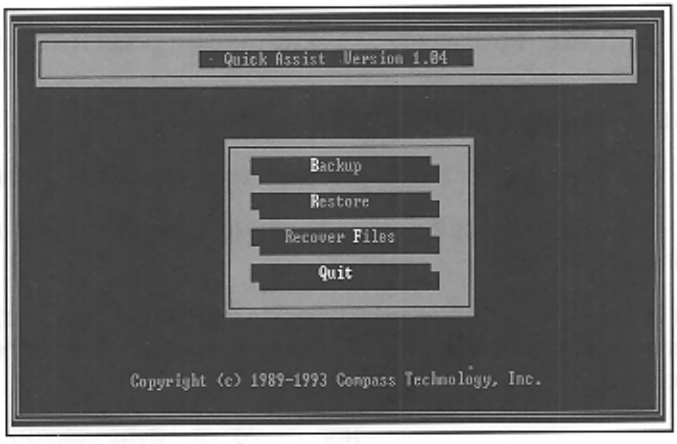


Figure 7.01 - The Quick Assist main screen

From the Smooth Operator Quick Assist main screen, you can select from four options. There are three ways to choose these options: point and click with a mouse, press the <Tab> or up and down arrow keys on your keyboard to highlight the item, or press <Alt> and the highlighted letter of the option, and press <Enter>.

Backup Files Utility

The Backup Files utility creates Smooth Operator backup files on a diskette in your floppy drive. You can back up all or certain parts of the Smooth Operator package. Select from backup options on the screen by highlighting the option then pressing the <Spacebar>. Choose from the following options:

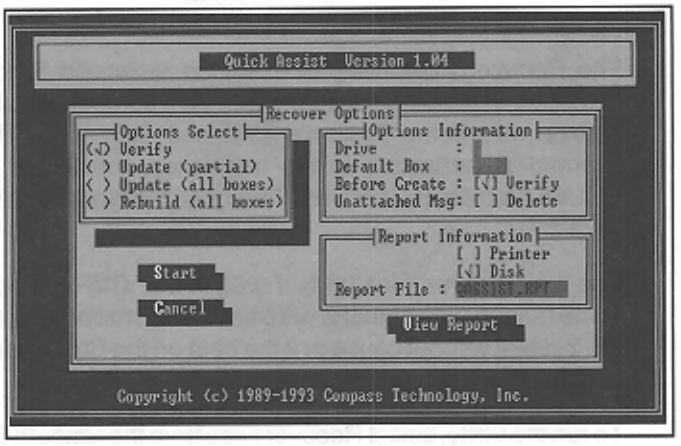


Figure 7.02 - The main screen for the Recover Files Utility

Backup Mailbox Structure

This option creates a backup of all files in the \CVR1 directory. These files contain information pertaining to the mailboxes on the System, including each subscriber's new and saved messages.

Backup Prompts

This option creates a backup of all files in the \REC0*n* directories that contain prompts recorded by subscribers and System prompts.

Backup Messages

This option creates a backup of all files in the \REC0*n* directories that contain messages left for subscribers.

Backup all Smooth Operator

This option creates a backup of all files in the Smooth Operator \CVR, \CVR1, and \REC0*n* directories. Files in the \CVR directory include the executable and voice files for Smooth Operator.

Once you select OK, the System begins the backup process and prompts you when it is necessary to change diskettes. Note that if you select a backup option that encompasses files on two different drives in your computer, the Backup Utility creates separate backups of each drive.

Restore Files Utility

The Restore utility restores any backup files on the diskette placed in the specified floppy drive. Simply select the source drive and choose OK.

If you attempt to restore files backed up from hard disk partitions which do not exist on the computer you are using, the restore utility searches your System and lists available hard drives onto which you can restore the files. Simply specify the drive where you want the software to reside.

Recover Files Utility

The Recover Files utility is designed to rebuild Smooth Operator files that are damaged because of problems with your computer system. The utility allows you to recover data in the System's .DAT and .KEY files. These files contain important information pertaining to the mailboxes, messages (*.MSG), Supervisor's and SOLVE prompts (*.SUP), and Personalized Mailbox prompts (*.GRT) stored on your hard drive.

Use the Recover Files utility if data in the \CVR1 directory becomes damaged for some reason. File damage will be evident if mailboxes or messages are missing from the System without cause or if the data on the Supervisor screens, especially on the Mailbox Entry screen, is nonsensical.

To run the utility, select Recover Files from the Smooth Operator File Utilities screen. The Recover Options screen appears.

There are four different file recovery options: Verify, Update Partial, Update All, and Rebuild All.

Verify

The Verify option simply searches your \CVR1 directory to verify that all messages and greetings stored in the \REC0*n* and \FAXOn directories are indexed to their associated mailbox. Verify does not find unattached messages; it simply verifies that all messages and greetings currently in the new and saved lists exist. All data files and System prompts are also checked. Data files are not altered. If you suspect a problem with directory files (i.e., name missing from list, report sorted by name not correct, etc.) use Update Partial.

When Verify is selected, the \CVR1 directory is first copied into a directory named \~REPAIR~. Although the files in this directory are not necessary for Smooth Operator execution, they should **not** be deleted until you are confident that any corruption errors have been corrected.

Once the Verify procedure is completed, review the report named QASSIST.RPT in the \CVR1 directory. If errors or warnings were detected during the Verify procedure, the appropriate corrective action is suggested in the report file.

If you wish, you can run the Recover Files utility using the Verify option on a regular basis to ensure System integrity. If you sense your hard drive may be having problems, run the utility with Verify every few days.

Update Partial

This mode of file repair only updates mailboxes which appear to be corrupt. It finds and optionally deletes unattached messages. However, even if no errors or warnings are detected, a partial update will not harm existing System data. Distribution lists and V-Trees are verified, but no changes are made. If necessary, the partial update alters the following files:

SUBSCRIB.DAT: This file is updated if there is a need to relink subscriber greetings, reset subscriber information to default values (i.e., the extension number defaults to the mailbox number), or reset message delivery entries to defaults.

DIRECTRY.KEY: The partial update procedure deletes and rebuilds this index file used for reports by name, search lists, and directories for all mailboxes.

VBOX.DAT and MESSAGE.DAT: For those mailboxes encountering read errors, all statistics and links to messages are cleared. Also, the REC0*n* directories are scanned, and messages and greetings which are not already indexed to a mailbox are indexed. Only such messages, as well as comments formerly attached to those messages, become new individual messages in the mailbox.

Update All

The Update All Boxes option alters the files listed below for all mailboxes. Distribution lists and V-Trees are verified but no changes are made.

SUBSCRIB.DAT: All subscriber greetings are relinked with their respective mailboxes.

DIRECTRY.KEY: This index file, used for reports by name, search lists, and directory listings, is deleted and rebuilt.

VBOX.DAT and MESSAGE.DAT: Mailbox statistics are reset to zero. All message pointers are reindexed. Mailboxes are created if *.MSG (message) or *.GRT (greeting) files are found and the mailbox does not exist. All messages on the System are placed in their respective mailboxes' new message queues, and only the first person who received a message through a distribution list will have the message after the update. If messages were sent with comments, the comments are separated as individual messages.

Rebuild All

If the reason for missing mailboxes, messages, or data is a relatively minor problem with your computer, the Update Partial option should enable you to recover nearly all the specific characteristics of each mailbox. If, however, the Update Database option encounters a problem while trying to recover information, it displays an error message, and you will need to use the Rebuild All option to recover information. This mode should only be used if it is recommended by a previous option, such as Update or Verify.

Note:
If V-Trees continue to not work after Rebuild All, you should manually delete the VFTREE. files from the \CVR1 directory.*

The Rebuild All Boxes option deletes the following data files:

CONTROL.*
DIRECTRY.*
SUBSCRIB.*
VBOX.*
DISTLIST.*
MESSAGE.*
MSGCONF.*
EVENT.*

A temporary copy of the SUBSCRIB.DAT file is made, in the event that Quick Assist is able to use the old data. All mailboxes are deleted and rebuilt **only** if at least one

associated *.MSG (message) or *.GRT (greeting) file exists in the REC directories. If possible, all greetings and non-message related information (i.e., names, extension numbers, V-Tree pointers, blocking options, Message Delivery entries, etc.) are restored. Otherwise, all mailboxes appear as when the Create Mailbox Screen is used (i.e., the extension number equals the mailbox number, etc.) All message pointers are reindexed. Any messages on the System are placed in their respective mailboxes' new message queues, and only the first person who received a message through a distribution list will have the message after the update. Also, if a copy of a message was sent to another subscriber, that subscriber will not have the message. If messages were sent with comments, the comments are separated as individual messages.

Options Information Box

Before running the program using any of these options, you must enter the following information in the Options Information and Report Information boxes:

Drive: Specify the drive that contains the information you wish to recover.

Default Box: Specify a mailbox in which the System places any messages it cannot locate a mailbox for. The System may be forced to use this default box if, for some reason, message data restored on the System is corrupt.

Before Create: Select this option if you want to be prompted before the utility creates a mailbox on the System. When this box is selected, for example, and you are recovering data that includes a mailbox for an employee that is no longer with your company, you may tell the System not to re-create the box when the System prompts you for this information.

Unattached Messages: Select this option to instruct the System to relink any unattached messages to its mailbox (for Update Partial mode only). This could cause old messages to reappear in subscribers' mailboxes.

Report Information Box

While running the Recover utility, the System generates a report outlining each problem it has found and the course of action it has taken to correct it.

Printer: Select this option if you want the System to print the report directly to a printer.

Disk: Select this option if you want the System to save the report to a file on your disk. The default filename for the report is QASSIST.RPT. You can change this filename by typing the name you want after the Report File parameter.

After you define the parameters in the Option Information and Report Information box, click on Start (or press <Alt-S>). As the utility runs, the System displays the Recover Status screen.

When the run is complete, you need to update specific information for each mailbox. To do this, select Review from the Recover Status screen. On the Mailbox Entry screen, adjust the Class of Service and enter the mailbox owner's name, department, and other variable information. Use the Next and Previous buttons to view a screen

and enter information for each recovered mailbox. Use the <Tab> and up and down arrow keys to move about each screen. For more information on the Mailbox Entry screen, see Section 3 of the *Supervisor's Guide.*

If you did not have the System automatically print a progress report, you can print it now. Simply select Print from the Recover Status screen. To exit the Recover Files utility, select OK or press the <Esc> key.

DOS Command Line Options

Quick Assist can also be run with a new command line parameter /b*n*, which indicates one of the four file repair methods to run:

/b0	=	Verify
/b1	=	Update (Partial)
/b2	=	Update (All Boxes)
/b3	=	Rebuild (All Boxes)

This method of running Quick Assist is useful in batch file applications. Quick Assist has been placed in the AUTOEXEC.BAT to correct any corruption problems that may have been caused by a power failure (or any other abnormal program termination.) When used in such a batch file, Quick Assist checks the OPERATOR.CKP file to determine if a power failure has occurred. If no power failure was detected, the Quick Assist utility terminates. However, if a power failure was detected, the DOS CHKDSK program is run, followed by the specified file repair method of the Quick Assist utility. You may use the `/I` option to ignore the OPERATOR.CKP file; that is, run Quick Assist even if there was no power outage.

The best option for using Quick Assist in the AUTOEXEC.BAT file is to use the Update (Partial) procedure since this option only affects the mailboxes and associated messages which appear to be corrupt. You can add `/D` to the command line to delete the unattached messages. To do this, edit the AUTOEXEC.BAT file and insert the command immediately before the line which executes the voice board driver. The Installation program places the recommended `QASSIST /B1 /D` in the AUTOEXEC.BAT file. When executed from the command line, Quick Assist directs all logging details to the OPERATOR.LOG file in the \CVR1 directory.

Notes:

Section 8

DOS Tutorial

This section provides you with information on fundamental DOS commands. Read this section if you are unfamiliar with DOS. You may need to use many of these commands if you wish to modify certain aspects of Smooth Operator.

Note that this information is not designed to replace your DOS manual. Refer to the DOS manual if you want more in-depth information on all the commands available with DOS. If you have questions that your DOS manual does not sufficiently answer, contact DOS Technical Support at (900) 896-9000. The cost is $2.00 per minute.

Changing the Drive

You can logon to a drive by typing the letter of the drive followed by a colon (:) and pressing <Enter>. To logon to the A: drive from the C: drive, for example, type `A:` and press <Enter> from the C:\> prompt.

Listing a Directory

To see a list of files in a directory, type one of the following:

`DIR`	Lists all files in a directory.
`DIR/P`	Lists all files in a directory, but pauses when the listing fills the screen. Press any key to continue.
`DIR/W`	Displays all files in a directory in wide format or columns.

When you type one of the first two commands shown above, you will see additional information relating to each file. This information includes the size of the file in bytes and the date and time the file was last updated. At the end of the file listing, you are also shown the total number of files in the directory, as well as the amount of available disk space on the floppy or hard disk drive that contains the directory.

Naming Files

A filename must be between one and eight characters in length and can include an extension that is up to three characters long. A period must separate the filename and the extension. A typical filename is:

```
test1.doc
```

When you list the files in a directory using one of the three commands shown above, the period which separates the filename from the extensions is not shown.

You can use the following characters to create a filename and extension:

```
A through Z  0 through 9  _ ^ $  ~  !  #  %  &  -  {  }  (  ) @ '  `
```

In addition to a space, the following characters cannot be used to create a filename and extension:

```
*  +  =  ;  :  <  >  .  ,  ?  |  \  /
```

Making Directories

To keep your files organized, you should create directories on your hard drive. You can make directories by typing one of two commands: MKDIR or MD. To create a directory called LETTERS, type:

```
MKDIR LETTERS
```

or

```
MD LETTERS
```

You can also create directories within directories. To create a directory called SALES under the LETTERS directory, type `MD SALES` or `MKDIR SALES` from the C:\LETTERS> prompt.

Changing Directories

You can move from one directory to another by using CHDIR or CD. For example, to open the C:\LETTERS directory, at the C:\> prompt type:

```
CD\LETTERS
```

Copying Information

The COPY command duplicates information from one area to another. Use COPY to duplicate one or more files from one file, disk, or directory to another. The files you copy will overwrite any files that have the same name in or on the destination directory or diskette. When you copy a file from one place to another, the file is stored in both places once the copy process is complete.

You can use two wildcard characters when copying groups of files.

- `*` represents any group of characters
- `?` represents any one character

For example, if you have three files in the \LETTERS directory on your C: drive that you want to copy onto a diskette in your A: drive and the files are named OFFICE.ONE, OFFICE.TWO, and OFFICE.THR, you can copy these files to the diskette in your A: drive, by typing the following:

```
COPY C:\LETTERS\OFFICE.* A:
```

Or you can copy each file separately:

```
COPY C:\LETTERS\OFFICE.ONE A:

COPY C:\LETTERS\OFFICE.TWO A:

COPY C:\LETTERS\OFFICE.THR A:
```

Deleting Files

Note:
The ERASE command also deletes files.

The DEL command allows you to delete a file from a directory or diskette. You can also use the wildcard characters (* and ?) to delete more than one file at a time. To delete the OFFICE.ONE file when you are in the \LETTERS directory, at the C:\LETTERS> prompt, type:

```
DEL OFFICE.ONE
```

or at the C:\> prompt, type:

```
DEL C:\LETTERS\OFFICE.ONE
```

Renaming Files

The REN command allows you to rename a file. If, for example, you want to rename OFFICE.ONE to MARKET.DOC, type:

```
REN OFFICE.ONE MARKET.DOC
```

Copying Files from the A: Drive to a Directory

Note:
When you copy a file to another directory, drive, or diskette, the original file remains unmodified.

To copy files from a diskette in the A: drive to a certain directory on your C: drive, follow these steps:

1. Insert the diskette containing the files you want to copy to the A: drive.
2. Change to the A: drive by typing `A:`
3. Type `COPY` and the filename on the A: drive then `C:\`*`directory name`*. For example, to copy OFFICE.ONE from the A: drive to the \LETTERS directory on the C: drive, at the A:\> prompt, type:

```
COPY OFFICE.ONE C:\LETTERS
```

Copying Files from a Directory to the A: Drive

To copy files from a directory on your hard drive to a diskette in your A: drive, follow these steps:

1. Change to the directory that contains the files you want to copy.
2. Place a formatted diskette into the A: drive.
3. Type the COPY command using one of the following formats:

   To copy all files in the directory to the A: drive:

```
COPY *.* A:
```

To copy all files with a .DOC extension to the A: drive:

```
COPY *.DOC A:
```

To copy all filenames with three letters, starting with the letter "T" and ending with "M" that have any one character in between:

```
COPY T?M.* A:
```

The DISKCOPY Command

DISKCOPY copies the contents of the source drive to a formatted or unformatted disk in the destination drive. The disks must be identical in size and density. If, for example, you want to make a copy of the disk containing **all** of your data files, type:

```
DISKCOPY source drive: target drive:
```

If you only have a one drive system, you can type `A:` for the source drive and `B:` for the target drive, and the computer will prompt you for the source or destination disk, respectively.

The CHKDSK Command

CHKDSK checks the current drive and provides information about the disk including the amount of free memory currently available. If there are lost or open files on the disk, CHKDSK gives you a message. Use a disk management utility, such as PC Tools or Norton Utilities, to convert these files back to their correct status.

The TYPE Command

TYPE displays the contents of a file. If the file contains several screen lengths of information, you can press <CTRL-S> or <PAUSE> to stop the scrolling display. To resume scrolling, press any key.

```
TYPE filename.ext
```

The SHARE Command

The SHARE command allows more than one program to share a file. This command must be included in the AUTOEXEC.BAT file for Smooth Operator to run properly.

The MODE BW80 Command

The MODE command selects the monochrome display adapter with an 80-column display. You must include `MODE BW80` in the RUNSMO3.BAT file if you are using a monochrome VGA monitor.

BACKUP and RESTORE Commands

The BACKUP command allows you to back up files from your hard drive to a diskette. You can also use this command to back up files from one diskette to another. If, for example, you want to back up all files with the .DOC extension in the C:\LETTERS directory to a diskette in the A: drive, type:

```
BACKUP C:\LETTERS\*.DOC A:
```

To back up your entire C: drive, type:

```
BACKUP C:\*.* A:
```

To be sure all directories are also backed up, you can add /S to the command. For example, to back up the contents of the \LETTERS directory, including any directories, type:

```
BACKUP C:\LETTERS\*.* A: /S
```

If you only want to back up files that have been modified since the last backup, you can add /M to the end of the BACKUP command.

The RESTORE command allows you to restore files backed up with the BACKUP command. If, for example, you want to restore all files on a diskette in the A: drive to the C: drive, type:

```
RESTORE A: C: /S
```

The /S assures that all subdirectories backed up onto the diskette are also restored.

Once RESTORE has restored files, use the DIR or TYPE command to make sure the files were restored properly.

Note that the BACKUP command does not back up the System files IO.SYS, MSDOS.SYS, or COMMAND.COM. Also, you cannot use an earlier version of the RESTORE command for files backed up with a later version of DOS.

Special DOS Keys and Key Combinations

WARNING:

Do not press <Ctrl-Alt-Del>, <Ctrl-Break>, or <Ctrl-Num Lock> while running Smooth Operator.

<Ctrl-Alt-Del>	Erases all data from RAM and reloads DOS. This key combination is also referred to as a soft boot, warm boot, or reboot.
<Ctrl-Break>	Interrupts the DOS command operation and returns to the DOS prompt.
<Ctrl-Num Lock>	Pauses DOS operations. Press any key to resume the operation.
<Ctrl-S>	Pauses a scrolling document or directory on the screen. Press any key to resume scrolling.
<Shift-Prt Scrn>	Sends a copy of what appears on the screen to the printer.
<Enter>	Accepts the current line into memory for the computer to act on.
<Esc>	Aborts the current line without entering it as a DOS command or filename.
<Num Lock>	Toggles between 10 numeric keys and cursor control keys on a keyboard's keypad.
<F1>	Displays the last command entered, one character at a time.
<F3>	Displays the last command entered in its entirety.

Other Tips and Helpful Hints

1. You can type DOS entries in upper, lower, or mixed letter cases.
2. If you receive an error message after you type a command line, check the following:
   - — Verify that a period (.) separates the filename and extension.
   - — Verify that you have not included or left out spaces in the command.
   - — Verify that you have not mistakenly used a forward slash in place of a backslash or vice versa. Use forward slashes (/) in conjunction with commands and backslashes (\) in conjunction with directories or filenames.
3. If you encounter problems executing certain commands or programs from DOS, make sure you are in the correct directory. For example, to run Smooth Operator after installation, you must be in the \CVR directory.
4. Use caution when you delete files on your hard drive and on diskettes.
5. Back up your files at least bi-monthly.

Notes:

Section 9

Windows Tutorial

Microsoft Windows is a graphical user interface that allows the user to work more efficiently in an easy-to-learn format. The Windows program offers a more intuitive user environment, the power to run multiple applications at one time, and the ability to transfer information between the applications.

Although a thorough knowledge of Windows is expected of distributors who support the Smooth Operator for Windows product, this section describes some of the basic concepts of the Windows interface as they relate to Smooth Access. It is important that you refer to Windows 3.1 documentation for a more detailed description of Windows' capabilities.

Important Note:

Although Windows is considered a multi-tasking environment (that is, it can run several applications at once), Smooth Access runs in a non pre-empted environment. Therefore, it is strongly recommended that you **do not run** any other applications while running Smooth Access.

About Smooth Access

Note:
For Windows 3.1 technical support, call Microsoft at (206) 637-7098.

During Smooth Operator installation, the System presents the option to use Smooth Operator under Windows only if Windows is detected in the PC's path. If this option is selected, the installation procedure creates a program group called Smooth Operator. A Smooth Operator icon representing this group should appear in the Program Manager window. If you select this group (by double-clicking on the icon), you will notice that it contains the DOS Smooth Operator and Smooth Access program items.

The DOS Smooth Operator icon represents Smooth Operator. This is the version of the software that actually answers the calls to your office. It is automatically executed after System installation and only needs to be executed again if this DOS version is shut down.

The Smooth Access icon allows you to access the Windows representation of the Smooth Operator screens. The Windows interface for the program varies slightly from the DOS-based text version.

Executing Smooth Access

Remember:
Some features, including SMDI integrations, Fax Mail, Power Pager, and SOLVE, are not supported under Smooth Access.

Normally after installation, the System will boot and automatically execute Windows, Smooth Operator, and Smooth Access. If, however, the System has been shut down and must be restarted from a DOS prompt, use the following procedure:

1. Before running Windows, be sure that the voice board driver has been loaded and that the DOS command SHARE has been executed. Also, be sure to run the WINFACE.EXE program.
2. Start Windows by typing `WIN/3` from the C:\CVR> prompt. The Smooth Access interface should automatically load.
3. To toggle between the Smooth Operator textual screens and the Smooth Access interface, press <Alt-ESC>.

Windows Modes

Windows 3.1 can run in three operating modes: real, standard, or 386 enhanced. Smooth Access must be run under the 386 enhanced mode, which permits an application to utilize the virtual memory capabilities of the Intel 80386 processor. The WIN command executes these capabilities.

The Desktop and Windows

The **desktop** is the screen background for Windows. The Windows desktop serves the same purpose as any desktop — you use the area to organize your "projects."

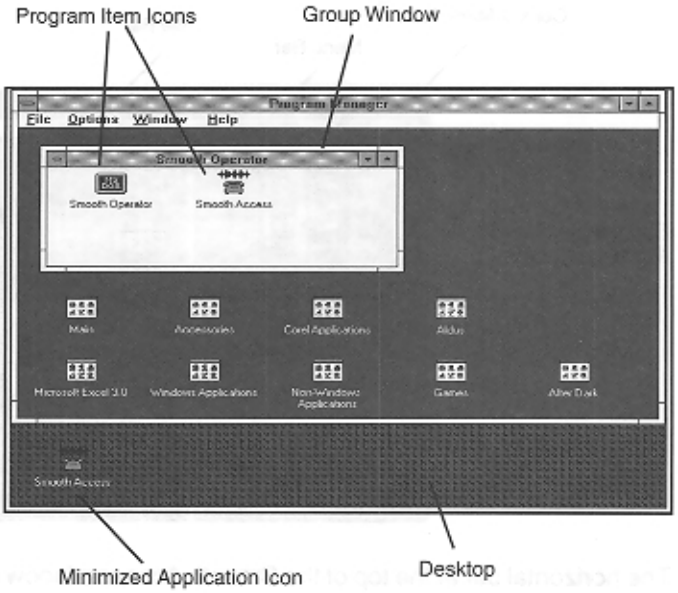


Figure 9.01 - The Desktop and Window

When running Windows, your projects are also organized into **windows.** A window is a contained area on the screen that includes applications or computer programs. Windows can be opened (active), closed (inactive), sized, and moved. The Windows interface allows for several windows, each containing an application, to be open at once. The window shown in Figure 8.01 is considered a **group window.** A group window contains related applications. Each application in a group window is represented by a **program item icon.** An **icon** is a graphical representation of a program available on your System from Windows.

Application Windows

An **application window** is a window which contains a running application. Each **application** is a computer program that accomplishes a specific task, such as a spreadsheet or desktop publishing. Because all Windows applications must conform to the same style, they all have the same look and feel to the end-user. Figure 8.02 shows the Smooth Access application window. Smooth Access was specifically designed for the Windows interface and cannot be executed without Windows.

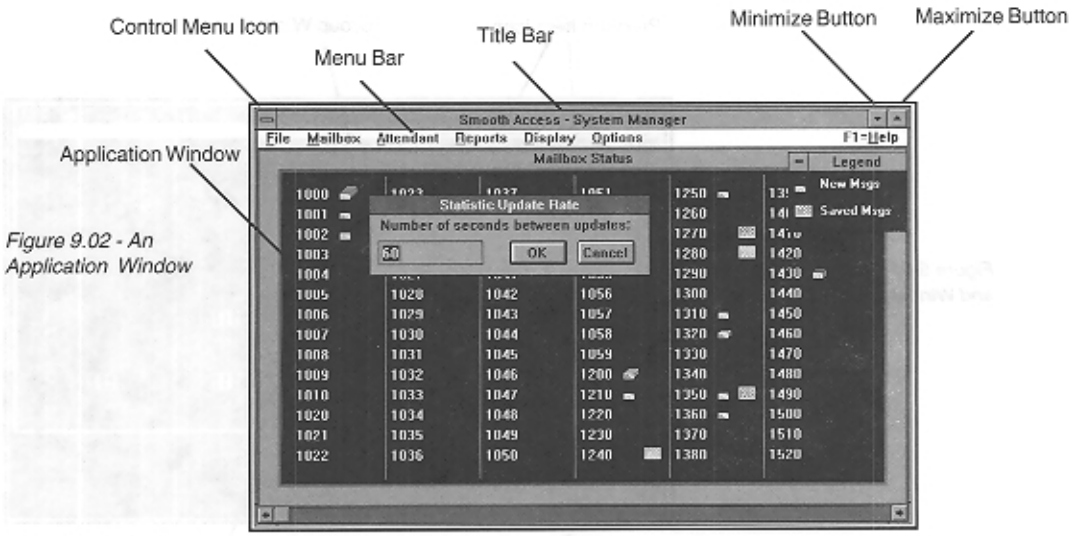


Figure 9.02 - An Application Window

The horizontal bar at the top of the Smooth Access window is called a **title bar**. The title bar contains the name of the window, the control menu icon, and the minimize and maximize buttons.

The **control menu icon** represents the **Control menu**. This menu provides options you can use to restore screen size and move, size, maximize, minimize, close, or switch windows.

The maximize and minimize buttons, the small buttons containing the up and down arrows on the far right of the title bar, have the same effect as selecting Maximize or Minimize from the Control menu. The **maximize button** enlarges a window to its maximum size. The **minimize button** shrinks the application to an icon. When you minimize an application, it still runs in the background. See the minimized application icon on the previous page.

Dialog Boxes

Note:
In Windows, you can use the up and down arrow keys to move from field to field the same way you use the <Tab> key. Also, you can use the <Spacebar> to select items in the field.

A **dialog box** is a box on the screen which either requests or provides information. Dialog boxes are most commonly used in Windows applications to either collect information from the user or inform the user of an error. There are many different elements that may comprise a dialog box.

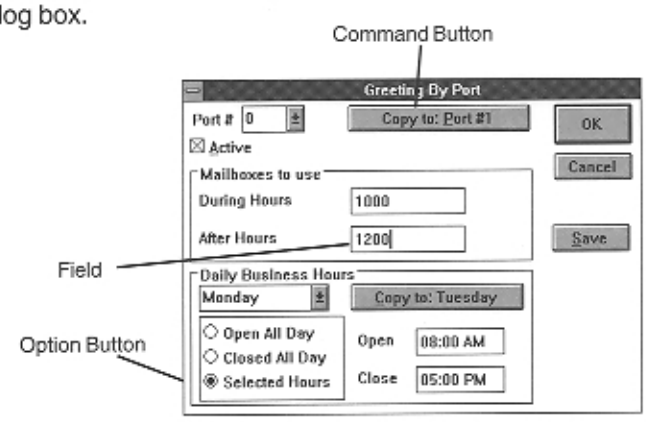


Figure 9.03 - A Dialog Box

A **field** is an area of the screen where the user enters input from the keyboard. On the previous screen, for example, the After Hours field is where the user would enter which mailbox callers should be transferred to after business hours. A **command button** will execute another action when it is selected (such as saving a record, or advancing to another window). Two common command buttons in Windows are Cancel and OK. Some dialog boxes contain default buttons. These are command buttons which represent the most logical choice.

A **checkbox** is a small square box used to select or clear an option from a dialog box. All or none of the checkboxes in a dialog box can be selected. An **option button** is a round button used to select or clear an item from a dialog box. Within a set of option buttons, you can select only one button or option.

Moving Around the Window

Fields, buttons, menus, and windows can all be selected by using one of several methods. The most common and easiest technique is to point-and-click with a mouse. **Point** the mouse by moving the mouse so the arrow or text pointer is positioned on the item you want to select. Then, **click** by pressing and releasing the left button on the mouse. In many cases, you can double-click to activate icons from windows.

Windows items can also be selected by using a **key sequence**. You can, for example, hold down the <Alt> key while pressing the highlighted letter of a button or window name to select the item. This way, you can still function in Windows if you do not have a mouse.

Furthermore, you can select a field, button, menu, or icon by pressing the <Tab> key until the item you want is highlighted. Once highlighted, the item is active and ready for your next action. Activate or accept the item by pressing <Enter>.

Another mouse technique often used in Windows is dragging. By dragging, you can move items around on the screen. To **drag** an item, usually a window or icon, point the mouse at the item and press down the left mouse button. Continue to hold the button down as you move the mouse. The item you clicked on will move (or be dragged) around the screen. When you release the mouse button, the item stays in its current screen position.

Scroll bars are the bars at the bottom and right edge of a window that you can use to move text or graphics up or down, left or right. Scrolling allows you to see items which do not fit in the window.

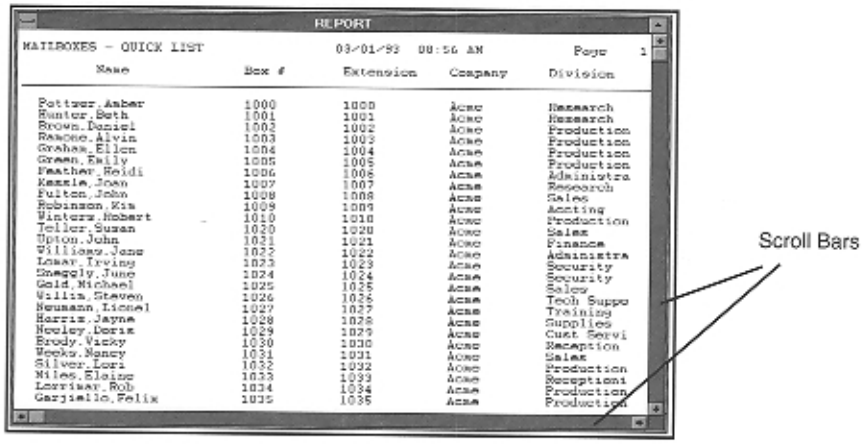


Figure 9.04 - The Scroll Bars

Notes:

Section 10

Phrase Files

This section lists Smooth Operator's phrase files along with each phrase's corresponding phrase number. Smooth Operator uses three phrase files: SO3-ALL.*, SO3-D1.*, and SO3-D2.*, where the * represents a VAP extension for Systems using a Dialogic voice board or a VOX extension for Systems using a Rhetorex voice board. The first two phrase files contain System prompts, while the SO3-D2.* file is placed during installation as an empty file for custom phrases recorded at your site. Following the phrase file listings is information on how you can prepare professionally-recorded phrases for use on Smooth Operator. If you are using the System's multilingual capabilities, refer to page 10-23 for information on recording and storing phrases in more than one language.

SO3-ALL.VAP and SO3-ALL.VOX Phrase Files

1	"one"	25	"seventy"	48	"December"
2	"two"	26	"eighty"	49	"on"
3	"three"	27	"ninety"	50	"at"
4	"four"	28	"hundred"	51	"zero"
5	"five"	29	"thousand"	52	.25 second silence
6	"six"	30	"million"	53	.50 second silence
7	"seven"	31	"dollars"	54	.75 second silence
8	"eight"	32	"cents"	55	1.0 second silence
9	"nine"	33	"and"	56	"month"
10	"ten"	34	"oh"	57	"day"
11	"eleven"	35	"AM"	58	"hour"
12	"twelve"	36	"PM"	59	"minute"
13	"thirteen"	37	"January"	60	"new"
14	"fourteen"	38	"February"	61	"code"
15	"fifteen"	39	"March"	62	"item"
16	"sixteen"	40	"April"	63	"total"
17	"seventeen"	41	"May"	64	"count"
18	"eighteen"	42	"June"	65	"reset"
19	"nineteen"	43	"July"	66	"saved"
20	"twenty"	44	"August"	67	"default"
21	"thirty"	45	"September"	68	"error"
22	"forty"	46	"October"	69	"star"
23	"fifty"	47	"November"	70	"you"
24	"sixty"				

71	"Hello, thank you for calling. Your call is being handled by our automated attendant/voice mail system."
72	"Please make your selection now."
73	"<mailbox number> ...was not found on this system."
74	"Please leave a message for... <mailbox owner's name prompt>."
75	"The pound key..."
76	"At the tone, please record your message."
78	"If you are satisfied with your message, press 1 to send."
79	"To review your message, press 4."
80	"...is not an available selection."
81	"To mark this as a Regular message, press 7. To mark this as an Urgent message, press 8."
82	"To re-record your message, press 2."
83	"Message sent..."
86	"The password you have entered is not valid."
87	"When you are finished recording, you can press the pound key for special sending options or simply hang up."
90	"Or, to disconnect, press pound."
92	"I'm sorry, but mailbox number... <number>..."
103	"To page the person you are calling, press 4."
106	"...press 7."
125	"To continue holding, do nothing. To try another extension, press 1. To leave a voice mail message, press 2."
126	"You are currently number... <number>..."
127	"...in the queue."
128	"When you are finished, press pound."
129	"Enter the next mailbox number."
130	"Or, to return to the Message Menu, press pound."
136	"Or, to return to the Main Menu, press pound."
138	"...off."
175	"Enter the destination mailbox number."

176 "You have exceeded the maximum number of errors permitted on this System."

177 "Message to be sent to... <mailbox owner's name prompt>..."

195 "I'm sorry, there has been a recording error. Please try again later."

202 "Thank you, good-bye."

203 Not used

204 "Please enter the extension number of the person you would like to speak with."

205 "If you do not know the extension number, press the star button for directory services."

206 "<mailbox> ...is an invalid extension number."

207 "Please hold while your call is being transferred."

208 "I'm sorry, but that extension is busy right now."

209 "To try another extension, press 1."

210 "I'm sorry, but there is no answer at that extension."

211 "To be transferred to our receptionist, press 3."

212 "Please speak your name at the tone, so that I may say who is calling."

213 "You have a call from... <name>."

223 "There is a call for... <name>."

224 "To try another extension, press 1. To leave a voice mail message, press 2. Or, to disconnect, press pound."

227 "For an alphabetical directory, press pound."

228 "Enter the first few letters of the last name of the person you are calling."

230 "I'm sorry, there is no one with that last name in the directory."

231 "I'm sorry, but there is no directory recording for that mailbox."

232 "Use the one button for 'q' and 'z'."

233 "Or, press the star button for a complete directory."

238 "...private."

239 "This message is marked..."

243 "For a directory, press star star."

252 "To leave a voice mail message, press 2."

253 "Or, to try the extension again, press 3."

259 "I'm sorry, but that extension is still busy."

260 "One moment, you have a call."

271 "Please hang up now to transfer the caller."

277 "Or, to return to the previous menu, press pound."

281 "To send the message with future delivery, press 9."

282 "If you do not want to send a message, press pound."

284 "...followed by the pound sign."

285 "Press"

286 "Your call is being re-routed. Please hold."

289 "Thank you."

291 "...has not picked up messages."

292 "Or, you may hold the line and you will be automatically transferred to our receptionist."

299 "If you want to be transferred to our receptionist, say 'yes'."

302 "To append to your comments, press 3."

303 "To append to your message, press 3."

304 "At the tone, please leave a voice message."

305 "Please leave a voice message for..."

306 "When you are finished recording, you can press the pound key for special sending and fax options or simply hang-up."

307 "To include a fax, press star."

308 "After the tone, press the start button on your fax machine."

309 "Press the start button on your fax machine now."

SO3-D1.VAP and SO3-D1.VOX Phrase Files

1 "You have entered an invalid Class of Service number."

2 "This message has been deleted by the sender."

3 "In Class of Service number..."

4 "The message length is out of range. The message length must be between 30 and 32,000 seconds."

5	"Enter the number of days to save new messages, followed by the pound sign. If you do not want new messages to be automatically deleted, enter 99 followed by the pound sign."
6	"To allow local message delivery, press 1. To allow long distance message delivery, press 2. Or, for no message delivery, press 3."
7	"To allow regular beeper paging, press 1. To allow digital beeper paging, press 2. Or, for no beeper paging, press 3."
8	"Mailbox added."
9	"Enter the number of the mailbox to update. Or, press the star button to return to the Main Menu."
10	"The mailbox you have selected belongs to..."
11	"To change the mailbox password, press 1. To change the mailbox prompts, press 2."
12	"Enter the number of the mailbox you want to delete."
13	"To delete, press 1. Or, to return to the Main Menu, press star."
14	"Mailbox deleted."
15	"To change the Please Hold prompt, press 1. To change the Directory prompt, press 2. To change the mailbox owner's Name prompt press 3. To change the Personal Greeting prompt, press 4."
16	"To change the Class of Service, press 3."
17	"Enter the Class of Service number followed by the pound sign. Or, to hear a brief description of a specific Class of Service, enter star followed by the Class of Service number and the pound sign."
18	"Please enter the extension you are calling from, followed by the pound sign followed by the mailbox number."
19	"To return to the Main Menu, press star."
20	"To delete a mailbox from the distribution list, press 2."
21	"To verify your new password, please re-enter it now."
22	"The passwords entered do not match."
23	"Password accepted. Your new password will be in effect the next time you call."
24	"At the tone, record System prompt number..."
25	"...has not been created."
26	"To add a new mailbox, press 1. To update an existing mailbox, press 2. To delete an existing mailbox, press 3. To reset an existing mailbox, press 4."

27	"You will have to enter both passwords again."
28	"Please enter your Supervisor password."
29	"Supervisor Main Menu. For mailbox functions, press 1. To change System prompts, press 2. To change System distribution lists, press 3."
30	"Or, if you are finished, press star."
31	"Enter the number of the folder you wish to name, 1 through 9."
32	"Or, press star for a listing of current folders."
33	"Enter the number of the folder in which you want to save this message. Or, if you do not want to save it in a folder, press 0. For a listing of current folders, press star."
34	"Folder deleted."
35	"To create or update your V-Tree, press 1."
36	"There are currently no folders defined."
37	"Your V-Tree is now..."
38	"A V-Tree must be created before it can be turned on."
39	"Enter the file number of the prompt to use or press star to record the prompt now."
40	"At the tone, record the prompt."
41	"To accept, press 1. Or, to re-record, press 2."
42	"Enter the phrase number."
43	"To accept, press 1. Or, to select a different prompt, press 2."
44	"You have already created a V-Tree."
46	"Enter the action code for option..."
47	"For proceed to the next menu, press 1. For transfer to a mailbox, press 2. For record to a mailbox, press 3. For disconnect caller, press 4. For return to the previous menu, press 5."
48	"Enter the mailbox number."
50	"Returning to level..."
51	"Advancing to level..."
53	"For record and go to next level, press 7. For transfer to mailbox entry, press 8. For transfer caller to voice mail, press 9."
54	"For transfer caller to directory services, press 6."

55	"To select call paging options..."
56	"...automatic."
57	Not used
58	"For automatic call paging..."
59	"Call paging is now..."
60	"...or press star to return to the previous menu."
61	"For send a user-selected fax document and advance to next level, press 1."
62	"...is..."
63	"...is empty..."
64	"To activate Optional prompt number 1, press 1."
65	"To activate Optional prompt number 2, press 2."
66	"To forward calls to another mailbox, press 3."
67	"To review active Call Handling options, press 8."
68	"...for..."
69	"The Optional prompt must be recorded before it can be used for call handling."
70	"To be transferred to a live operator, press 0."
71	"...has expired."
72	"You have activated Power Pager."
73	"Enter the number of the language to use, 1 through..."
74	"To activate your V-Tree, press 4."
75	"To return to normal Call Handling, press 9."
76	"To use..."
77	"...Optional prompt number 1..."
78	"...Optional prompt number 2..."
79	"...call forwarding..."
80	"...V-Tree..."
81	"...to block calls to your extension, press 1."
82	"...after your extension is not answered, press 2."
83	"Message confirmation deleted."

84 "Please enter the month you want your message delivered. Enter the number of the month, such as one for January or one zero for October, followed by the pound sign."

85 "Enter the date you want your message delivered. Enter the date, between one and thirty-one, followed by the pound sign."

86 "Enter the hour you want your message delivered. Enter the hour, between zero and twenty-three, followed by the pound sign."

87 "Enter the minute you want your message delivered. Enter the minute, between zero and fifty-nine, followed by the pound sign."

88 "This message will be delivered on... <date>..."

89 "If this is correct, press 1. If this is not correct, press 2."

90 "This message was auto-forwarded from..."

91 "Enter the new Supervisor password or press star to return to the Supervisor Main Menu."

92 "...digit password or press star to return to the Supervisor Main Menu."

93 "To continue holding, do nothing. To try another extension, press 1."

94 "...to block calls to your extension..."

95 "...after your extension is not answered."

96 "To accept, press 1. To re-record, press 2. Or, to delete, press 3."

97 "I'm sorry. There are currently no directory entries recorded."

98 "At the tone, record Optional prompt number 1."

99 "At the tone, record Optional prompt number 2."

100 "To review options, press 9."

101 "Enter the number of days to save your saved messages, followed by the pound sign. If you do not want saved messages to be automatically deleted, enter 99 followed by the pound sign."

102 "The maximum number of days to save messages is... <number>."

103 "Enter the number of the mailbox to reset."

104 "Press 1 to reset or press the star button to return to the previous menu."

105 "The mailbox has been reset."

106 "...is in use."

107 "System prompt deleted."

108 "You are not authorized to access this mailbox."

109 "Please enter the number of the recipient's mailbox to check for message confirmations or press pound to check all message confirmations."

110 "I'm sorry, but there are no message confirmations for ..."

111 "To repeat, press 2."

112 "To continue, press 2."

113 "The message confirmation for mailbox number..."

114 "...no longer exists on the System."

115 "To delete this message confirmation, press 1."

116 "Message waiting available."

117 "Saving of messages..."

118 "Distribution lists..."

119 "Supervisor functions..."

120 "Undelete messages..."

121 "V-Trees..."

122 "Message Confirmation..."

123 "Access to directory services..."

124 "Voice only mailbox..."

125 "Guest mailbox..."

126 "Receive only mailbox ..."

127 "Long distance outcalling..."

128 "Local outcalling is permitted."

129 "No outcalling is permitted."

130 "The maximum recording time for a message is..."

131 "The maximum number of messages allowed is..."

132 "The maximum recording time for all messages is..."

133 "To confirm the deletion of this message, press 9. If you do not want to delete this message, press pound."

134 "The number of days new messages will be saved is..."

135 "The number of days saved messages will be saved is..."

136 "...permitted."

137 "Intercom Paging..."

138 "You cannot change your personal distribution list from the Supervisor menu."

139 "System distribution lists can only be changed from the Supervisor menu."

140 "To mark this as a Listen Only message, press 6."

141 "To have message notification notify you for your first message only, press 1. To have it notify you each time you receive a message, press 2."

142 "Wake-up call..."

143 "Enter the folder number, 1 through 9, or press zero to listen to all saved messages. For a listing of current folders, press star."

144 "Your wake-up call has been activated for..."

145 "To turn..."

146 "...cannot receive messages."

147 "Company list."

148 "Division list."

149 "To create a Guest mailbox, press 8."

150 "Enter the mailbox number to use for the Guest mailbox."

151 "<mailbox number> ...has been created as a Guest mailbox."

152 "Enter the System prompt number, 1 through 999."

153 "Distribution list added."

154 "To change the default operator for this mailbox, press 4."

155 "Enter the number of the mailbox to use as the default operator."

156 "...is the default operator, now."

157 "Please hold ..."

158 "Enter the number of the mailbox to search for messages from."

159 "To scan for messages from a specific mailbox, press 6."

160 "This message is marked Listen Only."

161 "Recording of prompts..."

162 "Message scanning..."

163 "Call Handling ..."

164 "Editing sent messages..."

165	"Ring count is... <number>."
166	"Current folders are... <number>."
167	"At the tone, speak the folder label."
168	"Folder number... <number>..."
169	"Enter the number of the fax machine, followed by the pound sign."
170	"Enter the telephone number of the destination fax machine, or, if you are calling from a fax machine, press pound."
171	"Enter your extension or phone number. It will be used to help identify this fax."
172	"I'm sorry, the fax board is not responding. Please try again later."
173	"Fax..."
175	"To update System faxes press 4."
176	"At the tone, press the send key on your fax machine."
177	"To activate Power Pager, press star."
178	"For fax a predefined document and advance to next level, press 2."
179	"Enter the number of the document to send, followed by the pound sign."
180	"Enter the area code and phone number of your fax machine, followed by the pound sign."
181	"To identify the fax, enter your extension number, followed by the pound sign."
182	"...attempts will be made to send the requested fax."
183	"...does not exist."
184	"Your fax is number..."
186	"You have requested a fax be sent to..."
188	"I'm sorry, but there are currently no V-Trees defined."
189	"To insert a level, press 7."
190	"To return to the top of your V-Tree, press 9."
191	"For advanced options, press 0."
200	"To review options, press 1."
201	"To add an option, press 2."
202	"To delete an option, press 3."
203	"To insert an option, press 4."

204 "To execute an option, press 5."

205 "For proceed to the next menu, press 1. For transfer to a mailbox, press 2. For record to a mailbox, press 3. For disconnect caller, press 4."

206 "Option added."

207 "Option number..."

208 "...is proceed to next level."

209 "...is transfer to mailbox number."

210 "...is record and return from mailbox number."

211 "...is disconnect."

212 "...is return to previous level."

213 "...is go to directory."

214 "...is record and go to next level using mailbox number."

215 "...is transfer to automated attendant."

216 "...is transfer to voice mail."

217 "...is advance to next level after sending a user-specified fax."

218 "...is advance to next level after faxing document number... <number>"

219 "...is to review the last recorded message and go to next level."

220 "Please hold while I page..."

221 "Delete option."

222 "Enter the number of the option to delete."

223 "Option deleted."

224 "Insert option."

225 "Enter the action code to insert."

226 "Enter the option number before which you want to insert this action."

227 "Option inserted."

228 "To edit the prompts for this level, press 6."

229 "Level number... <number>."

231 "Execute option."

232 "Enter the number of the option to execute."

233 "Creating level..."

234	"To accept, press 1. To re-record, press 2. To append, press 3."
235	"To confirm the deletion of this V-Tree, press 9. If you do not want to delete this V-Tree, press pound."
236	"The option you have selected is incomplete. Please select another option."
237	"You have requested document number..."
238	"...to be delivered to..."
239	"If this information is correct, press 1, if not, press 2."
240	"If no password is desired, press zero, followed by the pound sign."
241	"To listen to your V-Tree, press 2. To delete your V-Tree, press 3."
242	"To change this message, press 1. To continue, press 2."
250	"Please enter the number of the mailbox you are adding."
251	"...already exists on the system."
252	"Enter the initial password, followed by the pound sign."
253	"To record the individual prompts for this mailbox, press 1. If you do not wish to record the prompts, press 2."
254	"At the tone, record your Please Hold prompt."
255	"At the tone, record your mailbox owner's Name prompt."
256	"At the tone, record your Directory prompt."
257	"At the tone, record your Personal Greeting prompt."
258	"Please enter your mailbox number."
259	"...no..."
260	"Please enter your password..."
261	"You have..."
262	"...new message..."
263	"...saved message..."
264	"...new messages..."
265	"...saved messages..."
266	"Warning! Your remaining message recording time is now under 2 minutes."
267	"Main Menu"
268	"To listen to new messages, press 1."

269	"To listen to saved messages, press 2."
270	"To send a message, press 3."
271	"To check message confirmations, press 4."
272	"To recover a deleted message, press 5."
273	"Please continue holding while I wait for a response."
274	"To change a message that has been sent, press 7."
275	"I'm sorry, there is no page for..."
276	"For more options, press 9."
277	"To return to the automated attendant, press 0."
278	"To return to voice mail, press 0."
279	"Options Menu"
280	"To re-record prompts, press 1."
281	"To change Special Features, press 2."
282	"To change Call Handling, press 3."
283	"To define or edit a folder, press 4."
284	"To re-record your Please Hold prompt, press 1."
285	"To re-record your Directory prompt, press 2."
286	"To re-record the mailbox owner's Name prompt, press 3."
287	"To re-record Optional prompt 1, press 4."
288	"To re-record Optional prompt 2, press 5."
289	"To re-record the Personal Greeting prompt, press 6."
290	"To change the message delivery selection, press 1."
291	"To change your message delivery number, press 2."
293	"Call Queuing..."
294	"To turn Call Screening..."
295	"To update call distribution lists, press 6."
296	"To turn Call Paging..."
297	"To update your V-Tree, press 8."
299	"Or, press pound to return to the Options Menu."
301	"...is now off."

302	"Call paging..."
303	"Message Delivery..."
304	"To be notified of Urgent messages only, press 1. To be notified of all messages, press 2."
305	"To turn Message Delivery off, press 3."
306	"Message Delivery is now..."
307	"If the message delivery number calls a beeper, press 1. If it calls a phone, press 2."
308	"Enter the message delivery setting you want to update, 1 through 8."
309	"...to mailbox number..."
310	"Enter the number to display on the digital beeper, followed by the pound sign."
311	"Call Screening..."
312	"To reschedule your wake-up call, press 1. To turn your wake-up call off, press 2."
313	"Enter the phone number for your wake-up call followed by the pound sign."
314	"Hello, this is your wake-up call. The time is... <time>."
315	"...to create..."
316	"...to delete..."
317	"Distribution list deleted."
318	"To add a mailbox to the distribution list, press 1."
319	"...to be updated."
320	"Press star, followed by the number of the distribution list..."
321	"To create a distribution list, press 1."
322	"To review or update a distribution list, press 2. To delete a distribution list, press 3."
323	"...contains the following mailboxes..."
324	"Please enter the number of the mailbox to add, or, to return to the previous menu, press pound."
325	"Distribution list..."
326	"...is full..."
327	"All distribution list numbers must begin with a star."
328	"Current distribution list numbers are..."

329 "To review all current distribution list numbers, press 4."

330 "I'm sorry, but you have no distribution lists on the System."

331 "...already exists in the distribution list."

332 "Message recovered."

333 Not used

334 "Enter the number of the mailbox to which calls will be forwarded."

335 "Optional prompt number..."

336 "...has been activated."

337 "Calls will be forwarded to mailbox...<number>."

338 "...after your extension is busy.

339 "...after your extension is either not answered or busy."

341 "Please enter your new password, followed by the pound sign. If no password is desired, press zero followed by the pound sign."

342 "You have entered an invalid password. The maximum password length is..."

343 "...digits and cannot begin with zero."

344 "First new message..."

345 "First saved message..."

346 "Next message."

347 "...from..."

348 "This message is marked Urgent."

349 "End of new messages."

350 "End of saved messages."

351 "Message Menu. To delete, press 1. To save, press 2."

352 "To reply, press 3."

353 "To review, press 4."

354 "Message deleted."

355 "Message will be saved for..."

356 "...day."

357 "...days."

358 "Message received..."

359	"This message was from..."
360	"Length of message is..."
361	"...minutes"
362	"...seconds."
363	"To be transferred to..."
364	"To skip this message, press 6, 4."
365	"To send a copy of this message to another mailbox, press 5."
366	"For message delivery information, press 6, 2."
367	"Message saved."
368	"Message Menu. To delete, press 1."
369	"To accept this message, press 1. To continue, press 2. Or, to return to the previous menu, press pound."
370	"To delete, press 1. To re-record, press 2."
371	"Enter the number of the mailbox containing the message to be changed."
372	"First deleted message."
373	"End of deleted messages."
374	"...today..."
375	"Or..."
376	"To review, press 4"
377	"If message confirmation is desired, press 1. If not, press 2."
378	Not used
379	"...sent..."
380	"...has not been received."
381	"...was received."
382	"Message to..."
383	"To review your comments, press 4."
384	"Your V-Tree has been deleted."
385	"There is no prompt recorded for this level."
386	"To continue holding, press star. To try another extension, press 1. To leave a voice mail message, press 2."
387	"Enter the option number of the level you wish to insert this level before."

388 "Action code must be of the advance to next level type."

389 "Forwarded from..."

390 "Enter your message delivery number, followed by the pound sign."

391 "To re-record your comments, press 2."

392 "...is not an active distribution list number."

393 "To mark this as a Private message, press 9."

394 "Private messages may not be forwarded."

395 "Message Confirmation is on."

396 "To send the message without comments, press 1. To add comments to the message, press 2."

397 "Record your comments at the tone. When you are finished recording, press pound."

398 "To send your comments and the message, press 1. To review your comments, press 2. To re-record your comments, press 3."

399 "To send the message with the same comments, press 1. To record new comments or to send the message without comments, press 2."

400 "At the tone, record your reply to..."

401 "Hello, this is your voice mail system, I have a message for..."

402 "You have a call waiting. To take this call, press pound."

403 "To take this call, press pound."

404 "Mailbox number... <mailbox number>"

405 "To change the message delivery number, press 1. To change the call back number, press 2. If no changes are desired, press pound."

406 "Urgent message sent."

407 "To reject the call, press 1, or, to redirect the call, press star."

408 "In the morning."

409 "In the evening."

410 "Or, to return to the message menu without sending the message, press pound."

411 "Or, to return to the main menu without sending the message, press pound."

412 "For go to login point, press 4."

413 "To send a new message, press 3."

414 "To send the message with the same comments, press 1. To record the comments again or to send the message without comments, press 2."

415 "Your new message delivery number is..."

416 "This message has been retracted by its sender."

417 "To keep the same phone number, press 1. To use a different phone number, press 2."

418 "To reschedule your wake up call for the same time tomorrow, press 1. To use a different time, press 2"

419 "...is go to mailbox login point."

420 "To update an existing mailbox, press 2. To delete an existing mailbox, press 3. To reset an existing mailbox, press 4."

421 "To create or update an option, press 2."

422 "To activate your Optional prompt, press 1."

423 "To re-record your Optional prompt, press 4."

424 "At the tone, record your Optional prompt."

425 "Optional prompt "

426 "Press 1 to continue or press two to repeat these instructions."

427 "For proceed to the next menu, press 1. For transfer to a mailbox, press 2. For disconnect caller, press 4. For return to the previous menu, press 5."

428 "Create or update an option."

429 "Enter the number of the option to create or update."

430 "Hello. This is your new voice processing system. Since this is your first time calling, we need to take a few minutes to familiarize you with the System and customize your mailbox. While we recommend that you continue, you may exit the tutorial and set up your mailbox manually by pressing the star button at any time. First, let's personalize your password. A password protects against the accidental or intentional access to your mailbox by someone else. Your mailbox password can be any combination of numbers from one to nine digits in length and cannot begin with zero. You may want to write down your password for reference, but for security purposes, **do not** share your password with others."

431 "Now, let's record your personalized prompts. When recording these prompts, make sure you speak clearly into the telephone handset. Do not use a speakerphone, and try to eliminate any background noise. Start speaking after the tone, and press the pound key when you finish."

432 "The pound key is located on the bottom right corner of your telephone keypad."

433 "First, let's record your Please Hold prompt. This prompt is the one callers hear as they are transferred to your extension. An example is, 'Please hold for Mary Jones.'"

434 "Next we are going to record your Directory prompt which consists of your name and mailbox number. This prompt will be added to your company's directory listing, which can be accessed by callers who do not know your mailbox number. An example of a directory listing is, 'For Mary Jones, press 123.' "

435 "The next personalized prompt is your Name prompt, and it consists only of your first and last name. The System inserts your Name prompt into a variety of different phrases so that people leaving you messages are assured that they are leaving them in the correct mailbox. An example of a Name prompt is, 'Mary Jones.' "

436 "Finally, let's record your Personal Greeting prompt. This prompt is played to outside callers who request to leave a message when your extension is either busy or there is no answer. An example of a Personal Greeting prompt may sound like this, 'Hi, this is Mary. I'm either on the phone or away from my desk. Leave a message after the tone, and I will return your call as soon as possible.'"

437 "This completes your mailbox setup. Your password and personalized prompts may be changed at any time by following the instructions in your *Subscribers Guide.* Please contact your System Supervisor if you have any questions about using your new mailbox. Thank you."

438 "Since you have decided not to personalize your mailbox at this time, you will need to refer to the Options Menu section of the *Subscriber's Guide* for assistance in changing any or all of your personal prompts."

439 "In addition to your Personal Greeting prompt, an Optional prompt is available for special call handling functions. To activate your Optional prompt, refer to the Call Handling section of your *Subscriber's Guide.*"

440 "Option accepted."

441 "This message includes a fax which could not be delivered."

442 "This message includes a fax."

443 "This message is a fax."

444 "The fax for this message could not be received."

445 "To retrieve the fax, press star."

446 "The fax will be available for retrieval after you finish listening to your messages, or, to retrieve the fax now, press pound."

447 "Enter the telephone number of the fax machine that you are sending the fax to, followed by the pound sign."

448 "Press star to send the fax to your local fax machine."

449 "To retrieve the fax immediately, simply press the start/receive button on your fax machine after the tone."

450 "Enter the telephone number of the receiving fax machine, followed by the pound sign."

451 "If you are calling from a fax machine, please hold and you will be connected to the fax system."

452 "Press star to send the faxes to your local fax machine."

453 "Your fax will be sent to..."

454 "Your faxes will be sent to..."

455 "...attempts will be made to deliver the selected faxes."

456 "This message includes a fax which has never been retrieved."

457 "Length of fax is <number>..."

458 "The fax document number is..."

459 "page"

460 "pages"

461 "To send the message immediately, press 1. To send the message with future delivery, press 2."

462 "Cannot receive faxes."

463 "If you do not want to retrieve the fax, press pound."

464 "If you do not want to retrieve the faxes, press pound."

465 "There are ten seconds remaining; please conclude your message."

466 "I'm sorry, there is a line problem. Please hang up and try again."

467 "I'm sorry, the mailbox for... <mailbox owner's name prompt>..."

468 "...is full. Please call back later."

469 "I'm sorry, but that mailbox is currently in use. Please try again later."

470 "Please hold while you are connected to the fax system."

471 "If you wish to cancel the fax operation, press the pound key now."

472 "The fax system is currently busy. Please hold for the next available fax line."

475 "To access the Supervisor On Line Voice Editor..."

Note: <date/time> is formatted [month][day] + S50 "...at..." + [hour/min/AM or PM]

Preparing Professionally-Recorded Phrases for System Use

You can record voice phrases in another language (see *Multilingual Capabilities* below) or simply customize some or all of the phrases provided with Smooth Operator. These phrases are listed on pages 10-2 though 10-22 of this section.

Once all phrases are recorded, you must digitize the recordings so the phrases can be stored on the System. To digitize the recordings, you need Compass Technology's voice editing package, V-Edit. V-Edit (for Dialogic) and the Visual Voice Editor (for Rhetorex) are included in your Dealer Kit. Please refer to their accompanying documentation for instructions on placing custom-recorded phrases in the SO3-D2.* files.

Multilingual Capabilities

Smooth Operator has the ability to support five languages, English plus four others. Activate the multilingual capability by adjusting the Number of Languages option in the System Setup. If you are only using English on your System, enter 1 in this field.

The Morning, Afternoon, Evening, Closed, Holiday, Custom Transfer, and Call Queuing prompts may be recorded in multiple languages or simply in the primary language. The Language Selection prompt is a single phrase with the options prompted in the appropriate language. (*"For service in English, press one. Pour la service en Français appuyez sur deux."*) The Attendant Menu, if used, should be recorded in a different prompt for each language. Also, you can select different Message Delivery prompts for each language based on the mailbox's class of service setting for language selection. Remember to specify the prompt numbers for such phrases on the System Prompt screen.

During business hours, the caller will hear the appropriate time of day greeting, followed by the Language Select prompt and the Attendant Menu (if used). During non-business hours, a caller will hear either the Closed or Holiday greeting, followed by a beep to record a message to the After Hours Receptionist mailbox.

The English voice phrases you receive with your System are stored in the following phrase files:

Standard language (English):

SO3-ALL.VAP (or *.VOX)
SO3-D1.VAP (or *.VOX)
SO3-D2.VAP (or *.VOX)

Phrases on pages 10-2 through 10-22 are stored in either the SO3-ALL.* file or the SO3-D1.* file. SO3-D2.* contains any phrases custom recorded for your System, such as V-Trees, greetings, etc.

If you decide to use more than one language on your System, you must store the phrases you record in additional languages under certain filenames. These filenames are listed below:

First additional language:

SO3-ALL1.*
SO3-D11.*
SO3-D12.*

Second additional language:

SO3-ALL2.*
SO3-D21.*
SO3-D22.*

Third additional language:

SO3-ALL3.*
SO3-D31.*
SO3-D32.*

Fourth additional language:

SO3-ALL4.*
SO3-D41.*
SO3-D42.*

Remember that if using multiple languages on your System, you must record the Language Select prompt that asks callers to select the language they wish to use. Refer to the *Supervisor's Guide* for information on recording prompts.

Appendix A

Fax Retrieval

This supplement describes Smooth Operator's Fax Retrieval add-on module, available with both the Intel SatisFAXtion and Brooktrout fax boards. When used with a V-Tree, this innovative module enables you to activate a Call Handling feature, for your entire System or for an individual mailbox, that answers calls and automatically faxes documents to callers who request them.

Important Note:

To install and activate Fax Retrieval with the Intel SatisFAXtion board, you use two different Setup programs. Be sure you are in the correct directory when you are instructed to type `SETUP` to configure the program variables.

What is Fax Retrieval?

Fax Retrieval is a powerful and interactive module available as an add-on to Smooth Operator version 3.2. With Fax Retrieval, people can call to request information quickly and easily by selecting from documents provided on commonly-requested topics.

Fax Retrieval is limitless in potential. Its flexibility can lead to significant time and money savings for any organization. By implementing Fax Retrieval, you can, for example, instruct a caller to press one for a fax on your company's history, two for a fax on product information, or three for a fax of the product order form. Or suppose you want to provide callers with fact sheets on every product in your company's catalog. You can set up Fax Retrieval so callers receive information on the product they are interested in by simply entering a certain number, like the catalog part number for the product.

Any type of information can be provided to callers — technical support information, customer service reports, new product updates — anything you want your callers to access. Fax Retrieval enables you to record a prompt explaining to callers which faxes are available and the document number to enter to receive each fax.

Fax Retrieval capabilities are provided to callers through Smooth Operator's V-Tree feature. For more information on creating a V-Tree that includes Fax Retrieval, see Section 3 of the *Subscriber's Guide* or Section 11 of the *Supervisor's Guide*.

Installing Fax Retrieval

With the Fax Retrieval module, you receive either an Intel SatisFAXtion board and four software diskettes or a Brooktrout fax board. Before you begin installation, run your computer's diagnostic software to verify the machine is working properly. Correct any error conditions before you install the fax board.

Installing SatisFAXtion Software

Before installing the four diskettes shipped with your SatisFAXtion board, have the following information ready:

— Make and model of the printer that will print received faxes and files.
— Name of the serial or parallel port to which the printer is connected (for example, COM1 or LPT1).
— Type of graphics card in your computer (for example, VGA, EGA, CGA, Hercules, or monochrome).
— Drive on which you want to install the software (such as drive C:).

If you have data in a RAMDISK or background application, save the data before you start the installation.

Follow these steps:

1. Insert the SatisFAXtion diskette 1 into the A: or B: drive.
2. At the DOS prompt, type `A:SETUP` or `B:SETUP` and press <Enter>. A title screen appears. Press any key to continue. An information screen appears which describes the installation procedure. Press `C` to continue.
3. Select Copy Intel Software from the Options screen. You are prompted to type the directory into which you want to copy the software. Accept the default directory (C:\FAX) by pressing <Enter>. If you prefer a different directory, type the name of the directory and press <Enter>. Press <F10> when you are through.
4. Follow the directions on the screen as they prompt you to change diskettes.

Setting Up the SatisFAXtion Software

Note: You can press <F1> at any time for help on a particular option.

1. Choose First Time Setup from the Options screen. You are prompted to enter your name, the fax board's phone number, and the printer on which you want to print received faxes and files. Press <Enter> to move among the fields. The entry you make in the name field will be printed on each fax, so use your company's name. Press <F10> when you finish.
2. The next screen describes the built-in data modem and the fax capture pop-up port.
3. The Intel Fax Board Settings screen appears. You probably do not need to change the options set up by the First Time Setup screen. Press any key to continue.
4. Select Advanced Setup, Set Up Hardware, Modem I/O, IRQ. Choose Off to turn the data modem off.
5. Also, select Off for Scanner I/O DMA.
6. Press <F10> to save changes to Setup Hardware. From the Options menu, select Advanced Setup, Technical Software Options. Ensure that the number of dialing retries is equal to the Number of Times to Send a Fax in the Setup. Press <F10>.
7. Choose Register Your Intel Fax Board from the Options screen. Fill out the registration form and press <F10>. This updates the REGISTER.TXT file. A brief description of the registration process follows. Press any key to continue.

To send the registration form to Intel, follow these steps:

1. Exit the Setup, answering 'Y' to update the configuration files. Choose Yes to update the AUTOEXEC.BAT and CONFIG.SYS files. Do not reboot the PC.

Important Note:

SatisFAXtion software will add FAXPOP and CASMGR to your AUTOEXEC.BAT file. FAXPOP must be removed manually; CASMGR must remain.

2. Edit the AUTOEXEC.BAT file. Change the line that reads `C:\FAX\FAXPOP.EXE` to `REM C:\FAX\FAXPOP.EXE`.
3. Reboot the PC.
4. Go to the \FAX directory by typing `CD\FAX` from the C:\CVR> prompt.
5. Type `FAX` from the C:\FAX prompt and press <Enter> to start the fax program.
6. Select Send from the Main Menu. The default phone book, DEFAULT.PB, should appear. If another phone book appears, choose Switch Phonebook and change to DEFAULT.PB.
7. If you live outside the United States or Canada, if you need to dial a special number such as 9 to access an outside line, or if you cannot find the Intel Support, USA entry in the phone book, enter the phone number directly. Press </> to access the menu. Choose Phone Number from the menu. A pop-up screen appears. Type `Intel Customer Support` in the Name field and press <Enter>.

   For the Fax Phone # field, type the Intel phone number, either `(800) 458-6231` (from the United States or Canada) or `(503) 629-7580` (outside the United States or Canada). The number you use depends on where you are and the kind of phone system you have. Also, remember to add '1' for long distance dialing. For example, if you are in the United States and you need to dial 9 to get an outside line, type `9,1 (800) 458-6231` and press <Enter>.

   Be sure to choose SatisFAXtion (not Fax machine) for the Hardware type field because you are sending the form to another SatisFAXtion system. To do this, press <Enter> to display the choices, toggle to SatisFAXtion, press <Enter>, then press <F10>. Because you are transferring a file, your registration will be unreadable if you do not select SatisFAXtion.

   You will be prompted to add this number to the current phone book. Toggle to No, press <Enter>, and press <F10> to accept.
8. The Select Files to Send screen appears. Position the highlighted bar over REGISTER.TXT (the registration form you filled out in SETUP) and press <Enter>. Then press <F10>.
9. The Select Send Options screen appears. If you want to send the registration form immediately, go to the step 11. If you want to send it later, select When and type a new time.
10. Select Send! The Main Menu appears. You can follow the progress of the send by watching the lower center portion of the screen.

Loading Faxable Documents onto the Intel SatisFAXtion System

To load a faxable document onto the System, follow these steps:

1. At the C:\FAX> prompt, type `FAX`. The Intel Main Menu appears.
2. Go to the fax machine and load the document in the machine's tray as though you were faxing it. Dial the extension that connects to the fax board.
3. At the tone, press the button on the machine that transmits the fax, usually labeled "Start" or "Send".
4. Return to the computer. Once the document has travelled through the fax machine, the Main Menu will show "Unread receives 1." Select Receive, then press </> to access menu options. Press <Tab> to select Detail, and press <Enter>. Then, select <Save>. Specify the directory and document name under which you want to save the document. **All documents must be saved in the C:\FAX00 directory.** The document name must be five digits in length and have the extension .FAX. Leading zeroes are permitted. You may, for example, save the first document on the System as C:\FAX00\00001.FAX
5. Once you have saved the document, return to the Main Menu by selecting <F10> then Q for quit.
6. Return to the Hardware Type field and change from SatisFAXtion to Fax Machine.

Using a Cover Page for the Intel SatisFAXtion System

You can set up your System to automatically fax a cover page with every document by activating the Use a Fax Cover Sheet option on the Smooth Operator Setup screen (see *Activating Fax Retrieval* page A-8). See Figure A.01 for an example default cover page.

If you want to include a logo on the upper portion of the cover page, create a .PCX file that is no larger than 3.5 by 5 inches. Additionally, the file must be saved as black and white at 200 dots per inch. Save the file in the \FAX directory. Next, open the SatisFAXtion Setup program and specify this file as your logo file. To do this, follow these steps:

1. Type `SETUP` from the C:\FAX> prompt. Press any key to continue.
2. Select Advanced Setup from the Options menu.
3. From the Advanced Setup menu, select Setup Standard software options.
4. Using the arrow keys, move to the Logo Selection and press <Enter>. You will see a listing of all .PCX files currently in the \FAX directory. Select the file and press <F10>. To exit Setup, press <F10> again and select Exit. You are asked to update your AUTOEXEC.BAT. Answer No and reboot the PC.

If you wish, you can also include text on the bottom half of the cover page. Simply type the text into an ASCII text file, and save the file as C:\FAX\COVER.TXT. Each line of text should be less than 80 characters. Also, use less than 30 lines if your cover page is the standard length. Note that only the first 2048 characters will be included on the cover.

When the System faxes the cover page, it combines the contents of the .PCX file you specified in Setup and the COVER.TXT file. Regardless of the size and contents of these two files, the System will always print the information bar in the center of the cover sheet, as shown in Figure A.01.

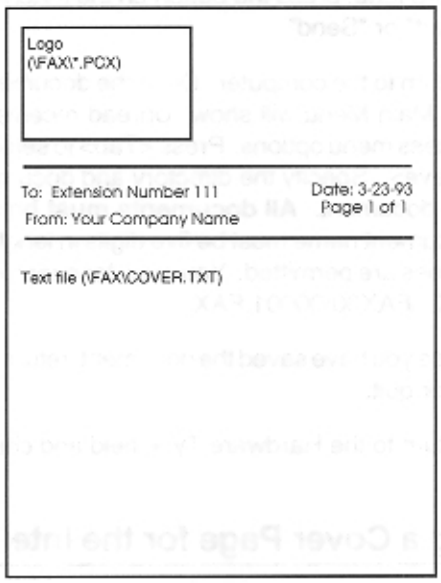


Figure A.01 - Sample page layout

Loading Faxable Documents onto the Brooktrout System

To load a faxable document onto the System, follow these steps:

1. Create a mailbox on the System that will hold all of the Fax Retrieval documents. For example, let's assume you've created mailbox 300 to hold your documents. This mailbox must have the Fax Receive option selected in its class of service and have the Number of Days to Save a Saved Message set to 99 to save indefinitely. In addition, create a second mailbox (for example, 400) to send the faxes from. This mailbox should have the Fax Send option active.

2. Go to the fax machine and load the first document in the machine's tray as though you were faxing it. Dial the extension that connects to the System.

3. When the System answers, press <#> and login to mailbox 400, the mailbox you are sending from. Select <3> from the Main Menu to send a message. Enter 300 as the mailbox to receive the fax. At the tone, record a short message describing the contents of the fax, such as *"1993 price sheet."* Press <#> to finish the recording. From the delivery options, press <5> to attach a fax to the message. When instructed,

press the <Start/Send> button on your fax machine. Continue this step until all desired faxes have been sent to mailbox 300 (be sure that the Maximum Number of Messages in the mailbox's Class of Service can accomodate all of your documents). Then, log out of mailbox 400.

4. Dial into the System, and login to mailbox 300, the mailbox containing the Fax Retrieval documents. Listen to each message, for example, *"1993 price sheet"* and then press <6><2> for Message Information. If the Class of Service allows V-Tree Fax capabilities, the System will return an eight digit fax number, for example 00019002. This eight digit number represents the filename that is holding the fax, in this case, 00019002.TIF. When building your V-Tree, you can use this number (you can drop the left-padded zeroes) as the document number (19002).

5. If you would like to change this document number (for example, to coordinate with catalog or part numbers), you must first determine which directory the file should be in. The last digit of the document number (0-9) indicates the proper directory (\FAX00, \FAX01...\FAX09). For example, document 00019002.TIF is stored in the \FAX02 directory. If you want to rename this as document number 1001, you would access the Command Line Interface from the Display pulldown menu, and type `COPY \FAX02\00019002.TIF \FAX01\FAX00001001.TIF`. Note that the filename must be left-filled with zeroes to fill eight characters.

Using a Cover Page for the Brooktrout Board

You can set up your System to automatically fax a cover page with every document by activating the Use a Fax Cover Sheet option on the Smooth Operator Setup screen (see *Activating Fax Retrieval* page A-8). See Figure A.02 for an example default cover page.

If you want to include a logo or header on the upper portion of the cover page, create a file using the TIF/F format. You can also create this file by faxing in the logo or header using the process described above and then copying the file to the \CVR1 directory as HEADER.TIF. Likewise, you can also create a footer using the same method, copying it as FOOTER.TIF in the \CVR1 directory. Regardless of the size and contents of these two files, the System will always print the information bar immediately after the HEADER.TIF, as shown in Figure A.02.

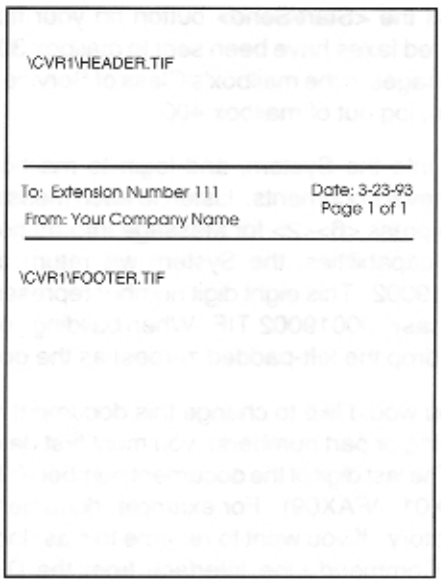


Figure A.02 - Sample page layout

Activating Fax Retrieval

Once you install the fax board and software, you must activate Fax Retrieval by adjusting parameters in two areas, System Setup and subscriber Class of Service. If you have not already installed Smooth Operator, you can adjust these parameters during the installation and mailbox creation processes. Continue with the Smooth Operator hardware and software installation procedure detailed in the first two sections of this guide.

If you have installed Smooth Operator, change to the \CVR directory and type `SETUP` from the C:\CVR> prompt. Select Change System Setup. On the System Setup screen, update the parameters for Fax Board Type, V-Tree Fax Retrieval, Use Fax Cover Sheet, Number of Times to Try to Send a Fax, Fax Prefix Code, and Use Localfax. When you finish, press <Esc>, and follow the prompts to save your changes and exit the Setup screen.

Any mailbox owner can now construct a V-Tree that includes the Fax Retrieval feature if the mailbox's Class of Service includes both V-Tree and Fax capabilities. To adjust these parameters in a mailbox's Class of Service setting, see Section 7 of the *Supervisor's Guide*. For more information on V-Trees, see Section 3 of the *Subscriber's Guide* or Section 11 in the *Supervisor's Guide.*

Important Note:

If the voice system starts behaving improperly, for example, if it begins echoing after sending a fax, adjust the interrupt on the voice board and fax board so they are set on different levels.

Portions of this supplement have been extracted with permission from *"How to Install the Intel® SatisFAXtion Board Guide."*

Appendix B

Advanced CCA Use

If you have problems running Compass Call Analysis (CCA) during the System's installation, refer to the Advanced features described in this section to correct the problems. The Theory of Call Analysis operation is also discussed in this section.

Advanced Analysis

Advanced Analysis should only be used if one of the signal detections has failed. You should change the appropriate parameters and manually run the analysis again for the failed signals only. Before running Advanced Analysis, type CLCARCCA from the C:\CVR> prompt to erase tables created earlier.

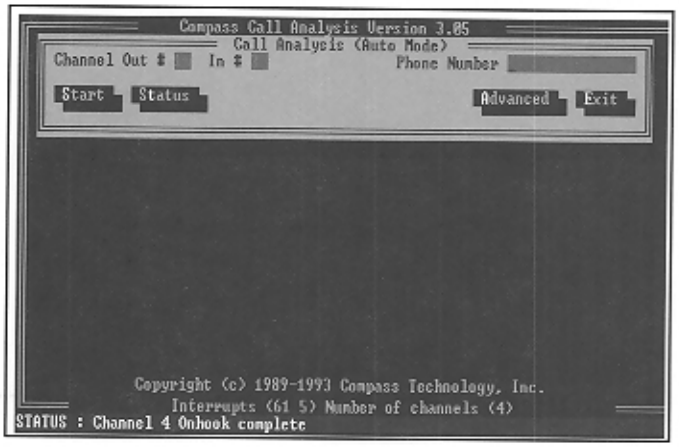


Figure B.01 - Standard Mode CCA Main Menu screen

From the Standard Mode screen, press the Advanced button to reach the Advanced Mode Menu screen.

Advanced Mode

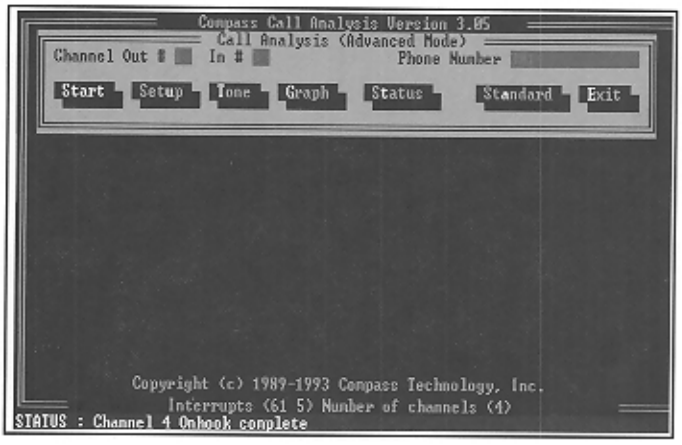


Figure B.02 - Advanced Mode CCA Menu screen

Notice that the Advanced options allow you to control the analysis setup parameters, add a tone definition, view a graphic representation of the tone, and qualify the tone's status.

Setup

Setup enables you to alter the analysis parameters.

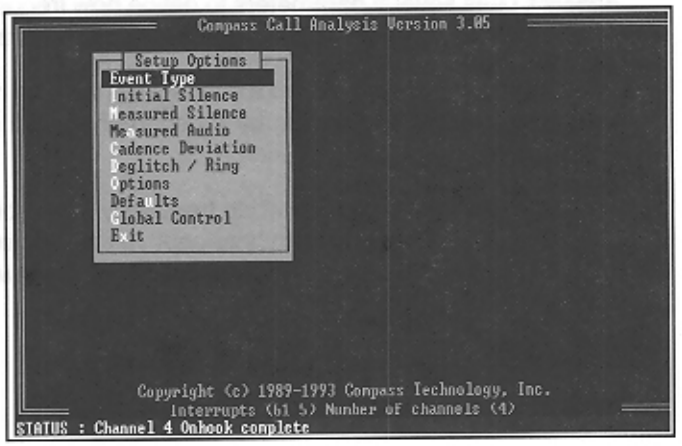


Figure B.03 - Setup Options menu

From the Setup menu, you can select an item by either:

1) Using the up and down arrow keys to highlight the desired item and pressing the <Enter> key.
2) Typing the highlighted letter of the desired choice and pressing the <Enter> key.
3) Using a mouse to point and click to the desired item.

Event Type

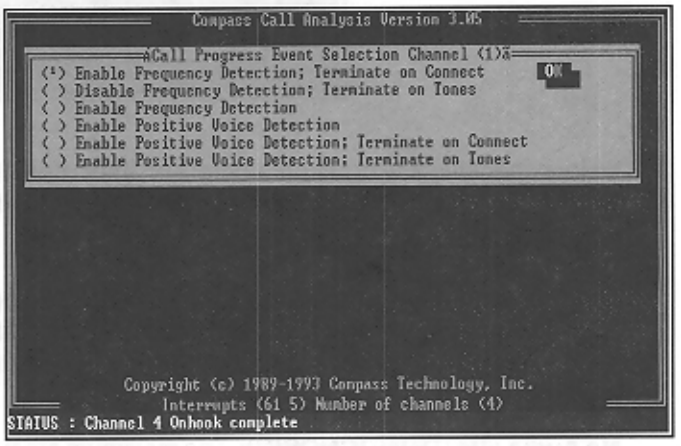


Figure B.04 - Event type screen

The Event Type screen allows frequency detection and positive voice detection to be enabled or disabled. **THE SETTINGS ON THIS SCREEN SHOULD ONLY BE CHANGED AT THE ADVICE OF TECHNICAL SUPPORT.**

Frequency detection is used to identify single-frequency tones, such as Special Information Tone (SIT) sequences. It can detect virtually any single-frequency tone below 2100 Hz. Frequency detection looks for one specific frequency at a time. Call analysis uses several parameters to define how frequency detection works: mode of operation and the allowable range, duration, and quality of the chosen tone.

Positive voice detection allows a connect signal to be returned in the event the ring cadence is not clearly broken by a period of silence (for example, if someone is talking).

This screen also determines when frequency detection or positive voice detection should terminate and return an "intercept", either immediately upon detection of the specified frequency or positive voice recognition, or to wait for a connect indicated by cadence or loop current detection.

Select the OK button to return to the Setup menu.

Initial Silence

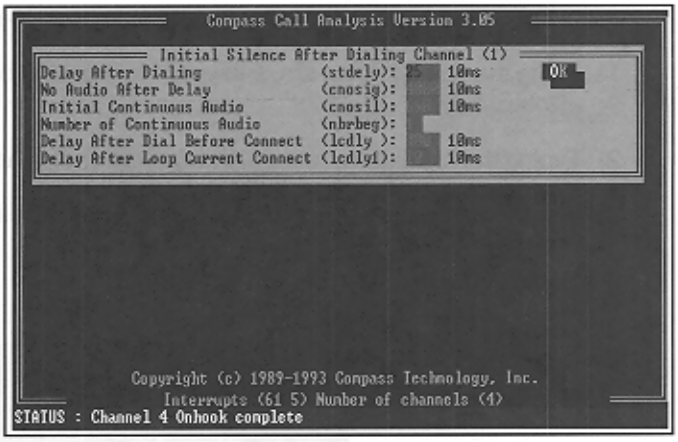


Figure B.05 - Initial Silence screen

Before changing any of the parameters on the Initial Silence screen, refer to Theory of Operation, detailed later in this appendix, for a detailed description of each parameter's use.

Delay After Dialing (STDELY): The delay after dialing is complete before starting cadence detection or frequency detection. If the switch emits "noise" before the cadence begins, the value of this parameter may need to be increased to bypass the noise.

No Audio after Delay (CNOSIG): The maximum amount of allowable time for State 1. If call analysis terminates before the cadence begins, the value of this parameter may need to be increased.

Initial Continuous Audio (CNOSIL): The maximum amount of allowable time for State 2 or State 4.

Number of Continuous Audio (NBRBEG): The number of the state used to start call analysis. Ordinarily you would want to begin analysis with the first non-silence period, so the default value is 1. If you are in an environment, for example, where every call starts with an initial ring and then is automatically transferred to another line, you would want to set this parameter to 2.

Delay after Dialing before Connect (LCDLY): The delay after dialing is completed before beginning loop current detection. If analysis is detecting an immediate hangup, try increasing this value.

Delay after Loop Current Connect (LCDLY1): The delay after loop current detection detects a transient drop in loop current before call analysis returns a connect to the application. This parameter should never be changed.

Measured Silence

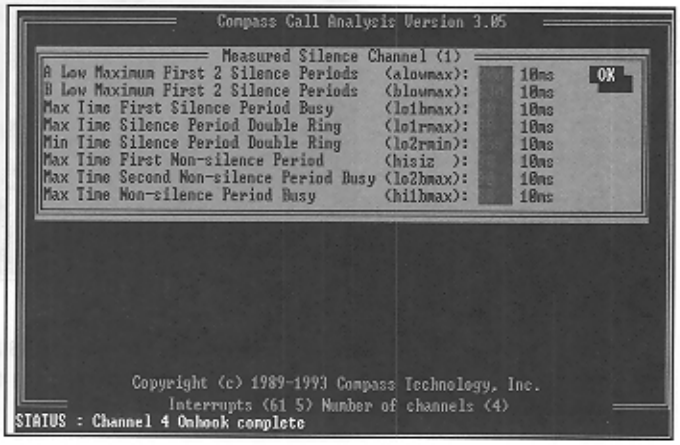


Figure B.06 - Measured Silence screen

Before changing any of the parameters on the Measured Silence screen, refer to Theory of Operation, found later in this appendix, for a detailed description of each parameter's use.

A Low Maximum First 2 Silence Periods (ALOWMAX): The maximum allowable duration of State 3 if it is part of type 2 ringing cadence.

B Low Maximum First 2 Silence Periods (BLOWMAX): The maximum allowable duration of State 3 if it is part of type 1 ringing cadence.

Max Time First Silence Period Busy (LO1BMAX): The maximum allowable duration of State 3 if it is the shorter silence period of a busy signal cadence.

Max Time Silence Period Double Ring (LO1RMAX): The maximum allowable duration of State 3 if it is part of a double ringing cadence; the short period of silence between the two rings that make up a double ring.

Min Time Silence Period Double Ring (LO2RMIN): The minimum allowable duration of State 3 if it is part of a single or double ring; the minimum inter-ring delay.

Max Time First Non-silence Period (HISIZ): The maximum allowable duration of State 2 if it is part of a type 1 ringing cadence.

Max Time Second Non-silence Period Busy (LO2BMAX): The maximum allowable duration of State 3 or State 5 if it is the longer silence period of a busy signal cadence.

Max Time Non-silence Period Busy (HI1BMAX): The maximum duration allowed for SIZEHIGH to be considered part of a busy signal. HI1BMAX is used in conjunction with LO1BMAX and LO2BMAX to distinguish between a ringing cadence and a busy cadence.

Measured Audio

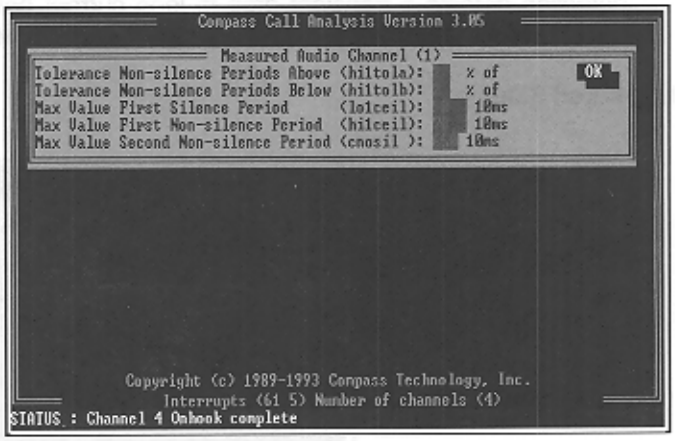


Figure B.07 - Measured Audio screen

Before changing any of the parameters on the Measured Audio screen, refer to Theory of Operation, found later in this appendix, for a detailed description of each parameter's use.

Tolerance Non-silence Periods Above (HI1TOLA): The maximum percentage State 6 is allowed to be longer than SIZEHIGH if State 6 (or any subsequent non-silence duration) is to be classified as part of a cadence.

Tolerance Non-silence Periods Below (HI1TOLB): The maximum percentage State 6 is allowed to be shorter than SIZEHIGH if state 6 (or any subsequent non-silence duration) is to be classified as part of a cadence.

Max Value First Silence Period (LO1CEIL): The maximum duration allowed for State 3 if it is part of a busy signal if the duration of State 4 is less than HI1CEIL.

Max Value First Non-silence Period (HI1CEIL): The maximum duration allowed for State 4 if it is part of a busy signal, if State 3 is less than LO1CEIL.

Max Value Second Non-silence Period (CNOSIL): The maximum allowable duration of State 2 or State 4.

Cadence Deviation

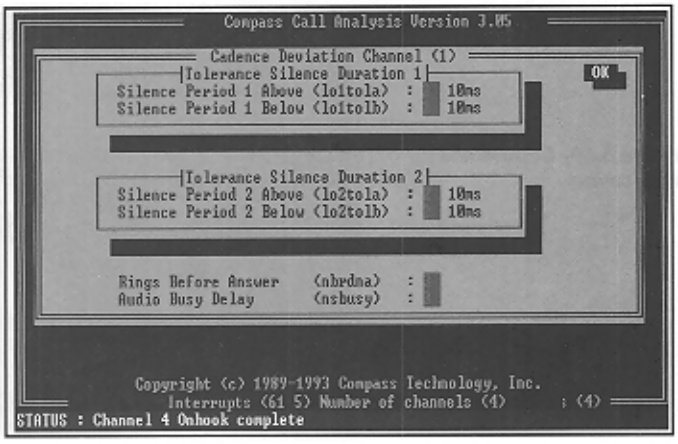


Figure B.08 - Cadence Deviation screen

Before changing any of the parameters on the Cadence Deviation screen, refer to Theory of Operation, found later in this appendix, for a detailed description of each parameter's use.

Silence Period 1 Above (LO1TOLA): The maximum percentage the duration of State 7 is allowed to be longer than State 3 if State 7 is to be classified as part of a cadence.

Silence Period Below (LO1TOLB): The maximum percentage the duration of State 7 is allowed to be shorter than State 3 if State 7 is to be classified as part of a cadence.

Silence Period 2 Above (LO2TOLA): The maximum percentage the duration of State 9 is allowed to be longer than State 5 if State 9 is to be classified as part of a cadence.

Silence Period 2 Below (LO2TOLB): The maximum percentage the duration of State 9 is allowed to be shorter than State 5 is State 9 (or any subsequent silence) is to be classified as part of a cadence.

Rings Before Answer (NBRDNA): The number of single or double rings to wait before returning no answer.

Audio Busy Delay (NSBUSY): The number of non-silence periods in addition to NBRDNA to wait before returning no answer.

Deglitch and Ring

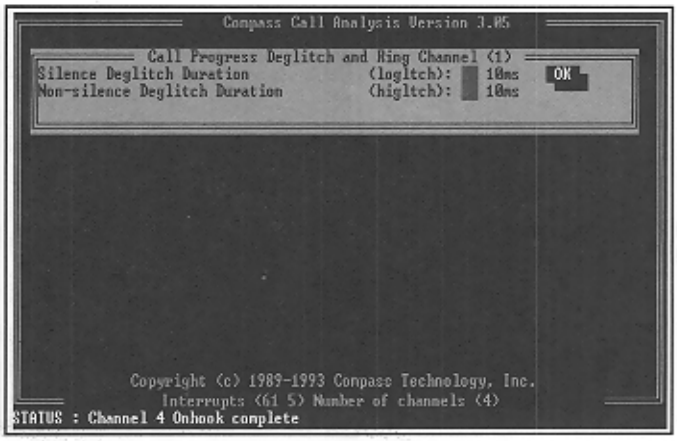


Figure B.09 - Deglitch and Ring screen

Before changing any of the parameters on the Deglitch and Ring screen, refer to Theory of Operation, found later in this appendix, for a detailed description of each parameter's use.

Silence Deglitch Duration (LOGLTCH): The maximum silence period to ignore. Used to help eliminate spurious silence intervals.

Non-silence Deglitch Duration (HIGLTCH): The maximum percentage State 6 is allowed to be shorter than SIZEHIGH if State 6 (or any subsequent non-silence duration) is to be classified as part of a cadence.

Options

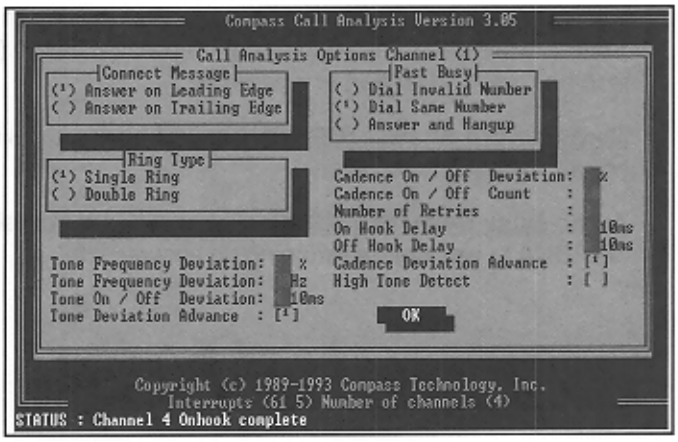


Figure B.10 - Options screen

The Options screen offers the option of detecting a connect on the leading or trailing edge of a message. For use with Smooth Operator, this option should not be changed from its default (Trailing Edge). This screen also allows the user to force call analysis to look for specific types of rings (single or double ring) and fast busy (dialing an invalid number or answer and hangup). Other parameters on this screen include:

Tone % of Frequency Deviation: The percentage that a tone can deviate from its assigned upper and lower bounds. For example, if the upper bound is set to 1000 Hz and the lower bound is set to 900 Hz, and the Percent of Frequency Deviation was set to 10%, then any frequency between 810Hz and 1100Hz would be recognized.

Tone % of On/Off Deviation: The percentage that the length of a tone can deviate from its assigned minimum and maximum times to stay in bound. For example, if the Minimum Time to Remain in bound was set to 5 and the Maximum Time to Remain in bound was set to 10 (in 10 millisecond units), and the Percent of On/Off Deviation was set to 10%, then any tone length between 4.5 and 11 (10 millisecond units) would be considered in bounds.

Tone Deviation Advance: When Call Analysis sets up a tone and Tone Deviation Advance is On, the System automatically bumps Tone Frequency Deviation 1% every time it does not detect a tone.

Cadence % of On/Off Deviation: The percentage that the length of a state in a cadence can vary from its minimum and maximum allowable times.

Cadence On/Off Count: The number of times that the signal changes. For example, On/Off is two counts (On = 1, Off or Silence = 2). Default = 60

Number of Call Analysis Retries: The number of times that CCA should attempt to detect a cadence, should the first try fail.

On Hook Delay: The number of seconds to wait after going on hook.

Off Hook Delay: The number of seconds to wait after going off hook before dialing. This delay allows for the detection of dialtone.

Cadence Deviation Advance: When Call Analysis sets up a tone and Cadence Deviation Advance is On, the System automatically bumps Cadence Deviation 1% every time it does not detect a tone.

Defaults

The Defaults selection from the Setup Options menu returns all values on screens found in Setup to their default settings.

Global Setup

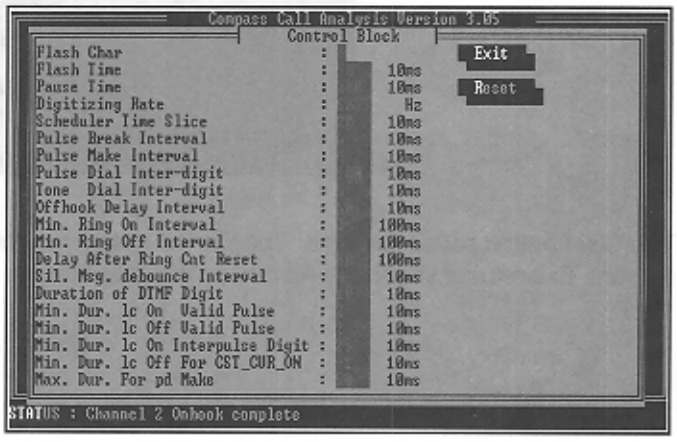


Figure B.11- Global Setup screen

The Global Setup screen is used to set global parameters for call analysis. **DO NOT MAKE ANY CHANGES TO THIS SCREEN WITHOUT THE ADVICE OF TECHNICAL SUPPORT.**

The Exit button returns you to the Setup menu.

Tone

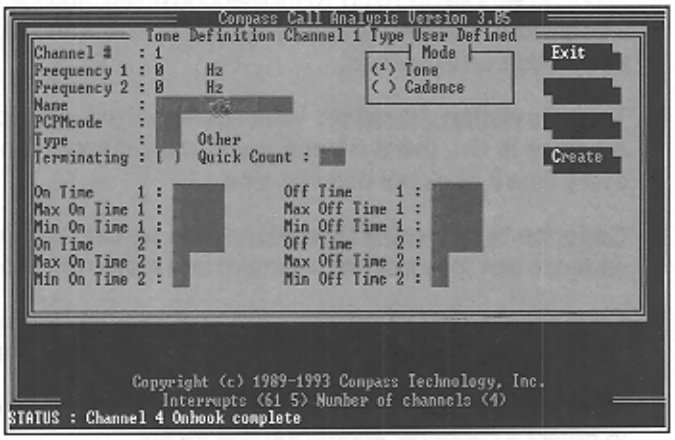


Figure B.12 - Tone Definition screen

The only reason to use the Tone screen would be to create a user-defined tone. **DO NOT MAKE ANY CHANGES TO THIS SCREEN WITHOUT THE ADVICE OF TECHNICAL SUPPORT.** If you need to define a tone, select the Create button to define the tone type.

Create

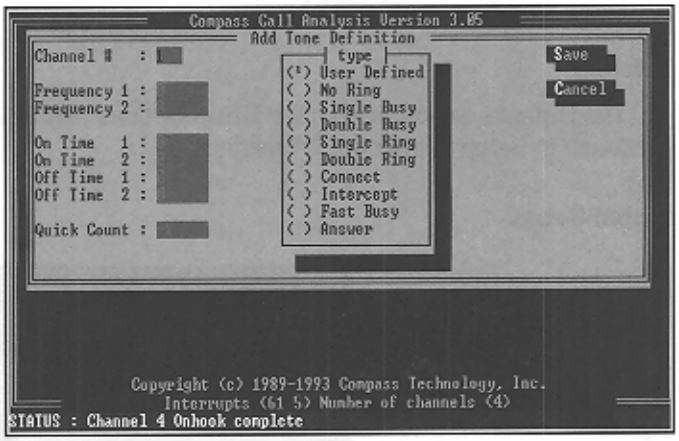


Figure B.13 - Tone Creation screen

The Save button saves the tone. The Cancel button returns you to the Tone Definition screen. Exit returns you to the Advanced analysis screen.

Graph

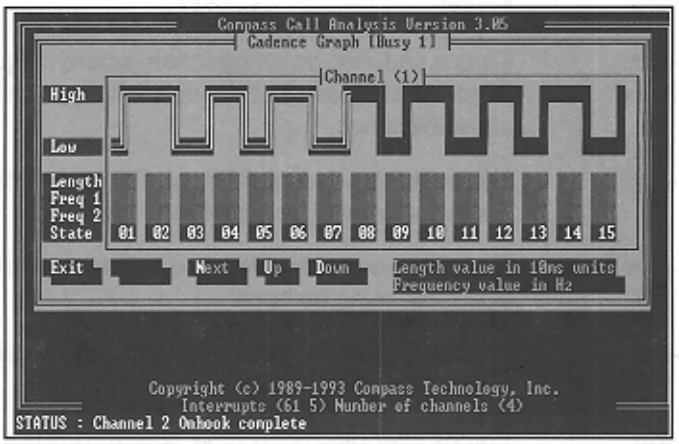


Figure B.14 - Graph screen

The Graph screen provides a visual review of the cadences that were detected.

The Graph screen is used to view a graphic representation of the cadence. Use the Next and Previous buttons to review the different states of the cadence. Use the Up and Down buttons to review the various cadences (Busy, Fast Busy, Double or Single Ring).

Command Line Options

Listed below are the command line options that can be used when executing Compass Call Analysis.

-fb	Forces detection of fast busy caused by invalid number.
-fb-	Forces detection of fast busy caused by answer and hangup.
-dt	Forces dial tone detection.
-dt-	Forces no dial tone detection.
-h*x*	Where *x* is the hardware interrupt level. If this argument is not used, the default interrupt of 7 is used.
-lt	Forces tone table to be loaded.
-lt-	Forces tone tables to be loaded.
-r*n*	Forces specific ring type, where if *n* = 0 single ring detection would be forced. If *n* = 1, double ring detection would be forced.
-th	Forces tone high.
-tf*n*	Forces frequency deviation, where *n* equals the percentage that a tone can deviate from its assigned upper and lower bounds.

-td*n* Forces tone on/off deviation, where *n* equals the percentage that a tone can deviate from its assigned minimum and maximum times to stay in bound.

-cd*n* Forces cadence on/off deviation, where *n* equals the percentage that the length of a state in a cadence can vary from its minimum and maximum allowable times.

-cc*n* Forces the number of call analysis retries, where *n* equals the number of times to retry a failed detection.

-nh*n* Forces the on hook delay time, where *n* equals the number of seconds to wait after going on hook.

-fh*n* Forces the off hook delay time, where *n* equals the number of seconds to wait after going off hook.

-id*n* Forces inter-digit delay time, where *n* equals the number of milliseconds between DTMF digits.

-dd*n* Forces the DTMF digit length, where *n* equals the number of milliseconds.

-sc*n* Forces CCA to analyze *n* number of spans. If the switch emits a fast bust or double ring, set *n* to 5.

-ss*n* Forces the Number of Continuous Audio, where *n* equals the number of the state used to start call analysis.

Theory of Operation

The Theory of Operation contains descriptions of the cadence detection procedure. The process involves many parameters which can be altered during Advanced Analysis, described later in this appendix.

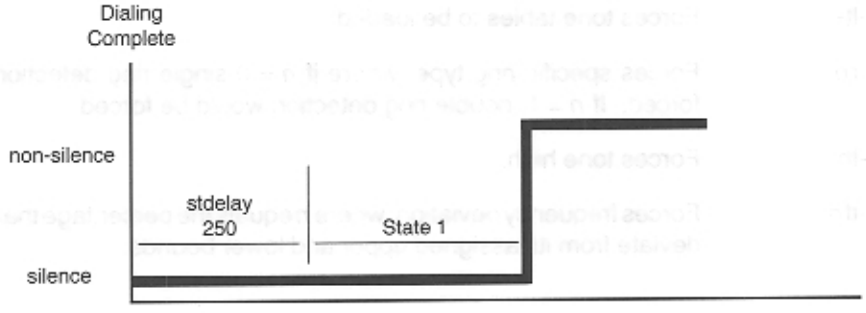
Please note that the algorithm used for cadence detection is disclosed and protected by U.S. patent 4,477,698.

Note:
Should you need to change any of the call analysis parameters, shown in this section in capital letters, select Advanced from the Main screen, then choose the appropriate button.

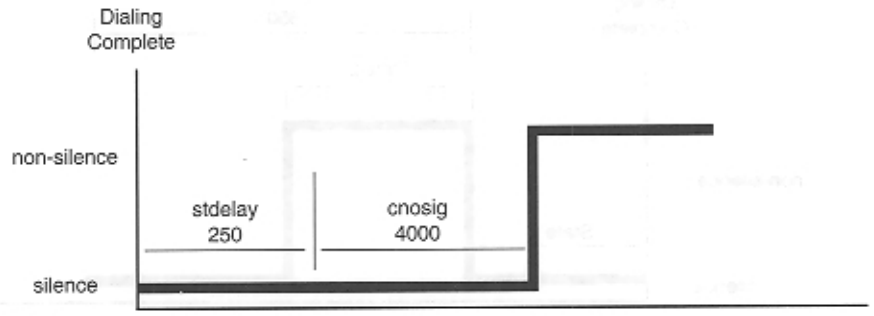
State 1 - The Initial Silence after Dialing

The first period of silence in call analysis is considered State 1. After dialing, call analysis waits the length of time specified in the parameter STDELY (STart DELaY) before considering silence a part of State 1.

Note:
Periods of silence and non-silence are measured in 10 millisecond units. Therefore, if STDELY is set to 25, the length of the silence before State 1 is 25x10 milliseconds, or .25 seconds.



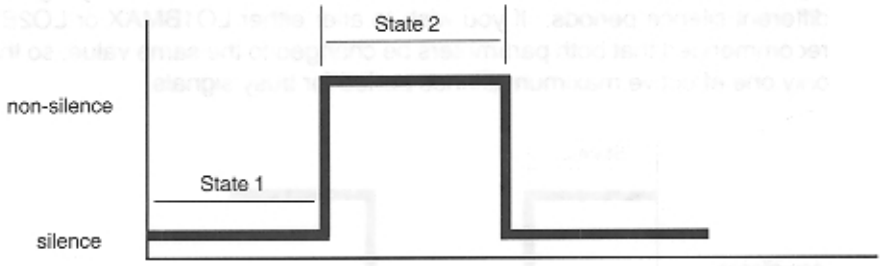
During State 1, the call analysis program waits for an audio signal (non-silence). When an audible sound is detected (the beginning of State 2), the length of State 1 is returned as the LONGLOW value, and call analysis continues to State 2.



The maximum amount of time to wait for an audio signal is determined by the value of the CNOSIG parameter (Continuous NO SIGnal). If the duration of the State 1 wait exceeds the value of CNOSIG, a **no ringback** is returned. If the State 1 value is greater than 40 seconds, it may indicate a dead or disconnected telephone, or that some other system malfunction is present.

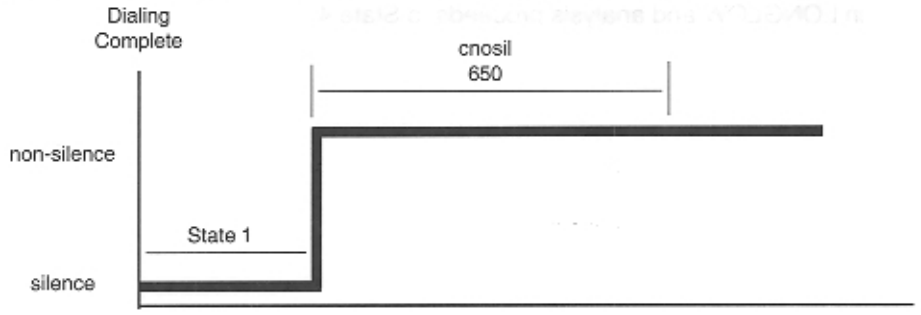
State 2 - The First Measured Non-silence Duration

State 2 is the first period after dialing during which non-silence is detected. The audio signal detected in a non-silence period could be part of a ring, a busy signal, or a spoken response. During State 2, call analysis waits for the end of the audio signal (a return to silence).

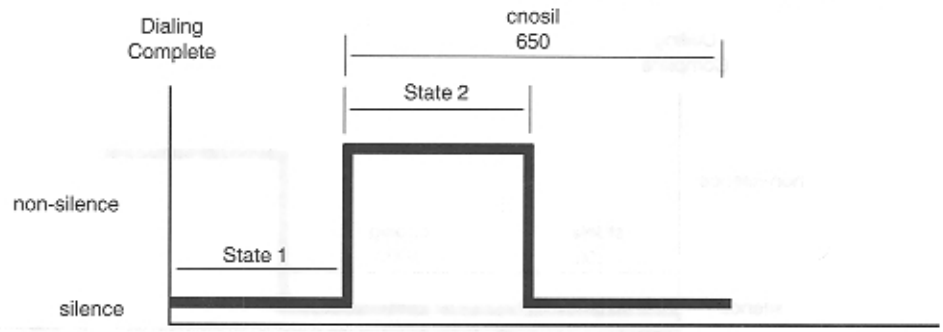


Note:
You may start call analysis with a period other than the first non-silence period by using the NBRBEG parameter (NumBeR before BEGinning). Ordinarily, you would want to begin with the first non-silence period, so the default value is 1. If you are in an environment where every call starts with an initial ring and then is automatically transferred to another line, you would want to set NBRBEG to 2 or greater.

The maximum time to wait for the end of the non-silence period is limited by the parameter CNOSIL (Continuous NOn-SILence). If the length of the audio signal is greater than the value of CNOSIL, either a **no answer** (firmware versions 56 and earlier) or a **no ringback** (firmware version 57 and later) will be returned.



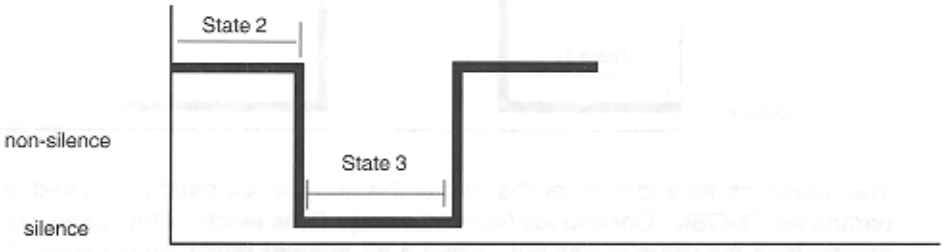
If the duration of State 2 does not exceed CNOSIL, the duration of the non-silence period is returned in SIZEHIGH, and call analysis continues to State 3.



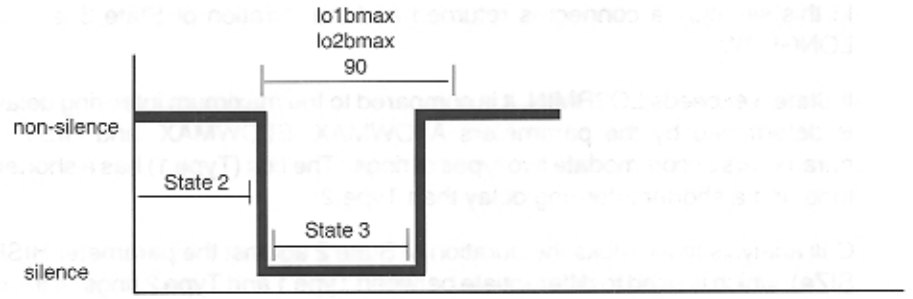
State 3 - The First Measured Silence Duration

State 3 is the first period of silence following the first audio signal. It is also the first state that is used to establish part of a cadence. The length of State 3 is used to determine if it is part of a ring, a busy signal, or a connect. If the length falls within the range set for silence between rings or busy signal tones, the duration is stored in LONGLOW and analysis proceeds to State 4. If the duration of silence is longer than the length of silence found in a busy signal but is not long enough to be the period of silence found between rings, it is considered a connect. A connect is also returned if the silence period exceeds a specified limit.

The parameters LO1BMAX (LOw 1 Busy MAXimum) and LO2BMAX (LOw 2 Busy MAXimum) are used to set the allowable durations for State 3 if it is part of a busy signal. Two parameters are used in order to accommodate busy signals with two different silence periods. If you wish to alter either LO1BMAX or LO2BMAX, it is recommended that both parameters be changed to the same value, so that there is only one effective maximum silence period for busy signals.

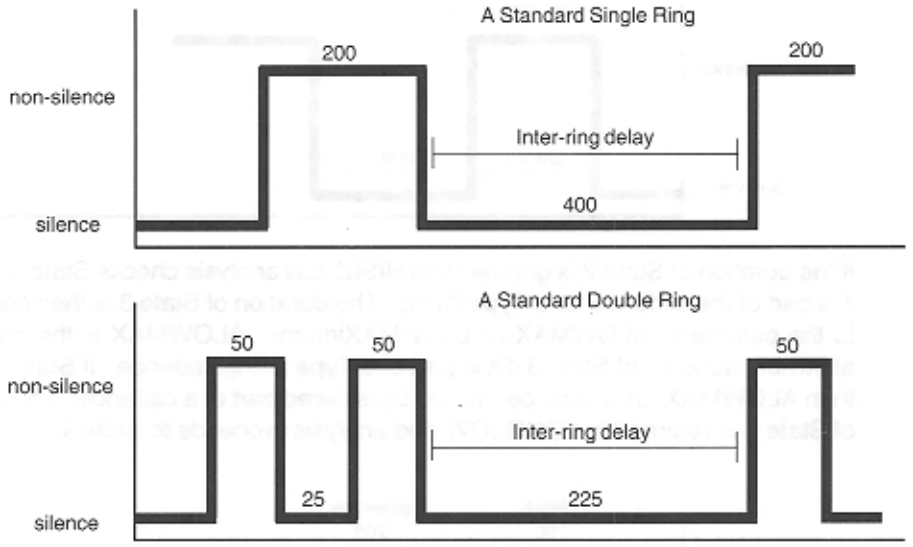


If State 3 is less than LO1BMAX and LO2BMAX, the duration of State 3 is returned in LONGLOW and analysis proceeds to State 4.

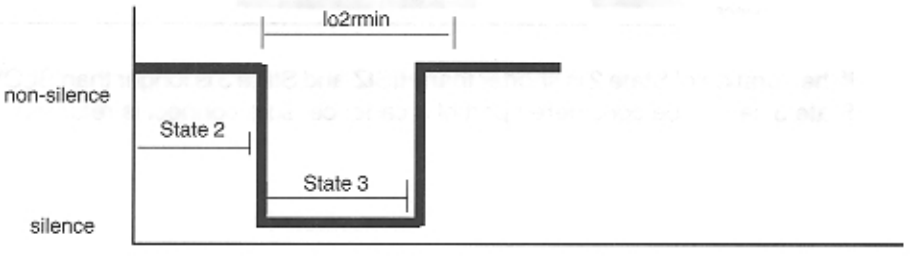


The parameter LO1RMAX (LOw 1 Ring MAXimum) is used to set the maximum allowable duration of State 3 if it is part of the silence between the two rings of a double ring. If State 3 is less than LO1RMAX, the duration of State 3 is returned in LONGLOW and analysis proceeds to State 4.

If State 3 is longer than LO1BMAX, LO2BMAX, and LO1RMAX, call analysis checks to see if it is long enough to be the period of silence found between two single rings or one double ring, as illustrated below. This period is known as the "inter-ring delay."



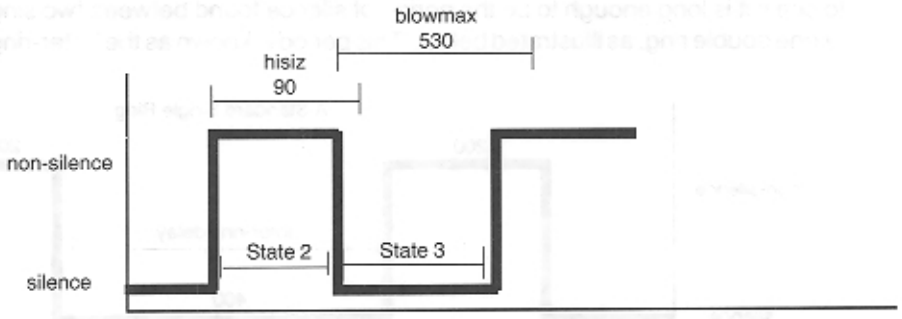
The minimum value for the inter-ring delay is LO2RMIN (LOw 2 Ring MINimum). If the duration of State 3 is less than LO2RMIN, as shown below, then it is too short to be a part of a standard single or double ring.



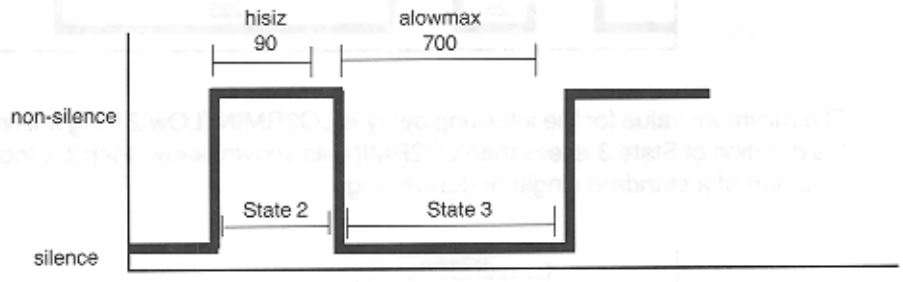
In this situation a connect is returned and the duration of State 3 is returned in LONGLOW.

If State 3 exceeds LO2RMIN, it is compared to the maximum inter-ring delay, which is determined by the parameters ALOWMAX, BLOWMAX, and HISIZ. These parameters accommodate two types of rings. The first (Type 1) has a shorter ringing tone and a shorter inter-ring delay than Type 2.

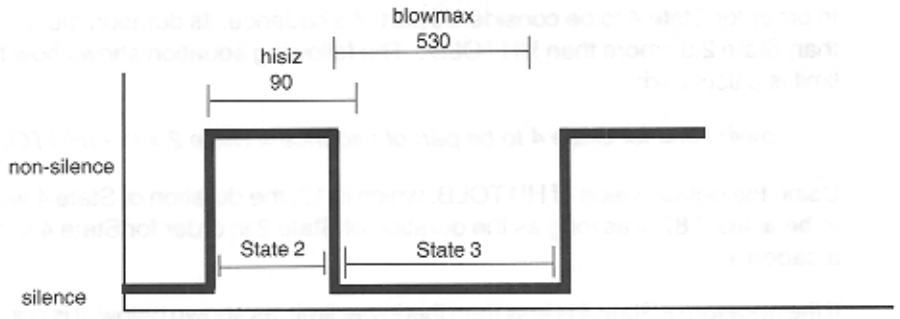
Call analysis first checks the duration of State 2 against the parameter HISIZ (HIgh SIZe), which is used to differentiate between Type 1 and Type 2 rings. If the duration of State 2 is shorter than HISIZ, call analysis checks State 3 to see if it is part of the cadence for a Type 1 ring. The duration of State 3 is then compared to the parameter BLOWMAX (B LOW MAXimum), the maximum allowable duration of State 3 if it is part of a Type 1 ring cadence. If State 3 is less than BLOWMAX, as shown below, it is considered part of a cadence. The duration of State 3 is returned in LONGLOW and analysis proceeds to State 4.



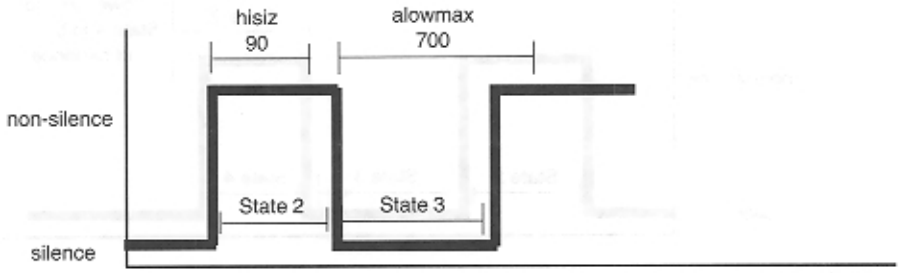
If the duration of State 2 is greater than HISIZ, call analysis checks State 3 to see if it is part of the cadence for a Type 2 ring. The duration of State 3 is then compared to the parameter ALOWMAX (A LOW MAXimum). ALOWMAX is the maximum allowable duration of State 3 if it is part of a Type 2 ring cadence. If State 3 is less than ALOWMAX, as shown below, it is considered part of a cadence. The duration of State 3 is returned in LONGLOW and analysis proceeds to State 4.



If the duration of State 2 is shorter than HISIZ and State 3 is longer than BLOWMAX, State 3 cannot be considered part of a cadence, so a connect is returned.



If State 2 is greater than HISIZ and State 3 is longer than ALOWMAX, State 3 cannot be considered part of a cadence, so a connect is returned.



Important Note:

If you wish to change ALOWMAX or BLOWMAX, we recommend that the same value be used for both parameters, so that the application uses one maximum inter-ring delay.

If you wish to transfer calls behind a PBX when a ringback is received without waiting for a no answer, you can set ALOWMAX and BLOWMAX to 90. By doing such, call analysis will return a connect when cadence detection detects anything other than a busy signal. This will increase the speed of connect detections.

State 4 - The Second Measured Non-silence Duration

State 4 is the second period of non-silence. It is compared to State 2 to determine the length of the SIZEHIGH cadence field, unless call analysis detects a connect or a continuous signal.

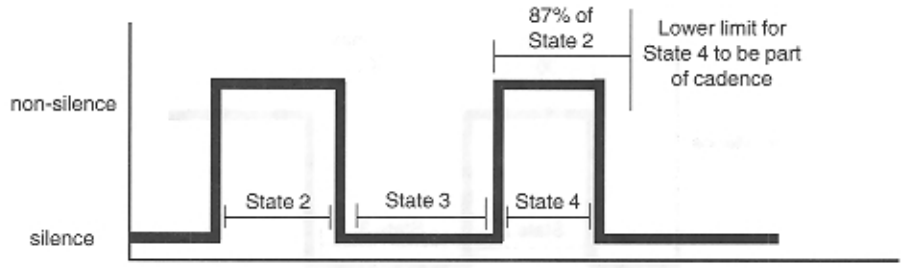
The non-silence periods of a cadence should always be approximately the same length, whether it is a busy or ringing cadence. State 2, the first non-silence period, is compared with State 4 to see if they are similar in duration. The duration of State 4 is compared with the duration of State 2 using the parameter HI1TOLB (HIgh 1 TOLerance Below). This parameter is a percentage.

In order for State 4 to be considered part of a cadence, its duration must not be less than State 2 by more than HI1TOLB . The following equation shows how this lower limit is calculated:

Lower Limit for State 4 to be part of cadence = State 2 x (1 - (HI1TOLB / 100))

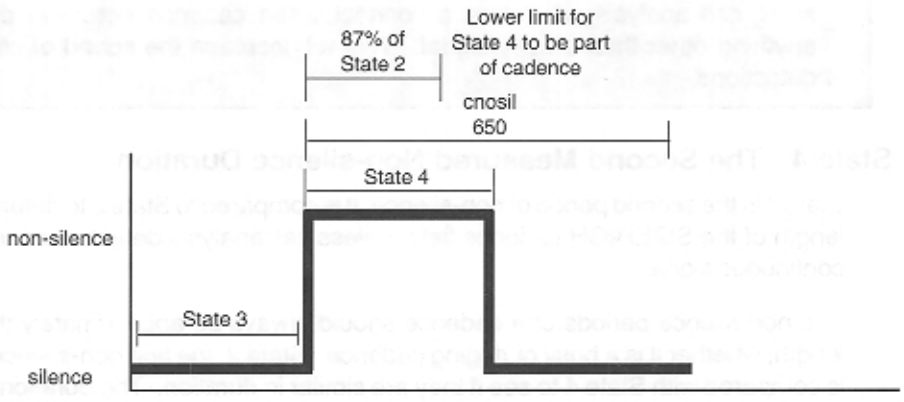
Using the default value of HI1TOLB, which is 13, the duration of State 4 would have to be at least 87% as long as the duration of State 2 in order for State 4 to be part of a cadence.

If the duration of State 4 is less than this lower limit, as shown below, it is not classified as part of a cadence; a connect is returned. This might happen if a person were to answer the phone after one ring and say "Hello."

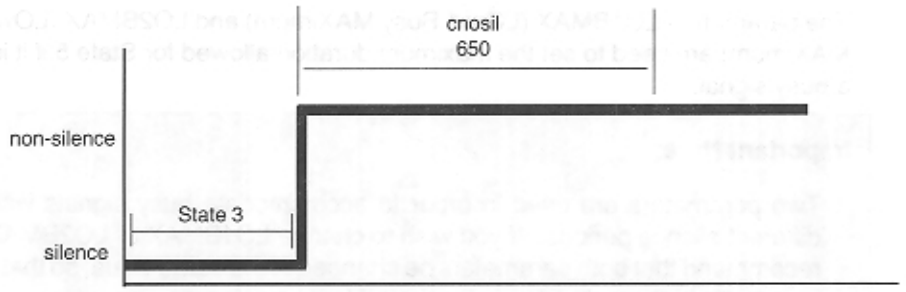


If the duration of State 4 is greater than the lower cadence limit, it is compared with the parameter CONSIL (COntinuous Non SILence). This is the same parameter used for State 2. It sets the maximum length of non-silence allowed before a no ringback or no answer is returned.

If the duration of State 4 does not exceed CONSIL, as shown below, the duration of State 2 is compared with the duration of State 4, and the longer value is returned in SIZEHIGH. Call analysis then proceeds to State 5.

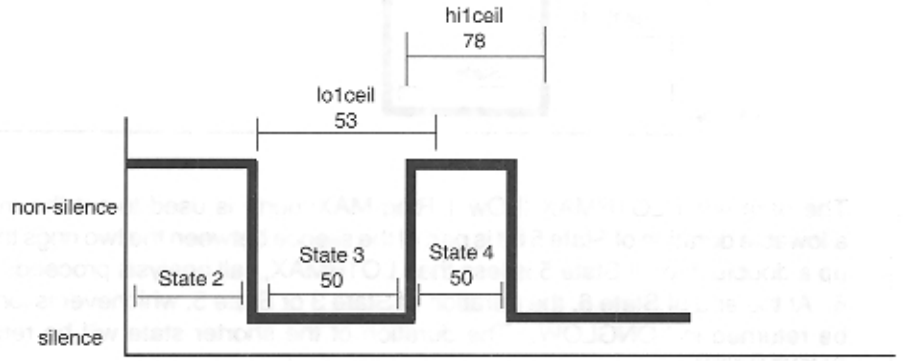


If the duration of State 4 exceeds the value of CONSIL, a no answer is returned in firmware version 56 and earlier; a no ringback is returned in firmware version 57 and later.



Occasionally, an initial ring will be followed by a busy signal. Call analysis checks for this by comparing States 3 and 4 with the parameters LO1CEIL (LOw 1 CEILing) and HI1CEIL (HIgh 1 CEILing). LO1CEIL is the maximum allowable duration of State 3 if it is part of a busy signal. If State 3 is less than LO1CEIL, call analysis checks the duration of State 4 against HI1CEIL, HI1CEIL is the maximum allowable duration of State 4 if it is part of a busy signal.

If State 3 is less than LO1CEIL and State 4 is less than HI1CEIL, as shown below, call analysis returns the duration of State 4 in SIZEHIGH and proceeds to State 5.



State 5 - The Second Measured Silence Duration

State 5 is the second measured silence duration. It is compared with State 3 to establish the LONGLOW and the SHORTLOW of the cadence, unless call analysis detects a connect. A connect during State 5 is detected using the same parameters used during State 3.

If a connect does not occur, and call analysis proceeds to State 6, all three cadence parameters will be established.

The length of State 5 is analyzed to determine if it is part of a ring, a busy signal, or a connect. If it falls within the parameters set for silence between rings or silence between busy signal tones, the duration of State 5 is compared with the duration of State 3. The longer of the two will be returned in LONGLOW after State 6. The shorter duration will be returned in SHORTLOW.

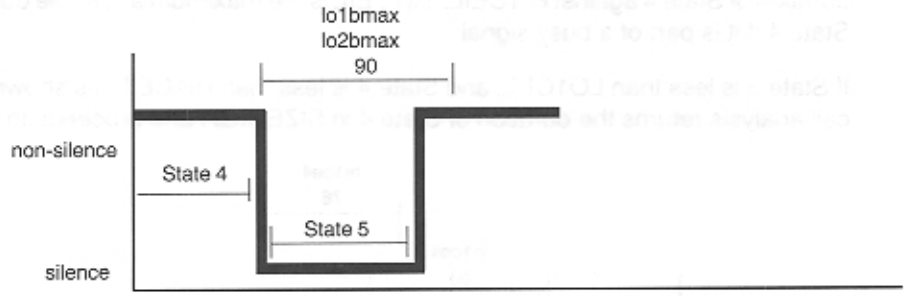
If the period of silence is longer than the period of silence found in a busy signal, but is not long enough to be the period of silence found between ringing, it is considered a connect. A connect is also returned if the silence period exceeds a specified limit.

The parameters LO1BMAX (LOw 1 Busy MAXimum) and LO2BMAX (LOw 2 Busy MAXimum) are used to set the maximum duration allowed for State 5 if it is part of a busy signal.

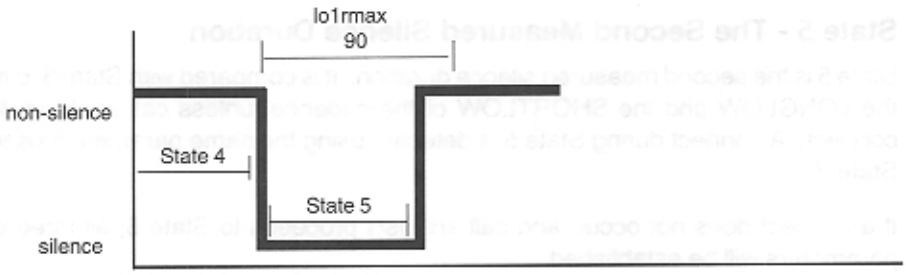
Important Note:

Two parameters are used in order to accommodate busy signals with two different silence periods. If you wish to change LO1BMAX or LO2BMAX, we recommend that both parameters be changed to the same value, so that there is one effective maximum silence period for busy signals.

If State 5 is less than LO1BMAX and LO2BMAX, call analysis now proceeds to State 6. At the end of State 6, the duration of State 3 or State 5, whichever is longer, will be returned in LONGLOW. The shorter state will be returned in SHORTLOW.

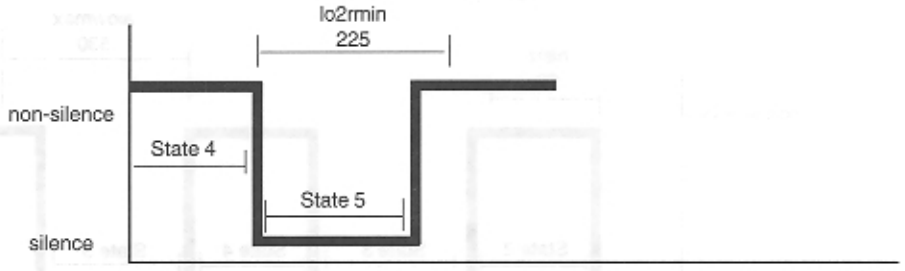


The parameter LO1RMAX (LOw 1 Ring MAXimum) is used to set the maximum allowable duration of State 5 if it is part of the silence between the two rings that make up a double ring. If State 5 is less than LO1RMAX, call analysis proceeds to State 6. At the end of State 6, the duration of State 3 or State 5, whichever is longer, will be returned in LONGLOW. The duration of the shorter state will be returned in SHORTLOW.



If State 5 is longer than LO1BMAX, LO2BMAX, and LO1RMAX, call analysis checks to see if it is long enough to be the period of silence found between two single rings or one double ring (the inter-ring delay).

If the duration of State 5 is less than LO2RMIN, as shown below, then it is too short to be part of a standard ring.



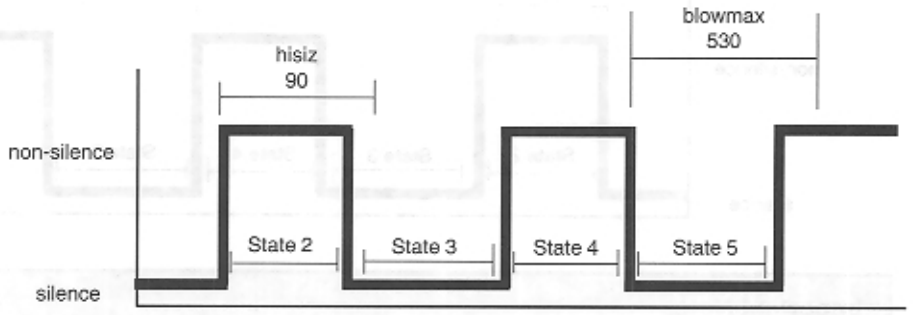
In this situation a connect is returned. The duration of State 5 is compared with the duration of State 3. Call analysis now proceeds to State 6. At the end of State 6, the duration of State 3 or State 5, whichever is longer, will be returned in LONGLOW. The shorter state will be returned in SHORTLOW.

If State 5 exceeds LO2RMIN, it is compared to the maximum inter-ring delay, which is determined by the parameters ALOWMAX, BLOWMAX, and HISIZ.

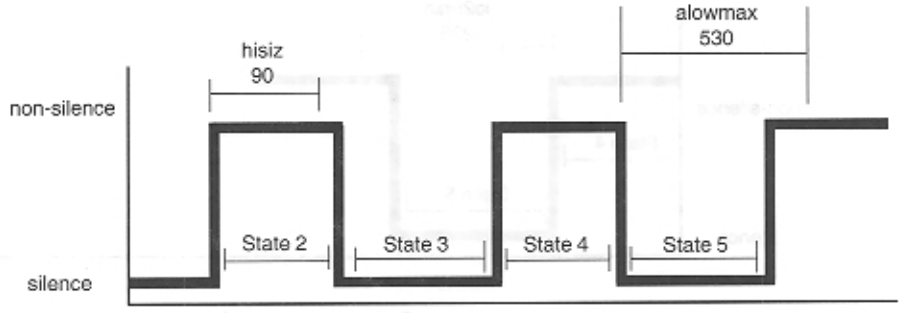
These parameters accommodate two types of rings. Type 1 ringing cadence has a shorter ringing tone and a shorter inter-ring delay than Type 2.

Call analysis first checks the duration of State 2 against the parameter HISIZ (HIgh SIZe), which is used to discriminate between Type 1 and Type 2 rings.

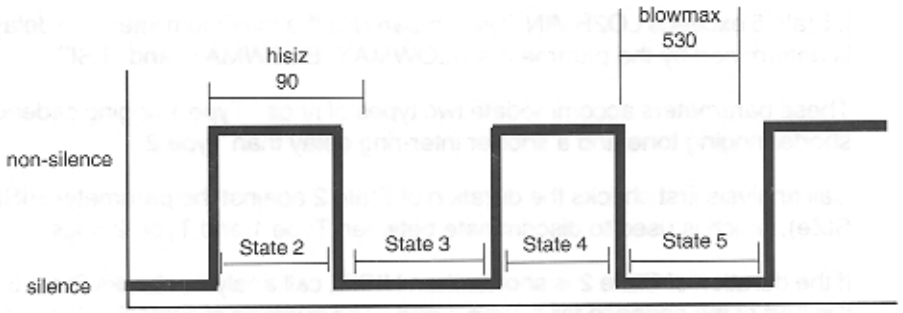
If the duration of State 2 is shorter than HISIZ, call analysis checks State 5 to see if it is part of the cadence for a Type 1 ring. The duration of State 5 is then compared to the parameter BLOWMAX (B LOw MAXimum). BLOWMAX is the maximum allowable duration of State 5 if it is part of a Type 1 ring cadence. If State 5 is less than BLOWMAX, as shown below, it is considered part of a cadence. Call analysis now proceeds to State 6. At the end of State 6, the duration of State 3 or State 5, whichever is longer, will be returned in LONGLOW. The shorter state will be returned in SHORTLOW.



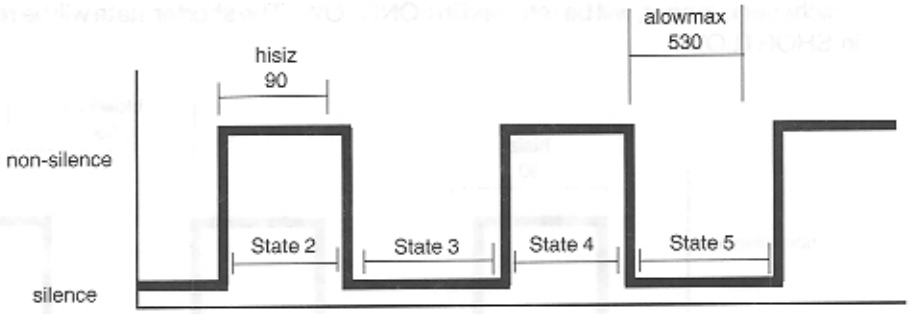
If the duration of State 2 is greater than HISIZ, call analysis checks State 5 to see if it is part of the cadence for a Type 2 ring. The duration of State 5 is then compared to the parameter ALOWMAX (A LOw MAXimum). ALOWMAX is the maximum allowable duration of State 5 if it is part of a Type 2 ring cadence. If State 5 is less than ALOWMAX, as shown below, it is considered part of a cadence. Call analysis now proceeds to State 6. At the end of State 6, the duration of State 3 or State 5, whichever is longer, will be returned in LONGLOW. The shorter state will be returned in SHORTLOW.



If the duration of State 2 is shorter than HISIZ and State 5 is longer than BLOWMAX, State 5 cannot be considered part of a Type 1 ring, so a connect is returned.



If the duration of State 2 is greater than HISIZ and State 5 is longer than ALOWMAX, State 5 cannot be considered part of a type 2 ring, so a connect is returned.



Important Note:

If you wish to change ALOWMAX or BLOWMAX, we recommend that the same value be used for both parameters, so that the application uses one maximum inter-ring delay.

State 6 - The First Cadence Non-silence Duration

State 6 is the first non-silence period that can be measured against the established cadence. This state and all following states are compared with the values stored in SIZEHIGH, LONGLOW, and SHORTLOW. Each state is matched against the appropriate value. If a state deviates from what is expected, the cadence is broken; a connect is returned. If the cadence is not broken, call analysis proceeds to the next state.

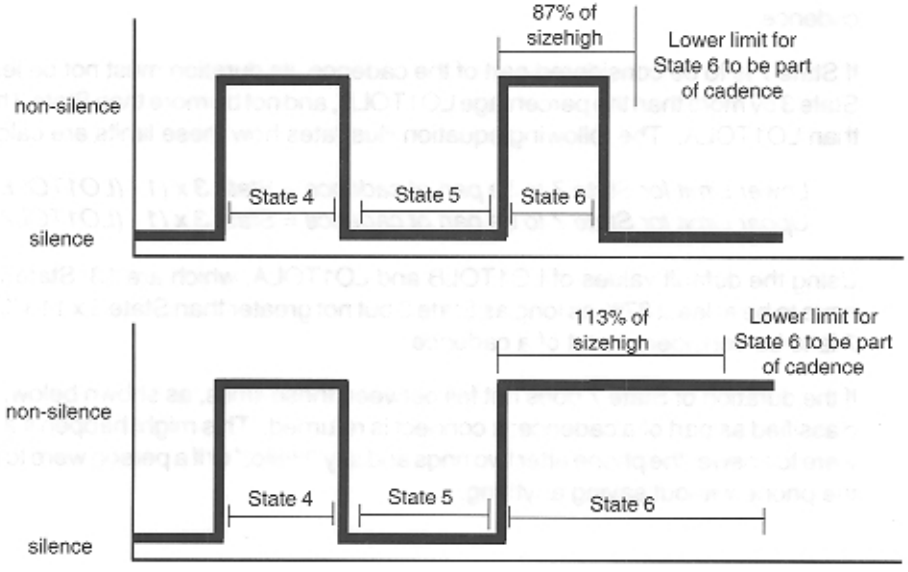
State 6 is compared with SIZEHIGH to see if they are of similar duration. The comparison is done using the parameters HI1TOLB (HIgh 1 TOLerance Below) and HI1TOLA (HIgh 1 TOLerance Above). These parameters define the maximum amount State 6 is allowed to deviate from SIZEHIGH without breaking the cadence.

In order for State 6 to be considered part of the cadence, its duration must not be less than SIZEHIGH by more than the percentage HI1TOLB, and not be more than SIZEHIGH by more than HI1TOLA. The following equation illustrates how these limits are calculated:

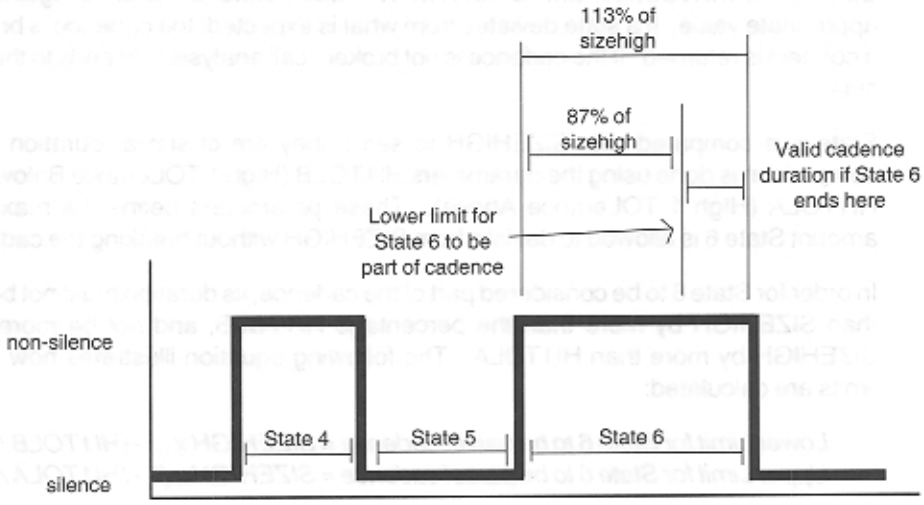
Lower Limit for State 6 to be part of cadence = SIZEHIGH x (1 - (HI1TOLB / 100))
Upper Limit for State 6 to be part of cadence = SIZEHIGH x (1 - (HI1TOLA / 100))

Using the default values of HI1TOLB and HI1TOLA, which are 13, State 6 would have to be at least 87% as long as State 3 but not greater than State 3 x 113% if State 6 is to be considered part of a cadence.

If State 6 does not fall between these limits, as shown below, it is not classified as part of a cadence; a connect is returned. This might happen if a person were to answer the phone after one ring and say "Hello."



If State 6 falls within the limits specified by HI1TOLB and HI1TOLA, as shown below, call analysis proceeds to State 7. When call analysis terminates, the longest measured silence duration (State 3 or State 5) will be returned in SHORTLOW.



State 7 - The First Cadence Silence Duration

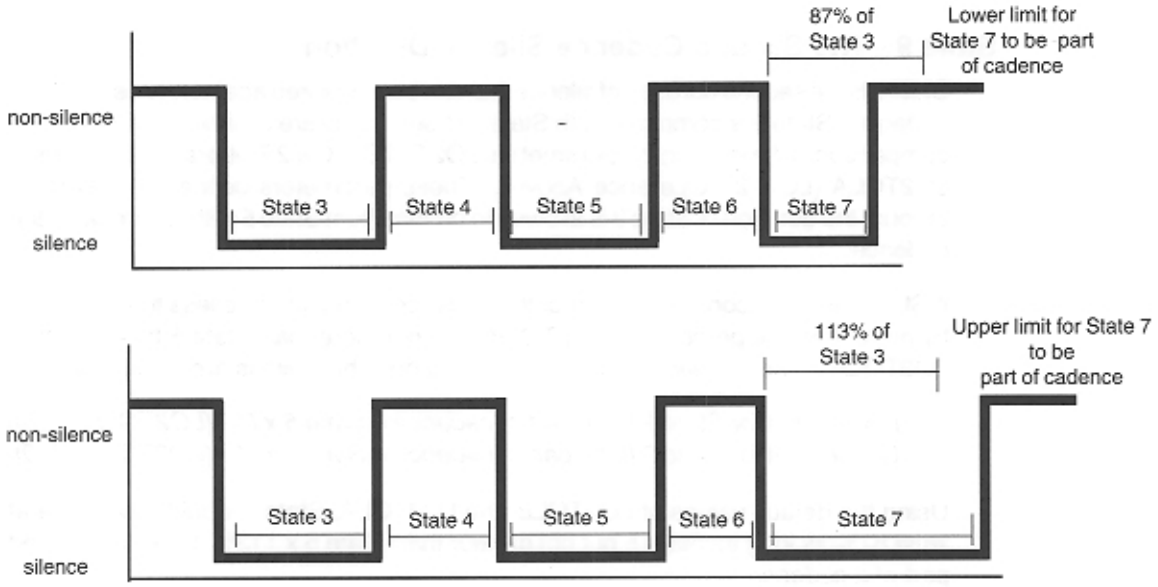
State 7 is the first duration of silence that can be measured against the established cadence. State 7 is compared with State 3 to see if they are of similar duration. The comparison is done using the parameters LO1TOLB (LOw 1 TOLerance Below) and LO1TOLA (LOw 1 TOLerance Above). These parameters define the maximum amount the duration of State 7 is allowed to deviate from State 3 without breaking the cadence.

If State 7 is to be considered part of the cadence, its duration must not be less than State 3 by more than the percentage LO1TOLB, and not be more than State 3 by more than LO1TOLA. The following equation illustrates how these limits are calculated:

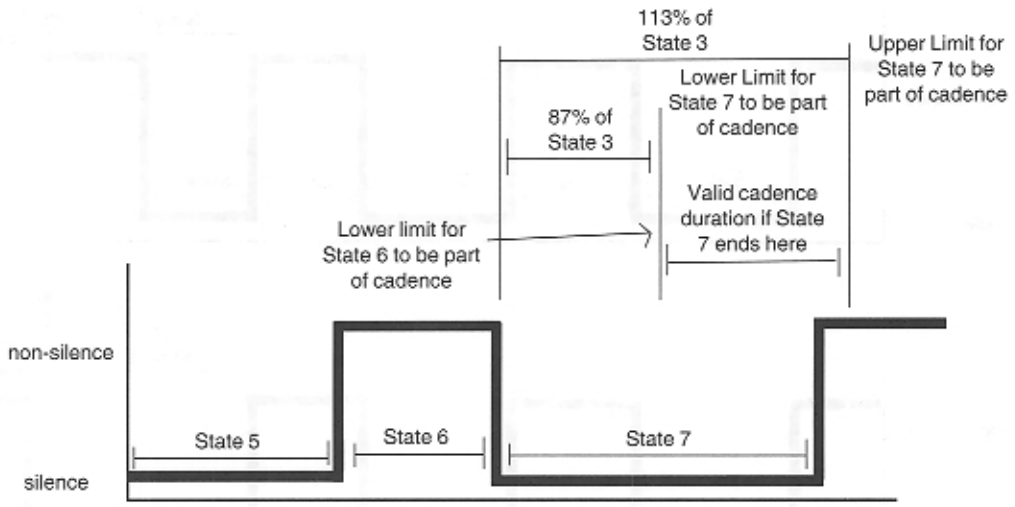
Lower Limit for State 7 to be part of cadence = State 3 x (1 - (LO1TOLB / 100))
Upper Limit for State 7 to be part of cadence = State 3 x (1 - (LO1TOLA / 100))

Using the default values of LO1TOLB and LO1TOLA, which are 13, State 7 would have to be at least 87% as long as State 3 but not greater than State 3 x 113% if State 7 is to be considered part of a cadence.

If the duration of State 7 does not fall between these limits, as shown below, it is not classified as part of a cadence; a connect is returned. This might happen if a person were to answer the phone after two rings and say "Hello," or if a person were to answer the phone without saying anything.



If the duration of State 7 falls within the limits specified by LO1TOLB and LO1TOLA, as shown below, call analysis proceeds to State 8.



State 8 - The Second Cadence Non-silence Duration

State 8 is the second non-silence duration detected once the cadence has been established. State 8 is treated exactly like State 6, the first cadence non-silence duration. All the same conditions, parameters, and methods of termination apply.

State 9 - The Second Cadence Silence Duration

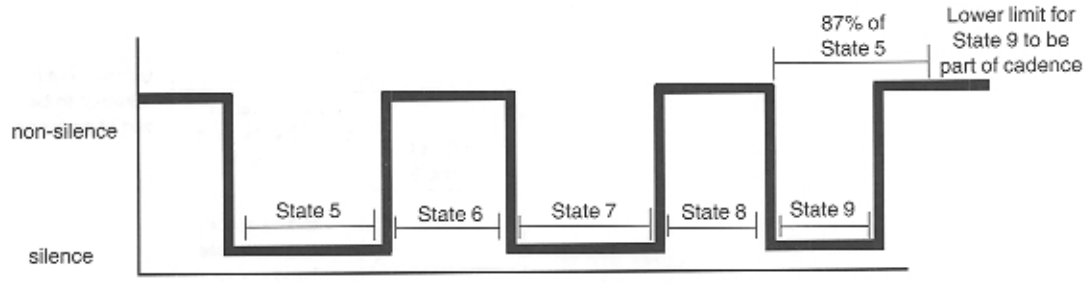
State 9 is the second duration of silence that can be measured against the established cadence. State 9 is compared with State 5 to see if they are of similar duration. The comparison is done using the parameters LO2TOLB (LOw 2 TOLerance Below) and LO2TOLA (LOw 2 TOLerance Above). These parameters define the maximum amount the duration of State 9 is allowed to deviate from State 5 without breaking the cadence.

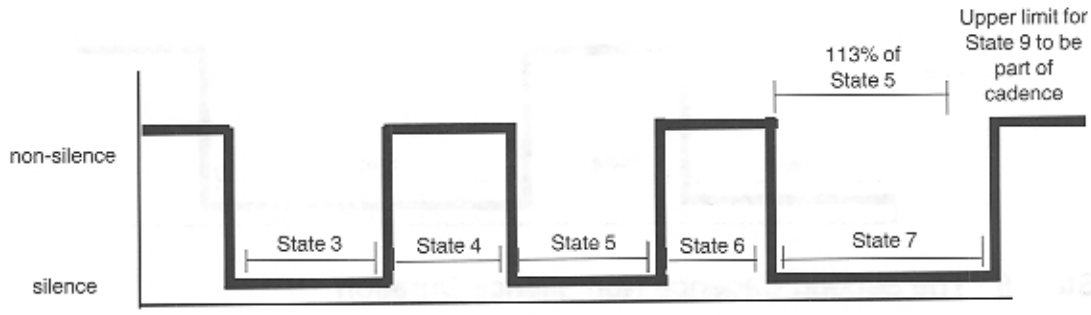
If State 9 is to be considered part of the cadence, it must not be less than State 56 by more than the percentage LO2TOLB, and not more than State 5 by more than LO2TOLA . The following equation illustrates how these limits are calculated:

Lower Limit for State 9 to be part of cadence = State 5 x (1 - (LO2TOLB / 100))
Upper Limit for State 7 to be part of cadence = State 5 x (1 - (LO2TOLA / 100))

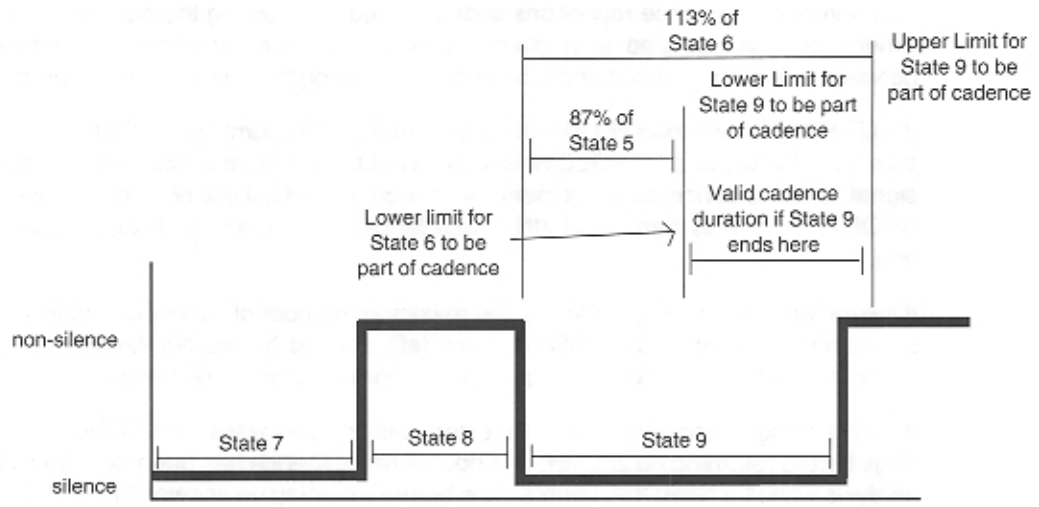
Using the default values of LO2TOLB and LO2TOLA, State 9 would have to be at least 87% as long as State 5 but not greater than State 5 x 113% to be considered part of a cadence.

If the duration of State 9 does not fall between these limits, as shown below, it is not classified as part of a cadence; a connect is returned.



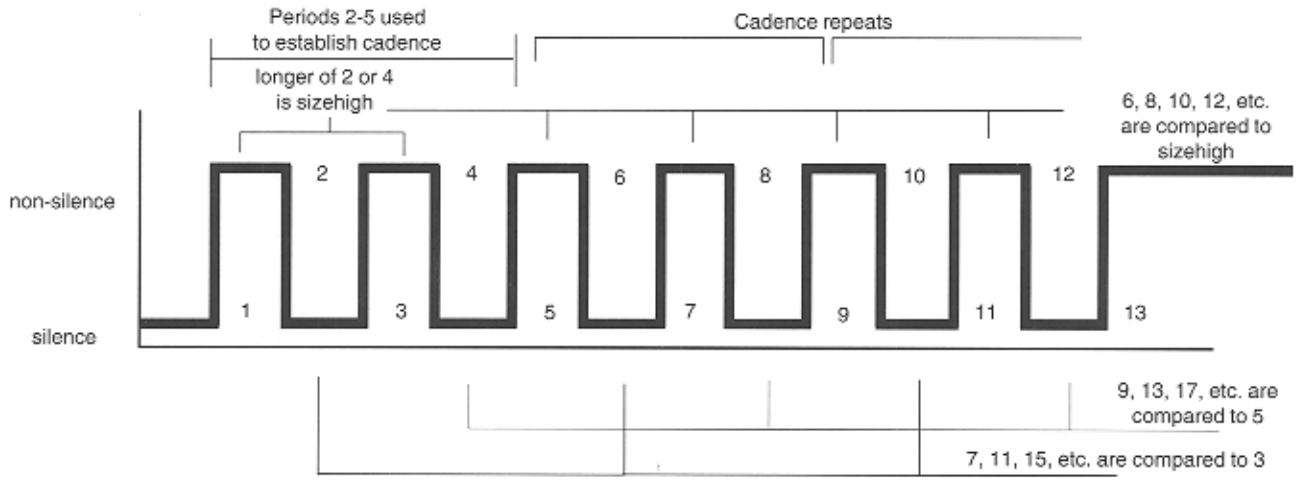


If the duration of State 9 falls within the limits specified by LO2TOLB and LO2TOLA, as shown below, call analysis proceeds to State 9.



Subsequent States

The duration of each subsequent state is compared against the established cadence. State 10 and all subsequent non-silence periods are compared against SIZEHIGH using the parameters HI1TOLA and HI1TOLB as described in the section explaining State 6. The duration of State 11, and each subsequent first cadence silence durations, are compared against State 3 using the parameters LO1TOLA and LO1TOLB, as described in the section explaining State 7. State 13, and each second cadence silence duration, is compared to State 5 using the parameters LO2TOLA and LO2TOLB as described in the section explaining State 9. The following diagram illustrates how the states are compared:



If the duration of any state is not within the specified limits, the cadence is broken and a connect is returned.

If the cadence is not broken, call analysis waits until the cadence repeats itself a specified number of times. If the number of repetitions exceeds the specified amount, a no answer or busy is returned.

The number of cadence repetitions is determined by counting the number of non-silence periods detected after dialing is complete. Call analysis differentiates between a ringing cadence and a busy cadence using the following parameters:

If SIZEHIGH is less than HI1BMAX (HIgh 1 Busy MAXimum), SHORTLOW is less than LO1BMAX, and LONGLOW is less than LO2BMAX, the cadence is a busy signal. If the cadence does not meet these requirements, it is a ringing cadence. If SHORTLOW is less than LO2RMIN, the cadence is a double ring. If not, it is a single ring.

If the cadence is a ringing cadence, the maximum number of cadence repetitions is set using the parameter NBRDNA (NumBeR of rings before No Answer). This parameter sets the number of rings to wait before returning a no answer.

If a single ring cadence has been detected, call analysis waits for NBRDNA single rings before returning no answer. If a double ring cadence has been detected, call analysis waits for NBRDNA double rings before returning no answer (NBRDNA X 2 non-silence periods).

If the cadence is a busy signal, the maximum number of cadence repetitions is set using the parameters NBRDNA and NSBUSY (Non-silence BUSY). NSBUSY is the number of non-silence periods in addition to NBRDNA to wait before returning a busy. In other words, if call analysis detects a busy cadence, it waits NBRDNA + NSBUSY non-silence periods before returning a busy signal.

Appendix C

A Self-Guided Tour Through the Software

This section is designed to better acquaint a Smooth Operator Partner with the features and functionality of the Automated Attendant / Voice Mail System and its documentation through a series of exercises. There are two parts to the exercises:

Part 1 — Smooth Operator Supervisor Exercises
Part 2 — Smooth Operator Subscriber Exercises

These exercises should be completed after following the instructions outlined within the Installation Guide. You should have already installed the System hardware and software, run the Compass Call Analysis program (CCA), and configured the System Setup to meet the requirements of both the phone system and the application.

The Supervisor Exercises (Part 1) should be completed **after** reading the *Supervisor's Guide*. Each exercise has specific tasks to complete as well as a page number and manual reference for further details on how to accomplish the task. You will need the following equipment to complete these exercises:

— At least two phones with valid extensions available for testing with the System. (For purposes of this document, we refer to these extensions as 200 and 201, with the Smooth Operator System's extension as 500.)
— A single-line phone for troubleshooting.
— A Smooth Operator System loaded with software and hardware.

The Subscriber Exercises (Part 2) should be completed after Part 1 and after reading the *Subscriber's Guide*. Again, each exercise has a specific task to complete as well as the page number and manual reference for further details on how to complete the task. Pre-requisites for these exercises:

— Four mailboxes assigned with the four Classes of Service (COS) created in Part 1, step 3. (We refer to these mailboxes as 300-303 assigned COS 1-4, respectively.)

Smooth Operator Supervisor Exercises

1) File Menu (Supervisor Section 2)

   A) Logon to the System using the default level 3 password. Change the level 3 password and logoff.

   B) Logon to the System using the default level 2 password and logoff.

   C) Shutdown.

   D) Restart the System from the C:\CVR> prompt. (Installation 4-2)

   E) Logon using the new level 3 password.

2) Mailbox Menu (Supervisor Section 3)

   A) Create 10 mailboxes, incrementing by one and starting with number 200.

      (1) Assign mailbox 200 to extension 200. (Note: If your mailbox is defined as 200 but the extension is 300, place 300 in the extension field.)

      (2) Edit the name, company name, division, password, and operator.

      (3) Save the mailbox.

   B) Test the Call Analysis results to ensure correct prompting on a Ring no Answer condition, a busy condition and a connect scenario. To do this, use extension 201 to call into the System by dialing 500, and select mailbox 200 at the main greeting. Repeat this test with extension 200 on hook, off hook, and in a connect scenario.

3) Options Menu (Supervisor Section 7)

   A) Select the Class of Service Option. (Supervisor 7-4)

   B) Create four standard Classes of Service so that the options which you select would be viewed as having the following functionality:

      (1) COS 1 - Novice Mailbox User

      (2) COS 2 - Intermediate Mailbox User

      (3) COS 3 - Advanced Mailbox User

      (4) COS 4 - Supervisor

4) Edit Mailbox

   A) Create a Custom Class of Service for mailbox 200. (Supervisor 7-4)

   B) Activate Auto Forwarding. (Supervisor 3-6)

      (1) Activate Auto Forwarding to forward the message after one (1) minute to Mailbox 201, deleting the original message from mailbox 200. Save and Exit the Mailbox.

(2) Bring up the Mailbox Status screen by selecting Display, followed by Mailbox Status.

(3) Send a message to Mailbox 200. Ensure that the message is forwarded to box 201 after one minute and automatically deleted from box 200.

C) Message Delivery Screen (Supervisor 3-7)

(1) Edit mailbox 202 to activate Message Delivery.

(2) Set up three entry screens with valid phone numbers. (i.e. Car Phone, Home Phone, Beeper.)

(3) Test the System by leaving a message in box 202 and ensure proper functionality. (See Supervisor Section 13 for troubleshooting help.)

D) Subscriber's Settings Screen (Supervisor 3-11)

(1) Edit mailbox 201's Call Handling feature to respond with Optional prompt 1 on a busy condition and with Optional prompt 2 on a no answer condition. (Hint: Ensure the prompts are recorded for the mailbox prior to setting.) Then, test the Call Handling.

(2) Edit Call Handling for mailbox 202 to forward to mailbox 201 on a no answer condition and test.

(3) Activate Call Queuing for mailbox 202.

E) Guest Mailboxes (Supervisor 3-13)

(1) Create a Guest mailbox for mailbox 208 and send a message to the Guest mailbox.

(2) Login to the Guest mailbox and send a message to the parent mailbox (208).

F) Duplicating Mailboxes (Supervisor 3-14)

(1) Edit mailbox 202 and create a duplicate mailbox. Review the Subscriber's Settings screen of the duplicated mailbox.

5) Delete Mailboxes

A) Delete a mailbox (207).

6) Clear Mailboxes

A) Clear mailboxes (200 through 205) of messages only.

B) Clear mailbox 202 of Subscriber Settings and statistics only.

7) Supervisor Keypad Functions (Supervisor Section 10)

A) Create a Mailbox (215) via the Supervisor keypad functions and record the mailbox prompts.

B) Create a System Distribution List *13 containing mailboxes 203 through 209.

C) Delete mailbox 208 via the Supervisor keypad functions.

D) Create the following System prompts:

- Prompt 1 "Good Morning...."
- Prompt 2 "Good Afternoon...."
- Prompt 3 "Good Evening..."
- Prompt 4 office Closed greeting
- Prompt 5 "For sales press 1, marketing press 2, ..."
- Prompt 6 "Happy Holidays, our offices are closed..."
- Prompt 7 information on hold
- Prompt 8 information on hold

8) Attendant Menu (Supervisor Section 4)

A) Attendant Menu Screen (Supervisor 4-2)

(1) Assign mailboxes into the keypad mapping screen.

(2) Call into the System and test the functionality of transferring to the appropriate mailboxes.

B) Holiday Menu Screen (Supervisor 4-3)

(1) Assign the appropriate Supervisor prompts created in step 7.

(2) Call into the System and test the prompts.

(3) Change the date as needed at the command line (Display, Command Line) typing the command, DATE *mmddyy*.

C) System Prompts Screen (Supervisor 4-4)

(1) Assign the appropriate Supervisor prompts created in step 7.

(2) Call into the System and test the prompts.

(3) Change the time of day as needed at the command line (Display, Command Line) typing the command, TIME *hhmm*.

D) Call Queuing Screen (Supervisor 4-7)

(1) Assign the appropriate Supervisor prompts created in step 7.

(2) Call into the System and test the prompts.

(3) Take extension 202 off hook and test the Call Queuing prompts.

E) Business Hours Screen (Supervisor 4-8)

(1) Assign the business hours to be Monday through Friday from 8:30 AM to 5:00 PM.

(2) Call into the System and test the prompts.

(3) Change the time of day as needed at the command line (Display, Command Line) using the command `TIME hhmm`

9) Reports Menu (Supervisor Section 5)

A) Print the nine different reports generated by the System.

B) Generate two reports to the disk using some of the range options, if permitted.

10) Display Menu (Supervisor Section 6)

A) View the eight different display screens.

11) Command Line (Supervisor Section 9)

A) Try some of the different commands.

12) Options Menu (Supervisor Section 7)

A) Greetings by Port (Supervisor 7-2)

1) Set up a During Hours mailbox (209) with the Personal Greeting prompt recorded as *"Thanks for calling company 1..."* and the After Hours mailbox (207) Personal Greeting prompt recorded as *"Company 1 is currently closed..."*.

2) Setup a During Hours mailbox (208) with the Personal Greeting prompt recorded as *"Thanks for calling company 2..."* and the After Hours mailbox (206) Personal Greeting prompt recorded as *"Company 2 is currently closed..."*.

3) Call into each port during business hours and after business hours to test the prompts.

13) System Setup (Installation 3-12)

A) Review all Setup questions; pressing the <F1> key or referring to the manual for help.

B) Test the Message Waiting Light Codes, Paging Codes, etc. in the switch setup.

C) If the switch does not provide Inband Signaling, simulate the incoming digit strings by manually entering the DTMF digits.

(1) Shut down the System and return to the C:\CVR> prompt.

(2) Edit the SET_UP.CFG file in the \CVR directory and change parameter X43 to 1.

(3) Restart the System by typing `RUNSMO3` from the C:\CVR> prompt.

(4) Activate the Command Line Interface.

(5) Configure the Setup questions to accommodate inband signaling strings of:

*201 where * is the Code to Go to Voice Mail and 201 is the mailbox number.

#202 where # is the Code for Immediate Login and 202 is the mailbox number.

(6) Activate the ANSTONE parameter, and set the Number of Milliseconds to 9999 (almost 10 seconds).

(7) Call into the System, and, upon hearing the tone, manually enter the digits *201. A caller should hear the Personal Greeting prompt for mailbox 201.

(8) Call into the System, and, upon hearing the tone, manually enter the digits #202. A caller should be logged into mailbox 202.

14) Batch and System Files/Shutdown at Midnight (Installation 4-6)

A) Edit the DOW.BAT file to run PC Tools' COMPRESS every weekday and to do a tape backup each Sunday.

B) Ensure that Shutdown at Midnight in the System Setup is set to Yes.

C) Change the System time to 23:59 using the TIME *hhmm* command at the Command Interface Line.

D) Call into the System and ensure the proper shutdown of all ports at midnight, and, upon your hang-up/termination of the Smooth Operator session, ensure the DOW.BAT file is run correctly.

15) Quick Assist (Installation 7-6)

A) Shut down the System.

B) Type `QASSIST` from the C:\CVR> prompt.

C) Run the Verify option.

D) Run the Update Partial option.

E) Run the Create option.

Smooth Operator Subscriber Exercises

1) Call into the Smooth Operator System and login to each mailbox, execute CoEducator for each box. Change the password and record the prompts, then review the different options available at the Main Menu for each mailbox due to the different types of COS assigned. (Subscriber 1-6)

2) Login to mailbox 300 and send an urgent message without confirmation to mailbox 301. Then, send a copy of the message with comments to mailbox 302 and without comments to 303. (Subscriber 2-6)

3) Have mailbox 303 send an urgent message using System Distribution List *13 (created Part 1, 7-B). Then, send a different message using the division Distribution List. (Subscriber 2-6, 2-18 through 2-19)

4) Login to mailbox 302 and listen to the first message. Reply to mailbox 300 with confirmation. Then, delete the message, and recover the deleted message from the Main Menu. (Subscriber 2-3)

5) Login to mailbox 300 and save the reply message from mailbox 302.

6) Login to mailbox 302 and check message confirmation. (Subscriber 2-9)

7) Login to mailbox 303 and change the message sent via System Distribution List *13 for mailbox 209 only. (Subscriber 2-11)

8) Set a Wake-Up call for mailbox 303 to call extension 201 in five (5) minutes. Then, when the Wake-Up call is answered, reschedule the call for the same time tomorrow at a different number (i.e. your home number) (Subscriber 2-13)

9) Login to mailbox 303 and create a distribution list of all odd numbered boxes on the System. (Subscriber 2-18) Then, create two folders, with the first labeled "Things to Do" and the second labeled "Callbacks". (Subscriber 2-12)

10) Set mailbox 301 to block all calls with an Optional prompt. (Subscriber 2-22)

11) Create the V-Tree described in the Subscriber Manual page 3-9 in mailbox 303. (Subscriber Section 3)

12) Set mailbox 302 to forward on a no answer or busy condition to mailbox 303 (blocked with the V-Tree created in step 11). Call into the System, select mailbox 302, and test all the options in the V-Tree. (Subscriber 2-22)

13) Activate Message Delivery entry 1 for mailbox 303 to call extension 201 for all messages. Send a message to mailbox 303 and test the delivery. (Subscriber 2-13)

14) Activate Call Queuing (Subscriber 2-17) and Call Paging (Subscriber 2-19) for mailbox 303 and test the System's prompting when a caller selects mailbox 303 for both a busy condition and a no answer condition. Enter into the queue on a busy condition, and page the subscriber on a no answer condition (if your phone system supports Intercom Paging).

15) Call into mailbox 300 and scan for messages (Subscriber 2-10) from 302. Then listen to new messages and save a message in a folder (Subscriber 2-3). Next, listen to the message in the folder and use the keypresses to pause, fast forward, and rewind the message.

Notes:

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