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INTUITY CONVERSANT System Silent Sentry

Version 3.0

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Acknowledgment
This document was prepared by the Product Documentation Development, Lucent Technologies, Denver, CO.

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About This Book

How to Use This Book

CONVERSANT Silent Sentry is written for customer services system administrators. The book describes the basic support functions of installing, setting up, and customizing Silent Sentry. Silent Sentry is a powerful Lucent Technologies CONVERSANT® monitoring system.

The chapters of this book build on each other, so it is a good idea to read them in order.

- Chapter 1, "Understanding Silent Sentry" explains the value of using Silent Sentry to monitor for system events that could affect your voice response or transaction service. The Gold Savings & Loan example, used throughout the book, is introduced here to illustrate what Silent Sentry does.
- Chapter 2, "Silent Sentry: A Detailed Overview" describes the Silent Sentry architecture and how its different modules interact.
- Chapter 3, "Installing Silent Sentry" provides installation instructions.
- Chapter 4, "Using Silent Sentry" provides an overview describing the best ways to use Silent Sentry.
- Chapter 5, "Accessing Silent Sentry: The User Interface" introduces the Silent Sentry user interface.
- Chapter 6, "Understanding Basic Features" describes the Silent Sentry software's default behavior.

- Chapter 7, "Customizing Silent Sentry" details how to activate additional features and how to further customize the software to each user's particular needs. This chapter is recommended for knowledgeable UNIX and CONVERSANT users.
- The appendixes provide worksheets designed to help organize your thoughts when setting up the software features, a listing of Silent Sentry speech phrases, detailed instructions for running the Silent Sentry demo, a listing of all the Silent Sentry default data, and a glossary.

Conventions

Spoken phrases are in italics (for example, *This is the Silent Sentry calling*).

Entries that you type, phrases, commands, actions, and utilities are in bold (for example, the UNIX command: **installpkg**).

Menu items are in italics (for example, *Application Package Administration*).

Keyboard keys are enclosed in round-corner boxes (for example, ENTER).

Function-key actions are enclosed in square brackets and shown in italics (for example, *[HELP]*).

Assumptions

This book assumes that you have a CONVERSANT system (version 4.0, 5.0, or 6.0) running under the UNIX operating system. See "Checking the Requirements List" on page 3-2 for a complete list of Silent Sentry software and hardware requirements.

In addition, this book assumes you are familiar with UNIX, the CONVERSANT in general, and the specific system to be monitored by Silent Sentry.

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Related Resources

Following is a list of related CONVERSANT documentation:

- *INTUITY CONVERSANT System Version 6.0 Upgrade*, 585-310-183
- *INTUITY CONVERSANT System Version 6.0 Maintenance*:

MAP/40	585-310-181
MAP/100	585-310-179
MAP/100C	585-310-180

- *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591
- *INTUITY CONVERSANT System Version 6.0 Application Development with Advanced Methods*, 585-310-761
- *INTUITY CONVERSANT System Version 6.0 Application Development with Script Builder*, 585-350-704

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Understanding Silent Sentry

1

This chapter introduces Silent Sentry and the Gold Savings & Loan example that is used throughout this book.

About Silent Sentry

Silent Sentry is a software package that runs on the Lucent Technologies CONVERSANT® system. Silent Sentry monitors the internal status of the CONVERSANT and any computers connected to it. When an *event* occurs, Silent Sentry prompts the CONVERSANT to perform several *actions* to notify key people that something important has occurred (Figure 1-1). Silent Sentry helps you determine which events to monitor, appropriate actions to take, and who to contact to ensure that important events are handled in a timely manner as illustrated in Figure 1-1.

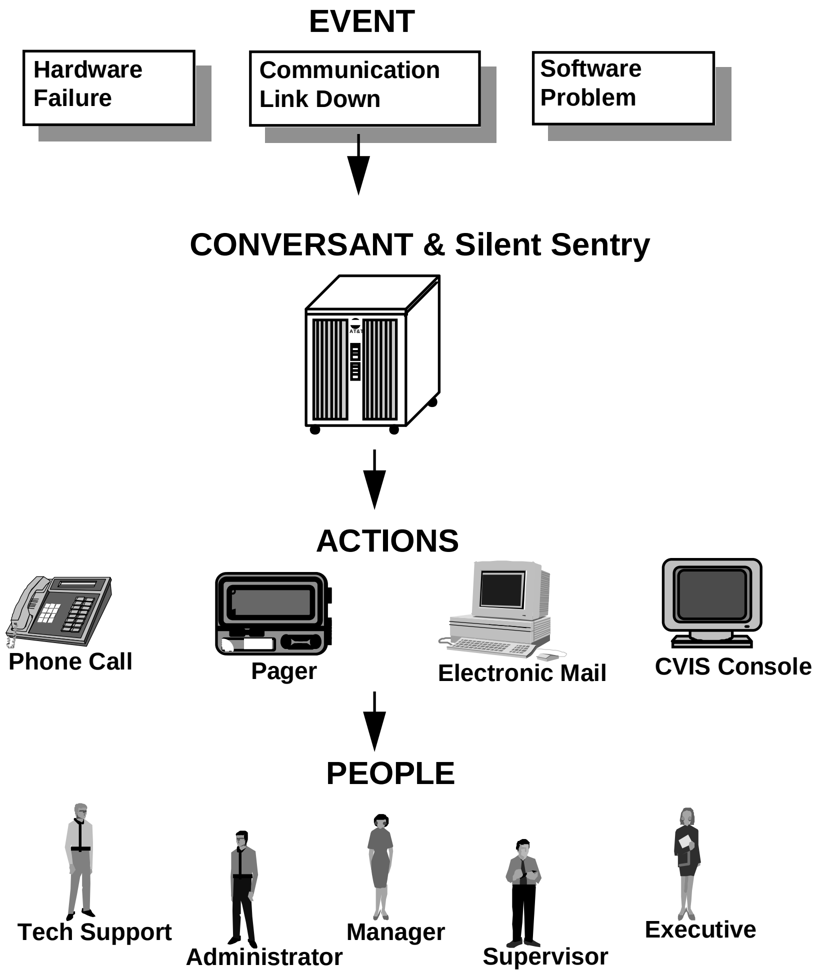


Figure 1-1. Silent Sentry

Features

Are your customers the first to let you know when a problem has occurred with your interactive voice-response system? Do you know when your best customers make a large transaction on your system? Has your voice-response system ever experienced a problem on Friday night that went unnoticed until Monday morning? Silent Sentry informs you of the important events that affect your customers and your business. You decide the kinds of events to monitor, such as hardware problems, software problems, application events, or generic message events.

Silent Sentry provides:

- Automatic, Timely, and Accurate Notification

  When an event occurs, Silent Sentry notices and notifies the proper personnel. The notification process begins within moments of the event’s occurrence. This notification identifies the event, where the event occurred, and when it occurred.

- Flexible Administration

  Silent Sentry administrators determine what types of events are important enough to be reported, who to notify of the events, when certain notifications should take place (this can vary depending on in-hours and out-of-hours), and how the notification should take place. The current notification methods include:

  - Voice phone calls
  - Pager calls
  - Electronic mail
  - Console messages

- Service Insurance

  Silent Sentry monitors events 24 hours a day every day of the week. When Silent Sentry detects an event, it retries notification attempts until an authorized person confirms receipt of the message or fixes the problem (if one exists). This minimizes negative impact on customer service by ensuring that events don't go undetected for long periods of time.

- Multi-Purpose Monitoring

  Silent Sentry not only monitors the CONVERSANT system where it is installed, it can also be adapted to monitor other computers and networks connected to the CONVERSANT. These systems can be connected with a:

  - Network
  - ORACLE® SQL*Net®
  - RS-232 serial connection

  Silent Sentry can monitor the CONVERSANT for a variety of situations and act as a generic message and notification system.

Example: Gold Savings & Loan

The following example is used throughout this book to show how Silent Sentry software works.

Gold Savings & Loan provides an automated customer-information line, allowing its customers access — 24 hours a day, seven days a week — to checking- and savings-account information and transactions using their touch-tone phones. The information line application resides on a CONVERSANT, which is connected to a mainframe host containing all account information.

In this scenario, suppose that the link to the mainframe failed at 10:00 Friday evening, preventing callers from accessing their account information. The CONVERSANT recognizes this and generates an internal error message, but the error is not detected by the system administrator, Marty, who has left for the weekend. Customers calling the information line are the first to realize there is a problem when the system tells them, “We are temporarily experiencing problems. Please try your call again later.”

Fortunately, Silent Sentry identifies the failed mainframe link as a critical problem that requires attention. Since the problem occurred after business hours, Silent Sentry tries to call Marty at home. However, Marty is not home so the call goes unanswered. Silent Sentry places the next call to Marty's pager number, and transmits a numeric message about the situation. Then Silent Sentry calls Cathy (the application developer) at home and also sends her an electronic mail message.

Silent Sentry continues placing phone calls until either Marty or Cathy answers a call (or calls into the CONVERSANT) and confirms receipt of the notification. In this case, Cathy answers her second phone notification and confirms receipt of the call by entering a touch-tone personal identification number (PIN). Because Cathy confirmed receipt of the notification, she now accepts responsibility to re-establish the host link. Silent Sentry stops trying to notify Marty when it receives the PIN from Cathy.

⚠ **CAUTION:**

When any one person confirms receipt of a Silent Sentry notification, all other notification attempts stop. The person confirming receipt must follow through (if necessary) by performing the necessary activities to get the system back to normal. Advanced users can set up Silent Sentry to fix some problems without even bothering the administrator.

Silent Sentry: A Detailed Overview

2

Overview

This chapter presents a Silent Sentry overview and uses the Gold Savings & Loan example to show how Silent Sentry handles events and calls contacts to notify them of an error. Chapter 5, "Accessing Silent Sentry: The User Interface" describes the Silent Sentry user interface.

Figure 2-1 illustrates the Silent Sentry architecture which includes relationships between several components, as follows:

- The *spies* monitor a CONVERSANT hardware configuration and enter *events* into the events table.
- The *dispatcher* monitors the events table for events and then checks the actions table to determine what *actions* to run for each event that it finds.
- The user interface allows an administrator to adapt Silent Sentry to the particular needs of the system.

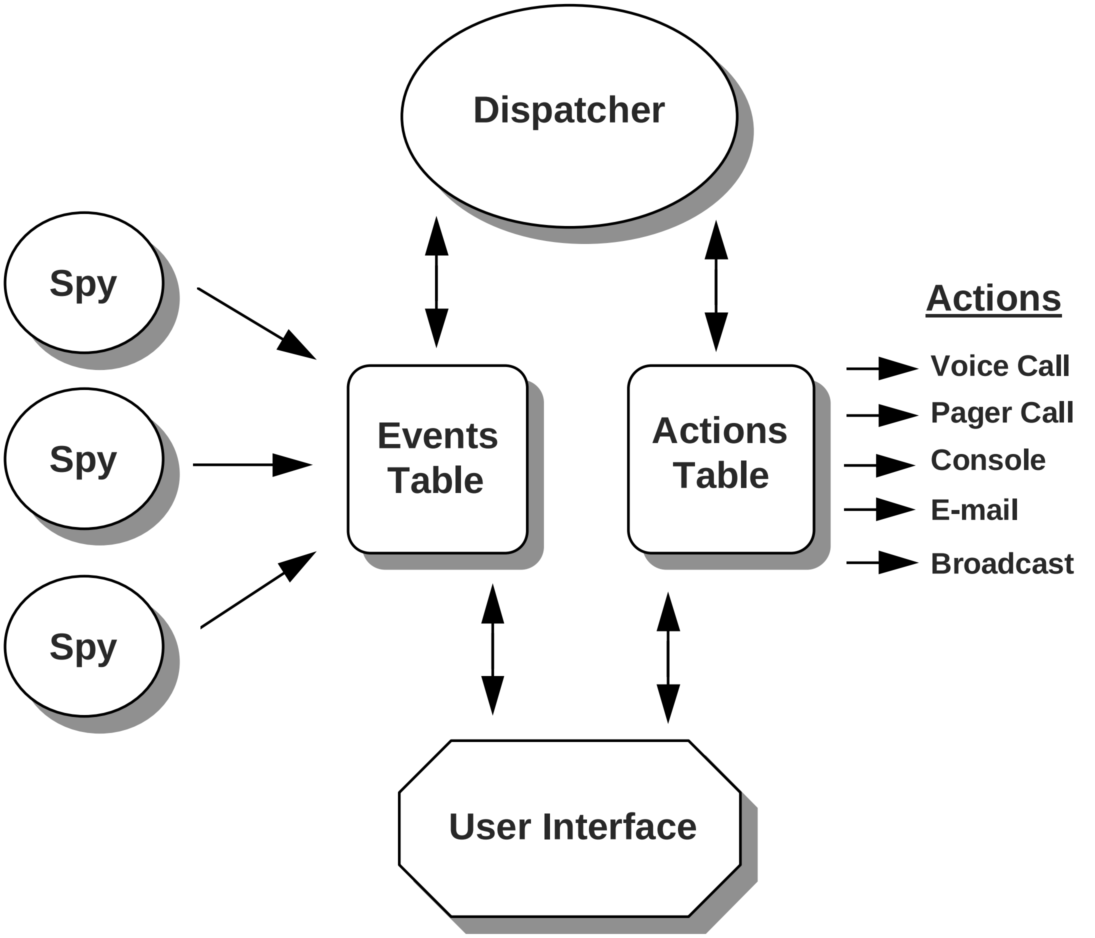


Figure 2-1. Silent Sentry Overview

Spies

Spies are processes that continuously monitor a CONVERSANT and other machines connected to the CONVERSANT. When they find something to classify as an event, they add the information to the events table (see Table 2-1 or Table 2-3).

Silent Sentry comes with four built-in spies:

- *CVIS spy* — Looks for CONVERSANT events/errors such as host link down, possible speech-file corruption, or T1 board failure.
- *Disk spy* — Looks for file systems with low disk space available.
- *Timer spy* — Monitors timed events. These events are created by a Silent Sentry action that sets a timer.
- *Port spy* — Monitors events from other computers, networks, and systems. The events are received via a serial port and converted to Silent Sentry events.

Events Table

The events table is an ORACLE database table that is monitored by the dispatcher. Each record in the table consists of the following fields:

- Event classification
- Event ID
- Event severity
- Name of the machine where the event occurred
- Text fields to further describe the event

The events table illustrating the Gold Savings & Loan example appears in Table 2-1.

Table 2-1. Events Table for Gold Savings & Loan Example

CVIS HOST	ID	SEVERITY	MACHINE	TEXT
CVIS	0006	CRITICAL	Conversant	Host link down. 10:00 pm. 9/03/93.

The CVIS spy monitors the CONVERSANT message log and converts each message it encounters into a Silent Sentry event. The event's classification, ID, and severity values are determined by the CONVERSANT message log entry as follows:

- The event's classification is set to the string "CVIS " followed by the system message ID assigned by the CONVERSANT.
- The event's ID is set to the message number assigned by the CONVERSANT.

  If the message number is less than four digits, the CVIS spy will pad it to a 4-digit ID with leading zeros.
- The event's severity is the severity assigned by the CONVERSANT.

For CONVERSANT threshold messages, the event's classification is "CVIS THR", and the ID is the system message mnemonic specified in the error message. This ID is not numeric and will not match the ID of the event that generates the threshold message. If you decide to set up CONVERSANT threshold messages, you should also write the corresponding actions needed to handle these messages (see "Writing Your Own Actions" on page 7-13 for information). For information about setting up CONVERSANT threshold messages, see either:

> *INTUITY CONVERSANT System Version 6.0 Administration,* 585-310-591
>
> *INTUITY CONVERSANT Voice Information System Version 5.0 Operations,* 585-310-550
>
> *CONVERSANT Voice Information System Version 4.0 Operations*, 585-350-703

For low disk errors entered by the disk spy, the event classification is *DISK*, the ID is *LOWSPACE*, the severity is either *CRITICAL* or *WARNING* (depending on the thresholds set on installation), and the text fields contain the file-system name, the percent full, and the date and time the error occurred.

Dispatcher

The *dispatcher* periodically checks for entries (representing events) in the events table, and determines the appropriate actions for each of these entries. It then performs these actions and logs the results. (For more details, see "Dispatcher Results" on page 6-11.)

The dispatcher does a table look-up between the events table and the actions table. It looks for, in order, a match on:

1. Classification and ID
2. Classification and severity
3. Classification and “DEFAULT”
4. “DEFAULT”

The events table fields ID and SEVERITY are matched against the actions table field CONDITION. A match will occur on only one of these criteria per action, and the corresponding action is performed (unless it is disabled). If one event matches two actions, both actions will be run. The actions table ORDER field determines the order in which to run the two actions.

Actions Table

The actions table is an ORACLE database table that specifies which actions to perform when a certain event occurs. Each record in the table consists of the following fields:

- An event classification
- A condition used to match an event’s ID or severity
- The action to perform
- When to run the action
- Disabling fields

Table 2-2 illustrates the actions table for the Gold Savings & Loan example.

Table 2-2. Actions Table Example

CLASS	CONDITION	ACTION	ORDER	COUNT	LIMIT	DISABLED
CVIS	1330	make_call	1	0	1	N
CVIS	1330	email cathy	2	0	1	N

Actions

Actions are usually UNIX scripts performed by the dispatcher. Some are part of the dispatcher, some are executed during installation, and some can be defined by you. (For more details, see "Actions Summary" on page 6-8.)

Actions provided as part of the dispatcher are:

- Performing an action after an event has occurred *n* times (see the description for "after" on page 6-10)
- Ignoring an event (see the description for "IGNORE" on page 6-10)

The default actions set up during installation are:

- Making voice and pager calls to people (see "Setting Up the Contact List" on page 3-7)
- Sending electronic mail to the Silent Sentry login (see "Checking ssentry E-Mail" on page 4-2)

The following optional Silent Sentry actions require your administration:

- Broadcasting information to the terminal of every logged-in user (see the description for "broadcast" on page 6-10)
- Rebooting the machine (see the description for "reboot" on page 6-10)
- Sending a file using a modem (see the description for "send_file" on page 6-10)
- Sending information to the Star SENTRY® via the Computer Manager (see the description for "cma_send" on page 6-10)
- Sending the event to an alphanumeric pager (see the description for "page_alpha" on page 6-10)
- Formatting an event and appending it to a file (see the description for "log_1line" on page 6-10)

Detailed instructions about setting up actions are described in "Actions Summary" on page 6-8. Read that section thoroughly before you attempt to modify the actions table.

We will use the **make_call** (making a voice and pager call) and the **email** (sending electronic mail to the Silent Sentry login) actions as part of the Gold Savings & Loan example.

Callout Script

A powerful feature of Silent Sentry is its ability to place phone calls to inform people of an event. This is done with the CONVERSANT callout script, which is run by the **make_call** or **call_group *n*** actions. The script utilizes a contact list (created by the user) that can include phone numbers for people and their pagers. For people (or answering machines), the script speaks the information about the event. For numeric pagers, the script sends numeric data pertaining to the event. Pager calls are considered passive notification, because there is no way to use the pager to confirm receipt of the notification. The contact must either call in or log in to the system to confirm.

The contact list can be organized into groups, with each group being informed of particular types of errors. For instance, you may want group 1 to be informed of CONVERSANT errors and group 2 to be informed of disk errors. The **make_call** action calls group 1 and is used as the default for CONVERSANT and disk errors. To call a specific group, use the **call_group *n*** action, where *n* is the contact list group number to call.

For the Gold Savings & Loan example, the contact list is:

- Marty’s home phone
- Marty’s pager
- Cathy’s home phone

When making a voice call, the callout script would say something like:

> *"This is Silent Sentry calling. I've noticed an event. To accept this call, press one."* (Contact presses one.)
>
> *"CONVERSANT error number 1330 has occurred on CONVERSANT number one. The host link is down. Please enter your PIN to confirm receipt of this notification."* (Contact enters PIN.)
>
> *"This notification has been confirmed. Good-bye."*

When an event occurs to trigger the callout script, the system attempts to notify each person in the contact list group until a recipient of the call confirms that the message has been received. The interval for "looping" through the list is the contact list "sleep time", and is set by the administrator upon installation.

Confirmation of receipt of the call can be done in a number of ways:

- During a voice call from Silent Sentry, the called person can enter the PIN via a touch-tone phone.
- A caller can call into the CONVERSANT admin/demo script and confirm receipt of the message. This is useful for people who have received a passive notification and want to confirm that they have received the message.
- A hidden option can be added to your system's CONVERSANT applications to allow confirmation of the callout events. (For details, see "Confirming from Your Scripts" on page 7-23.)
- Finally, the callout events can be confirmed by using a Silent Sentry utility.

Gold Savings & Loan Example: Handling Events

This example illustrates how Silent Sentry handles events by running actions. We have the following conditions, as shown in Table 2-3, Table 2-4, and Table 2-5.

Table 2-3. Events Table for Gold Savings & Loan Example

CLASS	ID	SEVERITY	MACHINE	TEXT
CVIS	1330	CRITICAL	Conversant	Host link down. 10:00 pm. 9/03/93.

Table 2-4. Actions Table Example

CLASS	CONDITION	ACTION	ORDER	COUNT	LIMIT	DISABLED
CVIS	1330	make_call	1	0	1	N
CVIS	1330	email cathy	2	0	1	N

Table 2-5. Contact List Group 1

ORDER	ID	PHONE NUMBER	TYPE
1	Marty's home	5551234	1
2	Marty's pager	5554321	2
3	Cathy's home	5555678	1

The *make_call* action will call contact list group 1:

- It will call Marty's home phone.
- It will then call Marty's pager.
- It will then call Cathy's home phone.
- The sleep time is five minutes.

The *email cathy* action will send electronic mail to Cathy's login.

The following sequence of events occurs:

1. The host link goes down at 10:00 pm, on Friday, 9/03/94.
2. The CVIS spy puts a *CVIS 1330* entry into the events table.
3. The dispatcher notices the entry, and checks the actions table for a corresponding action. The dispatcher matches the Class field *CVIS* and the ID field *1330* between the two tables.
4. The action *make_call*, with Order *1* calls the contacts in contact list group 1. The calls are not confirmed. The action sleeps for five minutes.
5. The dispatcher also matches the action *email cathy*, with Order *2*. Since the Order is *2*, this action begins shortly after make_call starts. Electronic mail is sent to Cathy's login.
6. The *make_call* action begins again after five minutes. This time Cathy answers the voice call and confirms receipt of the message.
7. Silent Sentry logs the time of the error, when notification efforts began, and when confirmation was received.

Silent Sentry's role of contacting people to tell them of the event is now finished.

Installing Silent Sentry

3

This chapter describes how to install Silent Sentry. When the installation is complete, you can take advantage of several Silent Sentry features described in the following chapters:

Chapter 4, "Using Silent Sentry"

Chapter 5, "Accessing Silent Sentry: The User Interface"

Chapter 6, "Understanding Basic Features"

To customize Silent Sentry or to take advantage of additional features, see Chapter 7, "Customizing Silent Sentry".

Installation

The following steps comprise the Silent Sentry installation process:

1. Checking the Requirements List
2. Defining the Installation Parameters
3. Determining the Contact List
4. Installing the Software
5. Setting Up the Contact List
6. Enabling Silent Sentry

The next sections discuss each step.

Checking the Requirements List

To install Silent Sentry you must have the following:

- CONVERSANT software, either Version 4.0, 5.0, or 6.0. This includes CONVERSANT VIS application software and Script Builder.
- ORACLE® Software.
- FMLI (Forms and Menu Language Interpreter).
- Disk space needed for installation process: 6600 blocks on / (the root directory). The installation will fail immediately if there is not enough disk space.
- Approximate disk space needed after installation: 770 blocks on /, 2026 blocks in /usr, 313 blocks in the CONVERSANT speech file system.
- Complete Silent Sentry software package.
- A channel and phone line with which to call out.
- An optional channel and phone line with which to call in (the admin/demo channel).

NOTE:
The required software packages are found on most CONVERSANTs.

An inbound channel allows people to call into the CONVERSANT admin/demo script to see if any events exist, confirm that they have received a Silent Sentry message, or run a demo of the software.

If you have the mandatory items, continue to “Defining the Installation Parameters.”

Defining the Installation Parameters

Once you have the completed the requirements checklist, you’re ready to define Silent Sentry installation parameters. In this step you will make several decisions on how to set up Silent Sentry to meet your needs. A parameters worksheet is provided in Appendix A, "Worksheets" to help with this task. You will be asked for the following information during software installation:

- Password

  This is the password that will be used for the new ssentry login.

- Callout Script Channel

  This is the channel number that will be used by Silent Sentry to send phone messages (voice and pager). We recommend that this be the last in-service channel on your machine.

- Admin/Demo Channel

  This is an optional channel number you assign to allow people to call into the CONVERSANT admin/demo script to check for events, confirm events, or run a demo of the software. If you do not wish to run a demo, or decide to add a hidden option to your CONVERSANT application scripts, you do not need to enter a value for this. We recommend that this be the same channel used by the callout script.

  > **NOTE:**
  > Silent Sentry contains default values for the following parameters which you can accept by pressing ENTER when prompted during installation:

- Dispatcher Sleep Time

  This is how often the dispatcher checks for events. The default is 60 seconds. Anything less than 60 seconds will negatively affect your machine's performance.

- Disk Spy Sleep Time

  This is how often the disk spy checks for full file systems. The default is 600 seconds (10 minutes). Anything less than 300 seconds will negatively affect your machine's performance.

- Critical and Warning Low Disk Space

  This is at what point you will be notified of disk space remaining. The default critical point is 10%, the default warning point is 20%.

- Contact List Sleep Time

  This is how often Silent Sentry retries contacting the contact list if the last attempt through the list was unsuccessful. The default is 300 seconds (5 minutes).

Enter the appropriate information on the Parameters worksheet in Appendix A, "Worksheets" and continue to “Determining the Contact List.”

Determining the Contact List

After you have defined the installation parameters, the next step is to determine the contact list. The contact list explains when and how to place voice and pager calls to the people you specify. You may organize your contact list into groups if you wish to have different events call different people. If you will not be using different contact list groups, all your contacts should have a group ID of *1*, which is the default group for CVIS spy errors.

You set up your contact list by entering a record in the CO_CONTACTS database table for each contact. To enter this data, use the CONVERSANT user interface (cvis_menu). Instructions for entering data using cvis_menu are listed in "Setting Up the Contact List" on page 3-7. Use the Contact List worksheet in Appendix A, "Worksheets" to help construct your contact list. Table 3-1 shows the database fields for the contact list:

Table 3-1. Database Fields for the Contact List

Field Name	Explanation
COC_GROUP_ID	A number from 0 to 99 indicating the group that the contact belongs to. Group 0 is reserved for the Silent Sentry demo script. Group 1 is the default for CONVERSANT errors. **NOTE:** Setting up a group's in-hours is a different step, which you will do using the Silent Sentry user interface (silent_sentry).
COC_ORDER	A number that specifies the order within a contact list group in which to contact people.
COC_CONTACT_ID	A character field (up to 20 characters) that identifies the record. It is used for readability and record keeping.
COC_PHONE_NUMBER	The complete phone number to call. If this contact is a SkyPager®, this number is the PIN number for the pager. Don't use spaces, dashes, commas, or parenthesis. This is the exact number Silent Sentry will dial.
COC_TYPE	The type of phone call to make. *1* = voice *2* = numeric page *3* = SkyPager.
COC_IN_OR_OUT	This indicates if this contact is an in-hours contact (*I* or *i*) or an out-of-hours contact (*O* or *o*).
COC_DISABLED	This indicates if this contact is disabled. *n* = this number will be called. *y* = this number will never be called. *Y* = this number is temporarily disabled based on in-hours/out-of-hours.

NOTE:
The PIN for confirming notification is **4653**. Give this to your contacts.

The contact list only determines which contacts belong to which group and whether a contact is considered an in-hours or an out-of-hours contact. If you want in-hours and out-of-hours contacts called at the proper times, you must also set up the group's in-hours. This is done by selecting the *Group Administration* menu option from the Silent Sentry user interface (silent_sentry). Everything outside of the times specified as in-hours is considered out-of-hours. See

"Specifying a Group's In-Hours" on page 3-9 and "Group Administration" on page 5-9 for information.

Values need not be consecutive in the ORDER field. If the same value is used more than once, the contact order will be arbitrary.

If you want round-the-clock and/or 7-day-per-week notification, be sure to specify in-hours for each group and have contact records for both in-hours and out-of-hours contacts.

The SkyPager phone number is **918002580000**. If this is not correct, the pager configuration table must be changed. See "Calling a Numeric Pager" on page 7-7 for details.

Installing the Software

Once you define the contact list, you are ready to install Silent Sentry. Keep several things in mind during this process:

- You will be using standard UNIX commands to install and remove the Silent Sentry software package.
- Remember to press ENTER after answering most prompts.
- Silent Sentry prompts are shown in *italics*. What you type is shown in **bold**.

Follow these steps for software installation:

1. Have your Parameters and Contact List worksheets ready.
2. Log into the CONVERSANT as ***root***.
3. Installing Silent Sentry will overwrite any older versions of this software. Check to see what is installed on your machine:
   a. At the UNIX prompt enter: **displaypkg**
   b. Note your CONVERSANT version.
   c. If Silent Sentry software exists, remove it using the **removepkg** command.
   d. If the Informist® software is installed, remove it using the **removepkg** command.
4. Enter: **installpkg**

   You will see a number of status messages throughout the installation. This is normal.
5. Please indicate the installation medium you intend to use:

   Enter **F** for FLOPPY DISK.
6. Put the diskette “Silent Sentry Installation Disk 1” in the disk drive.

7. Disk drive: (This will only be asked if there is more than one drive on the machine)

   Enter the appropriate disk drive number. In most cases this will be **0** (zero).

8. As you continue through the installation, you will be prompted for additional diskettes with:

   Insert Silent Sentry disk N and hit Enter

   Insert the correct diskettes as requested.

9. You may be told that *CONVERSANT version X is not supported by Silent Sentry* if your CONVERSANT version is not 4.0, 5.0, or 6.0, or if more than one version is installed on your machine. Enter the version that most closely matches your version (for example, enter 6.0 for any point releases of version 6.0), or cancel the installation.

10. Several tables will be listed. The following tables will be removed and recreated.

    Continue installation? (y/n):

    Type **y** and then press ENTER.

11. Enter a password for ssentry. *New password:*

    Enter the password you wish to use.

12. Re-enter new password:

    Re-enter your new password.

13. Enter channel to run the callout script on:

    Enter the channel number from the worksheet.

14. Enter channel to run the admin/demo script on:

    Enter the channel number from the worksheet. If you do not want this option, press ENTER, and the script will not be assigned.

    NOTE:
    You can expedite your software installation by pressing ENTER when asked the remaining questions (to give you the default values):

15. Enter seconds to sleep for the dispatcher:

    Press ENTER for the default (60 seconds) or enter the new number from the worksheet.

16. Press ENTER when you are prompted for any values pertaining to flooding for the CVIS spy.

17. Enter seconds to sleep for the disk spy:

    Press ENTER for the default (600 seconds) or enter the new number from the worksheet.

18. Enter value for CRITICAL low disk space event:

    Press ENTER for the default (10%) or enter the new number from the worksheet. If you enter a new number, you will then be asked for a WARNING low disk space event value (default value = 20%).

19. Enter seconds to sleep between tries for calling the contact list:

    Press ENTER for the default (300 seconds) or enter the new number from the worksheet.

20. After several minutes (and status messages and prompts for disks) you will see:

    > *Installation of Silent Sentry cron jobs successful!*
    >
    > ******_Installation of Silent Sentry processes complete!_******

    and instructions on what to do next (coinciding with the next sections).

Now you can continue to “Setting Up the Contact List.”

Setting Up the Contact List

After you install Silent Sentry, you can set up the contact list. The next sections describe the two parts that comprise setting up the contact list:

- Entering Your Contact List
- Specifying a Group's In-Hours

Silent Sentry is installed with the make_call action for voice and numeric pager calls for certain errors. Remember the make_call action calls contact list group 1. The default in-hours for group 1 are Monday through Friday, 07:30 to 17:00. If these hours are correct, you can skip the part “Specifying a Group's In-Hours.”

Entering Your Contact List

Use your Contact List worksheet as a guide to input your contact list.

NOTE:
In the next few steps you will use the function keys F1 through F8. In this book a function key is referenced as *[function-key label]*. If you do not see the specified key on the screen, press *[CHG-KEYS]* for a new set of functions.

If you run into a problem, do not press *[SAVE]*, because a *[SAVE]* cannot be undone. Instead, press *[CANCEL]* until you reach a familiar screen.

When you press a key, do not hold it down — just press it once.

1. At the CONVERSANT UNIX prompt, type: **cvis_menu** ENTER
2. At the Voice System Admin Menu, choose *Script Builder Applications* ENTER
3. At the Script Builder Applications Menu, choose *callout [CHG-KEYS] [DEFINE]*
4. At the Define Application Menu, choose *Database Tables* ENTER
5. At the Table Name Menu, choose *CO_CONTACTS [EDIT]*

NOTE:
The following sections contain generic commands you can use to administer all callout script database tables.

Adding Records

1. At the Edit Table Menu, press *[ADD]* to add a record.
2. Enter Contact List worksheet information into the correct fields. Press ENTER after each field entry.
3. When all fields are full, press *[SAVE]* to save the record and then *[CANCEL]*. Repeat these steps if you want to add another record.

Searching Records

At the Edit Table Menu search for the record you want by:

1. Pressing *[NEXT]* to scroll through the records, OR
2. Pressing *[SEARCH]*, entering a value in any field ENTER, pressing *[SAVE]* for the first match, *[NEXT]* for subsequent matches.

Deleting Records

See the preceding part “Searching Records” to find the record you want to delete.

Press *[REMOVE]*.

Updating Records

See the preceding part “Searching Records” to find the record you want to update.

1. Press *[CHANGE]*.
2. Use arrow keys, TAB key, or ENTER key to move through the fields. Enter the new value in the correct field and press ENTER.
3. Press *[SAVE]*.

When all records are entered, deleted, or updated, press *[CHG-KEYS]*, then press *[CANCEL]* to return to the UNIX prompt. The next step is to enable the software.

NOTE:
When you add someone to the contact list be sure to tell them the PIN for confirming events. Currently the PIN is **4653**.

Specifying a Group’s In-Hours

The default in-hours for group 1 are Monday through Friday 07:30 to 17:00. If you would like to have different hours for group 1 or have hours for other groups, use the Silent Sentry user interface to specify each group's in-hours. To do so, follow these steps:

1. Choose the *Application Package Administration* option.
2. Then choose the *Silent Sentry* option from **cvis_menu**, or run the **silent_sentry** utility command while logged in as ssentry.
3. After you are in the user interface, choose the *Group Administration* menu option.
4. Choose the *Insert or Modify* menu option.
5. Specify the group number of the group you wish to change.
6. Press the ENTER key, then *[CONT]*.
7. Enter the in-hours (in military time) for each day listed on the screen. Be sure to press ENTER after each in-hours time.

   You can also specify an optional comment to help identify the group (be sure to press ENTER after typing a comment).
8. When you finish specifying the in-hours for this group, press *[SAVE]*. Remember, everything that is not in-hours is considered out-of-hours.

Enabling Silent Sentry

Silent Sentry is installed disabled. The dispatcher will not query for events, the spies will not enter events, and the callout script, if running, will stop after the current pass through the contact list.

After you set up the contact list, you can enable Silent Sentry. When the system is enabled, the spies will begin monitoring. Any errors that occurred while the system was disabled will be ignored. Any records that are in the dispatcher events table will be processed as will any records in the callout events table.

You can enable Silent Sentry via either the user interface or the command line, as described in the next two sections.

User Interface

Follow these steps to enable Silent Sentry via the user interface:

1. While logged in as ***ssentry,*** type: **silent_sentry**.
2. Choose *Utilities.*
3. Choose *Enable the Silent Sentry*. An *Enable the Silent Sentry* message window will appear that tells you:

   Enabled the Silent Sentry on: date/time/year.
4. To verify that Silent Sentry was successfully enabled, select *Status*. It will tell you if Silent Sentry is enabled or disabled and show any outstanding events and callout events.

   Selecting *Status* will indicate that the port spy is disabled — this is normal.

Command Line

Enabling Silent Sentry via the command line is recommended for advanced users only. To enable Silent Sentry via the command line, follow these steps:

1. Run the **inf_on** utility command located in the Silent Sentry *utils* directory.
2. To verify that Silent Sentry was successfully enabled, run: **inf_stat** and **show_events**.

   The output of inf_stat will indicate that the port spy is disabled — this is normal.

Enabling the Port Spy

After you enable Silent Sentry, you may choose to enable the port spy. Enabling the port spy is optional and requires advanced UNIX knowledge. See "Setting Up the Port Spy" on page 7-20 for instructions.

Backing up Your Database Files

Once you have installed and enabled Silent Sentry, it is a good idea to back up your database files. See "Utilities" on page 5-14 for instructions, and use the backup disk provided with Silent Sentry.

Testing Your Installation

After you enable Silent Sentry, you are ready to test your installation. There are two ways to test whether Silent Sentry was installed correctly:

- If you specified a channel for the admin/demo script, you can run the Silent Sentry demo to verify that it will call you. See "Admin/Demo Script" on page 6-6 and Appendix C, "Using the Silent Sentry Demo" for instructions on running the demo.
- Or, you can create an event by adding it to the events table. See "Test an Event" on page 5-7 for instructions. Add an error that Silent Sentry calls on. Use *CVIS HOST 0013* for CONVERSANT 3.1 and later. If the installation was successful, Silent Sentry will call the contacts that belong to group 1.

Using Silent Sentry

4

This chapter provides an overview of the information required to use Silent Sentry. Sections offering finer detail are referenced throughout this chapter.

Handling a Problem

The next sections describe the steps to follow as a Silent Sentry contact when Silent Sentry notifies you of an event:

1. Confirm Notification — This causes Silent Sentry to stop notification for the confirmed events and indicates that you have taken responsibility for the event.
2. Fix the Problem — Call into your voice response application and make sure that is working correctly.
3. Enable the Actions — This ensures that Silent Sentry will notify you if the problem occurs again soon after you fix it.

Confirm Notification

Confirm Silent Sentry notification any of the following ways:

- Entering a **1** and then the PIN when called
- Calling in to Silent Sentry and entering the PIN
- Logging in and confirming by hand

Fix the Problem

The person confirming the event is now responsible for fixing the problem, so if you confirm it you should fix it. Before fixing it, you may want to disable Silent Sentry so that it does not continue to notify people if the same error occurs while you are trying to fix it. Use the CONVERSANT commands (**cvis_menu**, **explain**, and **display)** and CONVERSANT documentation to obtain information on how to fix a CONVERSANT problem.

Enable the Actions

Since most default actions have the disable limit set to one, Silent Sentry will execute them only once per day. After you fix the problem, enable all the actions by running the **enable_actions** utility command or through the Silent Sentry user interface. This ensures that if a problem is fixed at 7:00 am and it occurs again at 7:00 pm, the contact list will be notified the second time.

NOTE:
If you disabled Silent Sentry before handling the problem, remember to enable it after it has been fixed.

(See Chapter 5, "Accessing Silent Sentry: The User Interface", "Calling the Contact List" on page 6-1, "An Administrator Calls into the CONVERSANT" on page 6-7, and "Utility Commands" on page 7-4.)

Checking *ssentry* E-Mail

When an event is entered into the events table, Silent Sentry uses the actions table to determine what actions to take. Silent Sentry comes with a set of default actions, including the **email ssentry** action which causes Silent Sentry to send E-mail to the ssentry login. Log in as ssentry and check your E-mail daily using the UNIX **mail** command. After you read ssentry mail, it is best to delete it.

Defaults

Silent Sentry comes with a set of defaults that define its behavior. The next sections describe the defaults that are used by the CVIS spy and the disk spy:

- Ignored CONVERSANT Errors
- In-Hours for Contact List Group 1
- Actions to Run

- Customized Speech
- Pager Mappings

NOTE:
Review the default actions and pager mappings listed in Appendix D, "Default Data". In addition, familiarize yourself with the CONVERSANT errors listed in the *CONVERSANT Voice Information System Maintenance* guide.

Ignored CONVERSANT Errors

The CVIS spy monitors the CONVERSANT error log and reports any messages to the dispatcher by converting them to events. It will by default ignore the status message *MTC0002*, which is generated when a channel changes state. To configure the errors ignored by the CVIS spy, edit the cvis_ignore file. See "Standard Spies" on page 7-2 for information about spies.

In-Hours for Contact List Group 1

The default in-hours for group 1 are Monday through Friday, 07:30 to 17:00. This means that in-hours contacts will be notified of CONVERSANT errors during those times and that out-of-hours contacts will be notified at all other times. To change these hours, use the Silent Sentry interface to specify the group’s in-hours. See "Specifying a Group’s In-Hours" on page 3-9 and "Group Administration" on page 5-9.

Actions to Run

The actions table defines what actions are run when an event occurs. Events generated by the CVIS spy monitoring CONVERSANT errors have a classification of the abbreviation CVIS, followed by a space and the system message ID assigned by the CONVERSANT.

For instance, CONVERSANT event classifications could be:

- CVIS DB
- CVIS CGEN
- CVIS HOST

CONVERSANT events are grouped into two categories — those that notify the contact list (and send E-mail to ssentry as a backup), and those that just send E-mail to the ssentry login.

Most CRITICAL errors notify group 1 of the contact list and have a disable limit of 1 (meaning that they will call at most once a day), except for *cvis* error number *1330*, which will never become disabled. This is because *cvis* error number *1330* is used by the admin/demo script as the demo error.

The CONVERSANT errors that only send E-mail to ssentry consist mostly of *MAJOR* errors. These actions have a disable limit of 5, meaning that each error will send E-mail up to five times a day.

NOTE:
If you do not wish to monitor the E-mail for the ssentry login, delete all *email* actions by running the following query through SQL*Plus:

```
delete INF_ACTION where ACTION like 'email%';
```

The disk spy errors (*CRITICAL* and *WARNING* low space) send E-mail to ssentry, with a disable limit of 5. Disk spy errors will also broadcast the low space error message on the monitors of all logged-in terminals. The disable limit for this action is 2.

Use the **silent_sentry** utility command or the **show_actions** utility command to review the actions table.

(See Chapter 5, "Accessing Silent Sentry: The User Interface", "Actions Summary" on page 6-8, "Admin/Demo Script" on page 6-6, "Utility Commands" on page 7-4, and Appendix D, "Default Data" for information.)

Customized Speech

Silent Sentry comes with customized speech already recorded and entered into the PHRASES database table. Most of these phrases are used to speak the specific classification for CONVERSANT errors. For instance, the phrase "CVIS HOST" is:

- Recorded as "CONVERSANT host interface error"
- Played to the caller by the callout script when a host error is reported.

The system also comes with customized speech recorded as *Conversant number X*, where *X* is a number from 1 to 30. To use these phrases as your machine names, edit the CO_PHRASES database table and change the phrase tag field with the value *cvisX* to the appropriate machine name. You can determine your machine name by running the **uname** command from the UNIX prompt.

You can administer the system to speak additional instructions by adding new phrases for each error. Run the CONVERSANT **explain** command on the error, and use the explanation as a basis for the wording of the phrases you want to add. Make the phrase tag by concatenating the error classification to the error ID.

Use the following steps as an example of adding new instruction phrases for an error. Assume for this example that the event has a classification of "CVIS HOST" and an ID of 0006.

1. Run **explain** on HOST006 to help determine your wording.
2. Create the phrase tag "CVIS HOST0006" and record it.
3. Enter the phrase tag "CVIS HOST0006" and it’s NX number into the phrases database table.

(See "Speaking Callout Events" on page 6-3 and "Phrases Database Table" on page 7-22.)

For more information on speech administration, see either:

> *INTUITY CONVERSANT System Version 6.0 Application Development with Script Builder,* 585-310-760
>
> *INTUITY CONVERSANT Voice Information System Version 5.0 Script Builder,* 585-310-727
>
> *CONVERSANT Voice Information System Version 4.0 Script Builder*, 585-350-704

Pager Mappings

Pager mappings determine what numbers will be sent to a contact that is a pager when the field data is not numeric. The default is to use Classification *100* for CONVERSANT errors and Classification *200* and ID *1111* for low disk space errors. Also, each *cvisX* machine is mapped to its machine number. To map your machines, edit the CO_PAGE_MAP and change the STRING field of the appropriate record to your machine name. (See "Calling a Numeric Pager" on page 7-7 and "Managing Pager Mappings" on page 7-1.)

Table Administration

The next sections describe the tables you administer to manage Silent Sentry operations:

- Callout Tables
- Actions Table
- Events Table

Callout Tables

Silent Sentry is a CONVERSANT-based software product that includes two CONVERSANT Script Builder scripts — admin/demo and callout. These are the scripts you use to administer the Silent Sentry callout tables. To change these scripts you use the standard CONVERSANT cvis_menu interface. Following are the Silent Sentry callout database tables:

- CO_CONTACTS (contact list table)

  See "Setting Up the Contact List" on page 3-7 for information about administering the contact list table.

- CO_PAGE_MAP (pager mappings table)

  See "Managing Pager Mappings" on page 7-1 for information about administering the pager mappings table.

- CO_NPGR_CFG (numeric pager configurations table)

  See "Calling a Numeric Pager" on page 7-7 for information about administering the numeric pager configurations table.

- CO_PHRASES (customized phrases table)

  See "Phrases Database Table" on page 7-22 for information about administering the numeric pager configurations table.

Actions Table

The INF_ACTION table (the actions table) defines the actions to run when an event occurs. To add or remove actions from this table, you use the silent_sentry utility command, rather than cvis_menu. See "Add Actions" on page 5-4, for information.

Events Table

You can test an event with the Silent Sentry user interface by entering a record into the INF_EVENTS table (the events table). See "Test an Event" on page 5-7, for information

Accessing Silent Sentry: The User Interface

5

This chapter describes the Silent Sentry user interface.

Description

From the Silent Sentry user interface you can:

- Administer actions
- Test events
- Administer a group’s in-hours
- Access many Silent Sentry utilities (see "Utility Commands" on page 7-4)

You can access the user interface in one of two ways:

- From **cvis_menu**, choose the *Application Package Administration* option, then choose *Silent Sentry*.

  or

- Outside of cvis_menu, run the utility command **silent_sentry**, which is located in the Silent Sentry *utils* directory.

⚠ **CAUTION:**

Remember after you type a field value to press ENTER *before pressing a function key. Pressing* ENTER *before pressing a function key is necessary because FMLI, which the user interface is written in, will not save the field value you typed until you press* ENTER*.*

To administer the callout script, run CONVERSANT Script Builder on the callout application (see "Setting Up the Contact List" on page 3-7).

The Silent Sentry user interface uses the same standard keys as cvis_menu. When you are in a menu you choose an option by placing the cursor on the option and pressing the ENTER key. You can move the cursor with the arrow keys, or by typing the first letters of an option on the screen. When filling out a form, you move between fields with the ENTER (next field), TAB (next field), and SHIFT-TAB (previous field) keys and the arrow keys. When the cursor is on a field, pressing the function key labeled *[CHOICES]* will give you a list of defined values for that field. When viewing text, use the arrow keys and the PgUp and PgDn keys to scroll through the text. For help screens, press the function key labeled *[HELP]* (F1). For more information on the cvis_menu interface, see the user interface chapter in either:

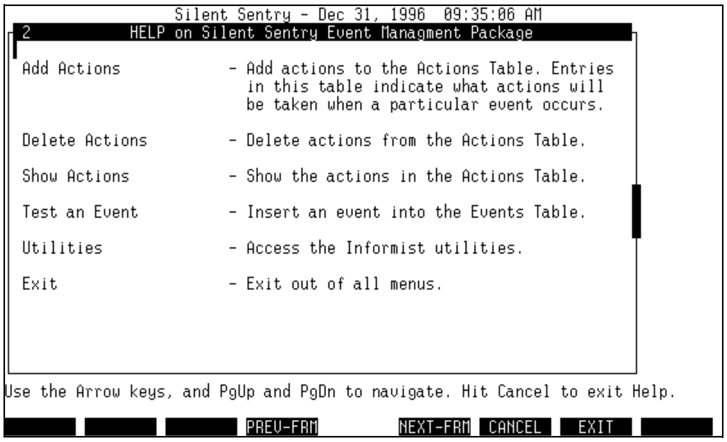
INTUITY CONVERSANT System Version 6.0 Administration, 585-310-591

INTUITY CONVERSANT Voice Information System Version 5.0 Operations, 585-310-550

CONVERSANT Voice Information System Version 4.0 Operations, 585-350-703

Help Screens

You can press *[F1]* for Help Screens (Figure 5-1) when using the Silent Sentry user interface. Press the *[CANCEL]* function key to exit the help screen.

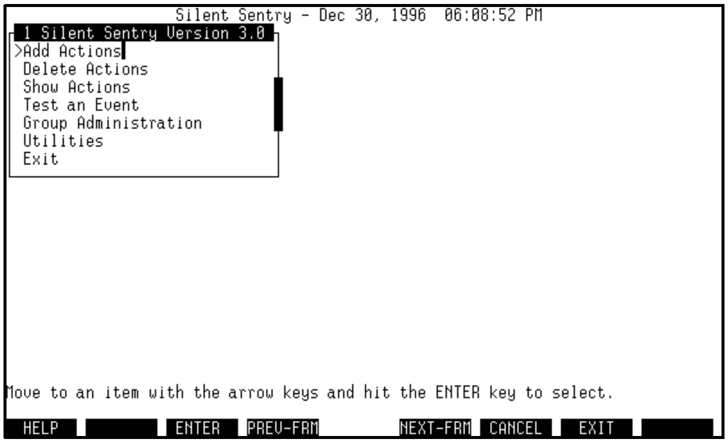


```
                 Silent Sentry - Dec 31, 1996  09:35:06 AM
 2           HELP on Silent Sentry Event Managment Package

 Add Actions            - Add actions to the Actions Table. Entries
                          in this table indicate what actions will
                          be taken when a particular event occurs.

 Delete Actions         - Delete actions from the Actions Table.

 Show Actions           - Show the actions in the Actions Table.

 Test an Event          - Insert an event into the Events Table.

 Utilities              - Access the Informist utilities.

 Exit                   - Exit out of all menus.

Use the Arrow keys, and PgUp and PgDn to navigate. Hit Cancel to exit Help.
```

Figure 5-1. Help Screen for the Silent Sentry Main Menu

The next sections describe the options offered by the Silent Sentry Main Menu (Event Management Package) shown in Figure 5-2:

- Add Actions
- Delete Actions
- Show Actions
- Test an Event
- Group Administration
- Utilities
- Exit



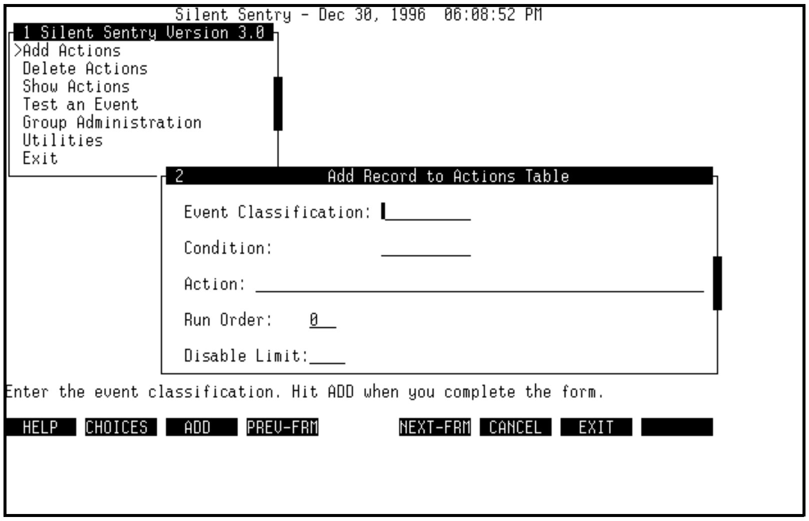
Silent Sentry - Dec 30, 1996 06:08:52 PM

Move to an item with the arrow keys and hit the ENTER key to select.

Figure 5-2. Silent Sentry Main Menu

Add Actions

This form (Figure 5-3) allows you to set up new actions for Silent Sentry to run by adding a record to the actions table. You must fill out all fields, making sure to press ENTER after the last field. When the fields are correct, press the *[ADD]* function key. Make sure that you do not add a record twice unless you wish the action to be run twice.



Silent Sentry - Dec 30, 1996 06:08:52 PM

2 Add Record to Actions Table

Event Classification: ________

Condition: ________

Action: ____

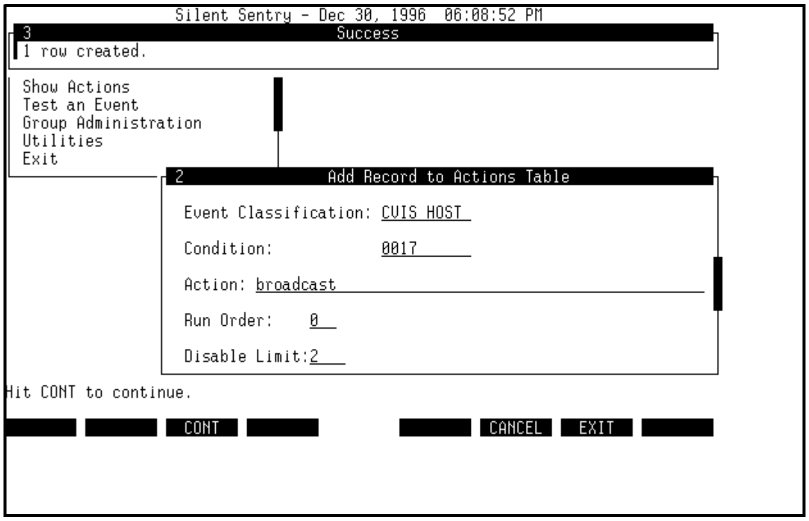
Run Order: 0

Disable Limit: ____

Enter the event classification. Hit ADD when you complete the form.

Figure 5-3. Adding an Action

After you add an action, a message displays to indicate the action was added successfully (Figure 5-4). Press the *[CONT]* function key to return to the add screen, or press the *[EXIT]* function key to exit the Silent Sentry user interface.



```
                  Silent Sentry - Dec 30, 1996  06:08:52 PM
 3                                  Success
 1 row created.

 Show Actions
 Test an Event
 Group Administration
 Utilities
 Exit
                  2                     Add Record to Actions Table

                    Event Classification: CVIS HOST

                    Condition:            0017

                    Action: broadcast

                    Run Order:    0

                    Disable Limit:2

Hit CONT to continue.
```

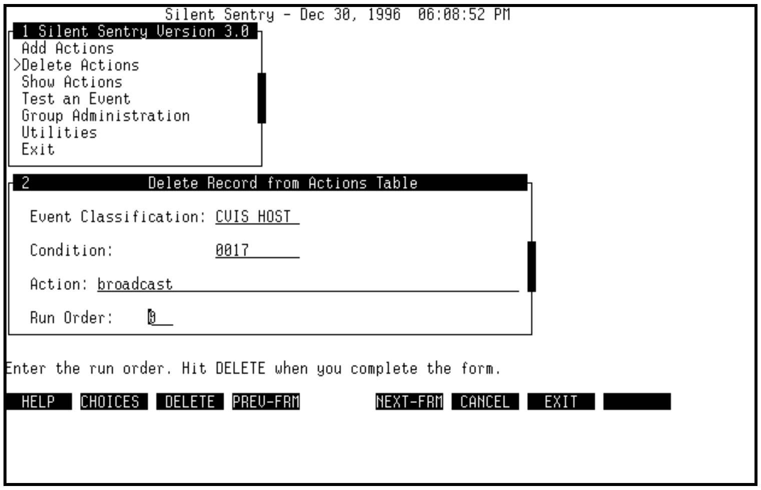
Figure 5-4. After an Action Has Been Successfully Added

You may want to have the actions table on the screen when adding or deleting actions. To do so, use the *[NEXT-FRM]* or *[PREV-FRM]* function keys and choose the *Show Actions* menu option. The actions table window does not update to show changes until you exit it and then open it again.

Delete Actions

This form (Figure 5-5) allows you to remove actions by deleting a record from the actions table. You must fill out all the fields, making sure to press ENTER after the last field. If you are not sure what to enter, use the *[CHOICES]* function key to display a list of values defined for the current field. When your entries are correct, press the *[DELETE]* function key. All records that match your field entries will be deleted.

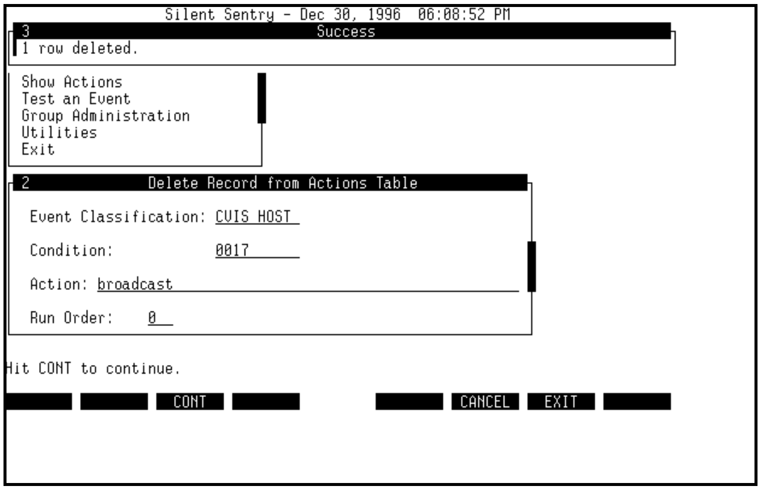
NOTE:
All fields except the Action field will match on the exact field value. The Action field will match all actions where the action starts with the characters entered in the delete screen. For example, if you enter **CLASS COND ma 0** for the Class, Condition, Action, and Run Order, all actions with a Class of *CLASS*, a Condition of *COND*, an action beginning with *ma*, and a Run Order of *0* will be deleted.



```
Silent Sentry - Dec 30, 1996  06:08:52 PM

Delete Record from Actions Table

Event Classification: CVIS HOST
Condition:            0017
Action: broadcast
Run Order:    0

Enter the run order. Hit DELETE when you complete the form.
```

Figure 5-5. Deleting an Action

After you press the *[DELETE]* function key, a window displays to indicate how many actions were deleted (Figure 5-6).



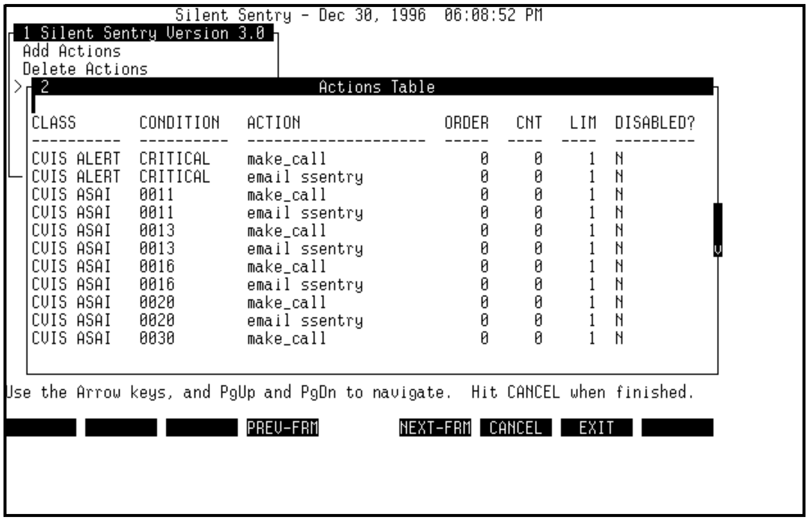
```
Silent Sentry - Dec 30, 1996  06:08:52 PM

Success
1 row deleted.

Delete Record from Actions Table

Event Classification: CVIS HOST
Condition:            0017
Action: broadcast
Run Order:    0

Hit CONT to continue.
```

Figure 5-6. After an Action Has Been Successfully Deleted

You may want to have the actions table on the screen when adding or deleting actions. To do so, use the *[NEXT-FRM]* or *[PREV-FRM]* function keys and choose the *Show Actions* menu option. The actions table window does not update to show changes until you exit it and then open it again.

Show Actions

When you choose the *Show Actions* menu option, the current actions table displays (Figure 5-7). See "Add Actions" on page 5-4 or "Delete Actions" on page 5-5 for information about changing actions table values.

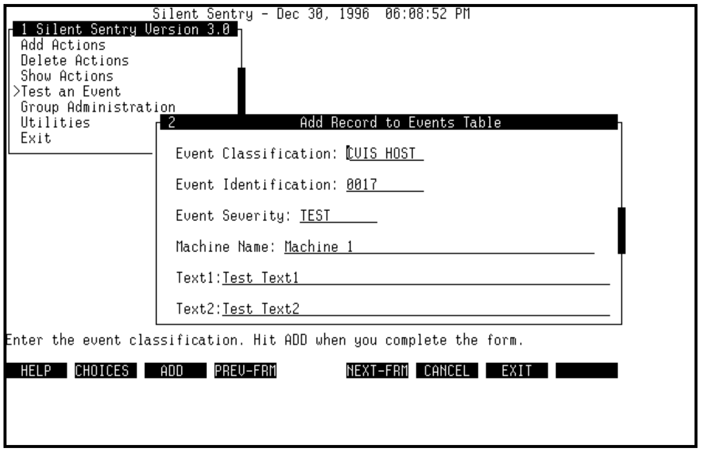


```
                     Silent Sentry - Dec 30, 1996  06:08:52 PM
 1 Silent Sentry Version 3.0
 Add Actions
 Delete Actions
> 2                                Actions Table

  CLASS       CONDITION   ACTION                 ORDER   CNT   LIM  DISABLED?
  ----------  ----------  --------------------   -----   ----  ---- ---------
  CVIS ALERT  CRITICAL    make_call                  0     0     1  N
  CVIS ALERT  CRITICAL    email ssentry              0     0     1  N
  CVIS ASAI   0011        make_call                  0     0     1  N
  CVIS ASAI   0011        email ssentry              0     0     1  N
  CVIS ASAI   0013        make_call                  0     0     1  N
  CVIS ASAI   0013        email ssentry              0     0     1  N
  CVIS ASAI   0016        make_call                  0     0     1  N
  CVIS ASAI   0016        email ssentry              0     0     1  N
  CVIS ASAI   0020        make_call                  0     0     1  N
  CVIS ASAI   0020        email ssentry              0     0     1  N
  CVIS ASAI   0030        make_call                  0     0     1  N

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.

                        PREV-FRM        NEXT-FRM  CANCEL    EXIT
```

Figure 5-7. Showing the Actions Table

Test an Event

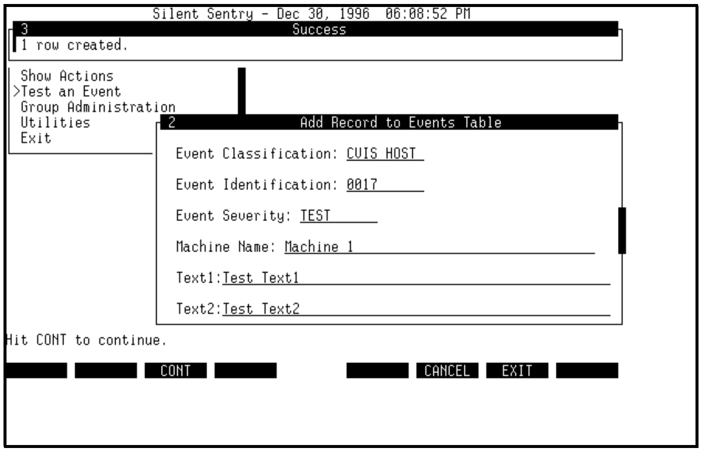
This form (Figure 5-8) allows you to test an event by adding a record to the events table. You must fill out all fields (including the two text fields), making sure to press ENTER after the last field. When the fields are correct, press the *[ADD]* function key. If Silent Sentry is enabled, it will process the test event. Be sure that you enter values for the event classification, ID, and severity that exactly match a record in the actions table, or the action will not be run.



```
Silent Sentry - Dec 30, 1996  06:08:52 PM

Event Classification: CVIS HOST
Event Identification: 0017
Event Severity: TEST
Machine Name: Machine 1
Text1:Test Text1
Text2:Test Text2

Enter the event classification. Hit ADD when you complete the form.
```

Figure 5-8. Testing an Event

After you add the event, a window displays to indicate that the event was successfully added (Figure 5-9). Press the *[CONT]* function key to return to the add screen, or the *[EXIT]* function key to exit the Silent Sentry user interface. Once the event is added, Silent Sentry will process it. You can monitor it by choosing the *Status* and *Results* options from the *Utilities* menu option.



```
Silent Sentry - Dec 30, 1996  06:08:52 PM

1 row created.

Event Classification: CVIS HOST
Event Identification: 0017
Event Severity: TEST
Machine Name: Machine 1
Text1:Test Text1
Text2:Test Text2

Hit CONT to continue.
```

Figure 5-9. After an Event Has Been Successfully Added

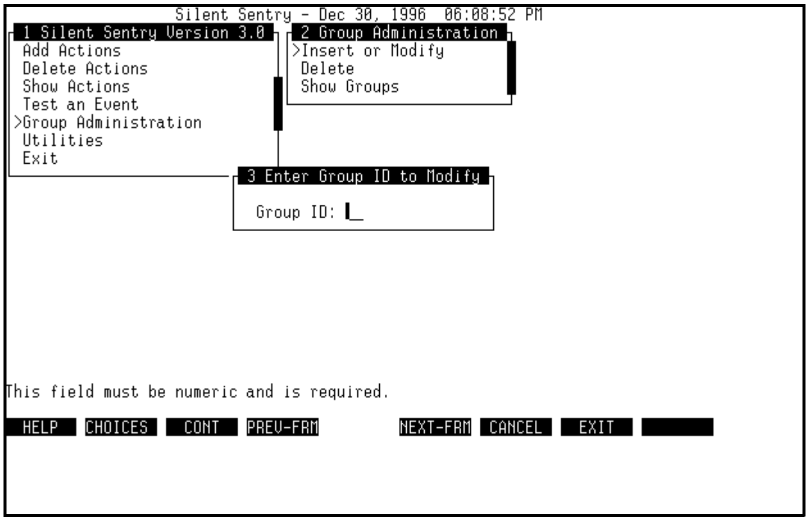
NOTE:
Keep in mind when testing CVIS spy events that error numbers comprise four digits. For example, you would enter *0626* for the ID field rather than *626*.

Group Administration

Group Administration allows you to set up the in-hours and out-of-hours for a contact list group. You can modify a group's in-hours, delete a group's in-hours, or view the hours for all the groups.

Insert or Modify

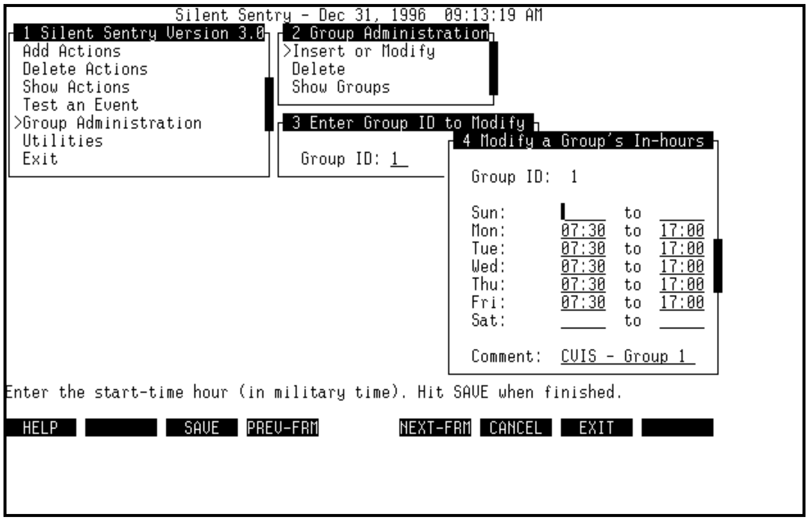
If you choose *Insert* or *Modify*, you will be prompted for the group ID (Figure 5-10). Be sure to press the ENTER key after typing in the number; then press the *[CONT]* function key.



```
                      Silent Sentry - Dec 30, 1996  06:08:52 PM
 1 Silent Sentry Version 3.0   2 Group Administration
  Add Actions                  >Insert or Modify
  Delete Actions                Delete
  Show Actions                  Show Groups
  Test an Event
 >Group Administration
  Utilities
  Exit
                            3 Enter Group ID to Modify

                              Group ID: _

This field must be numeric and is required.

  HELP    CHOICES   CONT   PREV-FRM          NEXT-FRM  CANCEL   EXIT
```

Figure 5-10. Prompt for the Group ID to Modify

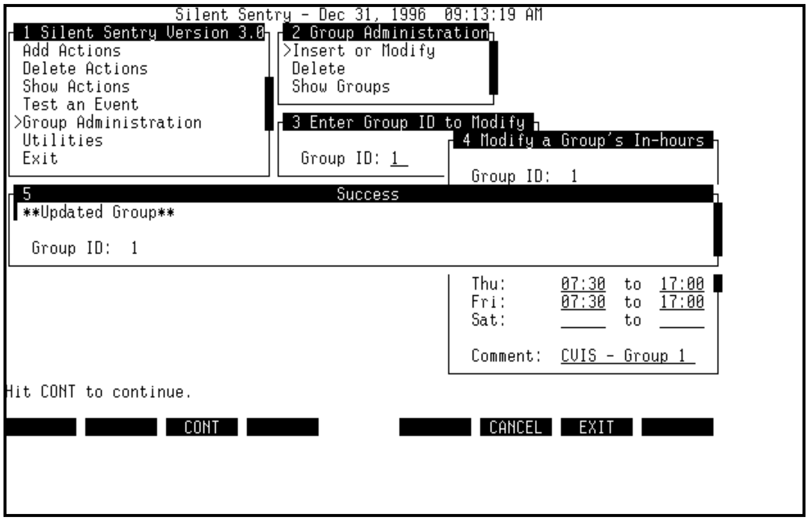
If the group already exists, you will have data in the screen that lets you change the in-hours (Figure 5-11). If the group does not exist, all the fields will be empty. When you modify a group's hours, anything that is not in-hours is considered out-of-hours. When entering the times, you must use military time and enter the colon. Be sure to press the ENTER key after making each field entry.



```
                    Silent Sentry - Dec 31, 1996  09:13:19 AM
 1 Silent Sentry Version 3.0   2 Group Administration
  Add Actions                  >Insert or Modify
  Delete Actions                Delete
  Show Actions                  Show Groups
  Test an Event
 >Group Administration         3 Enter Group ID to Modify
  Utilities                              4 Modify a Group's In-hours
  Exit                          Group ID: 1_
                                            Group ID:  1

                                            Sun:       _____  to  _____
                                            Mon:       07:30  to  17:00
                                            Tue:       07:30  to  17:00
                                            Wed:       07:30  to  17:00
                                            Thu:       07:30  to  17:00
                                            Fri:       07:30  to  17:00
                                            Sat:       _____  to  _____

                                            Comment:  CVIS - Group 1

Enter the start-time hour (in military time). Hit SAVE when finished.
```

Figure 5-11. Changing a Group's In-Hours

After you press the *[SAVE]* function key, a window displays to indicate that the group's in-hours were successfully updated (Figure 5-12).

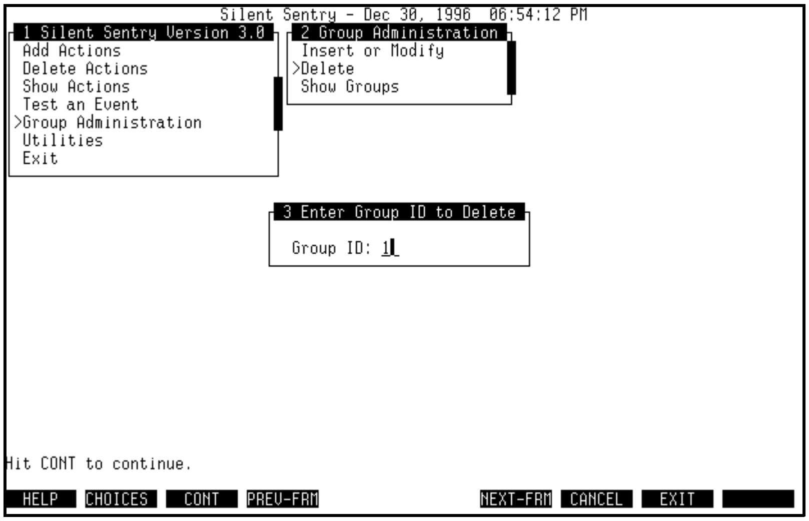


```
                    Silent Sentry - Dec 31, 1996  09:13:19 AM
 1 Silent Sentry Version 3.0   2 Group Administration
  Add Actions                  >Insert or Modify
  Delete Actions                Delete
  Show Actions                  Show Groups
  Test an Event
 >Group Administration         3 Enter Group ID to Modify
  Utilities                              4 Modify a Group's In-hours
  Exit                          Group ID: 1_
                                            Group ID:  1
 5                                Success
 **Updated Group**

   Group ID:  1

                                            Thu:       07:30  to  17:00
                                            Fri:       07:30  to  17:00
                                            Sat:       _____  to  _____

                                            Comment:  CVIS - Group 1

Hit CONT to continue.
```

Figure 5-12. After a Group's In-Hours Have Been Updated

Delete

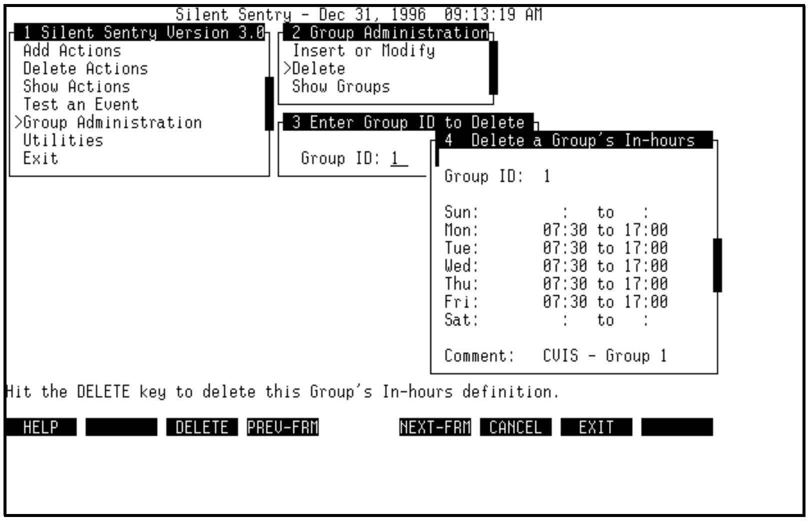
After you choose *Delete*, you will then be prompted for the group ID for which to delete in-hours (Figure 5-13). Be sure to press ENTER after typing the number or selecting it with the *[CHOICES]* function key.



```
                        Silent Sentry - Dec 30, 1996  06:54:12 PM
 1 Silent Sentry Version 3.0    2 Group Administration
  Add Actions                    Insert or Modify
  Delete Actions                >Delete
  Show Actions                   Show Groups
  Test an Event
 >Group Administration
  Utilities
  Exit

                              3 Enter Group ID to Delete

                                Group ID: 1

Hit CONT to continue.
 HELP   CHOICES   CONT   PREV-FRM          NEXT-FRM   CANCEL   EXIT
```

Figure 5-13. Prompt for Group ID for Deleting In-Hours

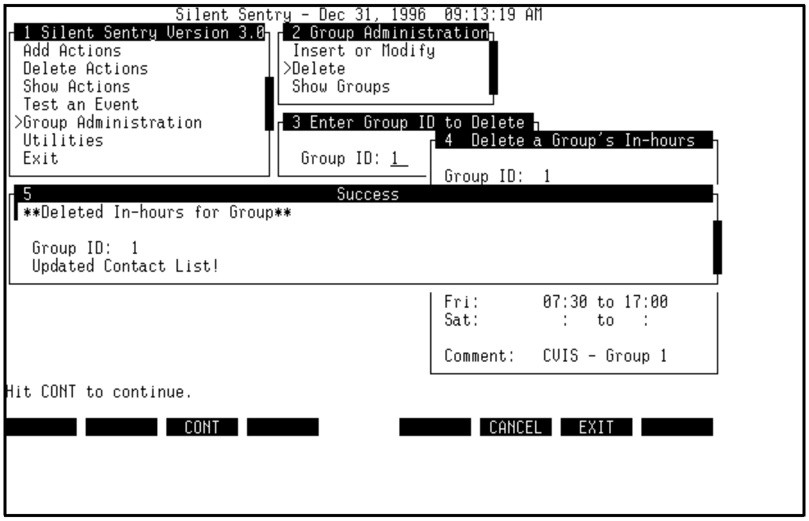
After you press the *[CONT]* function key, you will see the current in-hours values for the group you indicated (Figure 5-14). If this is the group for which you want to delete in-hours, press the *[DELETE]* function key. If you do not want to delete this group's in-hours, press the *[CANCEL]* function key.



```
                    Silent Sentry - Dec 31, 1996  09:13:19 AM
 1 Silent Sentry Version 3.0   2 Group Administration
 Add Actions                    Insert or Modify
 Delete Actions                >Delete
 Show Actions                   Show Groups
 Test an Event
>Group Administration          3 Enter Group ID to Delete
 Utilities                                      4  Delete a Group's In-hours
 Exit                           Group ID: 1_
                                                Group ID:  1

                                                Sun:         :   to   :
                                                Mon:       07:30 to 17:00
                                                Tue:       07:30 to 17:00
                                                Wed:       07:30 to 17:00
                                                Thu:       07:30 to 17:00
                                                Fri:       07:30 to 17:00
                                                Sat:         :   to   :

                                                Comment:   CVIS - Group 1
Hit the DELETE key to delete this Group's In-hours definition.

 HELP            DELETE  PREV-FRM          NEXT-FRM  CANCEL   EXIT
```

Figure 5-14. The Group’s In-Hours to Be Deleted

When you delete a group’s in-hours, all the contacts that are not permanently disabled will be called. After you press the *[DELETE]* function key, a window will display to indicate that the group’s in-hours have been properly deleted (Figure 5-15).

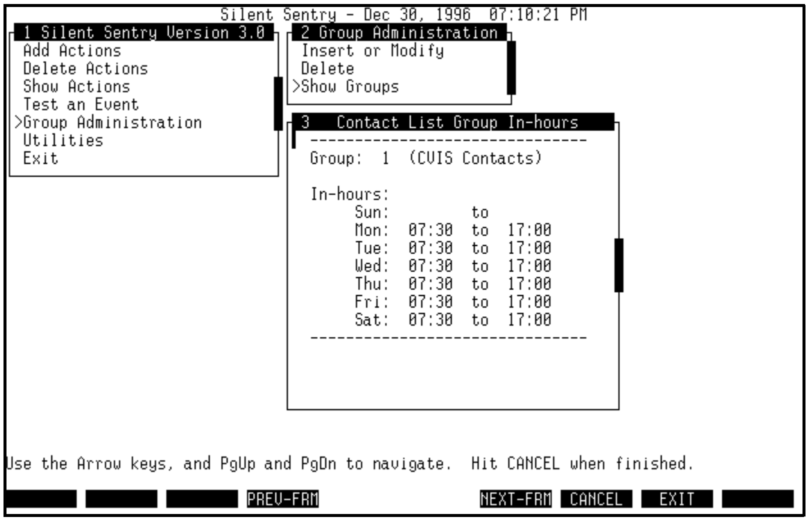


```
                    Silent Sentry - Dec 31, 1996  09:13:19 AM
 1 Silent Sentry Version 3.0   2 Group Administration
 Add Actions                    Insert or Modify
 Delete Actions                >Delete
 Show Actions                   Show Groups
 Test an Event
>Group Administration          3 Enter Group ID to Delete
 Utilities                                      4  Delete a Group's In-hours
 Exit                           Group ID: 1_
                                                Group ID:  1
 5                               Success
 **Deleted In-hours for Group**

  Group ID:  1
  Updated Contact List!

                                                Fri:       07:30 to 17:00
                                                Sat:         :   to   :

                                                Comment:   CVIS - Group 1
Hit CONT to continue.

                 CONT                                CANCEL   EXIT
```

Figure 5-15. After a Group’s In-Hours Have Been Successfully Deleted

Show Groups

When you choose *Show Groups*, a window with every group's in-hours displays (Figure 5-16). Use the Arrow keys and PgUp and PgDn to view all the data.

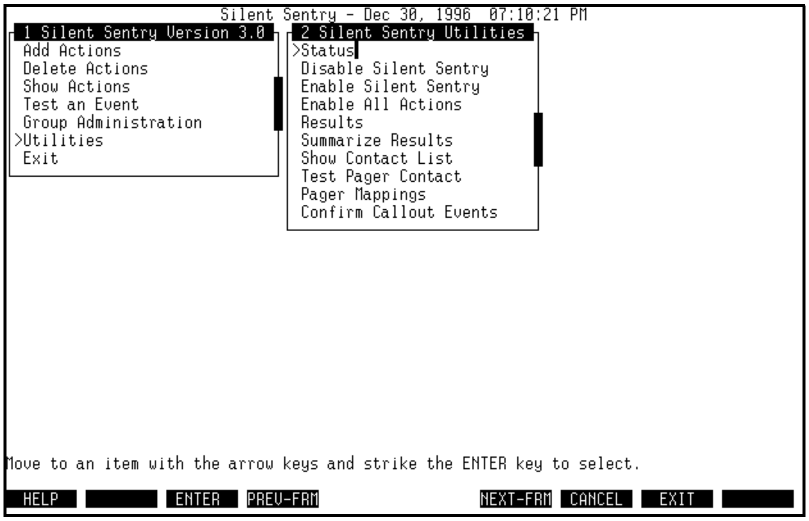


```
Silent Sentry - Dec 30, 1996  07:10:21 PM

-------------------------------
Group:  1  (CVIS Contacts)

In-hours:
     Sun:          to
     Mon:  07:30   to  17:00
     Tue:  07:30   to  17:00
     Wed:  07:30   to  17:00
     Thu:  07:30   to  17:00
     Fri:  07:30   to  17:00
     Sat:  07:30   to  17:00
-------------------------------

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
```

Figure 5-16. Showing the Group In-Hours

Utilities

The *Utilities* menu option allows you to monitor Silent Sentry and view its data (Figure 5-17).

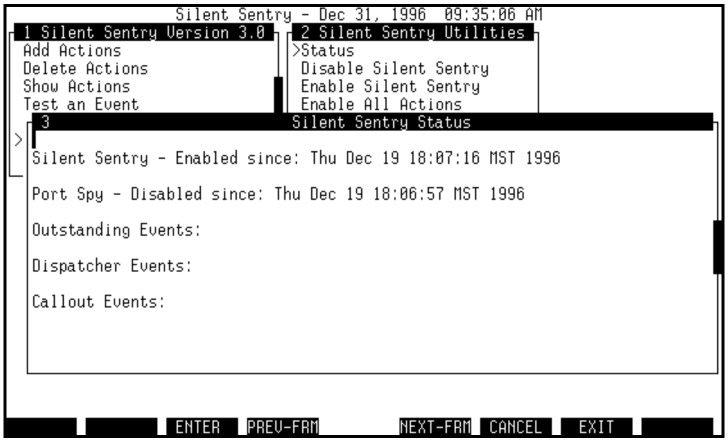


```
                          Silent Sentry - Dec 30, 1996  07:10:21 PM
 1 Silent Sentry Version 3.0   2 Silent Sentry Utilities
 Add Actions                  >Status
 Delete Actions                Disable Silent Sentry
 Show Actions                  Enable Silent Sentry
 Test an Event                 Enable All Actions
 Group Administration          Results
>Utilities                     Summarize Results
 Exit                          Show Contact List
                               Test Pager Contact
                               Pager Mappings
                               Confirm Callout Events

Move to an item with the arrow keys and strike the ENTER key to select.

  HELP            ENTER   PREV-FRM                  NEXT-FRM  CANCEL   EXIT
```

Figure 5-17. Silent Sentry Utilities

Status

Choosing this option will report whether Silent Sentry is enabled and will show any events waiting to be processed (Figure 5-18).

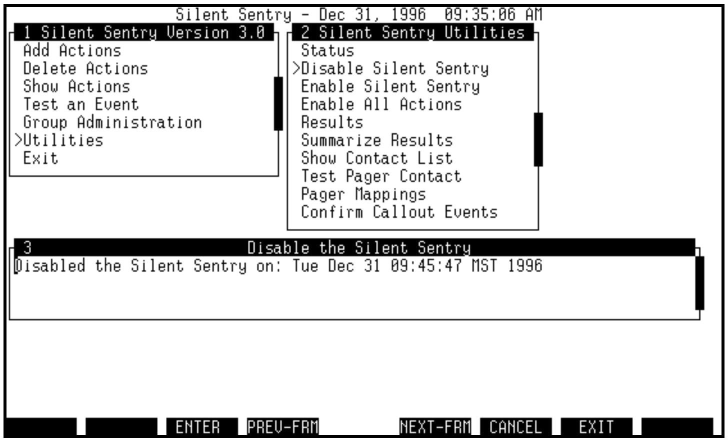


```
Silent Sentry - Enabled since: Thu Dec 19 18:07:16 MST 1996

Port Spy - Disabled since: Thu Dec 19 18:06:57 MST 1996

Outstanding Events:

Dispatcher Events:

Callout Events:
```

Figure 5-18. Silent Sentry Status

Disable Silent Sentry

This option disables Silent Sentry as soon as you choose it (Figure 5-19).

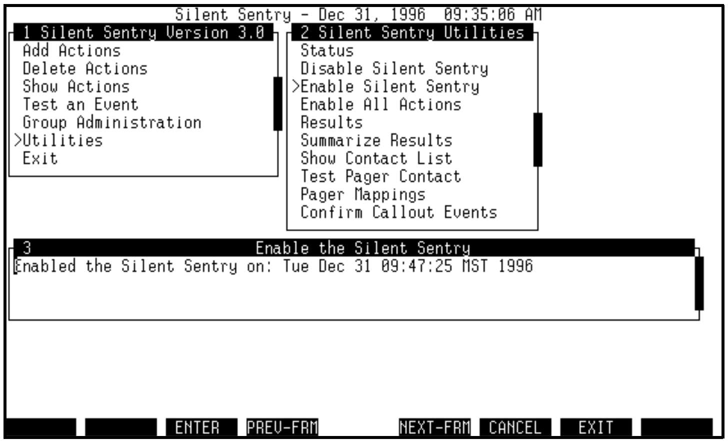


```
Disabled the Silent Sentry on: Tue Dec 31 09:45:47 MST 1996
```

Figure 5-19. Disabling Silent Sentry

Enable Silent Sentry

This option enables Silent Sentry as soon as you choose it (Figure 5-20).

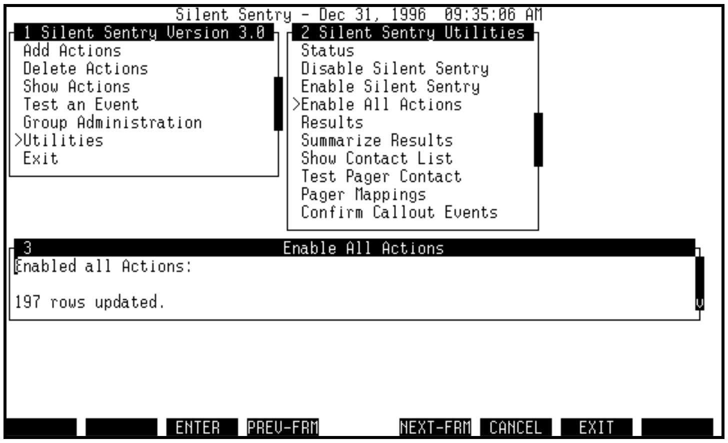


```
Enabled the Silent Sentry on: Tue Dec 31 09:47:25 MST 1996
```

Figure 5-20. Enabling Silent Sentry

Enable All Actions

This option enables all actions in the actions table by resetting their counts to 0 and their disabled flag to *N* (Figure 5-21).

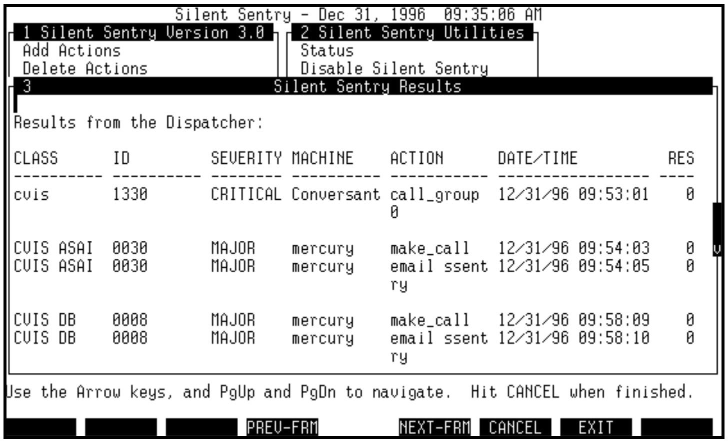


```
Enabled all Actions:

197 rows updated.
```

Figure 5-21. Enabling All the Actions

Results

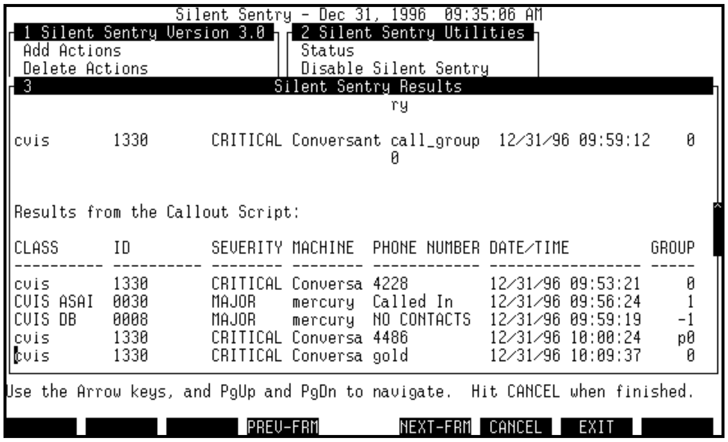
This option shows the results for both the dispatcher and the callout script (Figure 5-22). The information at the top of the window shows the results from the dispatcher. For information on interpreting dispatcher results, see "Dispatcher Results" on page 6-11.



```
                   Silent Sentry - Dec 31, 1996  09:35:06 AM
 1 Silent Sentry Version 3.0   2 Silent Sentry Utilities
 Add Actions                   Status
 Delete Actions                Disable Silent Sentry
 3                          Silent Sentry Results

Results from the Dispatcher:

CLASS      ID         SEVERITY MACHINE    ACTION      DATE/TIME         RES
---------- ---------- -------- ---------- ----------- ----------------- ----
cvis       1330       CRITICAL Conversant call_group  12/31/96 09:53:01    0
                                          0

CVIS ASAI  0030       MAJOR    mercury    make_call   12/31/96 09:54:03    0
CVIS ASAI  0030       MAJOR    mercury    email ssent 12/31/96 09:54:05    0
                                          ry

CVIS DB    0008       MAJOR    mercury    make_call   12/31/96 09:58:09    0
CVIS DB    0008       MAJOR    mercury    email ssent 12/31/96 09:58:10    0
                                          ry
Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.

                      PREV-FRM          NEXT-FRM CANCEL   EXIT
```

Figure 5-22. Dispatcher Results

Use the Arrow keys and (PgUp) and (PgDn) to view the rest of this data. Callout script results (Figure 5-23) follow the dispatcher results. For information on interpreting callout results, see "Callout Results" on page 6-12.

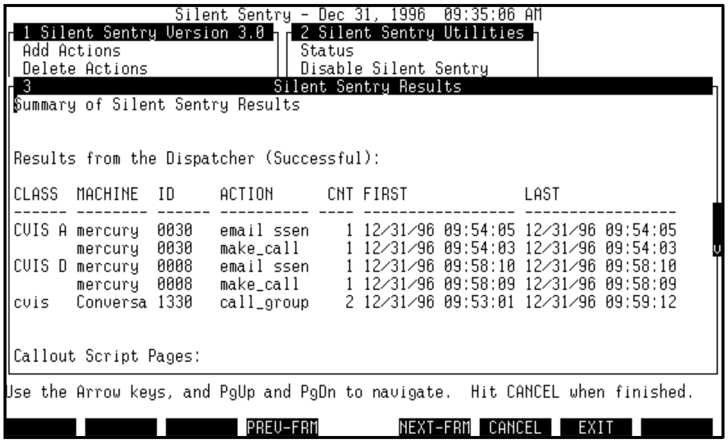


```
                   Silent Sentry - Dec 31, 1996  09:35:06 AM
 1 Silent Sentry Version 3.0   2 Silent Sentry Utilities
 Add Actions                   Status
 Delete Actions                Disable Silent Sentry
 3                          Silent Sentry Results
                                          ry

cvis       1330       CRITICAL Conversant call_group  12/31/96 09:59:12    0
                                          0


Results from the Callout Script:

CLASS      ID         SEVERITY MACHINE  PHONE NUMBER DATE/TIME         GROUP
---------- ---------- -------- -------- ------------ ----------------- -----
cvis       1330       CRITICAL Conversa 4228         12/31/96 09:53:21     0
CVIS ASAI  0030       MAJOR    mercury  Called In    12/31/96 09:56:24     1
CVIS DB    0008       MAJOR    mercury  NO CONTACTS  12/31/96 09:59:19    -1
cvis       1330       CRITICAL Conversa 4486         12/31/96 10:00:24    p0
cvis       1330       CRITICAL Conversa gold         12/31/96 10:09:37     0
Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.

                      PREV-FRM          NEXT-FRM CANCEL   EXIT
```

Figure 5-23. Callout Results

Summarize Results

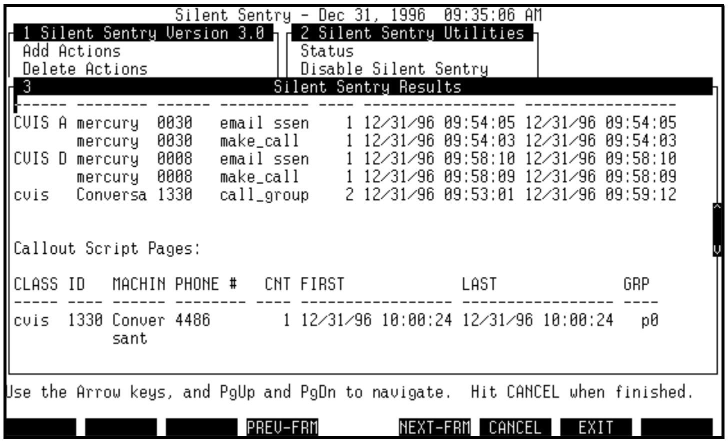
Choosing this option shows a summary of results for both the dispatcher and the callout script (Figure 5-24). The dispatcher results display at the top of the window. A summary of the actions that were unsuccessful (either they failed or were disabled) are followed by a summary of the actions that were successful. Use the Arrow keys and PgUp and PgDn to see the rest of the data.



```
Summary of Silent Sentry Results


Results from the Dispatcher (Successful):

CLASS  MACHINE  ID     ACTION      CNT FIRST             LAST
------ -------- ------ ---------- ---- ----------------- -----------------
CVIS A mercury  0030   email ssen    1 12/31/96 09:54:05 12/31/96 09:54:05
       mercury  0030   make_call     1 12/31/96 09:54:03 12/31/96 09:54:03
CVIS D mercury  0008   email ssen    1 12/31/96 09:58:10 12/31/96 09:58:10
       mercury  0008   make_call     1 12/31/96 09:58:09 12/31/96 09:58:09
cvis   Conversa 1330   call_group    2 12/31/96 09:53:01 12/31/96 09:59:12


Callout Script Pages:

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
```

Figure 5-24. Summary of Dispatcher Results

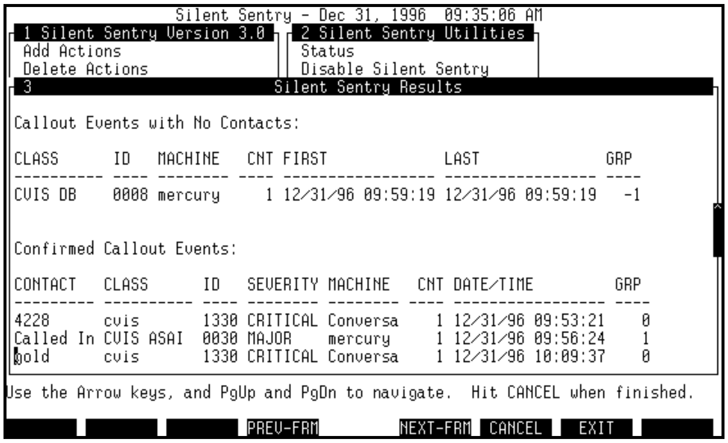
Next you will see a log of all the pages that Silent Sentry has sent (Figure 5-25).



```
------ -------- ------ ---------- ---- ----------------- -----------------
CVIS A mercury  0030   email ssen    1 12/31/96 09:54:05 12/31/96 09:54:05
       mercury  0030   make_call     1 12/31/96 09:54:03 12/31/96 09:54:03
CVIS D mercury  0008   email ssen    1 12/31/96 09:58:10 12/31/96 09:58:10
       mercury  0008   make_call     1 12/31/96 09:58:09 12/31/96 09:58:09
cvis   Conversa 1330   call_group    2 12/31/96 09:53:01 12/31/96 09:59:12


Callout Script Pages:

CLASS ID   MACHIN PHONE #   CNT FIRST             LAST              GRP
----- ---- ------ -------- ---- ----------------- ----------------- ----
cvis  1330 Conver 4486        1 12/31/96 10:00:24 12/31/96 10:00:24   p0
           sant

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
```

Figure 5-25. Pages Sent by the Callout Script

The last section shows any callout events that had no contacts, followed by each callout event that has been confirmed (Figure 5-26).

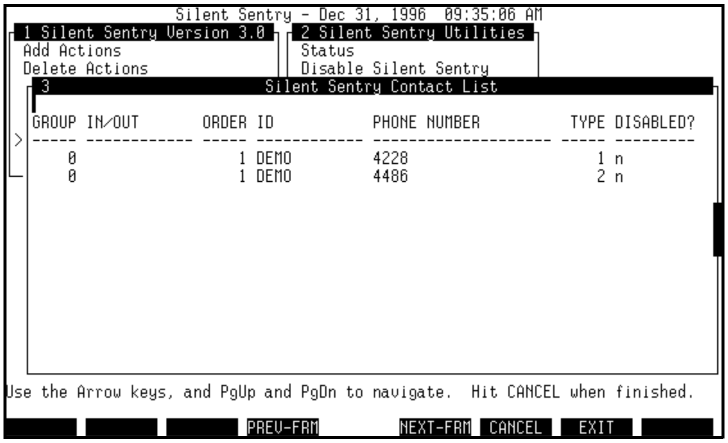


```
                     Silent Sentry - Dec 31, 1996  09:35:06 AM
 1 Silent Sentry Version 3.0     2 Silent Sentry Utilities
 Add Actions                     Status
 Delete Actions                  Disable Silent Sentry
 3                         Silent Sentry Results

Callout Events with No Contacts:

CLASS      ID   MACHINE   CNT FIRST             LAST              GRP
---------- ---- -------- ---- ----------------- ----------------- ----
CVIS DB    0008 mercury     1 12/31/96 09:59:19 12/31/96 09:59:19   -1


Confirmed Callout Events:

CONTACT   CLASS      ID   SEVERITY MACHINE   CNT DATE/TIME         GRP
--------- ---------- ---- -------- -------- ---- ----------------- ----
4228      cvis       1330 CRITICAL Conversa    1 12/31/96 09:53:21    0
Called In CVIS ASAI  0030 MAJOR    mercury     1 12/31/96 09:56:24    1
gold      cvis       1330 CRITICAL Conversa    1 12/31/96 10:09:37    0

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
```

Figure 5-26. Summary of Callout Events

Show Contact List

This option shows the contact list (Figure 5-27). Contacts with an *I* or *i* are in-hours contacts. Contacts with an *O* or *o* are out-of-hours contacts. Contacts with a type of *1* are people or answering machines. Contacts with a type of *2* are numeric pagers.

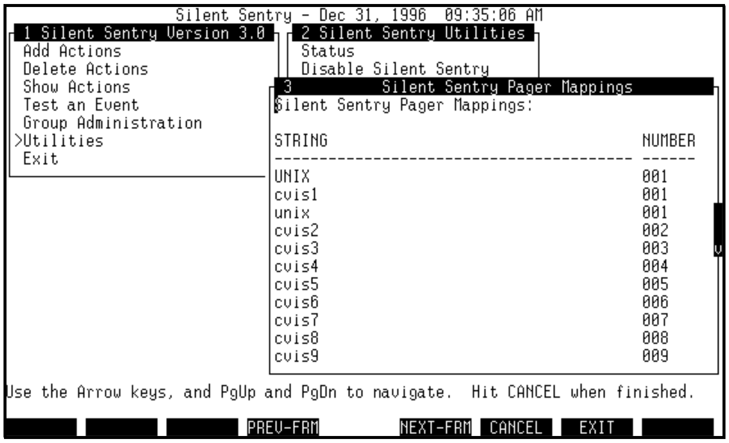


```
                     Silent Sentry - Dec 31, 1996  09:35:06 AM
 1 Silent Sentry Version 3.0     2 Silent Sentry Utilities
 Add Actions                     Status
 Delete Actions                  Disable Silent Sentry
   3                      Silent Sentry Contact List

  GROUP IN/OUT       ORDER ID           PHONE NUMBER         TYPE DISABLED?
> ----- ------------ ----- ------------ -------------------- ----- ---------
      0                  1 DEMO         4228                     1 n
      0                  1 DEMO         4486                     2 n

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
```

Figure 5-27. Showing the Contact List

Pager Mappings

This option shows the current pager mappings used by Silent Sentry when information is sent to a contact that is a numeric pager (Figure 5-28).



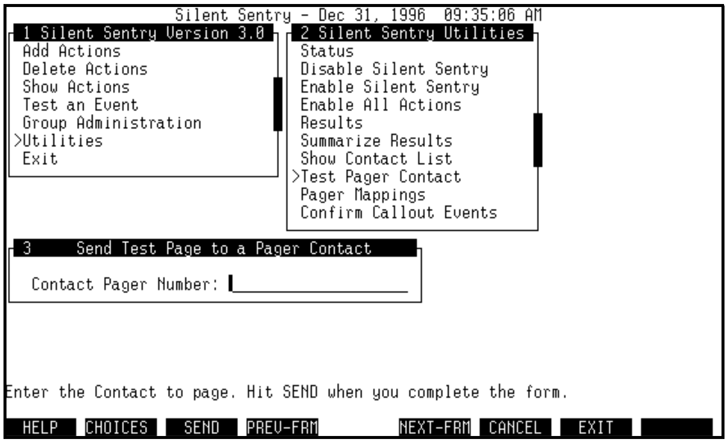
```
Silent Sentry Pager Mappings:

STRING                                   NUMBER
---------------------------------------- ------
UNIX                                     001
cvis1                                    001
unix                                     001
cvis2                                    002
cvis3                                    003
cvis4                                    004
cvis5                                    005
cvis6                                    006
cvis7                                    007
cvis8                                    008
cvis9                                    009

Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
```

Figure 5-28. Showing the Pager Mappings

Test Pager Contact

You can send a test page by choosing this option. You will then see a screen similar to Figure 5-29. Type the phone number or use the *[CHOICES]* function key to select a phone number. After you have filled in the field, press the ENTER key; then press the *[SEND]* function key.

The system will report the setting used to send the test page.

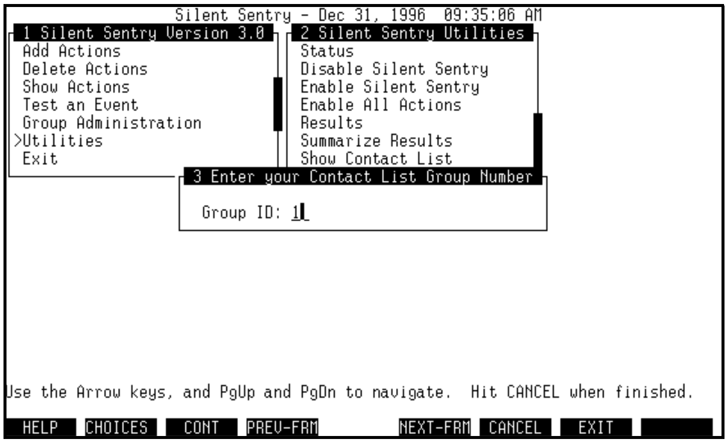


```
                   Silent Sentry - Dec 31, 1996  09:35:06 AM
 1 Silent Sentry Version 3.0    2 Silent Sentry Utilities
  Add Actions                    Status
  Delete Actions                 Disable Silent Sentry
  Show Actions                   Enable Silent Sentry
  Test an Event                  Enable All Actions
  Group Administration           Results
 >Utilities                      Summarize Results
  Exit                           Show Contact List
                                >Test Pager Contact
                                 Pager Mappings
                                 Confirm Callout Events

 3      Send Test Page to a Pager Contact

   Contact Pager Number: ________________


Enter the Contact to page. Hit SEND when you complete the form.
  HELP   CHOICES   SEND   PREV-FRM        NEXT-FRM  CANCEL   EXIT
```

Figure 5-29. Test Pager Contact

Confirm Callout Events

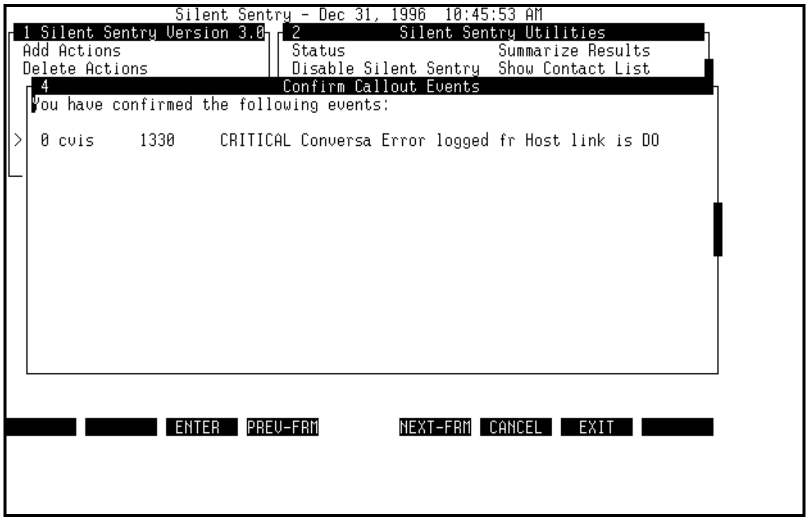
Choosing this option confirms the callout events by hand (Figure 5-30). You will be prompted for your group number. Be sure to press ENTER after typing your group number; then press the *[CONT]* function key.



```
                   Silent Sentry - Dec 31, 1996  09:35:06 AM
 1 Silent Sentry Version 3.0    2 Silent Sentry Utilities
  Add Actions                    Status
  Delete Actions                 Disable Silent Sentry
  Show Actions                   Enable Silent Sentry
  Test an Event                  Enable All Actions
  Group Administration           Results
 >Utilities                      Summarize Results
  Exit                           Show Contact List
                     3 Enter your Contact List Group Number

                       Group ID: 1


Use the Arrow keys, and PgUp and PgDn to navigate.  Hit CANCEL when finished.
  HELP   CHOICES   CONT   PREV-FRM        NEXT-FRM  CANCEL   EXIT
```

Figure 5-30. Enter Your Contact List Group Number

Each event you have confirmed will be shown on the screen (Figure 5-31). The contact list will no longer be called for your group because the callout events have been confirmed.



```
                  Silent Sentry - Dec 31, 1996  10:45:53 AM
 1 Silent Sentry Version 3.0   2            Silent Sentry Utilities
 Add Actions                   Status                 Summarize Results
 Delete Actions                Disable Silent Sentry  Show Contact List
   4                          Confirm Callout Events
  You have confirmed the following events:

>  0 cvis     1330     CRITICAL Conversa Error logged fr Host link is DO
```

Figure 5-31. Confirmed Callout Events

Exit

Choosing this option will take you completely out of the Silent Sentry user interface.

Understanding Basic Features

6

This chapter introduces basic Silent Sentry features. While this chapter does not discuss how to use Silent Sentry, it does provide information to expand your Silent Sentry understanding which in turn can make you a better Silent Sentry administrator.

NOTE:
Other than the steps outlined in Chapter 3, "Installing Silent Sentry", you are not required to do any additional administration. See Chapter 7, "Customizing Silent Sentry" for instructions on changing default Silent Sentry behavior.

Calling the Contact List

Currently the contact list can be organized in up to 100 groups (contact lists 0 – 99). Group 0 is reserved for the admin/demo script; group 1 is the default for the make_call action and is used for reporting the default CONVERSANT errors that are populated on installation. Each group can be subdivided into in-hours contacts and out-of-hours contacts.

The actions in the actions table that cause Silent Sentry to call the contact list are **make_call** and **call_group *n***. Each action has 2 steps:

1. First, each action enters a record into the callout events table.
   - make_call action — enters a record in the callout events table with the Group field set to *1*
   - call_group *n* action — enters a record in the same table with the Group field set to its group number *n*

2. Each action then notifies the start_calling shell script if this is a new callout event. (The shell script is located in the /usr/add-on/silent_sentry/bin directory). Only one start_calling process will run at a time, but each group of the contact list will be informed of all callout events tied to that group.

The Silent Sentry start_calling process ensures that the contact list is called until all callout events are confirmed. It checks for callout events, and if any exist, it will start up the callout script. It will then wait the number of seconds specified at installation, check again for callout event records, run the callout script, and then sleep. This will continue until the callout events table is cleared of all events (by being confirmed).

The callout script goes through the contact list in the order specified by the COC_ORDER field of the CO_CONTACTS table. The callout script has two distinct ways of reporting an event depending on the type of contact, as described in the next two sections:

- Calling a Person (or an Answering Machine)
- Calling a Pager Contact

Calling a Person (or an Answering Machine)

A typical voice call has three phases:

1. *Callout Prompt:* Greets the contact and asks if the contact would like to accept the call.
2. *Speaking Callout Events:* Tells the contact about all callout events.
3. *Confirmation:* Asks the contact to enter the PIN to confirm receipt of notification.

NOTE:
The callout script uses standard speech, custom speech, and customized speech. *Custom* speech is specific to the callout script and has numbered speech tags, while *customized* speech is based on database table values and has entries in the CO_PHRASES database table. If you would like to customize the speech, refer to "Setting Up the Port Spy" on page 7-20 for instructions on setting up your own customized speech.

The custom speech phrases referenced and used here are listed in detail in Appendix B, "Custom Speech Phrases".

Callout Prompt

Using the default Silent Sentry speech phrases and the Gold Savings & Loan example, the callout prompt begins with the phrase:

100 Greeting — *This is the Silent Sentry calling. I’ve noticed an event.*

The next three phrases state:

101 Prompt1 — *To accept this call, press one.*

102 Prompt2 — *To have the system hold, press two.*

103 Prompt3 — *To have the system disconnect and not call again, press three.*

These prompts are repeated a number of times in succession so that at least a part of the speech will be recorded if an answering machine picks up the call. A person may hit the appropriate button on their touch-tone phone at any time to continue.

Table 6-1. Callout Touch-Tone Options

Touch Tone	Result
1	Accept the call. The callout script will continue to the Speaking Callout Events phase of the call.
2	Hold. This gives whoever answers the phone enough time to get the person who should actually be accepting the call. If no entry is made before 90 seconds expire, the call is disconnected, and the callout script goes on to the next contact. Pressing any key before the 90-second limit will cause the script to continue to the Speaking Callout Events phase of the call.
3	Hang up and disable this contact. This feature serves two purposes. If a phone number is on the contact list by mistake, the person getting called can stop the phone calls. Or, if the person who should accept this call is unavailable, and will be for some time (perhaps they are out of town), the person answering the call can stop the phone calls. The phrase **115 Not called again** will be spoken, and the call will disconnect.

NOTE:
The Silent Sentry administrator should periodically check for contacts that are disabled and either enable them (by changing the COC_DISABLED field value to *n*) or remove them from the contact list. This is done by administering the contact list with **cvis_menu**. (See "Setting Up the Contact List" on page 3-7 for information.)

Speaking Callout Events

After the introductory prompt, the callout script will give information about each event that caused the call to be made. The callout script will speak the Classification, ID, and Machine fields for each callout event.

If these fields have an entry in the CO_PHRASES database table, customized speech will be used. If not, and the field is numeric it will be spoken as the phrase **106 number** followed by the number. If the field is not numeric it will be spelled out. If the field is blank the phrase **201 unknown** will be spoken.

The event's classification is spoken first. If the COE_CLASS field value has an entry in the CO_PHRASES database table, the script will speak this customized speech. If not, the classification will be spoken as phrase **104 Classification** followed by a number (if the value is numeric) or spelled out (if not numeric).

The event's ID is spoken next. If it is numeric, for instance a CONVERSANT error number, it will be spoken as phrase **106 number** followed by the number. If it is not numeric, but the COE_ID field value has an entry in the CO_PHRASES database table, the script will speak this customized speech. If it does not have an entry in the CO_PHRASES table, it will be spoken as phrase **105 event** followed by the ID spelled out.

The machine ID is spoken next. It is spoken as phrase **107 has occurred on machine** followed by the machine value's customized speech (if it exists in the CO_PHRASES database table) or spelled out (if customized speech does not exist).

This is followed by an additional customized phrase matching the classification concatenated with the ID (as in, *CVIS0626*) if such an entry is found in the CO_PHRASES database table. Silent Sentry has additional instructions for many CONVERSANT errors (see "Customized Speech" on page 4-4).

Neither the Classification nor the ID can be interrupted. The callout script will continue speaking the callout events until it has informed this contact of every one that is to be reported to the contact's group.

Using the Gold Savings & Loan example, the following table shows the content of the callout events table when Silent Sentry calls the contacts as a result of the host link going down:

Table 6-2. Callout Events Table

Class	ID	Severity	Machine	Text
CVIS	1330	CRITICAL	Conversant	Host down. 10:00 pm. 9/03/93.

As Silent Sentry calls the contacts about the down host link it repeats the following statement to each contact in group 1 (until confirmed):

> *Conversant error number one thousand three hundred thirty has occurred on machine Conversant. The host link is down. Please check the host and the host link. If there is no problem, re-establish the host connection manually.*

Confirmation

After speaking each callout event, the callout script will ask for confirmation by speaking the phrase **108 Confirmation prompt,** *Please enter your PIN to confirm receipt of this call*. Currently the PIN is **4653**. Entering ***#** at this prompt will cause Silent Sentry to repeat the events and then reprompt for the PIN.

The PIN is determined by code in the callout script and can be changed using Script Builder.

If the contact confirms the receipt with a valid PIN, the callout script speaks phrase **109 Confirmed —** *This notification has been confirmed* and phrase **112 Good-bye —** *Good-bye.*

Silent Sentry logs this confirmation by entering a record for each callout event in the callout results table (CO_RESULT). It will also delete the confirmed events from the callout events table. Events that have been confirmed will have a COR_ TYPE field value equal to the group number of the contact that confirmed it (see "Results" on page 6-11 and "Log Files" on page 6-14).

If the contact does not confirm the receipt with a valid PIN, the callout script speaks phrase **113 Not confirmed —** *You did not confirm this notification* and phrase **114 Called again —** *You may be called again.*

Once the events have been confirmed, the callout script will disconnect and quit. If the timing is such that additional callout event records are entered after the callout script has quit, either **make_call** or **start_calling** will cause Silent Sentry to start back down the contact list.

Calling a Pager Contact

The callout script can also send the callout event information to a numeric pager by sending touch tones. Contacts in the contact list with a COC_TYPE of *2* or *3* are treated as pagers. The callout script will send the machine, the classification, and the ID (in that order) of the first event in the callout events table for the contact's group number. The order is determined by the physical order of the records. If each of these fields is numeric, the numeric value is sent. For each field that is not numeric, the callout script will query the CO_PAGE_MAP database table for the proper numeric value to send.

After the page is sent, the callout script will enter a record into the callout results table indicating that a page was sent by having the COR_TYPE field set to *pn*, where *n* is the contact's group number.

Silent Sentry will only send the first event to a pager. The contacts that are paged should either log in and clear the callout events table (using the *Confirm Callout Events* option under the *Utilities* menu in the Silent Sentry user interface or the **clear_co_events** utility) or call into the administration script (see "An Administrator Calls into the CONVERSANT" on page 6-7) and confirm the events.

Because a page cannot be confirmed, the event is not removed from the callout events table and the next contact within the same group of the contact list will be notified of it.

Most numeric pagers will work with Silent Sentry without any special administration. Test your pager using the *Test Pager Contact* option under the *Utilities* menu in the Silent Sentry user interface. If you find that your pager does not work or you get incomplete pages, see Chapter 7, "Customizing Silent Sentry".

Admin/Demo Script

The admin/demo script implements the Gold Savings & Loan example to demonstrate the following functions:

- Silent Sentry's ability to notice an error and call the contact list.
- How you, as an administrator, might call into the CONVERSANT to check for, and confirm, callout events.

Silent Sentry Calls the Contact List

The demo part of the script allows you to demonstrate Silent Sentry's ability to notice an error and call the contact list. When you call in you are playing the role of a customer trying to get account information. The demo illustrates what would happen if the host link was down. When Silent Sentry calls back, you are playing the role of a system administrator responsible for maintaining the system.

For the demo to work properly, you need:

- An inbound channel
- An available outbound channel for the callout script to run on
- Silent Sentry to be enabled
- The actions table entry of **make_call** for a *cvis 1330* event, with that action enabled (this is the default)
- Knowledge of the valid PIN (**4653**)

NOTE:
The demo uses contact list group number 0.

When you call the demo number, you will be prompted as follows:

1. *Thank you for calling Gold Savings & Loan. For information on ...etc.*

   Press **1**, **2**, or **3**.

2. *Please enter your account number.*

   Enter the phone number of the contact (person you are showing this to) you wish Silent Sentry to call. Be sure that it is a valid phone number.

3. *Please enter your PIN.*

   Enter **1111** if the contact is a person or **2222** if the contact is a numeric pager.

   NOTE:
   This is a “fake” PIN. When Silent Sentry calls you back, you must enter the real PIN (**4653**) to confirm the notification.

4. *We’re sorry, account information is not available at this time. Please call back later. Good-bye.*

   Hang up. As a customer, you are probably annoyed that the system is down.

The admin/demo *s*cript will:

- Enter the contact phone number into contact list 0 of the contact list (CO_CONTACTS database table).
- Enter a *cvis 1330* event into the events table.

The contacts that are entered with the demo script will have a COC_CONTACT_ID field value of *DEMO*.

Now, Silent Sentry goes to work notifying the contact list that event *cvis 1330* has occurred. As the system administrator, you get the call:

> *This is the Silent Sentry calling. I’ve noticed an error....etc.*

Press **1** to accept the call, and use the real PIN to confirm receipt.

When your demonstration is over, call the demo script again to remove all the demo contacts by entering a **9** when prompted for savings, checking, or loan information (this option is called a *hidden option* because it is not included in the prompting speech). Be sure to remove them, or these contacts will be informed the next time the demo is run. See Appendix C, "Using the Silent Sentry Demo" for detailed instructions on running the Silent Sentry demo.

An Administrator Calls into the CONVERSANT

The administration part of the admin/demo script is accessed by calling the CONVERSANT admin/demo script and hitting **8** when prompted for savings, checking, or loan information. The CONVERSANT will first speak the **117 Greeting, prompt for group** phrase, prompt you for your group number, and then speak any callout events to you. If there are no events, it will tell you that there is nothing to report by speaking the **111 There is nothing to report** phrase. Because the standard callout script is being run, when events do exist you will be asked to confirm the notification by entering the PIN. Once the script has finished, it will disconnect and quit.

NOTE:
Be sure that contacts know their group number, or they will not be able to call into Silent Sentry to confirm callout events.

Directory Structure

The Silent Sentry package is located under the /usr/add-on/silent_sentry directory.

Figure 6-1 illustrates the Silent Sentry directory structure.

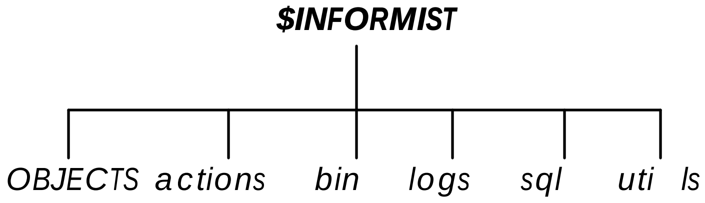


Figure 6-1. Silent Sentry Directory Structure

NOTE:
The Silent Sentry environment is added to everyone's login at installation. Your path is set up automatically for you to run the Silent Sentry utilities and actions from the command line.

Actions Summary

Actions are those commands located under the *$INFORMIST/*actions (/usr/add-on/silent_sentry/actions) directory, plus the two built-in actions **after** and **IGNORE**. The **after** action allows you to specify an action (with 0 or 1 argument) to perform after the event has occurred a certain number of times. **IGNORE** is an action that says, "Don't take any action." Events with an action of **IGNORE** are logged in the dispatcher log file with this classification, but are not entered in the results table.

The actions are located in the *$INFORMIST/*actions (/usr/add-on/silent_ sentry/actions) directory (see "Admin/Demo Script" on page 6-6) and most are UNIX shell scripts. You can use these as templates for writing your own actions (see "Writing Your Own Actions" on page 7-13). Any executable file residing in the actions directory can be specified as an action, and will show up as a choice for the current field when the *[CHOICES]* function key is pressed in the Silent Sentry user interface.

Actions can be individually disabled. They become disabled when the COUNT field in the actions table is greater than the LIMIT field. If the LIMIT field is *0*, the action will never be disabled. Disabled actions remain disabled until the **enable_actions** utility is either run by hand or by the cron job set up during installation to run once per day.

NOTE:

The interaction between the **after** action and the disable limit is a little tricky. Take as an example **after 4 make_call**. The disable limit applies to the number of times the **after** will be run, not the number of times the **make_call** action will be run. Because of this, the disable limit must include the *n* (as in **after *n* action**) in its value. So if you want the contact list to be called after an event has occurred 4 times, but only want it to call once, the disable limit is 5 (4 + 1).

If you are not just using the default Silent Sentry actions and you want Silent Sentry to run an action when an event occurs, you must enter the appropriate record into the actions table. To see your current actions table, select the **Show Actions** option in the Silent Sentry user interface (the **silent_sentry** utility command) or run the **show_actions** utility command.

The Silent Sentry user interface only allows you to add or delete actions. If you know ORACLE SQL*Plus you can update the table using SQL commands. You can also create a new Script Builder application, add the INF_ACTION table to it, and use Script Builder to edit your actions table.

When adding actions, no checks are done to enforce uniqueness. When deleting actions, all records that match the entered field values will be deleted. The ACTION field will perform a partial match — it will match anything that *begins* with the entered value. All other fields do a complete match. This allows you to enter the first part of the action rather than being required to type in the entire (possibly long) value.

You can use the *[NEXT-FRM]* and *[PREV-FRM]* function keys to display the actions while you are adding or deleting. This list will be updated when that window is made current. Before changing the actions table, determine the appropriate arguments using the Actions worksheet in Appendix A, "Worksheets".

The standard Silent Sentry actions are shown in Table 6-3.

Table 6-3. Silent Sentry Actions

Action	Parameters	Explanation
IGNORE	none	Causes the event to be ignored. This action is built into the dispatcher, and is not located in the actions directory.
after	n action	Performs an action after the event has occurred *n* times. Both *n* and the *action* must be specified in the action field (as in, *after 4 make_call*). This action is built into the dispatcher, and is not located in the actions directory.
broadcast	*none*	Broadcasts the information to the terminal of every logged-in user.
call_group	*group #*	Calls the people and pagers belonging to the *group #* specified in the contact list and informs them of an event.
cma_send	none	Sends information to Star SENTRY® via the Computer Manager.
email	user	Sends E-mail to the specified user (*email user1*), using the UNIX **mail** command.
log_1line	filename	Formats an event (one per line) and appends it to a file.
log_event	filename	Formats an event and appends it to a file.
make_call	none	Calls the people and pagers listed in group 1 of the contact list and informs them of an event.
page_alpha	telephone # pager #	Sends the event to an alphanumeric pager.
reboot	none	Reboots the machine using the UNIX shutdown command.
send_file	destfile	Sends a file using the UNIX **uucp** command. The destination file must be specified in the action field (as in, *send_file machine!/dir/filename*).

Continued on next page

Table 6-3. Silent Sentry Actions — *Continued*

Action	Parameters	Explanation
set_timer	key seconds command	Sets a timer so that after the specified time, if the timer event referenced by the key is not reset or cleared, the specified command will be executed. (This command is typically an **add_event** command.) Any output from this command will show up in the timer spy's log file (*$INFORMIST*/logs/timer.out, /usr/add-on/silent_sentry/logs/timer.out). You can clear a timer event by running: **set_timer <key> off**

Results

Silent Sentry logs the results of every event processed, except those that were ignored. It uses two different results tables — one for the dispatcher and one for the callout script. You can see what Silent Sentry has done for the day by looking at these results, either through **silent_sentry** or the **show_results** utility. Remember that these tables are cleared out once per day at 11:07 p.m.

Dispatcher Results

For every event that the dispatcher handles, except those that are ignored, a record is entered into the dispatcher's results table (INF_RESULT). When viewing results, the dispatcher results are shown on the screen first. The following fields display:

CLASS ID SEVERITY MACHINE ACTION DATE/TIME RES

The CLASS, ID, and SEVERITY are the field values of the event. The ACTION is the action that the dispatcher matched to the event. If the ACTION field is *NO MATCH*, the event did not match an action. The DATE/TIME field is the date and time that the dispatcher handled the event.

NOTE:
The DATE/TIME field is not the time that the event occurred, but the time that the event was processed. Under most conditions these times will be close, but this depends on the sleep times for the dispatcher and the spies, and the timing of disabling and enabling Silent Sentry.

The RESULT field value represents the result from running the action. The RESULT field can have no value or a numerical value. If the field is empty, the action was disabled. If the return code is a nonzero number, the action failed. If it is zero, the action was successfully started. If you get a nonzero return code, double-check your arguments to the action and check the dispatcher log for error messages.

NOTE:
A successful return code does not guarantee that the action successfully completed. For example, a successful dispatcher result for the **make_call** action indicates that the callout script has successfully started. The complete results for the actions that call the contact list are found in the callout script's results table.

The dispatcher results from processing our Gold Savings & Loan example would be:

CLASS	ID	SEVERITY	MACHINE	ACTION	DATE/TIME	RES
CVIS	1330	MAJOR	Conversant	make_call	09/03/93 22:01:30	0
CVIS	1330	MAJOR	Conversant	email cathy	09/03/93 22:01:33	0

Callout Results

To see who was paged or who confirmed a callout event, look at the callout results. When a callout event is confirmed or when it is sent to a pager, a record is entered into the callout script's results table (CO_RESULT). When viewing results with **silent_sentry**, or the **show_results** utility, the callout results display on the screen after the dispatcher results. You will see the following fields:

				PHONE		
CLASS	**ID**	**SEVERITY**	**MACHINE**	**NUMBER**	**DATE/TIME**	**TYPE**

The CLASS, ID, SEVERITY, and MACHINE are the field values of the callout event. The DATE/TIME field is the date and time that the callout script generated the record. This will either be when the callout event was confirmed, or when it was sent to a pager.

The PHONE NUMBER field value can be any of the following:

- The number of the contact who confirmed
- The number of the called pager
- The login id of the person who confirmed the event by hand
- The words *CALLED IN* if someone called in to confirm the event
- The words *NO CONTACTS* if there was no one to call when this event was reported.

The TYPE indicates how this callout event was handled. A positive value indicates that a contact confirmed the callout event. The value will be the contact's group number. A value of *pn* indicates that the information was sent to a numeric pager, where *n* is the contact's group number. A negative value indicates that the callout script had no one to contact because the contact list for the specific group was empty at the time the event was to be reported. The value will be the contact list group number of the group that was supposed to be called.

Results from processing the Gold Savings & Loan example would be:

CLASS	ID	SEVERITY	MACHINE	PHONE NUMBER	DATE/TIME	TYPE
CVIS	1330	MAJOR	Conversant	5551212	09/03/93 22:03:30	p1
CVIS	1330	MAJOR	Conversant	5557777	09/03/93 22:05:08	1

Where the first record's type indicates that the information was sent to Marty's pager (at 555-1212) and the second record indicates that Cathy (at 555-7777) confirmed the CONVERSANT 1330 error. If, on the other hand, Marty had called Silent Sentry and confirmed the events through a hidden option in Gold Savings & Loan's standard CONVERSANT application scripts, the results would be:

CLASS	ID	SEVERITY	MACHINE	PHONE NUMBER	DATE/TIME	TYPE
CVIS	1330	MAJOR	Conversant	5551212	09/03/93 22:03:30	p1
CVIS	1330	MAJOR	Conversant	CALLED IN	09/03/93 22:06:18	1

NOTE:

Because of a limitation in Script Builder, if two identical events (the same class, ID, severity, machine, text1, and text2) are confirmed in the same phone call, only one confirmation will be logged in the callout results table. None of the events generated by the standard spies will have this problem because the text fields ensure uniqueness.

However, you may encounter the problem if you define two identical events. The problem only affects the data reported in the callout results. If two identical events are confirmed in the same phone call and only one confirmation is logged in the callout results table, you can assume that both events were confirmed properly, even though only one of the two identical events is reported.

Log Files

The *$INFORMIST*/logs (/usr/add-on/silent_sentry/logs) directory contains log files for the dispatcher, all Silent Sentry spies, the command DIP (Data Interface Process), and the Silent Sentry DIP. These files indicate when a spy becomes disabled or enabled, and can be very useful in tracking down problems in Silent Sentry. (For more information about DIPs, see "Silent Sentry DIPs" on page 7-19.)

Dispatcher Log File

The most useful log is the dispatcher log, which is in the file **disp.out**. The dispatcher will print in its log every event that it handled. It will also indicate how the event was handled:

- Did it match any actions?
- What criteria did it match on?
- Was the action disabled?
- Was the action IGNORE?
- Did the action succeed?

The log file will clearly indicate the answers to these questions. An example log file might look like this:

```
The following records were handled to completion and matched on ID:

CLASS  ID        SEVERITY  MACHINE     ACTION          DATE/TIME
CVIS   1330      MAJOR     Conversant  make_call       09/06/93 02:03:27
CVIS   1330      MAJOR     Conversant  email ssentry   09/06/93 02:03:33

The following records were handled to completion and matched on SEVERITY:

CLASS  ID        SEVERITY  MACHINE     ACTION          DATE/TIME
DISK   LOWSPACE  WARNING   elvis       email ssentry   09/04/93 12:33:55

The following records had actions that were disabled:

CLASS  ID        SEVERITY  MACHINE     ACTION          DATE/TIME
DISK   LOWSPACE  WARNING   elvis       broadcast       09/04/93 04:03:27
DISK   LOWSPACE  WARNING   elvis       email ssentry   09/06/93 04:03:33
```

In addition, any error messages from the dispatcher will show up in this file. This includes any error messages from running an action. If an action does not seem to be working, check the dispatcher log for error messages.

CVIS Spy Log File

The CVIS spy log file indicates when the CVIS spy started monitoring. It will also log any errors encountered by the CVIS spy and list the events that are being ignored by the CVIS spy. If CONVERSANT errors are not being entered into the events table properly, check this log file for error messages. First make sure the error is in the CONVERSANT log with the CONVERSANT **disp** command. (Typically you must log in as *root* to run this command.) This log file is called **cvis.out**.

Disk Spy Log File

The disk spy log file indicates when the disk spy started monitoring and what the CRITICAL and WARNING low space values are. It will also log any errors encountered by the disk spy. This file is called **disk.out**.

Timer Spy Log File

The timer spy log file indicates when the timer spy started monitoring. It will also log any errors encountered by the timer spy and all output from the commands that the timer spy runs when a timer goes off. This file is called **timer.out**.

Command DIP Log File

The command DIP log file indicates when the command DIP started running and what the start-up parameters are. It also includes any output and errors from UNIX commands that are run within a Script Builder script. This file is called **cmdddip.out**.

Silent Sentry DIP Log File

The Silent Sentry DIP log file indicates when the Silent Sentry DIP started running and what the start-up parameters are. This file is called **infdip.out**.

Port Spy Log File

The port spy log file indicates when the port spy started monitoring and what the field and serial port parameters are. It will also log any errors encountered by the port spy and any output generated from being in debug mode. This file is called **port.out**.

Cron Jobs

In UNIX a *cron job* runs automatically based on the date or time of day. The cron job that clears out the dispatcher and callout results tables and enables all actions for Silent Sentry is set up for you on installation. By default this job is run every day at 11:07 pm. If you need to change the time this cron job runs, take care to choose a nonbusy time.

Customizing Silent Sentry

7

This chapter tells how to customize Silent Sentry. The information provided here is most useful if you have at least some CONVERSANT and UNIX experience.

Managing Pager Mappings

Edit the CO_PAGE_MAP table to add, change or delete records from the pager mappings database table, using **cvis_menu**. This table is used to map character fields to numeric fields for sending to a numeric pager. The machine, the classification, and the ID of an event are sent (in that order) to the pager.

If these fields have numeric values, then the field values are used. If a field is not numeric and this table has an entry for the field value, the table entry is used. If there is no entry, a set of three nines (*999*) is sent for the machine and classification, and four nines (*9999)* for the ID. Machine and classification mappings should be three digits and ID mappings should be four digits so that the pager will format the numbers in a readable fashion. For example, *001 555-0626* is easier to read as “machine 1, classification 555, ID 626" than *1555626*. Each possible field value should only have one entry. If there are multiple entries, the callout script will use the first one found.

The fields are as follows:

Field Name	Data Type	Width	Explanation
COP_STRING	character	40	This is the field value to map to the specified number.
COP_NUMBER	number	4	This is the number to send the pager for the specified string. Use 3-digit values for machines and classes, and 4-digit values for IDs. This way the pager will format the data as a phone number, making it much easier to read off the pager.

For example, CONVERSANT HOST errors are mapped to 112 by default with a COP_STRING value of *CVIS Host* and a COP_NUMBER value of*112.* A machine of mach1 can be mapped to 001 with field values of *mach1* and *001.*

Standard Spies

Each of the standard Silent Sentry spies (the disk spy, CVIS spy, timer spy, and port spy) can be disabled or enabled.

Disabling a Spy

To disable a spy, run the command ***spy-name*_off** where *spy-name* is the name of the spy in lower case (*cvis*, *disk*, *timer*, or *port*). When a spy is disabled, it will continue to run, but not monitor anything. The **inf_stat** and **inf_ps** utility commands and the *Status* option in the Silent Sentry user interface will indicate the spies that have been disabled.

Enabling a Spy

To enable a spy, run the command ***spy-name*_on**. When Silent Sentry is disabled (using the **inf_off** utility command or the Silent Sentry user interface), enabling a spy will have no affect until Silent Sentry is enabled using the **inf_on** utility command or the Silent Sentry user interface.

Changing Spy Options

Every standard Silent Sentry spy has the command-line option, *-?*, which displays a page of help indicating the valid options for the spy. Some of the options can be changed using the **change_params** utility, but many cannot. If you need to modify the way in which a spy runs, run the spy with a -? from the command line to see these options. You must be logged in as root to change them. After you have determined what the options should be, edit the file

/etc/conf/init.d/infmst_init and change the line that corresponds to the spy you wish to change. After you have made the change, you must cause inittab to be rebuilt. To do so, run the commands:

```
/etc/conf/bin/idmkinit -e /etc/conf/init.d -o /etc

init q
```

Make sure the spy is running properly. Check the console for the message:

INIT: Command is respawning too rapidly. Check for possible errors.

This indicates that the spy cannot run. You can check the spy's log file under *$INFORMIST*/logs and use the **inf_ps** utility command to check the spy's status.

Ignoring CONVERSANT Errors

Silent Sentry gives you the option of configuring the CVIS spy to ignore up to 10 CONVERSANT errors. You simply list each CONVERSANT error to ignore in the file *$INFORMIST*/data/cvis_ignore. On start up, the CVIS spy will read in the file's list of errors to ignore. Comment lines in the file explain the syntax for ignoring CONVERSANT errors. When you edit the file, list each error to ignore on its own line, with no space between the Classification and ID.

NOTE:
By default, the CVIS spy ignores the CONVERSANT status message *MTC0002* (generated when a channel changes state).

If the CVIS spy is already running, you must kill the spy so that it can reread the cvis_ignore file. Use the **inf_restart** utility command, and then check the spy's log file to verify your changes.

Setting File System Limits

In addition, the disk spy has an optional feature allowing you to set file-system-specific limits. To use this feature, you must create the file *$INFORMIST*/data/fs_limits, which the disk spy uses to read the limits in. This file should contain the file system name, followed by the critical limit, followed by the warning limit. These file-system-specific limits should be one per line, with a space between each of the fields. Any file systems that are not listed will be monitored with the default CRITICAL and WARNING limits listed at the top of the disk spy's log file.

If the spy is already running, you must kill the disk spy for fs_limits to be read.

Utility Commands

Silent Sentry utility commands are listed in Table 7-1. All of the commands are located in *$INFORMIST*/utils. The text in parentheses under some commands is the menu option in the Silent Sentry user interface (the **silent_sentry** utility command). Commands with a "★" by them must be run from the root login.

Table 7-1. Silent Sentry Utilities

Command	Explanation
add_event	Adds an event to the events table. The arguments are the Class, ID, Severity, Machine, Text1, and Text2. Be sure to use quotes if any of these fields contain white space.
backup_df	Creates a diskette backup of your contact list group hours and the following data files: INF_ACTION CO_PAGE_MAP CO_PHRASES CO_CONTACTS CO_NPGR_CFG After you have the correct values in these five database tables, back them up using this command. After installing on another machine, the **restore_df** utility and the backup disk will populate the tables on the new machine.
change_params ★	Allows you to administer the parameter values set during installation such as the sleep times, Silent Sentry script channels, and the disk spy CRITICAL and WARNING levels.
clear_co_events (Confirm Callout Events)	Clears the callout events table. You will be prompted for the group number, or you can specify it on the command line. Run this command when the callout script needs to be confirmed by hand. This will cause Silent Sentry to stop trying to call the contact list.
clear_results	Clears the results for both the dispatcher and the callout script. This is done once per day to ensure that the tables do not become too large.
cvis_off	Disables the CVIS spy.
cvis_on	Enables the CVIS spy (will not override the **inf_off** command).

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Table 7-1. Silent Sentry Utilities — *Continued*

Command	Explanation
describe	Describes the fields for all Silent Sentry database tables.
disk_off	Disables the disk spy.
disk_on	Enables the disk spy (will not override the **inf_off** command).
enable_actions (Enable All Actions)	Enables all disabled actions. This should be done by hand whenever the actions need to be enabled. It is also done once a day as a backup to ensure that actions do not mistakenly remain disabled.
silent_sentry	Starts the Silent Sentry user interface. You can administer Silent Sentry tables and run some utilities from this menu-based tool.
inf_kill ★	Kills all Silent Sentry processes and causes them to not respawn. The **inf_unkill** command undoes this.
inf_off (Disable Silent Sentry)	Disables the dispatcher. No events will trigger an action and spies will not enter events into the events table. If the callout script is running, once it has completed the loop through the contact list, it will not continue. The presence of the file *$INFORMIST*/inf_dis indicates that Silent Sentry is disabled.
inf_on (Enable Silent Sentry)	Enables Silent Sentry. The dispatcher will begin processing events, spies will check for events, and the callout script will contact the contact list. Errors that occurred while the system was disabled will be ignored. Any records in the dispatcher events table will be processed as will any records in the callout events table (see "Enabling Silent Sentry" on page 3-10 for steps).
inf_ps	Runs **ps** on dispatcher, cvis_spy, disk_spy, timer_ spy, port_spy, and start_calling.
inf_restart ★	Causes all Silent Sentry processes to stop and restart (this does not undo the **inf_unkill** command).
inf_stat (Status)	Tells if Silent Sentry is disabled or enabled and lists the spies that have been disabled.

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Table 7-1. Silent Sentry Utilities — ***Continued***

Command	Explanation
inf_unkill ★	Undoes the **inf_kill** command.
port_off	Disables the port spy.
port_on	Enables the port spy (will not override the **inf_off** command). The port spy must be properly set up to enable it.
restore_df	Restores data files on the disk created by the **backup_df** command.
show_actions (Show Actions)	Shows the actions table.
show_chans	Shows the channel used for the admin/demo (SsentryDemo) script and the channel used by the callout script to call the contact list.
show_contacts (Show Contacts)	Shows the contact list.
show_cresults	Shows the callout results table.
show_events (Status)	Shows both the dispatcher events table and the callout events table.
show_groups (Show Groups)	Shows the in-hours defined for each contact list group.
show_page_maps (Pager Mappings)	Shows the current pager mappings table.
show_params	Shows the current Silent Sentry parameters.
show_phrases	Shows the entries in the CO_PHRASES database table for the customized Silent Sentry speech.
show_results (Results)	Shows both the dispatcher results table and the callout results table.
show_sum (Results)	Shows a summary of the dispatcher results table.
show_tresults	Shows the Text1 and Text2 field of the dispatcher results table.

Continued on next page

Table 7-1. Silent Sentry Utilities — *Continued*

Command	Explanation
table_add	Adds a record to an Oracle table. The first argument is the table name and the rest of the arguments are the field values. All field values must be passed in (use NULL for empty fields). This command does no error checking, so any errors that are encountered will be flagged by SQL*Plus.
timer_off	Disables the timer spy. If the timer spy is disabled, an attempt to set a timer with the **set_timer** action will fail.
timer_on	Enables the timer spy (will not override the **inf_off** command).

Pager Issues

Silent Sentry has two methods of reporting an event to a pager:

- It can call a numeric pager in the contact list.
- It can use the **page_alpha** action to send an alphanumeric page.

Both of these methods are as generic as possible, but because pagers are different across the country, these methods may not directly support your pager companies. If you do not receive pages, or receive them sporadically, you may need to perform some additional configuration. The next sections, “Calling a Numeric Pager” and “Alphanumeric Pages” offer suggestions for dealing with pager differences you may encounter.

Calling a Numeric Pager

When Silent Sentry sends a numeric page to a contact, it uses a pager configuration table called CO_NPGR_CFG to determine how to send the page.

If the contact is a type 2 pager, Silent Sentry looks in the configuration table for a record with a type of 2 that has the same phone number as the contact. If Silent Sentry finds the record, it uses the record’s type and phone number. If not, it uses the setting for a type 2 with a phone number of DEFAULT.

If the contact is a type 3 pager, Silent Sentry uses the record in the configuration table with a type 3. This record tells the system what phone number to dial to reach the pager company.

To display the content of the numeric pager configuration table, run the **show_npgr_cfg** utility from the UNIX command line. Table 7-2 shows the fields that indicate whether a blind or intelligent call is used, the timing required by the paging company, and whether a pound sign (#) needs to be sent after the numeric message.

Table 7-2. Paging Contact Configurations

Field Name	Explanation
CON_TYPE	Same as COC_TYPE. (2 = pager without PIN, 3 = pager with PIN).
CON_PHONE_NUMBER	If CON_TYPE is 2, this field should match the contact phone number in the CO_CONTACTS table. If CON_TYPE is 3, it uses this phone number to dial the pager company.
CON_CALL_TYPE	b = blind, i = intelligent
CON_NRINGS_INTELLIGENT	If Intelligent, the number of rings to wait for an answer. If Blind, this value is ignored.
CON_WAIT_SECS_AFTER_DIAL	If Blind, after the phone number is dialed, the system will wait this amount of time before sending the next set of digits (this could be a PIN if it's type 3 or the event if it's type 2.) If Intelligent, the system will wait this amount of time after getting an answer before sending the next set of digits.
CON_PIN_DELIM	If this record is a type 3 pager, it has a PIN and the system will dial this character immediately after dialing the PIN. The default is # and should work for most cases. If no delimiter is allowed by the paging company, null out this field. If this is a type 2 pager, this value is ignored.

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Table 7-2. Paging Contact Configurations — *Continued*

Field Name	Explanation
CON_WAIT_SECS_AFTER_PIN	If this is a type 3 pager, it has a PIN and the system will wait this amount of time after sending the PIN and PIN delimiter before sending the event. If this is a type 2 pager, this value is ignored.
CON_COMMENT1	Comment field.
CON_COMMENT2	Comment field.

Default Configurations

The default configurations for numeric pager contacts of type 2 and type 3 are as follows:

- Type 2 Numeric Pager Contacts (no PIN)

  Silent Sentry makes a blind call and sends the numeric message 5 seconds after dialing.

  The default pager configuration record for a type 2 pager has the keyword DEFAULT in the CON_PHONE_NUMBER field. Do not delete this record or change the phone number field. However, you may:

  — Change any other settings in this default record

  — Add a new record with a different CON_PHONE_NUMBER value for each pager contact that requires a specific configuration

- Type 3 Numeric Pager Contacts (with PIN)

  Silent Sentry makes a blind call to 918002580000. It waits five seconds after dialing, sends the PIN and waits five more seconds before sending the numeric message.

  Do not delete the type 3 record. Only one type 3 record is allowed. Silent Sentry is installed with the SkyPage telephone number.

Changing Configurations

If the default configuration for paging a contact does not work, you may need to change it. Send the pager in question a few pages by hand to become familiar with its behavior (see the preceding section, “Testing Configurations”). Deciding when you cannot use the default configuration for contacting a particular pager will become clear when you understand the pager’s behavior.

To change the default configuration for a pager, use **cvis_menu** to change the configuration table, CO_NPGR_CFG.

⚠ **CAUTION:**

Do not delete either of the two default records in the configuration table. You should always have exactly one record with a type of 2 and a phone number of DEFAULT and exactly one record with a type of 3. (See the preceding section,"Default Configurations.")

Changing the value of the CON_CALL_TYPE field from blind (b) to intelligent (i) can make calling a numeric pager more reliable. Although this change does not work with all pagers, it greatly improves paging reliability if it works with your system. If your paging environment meets the following conditions, you may want to try changing the value of the CON_CALL_TYPE field to intelligent (i).

- Callers' phones ring back at least once whenever a pager is called.
- The paging system plays a recorded message:
  - After it answers each call
  - Before it returns the tone, prompting each caller for a touch-tone message.
- Callers can dial their touch-tone messages *during* these recorded messages, and the callers' messages are *still* successfully delivered.

If you change the configuration record for type 2 pagers, manually test every type 2 pager contact to verify that the new settings work properly with each one. Similarly, test every type 3 pager contact if you change the configuration record for type 3 pagers. See the next section, "Testing Configurations," for information about how to send test pages.

Testing Configurations

Use the **test_pager** command-line utility to test sending a page. (Or, use the Silent Sentry user interface and choose the Test Pager option. See "Test Pager Contact" on page 5-20.) The test_pager utility looks up the proper pager configuration and reports how the page will be set. If there are errors in determining the configuration, the test_pager utility will report them and will NOT send the page. If the configuration has no errors, *9876543210* is sent to the pager.

NOTE:

The test_pager utility uses the channel Silent Sentry uses for calling the contact list.

The usage for the test_pager utility is:

test_pager COC_PHONE_NUMBER

COC_PHONE_NUMBER refers to the phone number field in the contact list table. If your contact in the contact list is a type 2, this is the phone number to dial. If your contact in the contact list is a type 3, this is the PIN.

Possible configuration errors are:

- **** ERROR: No matching pager records for phone number [argument1]*

  This could mean either there is no pager contact for argument1 or that there is no matching configuration for the contact. Check that the argument you gave it exactly matches the proper value in the contacts table, that this contact is a type 2 or type 3 contact, and that you have a type 2 DEFAULT record and a type 3 record in the configuration table

- **** ERROR: Multiple pager records for phone number [argument1]*

  This means that you have duplicate configurations in your configuration table. You must remove the duplicates before you can send a test page. Silent Sentry will not be able to send your contacts reliable pages until the configuration is fixed.

If you don't receive the *9876543210* page or if you receive a partial page, you can adjust the configuration until you receive the entire page (see "Changing Configurations" on page 7-9).

Alphanumeric Pages

Setting up Silent Sentry to send alphanumeric pages requires an expert understanding of alphanumeric paging.

⚠ **CAUTION:**

The expertise required to set up alphanumeric paging is beyond the scope of this manual. Serious system problems can result without this expertise. For best setup results, please consult Lucent Technologies maintenance support — 1-800-242-2121.

If you intend to send alphanumeric pages, try sending a few yourself by running the **page_alpha** action from the UNIX command line. This action is a shell script. Each time an alphanumeric page is sent, debugging output is sent to the file /tmp/apager.out. You can use this output to help debug problems with alphanumeric pages.

The **page_alpha** action calls a utility called **apager** to communicate with your modem and the pager company′s modem. If you run **apager -?** at the command line you will see the usage statement for the command and an explanation of each argument. Make sure that the page_alpha script is using the serial port your modem is on, and that the settings such as baud rate, word size, and parity are correct. You must also make sure that a getty is not running on this port. If you get a line in the /tmp/apager.out file that looks like this:

inbuf is: 015 015 012login: 015 015 015 012login:

you probably have a getty running. You must turn off the getty permanently by removing it from inittab.

NOTE:
Do not send alphanumeric pages using the modem that provides remote access to your machine. Using this sort of modem setup will not work reliably and even if it does work, no one will be able to dial in to the CONVERSANT because the modem will no longer be in auto-answer mode after a page is sent.

Your modem must also support *direct* mode. This means that you can use the UNIX **cu** command with the serial port your modem is on without specifying the phone number to dial on the command line. Once the cu command starts up, you can send commands, such as *ATDT*, directly to the modem by typing them in.

The **page_alpha** action uses the standard IXO protocol to communicate with the alphanumeric pager company's modem. This protocol is defined in an initialization file, which defaults to the file *$INFORMIST*/data/apager.ini. The default initialization file works with most alphanumeric paging companies, but if the **page_alpha** command sends a page incorrectly, you many need to modify the protocol in the initialization file. Always make a backup copy of the original initialization file before modifying it.

Alphanumeric Initialization File Protocol

An alphanumeric pager initialization file must begin with *""*. Following this are pairs of send and receive tokens. You can insert comments in the file by beginning them with *#*. Everything after the *#* will be treated as part of the comment.

For example, given the pair *AT&F\r OK*, the pager software will send *AT&F\r* and expect *OK* back. The initialization file actually specifies two different protocols — one for getting your modem to dial into the pager software′s modem, and one for communicating with the paging software once you are connected.

The first part of the file (up to the *\r CONNECT* pair) is specifying how to get the modem to dial. If you try to send a page and do not hear your modem dialing, concentrate on this first part of the protocol. One way to figure out what commands your modem understands is to run **cu** in debug mode and use the output as a guide.

Each pair of send and receive tokens that are used to communicate with your modem is followed by '""'. The first '"'tells the pager software not to send anything; the second '"'causes the software to pause for a second before processing the next pair. The pause is necessary. Without it, the tokens are sent quicker than the modem can reliably handle them.

If your modem connects to your paging company's software, but does not correctly send a page, contact your paging company and ask them what settings their software expects (such as, the baud rate), and ask for a copy of the protocol their software is using. You can use this information as a guide for updating the rest of the initialization file. Table 7-3 lists the special characters the initialization file uses to indicate the pager number, the message, and a checksum.

Table 7-3. Initialization File Characters

Characters	Replaced With
\t	Pager ID number.
\M	Text of the message to be sent.
\C	Checksum. The checksum is calculated by taking the sum of the 7th bit of each character preceding the \c in the output token and then taking the least significant 12 bits of this sum.

Writing Your Own Actions

Actions are executables that reside in the Silent Sentry *actions* directory. It's easy to write your own actions if you know how to write a UNIX shell script. Many of the existing actions are shell scripts that you can use as templates (run the UNIX **file *** command while in this directory to see which ones are shell scripts). An advantage of writing your own actions is that they can attempt to solve a problem when an event occurs, rather than just informing people of the event.

Do not write actions that may take a long time to execute. The dispatcher runs each action sequentially and waits until the action completes before running the next one. If an action takes a long time, the dispatcher will not notice important events while it is waiting. Run action steps that may take a long time in the background.

When the dispatcher calls an action, it will execute the contents of the action field and pass in the additional arguments, shown in Table 7-4.

Table 7-4. Additional Arguments for the Action Field

Argument	Meaning
Classification	The classification of the event.
ID	The ID of the event.
Severity	The severity of the event.
Machine	The machine where the event occurred.
Text1	The first text field of the event.
Text2	The second text field of the event.
Count	The count field of the action table record.
Disable Limit	The disable limit field of the action table.
Matched	A value indicating how the event was matched to the action: I = matched on classification and ID. S = matched on classification and severity. D = matched on classification and default condition. d = matched on the default classification.

Writing Your Own Spies

A spy is a process that notices an event and enters it into the Silent Sentry events table. Writing your own spies allows you to customize Silent Sentry to support your specific system better than the standard Silent Sentry. You can write a spy to check for errors that are unique to your system, to enhance security, to monitor other hardware connected to your machine, or any number of other things.

Writing a spy is similar to writing a shell script. The challenge is determining how to monitor what you want to monitor, and determining what actions to take when your new spy generates an event.

The next sections describe the four steps to creating a Silent Sentry spy:

1. Write the Spy
2. Test the Spy
3. Add the Spy to the inittab File
4. Set Up Silent Sentry

Write the Spy

The code that defines a spy is established using the following structure:

1. The first part of the code sets up the spy's environment.
2. If the spy is not disabled, the next part of the code checks whatever the spy is monitoring.
3. If an event is noticed, the next part of the code enters it into the events table.
4. The last part of the code defines the spy's sleep time.
5. Repeat from step 2.

Under the *$INFORMIST*/examples directory is a file called host_spy. This is the shell code for a spy that monitors the Host sessions, and if more than 7 of them are in recovery, it enters the following event into the events table (Table 7-5).

Table 7-5. Events Table for host_spy

CLASS	ID	SEVERITY	MACHINE	TEXT1	TEXT2
Hrecover	Too Many	CRITICAL	cvis1	Error: *n* Host sessions are in recovery.	07/12/93 11:53:00

Use this code as a template for writing your own spies. Copy the host_spy file to a new file under the *$INFORMIST*/spies directory. Then, simply make the necessary changes to this file to create your new spy.

The host_spy code follows the typical structure of a Silent Sentry spy. The first part of the code sets up the environment:

```
INFORMIST=${INFORMIST:=/usr/add-on/silent_sentry}
export INFORMIST
inf_disable=$INFORMIST/inf_dis
disable_file=$INFORMIST/host_dis

PATH=$INFORMIST/utils:$INFORMIST/bin:$INFORMIST/actions:/bin:/etc:/
    usr/bin:/oracle/bin:/vs/bin/ag
export PATH
ORACLE_SID=A
export ORACLE_SID
ORACLE_HOME=/oracle
export ORACLE_HOME

echo "\nHost Spy starting on: ‘date‘\n"
MACHINE=‘uname‘
if [ -f "$inf_disable" -o -f "$disable_file" ]
then
    echo "Spy started disabled!"
    disabled="yes"
else
    disabled="no"
fi
```

The next part of the code starts with an infinite loop, so that the spy will always monitor the host sessions. The first step within the loop is to check if the spy is disabled. (If you are low on disk space, remove the code that echoes when the spy changes from disabled to enabled and from enabled to disabled.)

```
while [ true ]
do
if [ -f "$inf_disable" -o -f "$disable_file" ]
then
    f [ "$disabled" != "yes"
    then
        echo "Spy disabled on ‘date +’%D %T’‘"
    fi
    disabled="yes"
    sleep 900
    continue
fi
if [ "$disabled" = "yes
then
    echo "Spy enabled on ‘date +’%D %T’‘"
fi
disabled="no"
```

After the disable check, the spy does the monitoring: it counts the number of Host sessions in recovery, and if there are more than 7, enters an event into the events table (this is the code you modify to write your own spy):

```
nchans=‘hstatus all | grep "recovery" | wc -l | sed -e "s/ //g"‘
if [ $nchans -gt 7 ]
then
      add_event Hrecover "Too Many" CRITICAL "$MACHINE" "Error:
      $nchans in recovery!" "‘date +’%D %T’‘"
fi
```

The Silent Sentry **add_event** utility command is used to create Silent Sentry events. It takes the CLASS, ID, SEVERITY, MACHINE, TEXT1, and TEXT2, as arguments in that order. Use this command, with the appropriate values, when adding to the Silent Sentry events table.

The last step is to sleep for 15 minutes and close the while loop:

```
sleep 900
done
```

Test the Spy

After you write your spy, test it by running it from the command line. Make sure the new spy has execute permission. To print out each line of your spy code before executing it, use the **set -x** shell command in your new spy. Be sure to remove or comment this out when you finish testing. Force your spy to add an event, even if you have to temporarily change the code that checks for an event to make sure adding an event works correctly. Use the **show_events** utility command to verify that your event was added properly.

Add the Spy to the inittab File

Testing your spy from the command line does not guarantee that it will run properly when set up to run automatically. Add your spy to the inittab file so that it will always run, and make sure that is working correctly. To do this, you must be logged in as root. Add the following line to the /etc/conf/init.d/infmst_init file:

```
G11:234:respawn:/usr/add-on/silent_sentry/spies/new_spy >
/usr/add-on/silent_sentry/logs/new.out 2>&1
```

Make sure that no other line starts with *G11*. If it does, pick a different number. In place of *new_spy*, put the name of the file containing your new spy. Pick an appropriate replacement for *new.out* — this file will be your new spy's log file.

After you have added this line, you must rebuild inittab by running:

```
/etc/conf/bin/idmkinit -e /etc/conf/init.d -o /etc
init q
```

Enter the following command to check that your spy is running:

```
ps -ef | grep new_spy
```

Run this at least twice and make sure the process ID does not change. Check your log file for error messages. Also, check the console for the message:

> *INIT: Command is respawning too rapidly. Check for possible errors.*

This indicates that your spy cannot run. It most likely does not have execute permission or does not set up the environment properly — especially check that all commands run by the spy are either in the path or called with a fully qualified path name. If you need to stop your spy from running, edit the infmst_init file, change *respawn* to *off*, and rebuild inittab.

Once your new spy is running properly, set up Silent Sentry to process the new events generated by your new spy.

Set Up Silent Sentry

Once you create a new spy, the next step is to specify the following items associated with the spy's new events:

- Actions
- Contact list
- Speech
- Pager mappings

You may want to start out by just logging the new events until you get a good idea of what your spy is reporting. You can do this using the **log_1line** action for each new event classification, with an ID of *DEFAULT*. After you have analyzed the data, you can then set up the real actions that correspond to these events.

If you decide that some of the events should call a contact list, you may want to set up a specific contact group to handle these new events. Remember that groups 0 and 1 are reserved for the Silent Sentry demo and CONVERSANT/disk errors. Be sure each contact knows their group number and the PIN needed to confirm the callout events.

Create customized speech for each new CLASS and ID that your new spy will generate. First record the speech with speech tags that match the new field values, then enter the tags and NX numbers into the CO_PHRASES database. Until you do this, Silent Sentry will spell out each new CLASS and ID. (See "Phrases Database Table" on page 7-22.)

If you have any contacts that are numeric pagers, enter pager mappings for each CLASS and ID field. Enter the field values into the CO_PAGE_MAP database table, making sure that the numbers are unique, (or the person being paged will not be able to determine what the problem is). If you do not add the new events to this table, the page that is sent will contain all 9’s for the unmapped fields. (See "Managing Pager Mappings" on page 7-1.)

Silent Sentry DIPs

A DIP (Data Interface Process) is a process that runs on a CONVERSANT that communicates with a Script Builder script. The Silent Sentry DIP is used by the callout script and allows it to run UNIX commands from within Script Builder code. This process (/usr/add-on/silent_sentry/bin/infdip) should always be running. The command DIP will allow you to run UNIX commands from within your own Script Builder applications. This process (/usr/add-on/silent_sentry/bin/cmddip) should always be running.

Running UNIX Commands from Script Builder Scripts

You can run any UNIX command from within a Script Builder script by calling the external function **shell** or **run_unix**. The **shell** command expects one argument — the UNIX command to run. This command can include arguments and command-line options, but is restricted to 300 characters. The **run_unix** call expects an additional character variable as its second argument, which will contain the output from running the UNIX command.

You must specify the fully qualified path name for the command unless it is in one of the following directories:

$INFORMIST/bin
$INFORMIST/utils
$INFORMIST/actions
/vs/bin
/vs/bin/ag
/bin
/etc/bin
/usr/bin
/oracle/bin

Be sure the command you want to run is executable. Any output or error messages from the command will show up in the command DIP's log file, which is *$INFORMIST*/logs/cmddip.out. The return code of the call to the shell external function will be the exit code of the command that is run. If the return code is -2, the DIP is not running. A call to **run_unix** will also return the first line of output (up to 300 characters) to your application in the specified Script Builder variable.

For more information, see the online help for these two external functions.

Setting Up the Port Spy

When Silent Sentry is installed, the optional port spy is disabled. To start up the port spy you must give it something to monitor and then enable it. This requires an understanding of both serial port connections and advanced UNIX.

Hardware Connection

The port spy monitors a serial port connection that is made to the CONVERSANT. It reads data off of this port and converts it to Silent Sentry events. First, run the command:

port_spy -?

Then, read the help screen explaining the command-line options to the port spy.

You will need to set the communication parameters on the command line to match the system you will be monitoring. The physical connection between the CONVERSANT and the monitored system will be either a straight RS-232 connection or a null-modem connection, depending on the port configurations. The port must also be set up and enabled through the command **face** (for CONVERSANT systems before Version 5.0) or **sysadm** (for CONVERSANT systems beginning with Version 5.0). For more information about serial port setup, see the appropriate hardware title for your version of CONVERSANT.

INTUITY CONVERSANT System MAP/100C Version 6.0 New System Installation, 585-310-177

INTUITY CONVERSANT System MAP/100C Version 5.0 New System Installation, 585-310-149

CONVERSANT Voice Information System MAP/100C Version 4.0 Voice Processing Hardware Installation and Upgrade, 585-350-108

In addition, see the appropriate software titles for your version of CONVERSANT.

INTUITY CONVERSANT System Version 6.0 Administration, 585-310-591

INTUITY CONVERSANT Voice Information System Version 5.0 Operations, 585-310-550

CONVERSANT Voice Information System Version 4.0 Operations, 585-350-703 Issue 2

or

Your FACE (Framed Access Command Environment) documentation

Software Set Up

The data from the serial port is expected to be in a specific format — one event per line, with the field layout specified in a message definition file. The message definition file specifies the starting and ending columns for the CLASS, ID, SEVERITY, MACHINE, TEXT1, and TEXT2 fields of a Silent Sentry event. The default message definition file is *$INFORMIST*/data/message.def which contains the following line:

```
1-5:39-42:55-60:69-108:121-160:2-19
```

The preceding line defines the data shown in Table 7-6.

Table 7-6. Defined Data for Default Message Definition File

Field	Starting Column	Ending Column
CLASS	1	5
ID	39	42
SEVERITY	55	60
MACHINE	69	108
TEXT1	121	160
TEXT2	2	19

You can use this file as a template for defining the data that the port spy will actually be monitoring.

One way to determine the format of your data is to **cu** to the serial port and capture the output and error output to a file. Generate a few events, and then disconnect. The data from these events should be in the output file, which you can edit or print to determine where the fields are. If your data does not match the format expected by the standard port spy, you cannot use this spy.

Once you have determined the proper format of the data, you must change the line in the /etc/conf/init.d/infmst_init file that runs the **port_spy** command, giving it the proper arguments and changing the word *off* to *respawn*. After you have edited this file you must cause the inittab to be rebuilt by running

```
/etc/conf/bin/idmkinit -e /etc/conf/init.d -o /etc
init q
```

Next, generate some events and check the port spy's log file (/usr/add-on/silent_sentry/logs/port.out) to ensure that the spy is running properly. Run the **show_events** and **show_results** utility commands to track the events generated by the port spy.

After you have verified that the port spy is generating the proper events, enter the data into the actions table that specifies how each new event should be handled. In addition, populate the contact list table and the pager mappings table, and set up any customized phrases that are necessary for these new events.

Recording Customized Speech

Three of the callout events fields are spoken by the callout script when the contact is a person. These fields are the COE_CLASS, the COE_ID, and the COE_MACHINE fields. You can record a customized phrase to be spoken for the classification, ID, and machine fields. If the ID field is a number, it is spoken as a number. If the corresponding phrase does not exist for the classification, ID (that is non-numeric), or machine, the callout script will spell out the field values.

In addition, you can record another customized phrase based on the Classification and ID fields. This can be thought of as additional instructions for this event. If this additional phrase does not exist, it will simply not be spoken.

To record speech, use the **cvis_menu** command to run Script Builder on the callout application. Choose Speech Administration to add phrase tags and record speech. Setup the phrase tags as follows:

- For the Classification, ID, and Machine, make the phrase tag match the field values.
- For the additional instruction phrases, make the phrase tag match the Classification concatenated with the ID field value.

For example, CONVERSANT Host error 005 on machine CV1 would need phrase tags of *CVIS HOST*, *CV1*, and *CVIS0005* to take advantage of all possible customized speech.

Once you have recorded your customized speech, you must add the tags and NX numbers to the CO_PHRASES database by administering the phrases database table.

Phrases Database Table

Edit the CO_PHRASES table to add, change, or delete records from the phrases database table using **cvis_menu** (see the instructions for editing callout script tables with Script Builder in "Setting Up the Contact List" on page 3-7). This table is used to match the callout events table fields to any customized speech. Before you can enter the proper values for these fields, you must record the customized speech.

Once you have recorded the speech, you must enter the phrase tags and NX numbers for each phrase. The phrase tags should match the field values in the events table. For example, if the machine that Silent Sentry is running on is called *mach1,* the phrase tag should also be *mach1*. This phrase might be recorded as “Machine One”. Once the phrase is recorded, you can look in the UNIX file /speech/talk/callout.pl to determine the NX numbers for each customized phrase. This file consists of three fields. The second field is the NX number and the third field is the phrase tag. Each pair should be entered into the CO_PHRASES database table (see the "Speaking Callout Events" on page 6-3 for details about how customized speech is used).

Table 7-7. Phrase Tags

Field name	Data Type	Width	Explanation
COP_TAG	character	16	This is the phrase tag of the custom phrase. It is the third field in the callout.pl file.
COP_NX	character	10	This is the NX number of the custom phrase. It is the second field in the callout.pl file.

Confirming from Your Scripts

When the admin/demo script runs administration, it simply executes the callout script. You can add a hidden option to your standard CONVERSANT application script to run this administration. The Script Builder code that does this in the admin/demo script is:

```
External Action: Execute
      Application_Name:   "callout"
      Write_Call_Data_Record:    "yes"
End External Action
```

The callout script can tell that it has been executed from another CONVERSANT script. If so, it will start talking as described in "Speaking Callout Events" on page 6-3. Adding this to your standard scripts will allow you to free up the channel that would otherwise be used by the admin/demo script.

Performance Issues

Because the dispatcher is using SQL*Plus, it will be affected by other SQL*Plus commands. It is important to commit any database table changes that are done by hand to Silent Sentry tables as soon as possible.

Be sure that the sleep times are long enough so that Silent Sentry itself does not use up system resources. The defaults are the minimum values. If your system is slowed by Silent Sentry, change the values by running the **change_params** utility. Use the **inf_ps** utility to check that the process IDs have changed.

To ensure that the CVIS spy will not negatively affect the performance of a machine that has a high number of CONVERSANT errors, the CVIS spy will automatically disable itself when it becomes flooded with errors. The default for the CVIS spy is to disable itself if it receives 100 messages within 5 minutes.

When the CVIS spy disables itself, it will generate a DIE message, which will cause Silent Sentry to call contact group 1. You must fix the CONVERSANT error before turning on the CVIS spy. To restart any Silent Sentry process that has died, you must:

1. Fix whatever caused the process to die.
2. Enable the processes using the proper Silent Sentry utility.
3. Run the **inf_restart** utility or use the UNIX **kill** command to kill the specific process.
4. Verify that the process has restarted and is running properly by looking at its log file.

Worksheets

A

This appendix provides worksheets designed to help you determine and keep track of the various Silent Sentry attributes you have assigned to meet your needs.

Table A-1. Contact List

COC_GROUP_ID 0 = for Demo 1 = for CVIS	**COC_ORDER** In what order to be called.	**COC_CONTACT_ID** Identify the record (who is called)	**COC_PHONE_NUMBER** Complete number to call	**COC_TYPE** 1 = voice call 2 = numeric pager 3 = SkyPager	**COC_IN_OR_OUT** I or i = in-hours O or o = out-of-hours	**COC_DISABLED** n = no (will call) y = yes (won't call)

Table A-1. Contact List

COC_GROUP_ID 0 = for Demo 1 = for CVIS	**COC_ORDER** In what order to be called.	**COC_CONTACT_ID** Identify the record (who is called)	**COC_PHONE_NUMBER** Complete number to call	**COC_TYPE** 1 = voice call 2 = numeric pager 3 = SkyPager	**COC_IN_OR_OUT** I or i = in-hours O or o = out-of-hours	**COC_DISABLED** n = no (will call) y = yes (won't call)

Table A-2. Parameters

Parameter	Default Value	Recommendation	Desired Value
Password for ssentry	None	Make sure it is something that you can remember.	
Callout Script Channel	None	This must be assigned.	
Admin/Demo Channel	None	This should be assigned if you want to administer the Silent Sentry remotely.	
Dispatcher Sleep Time	60 seconds	60 seconds is the minimum.	
CVIS Spy Sleep Time	60 seconds	60 seconds is the minimum.	
Disk Spy Sleep Time	600 seconds	300 seconds is the minimum.	
Critical Low Disk Space	10%	Choose whatever is most appropriate for you depending on your disk size.	
Warning Low Disk Space	20%	Choose whatever is most appropriate for you depending on your disk size.	
Contact List Sleep Time	900 seconds	900 seconds (15 minutes) is the recommended minimum value.	

Table A-2. Parameters

Parameter	Default Value	Recommendation	Desired Value
Password for ssentry	None	Make sure it is something that you can remember.	
Callout Script Channel	None	This must be assigned.	
Admin/Demo Channel	None	This should be assigned if you want to administer the Silent Sentry remotely.	
Dispatcher Sleep Time	60 seconds	60 seconds is the minimum.	
CVIS Spy Sleep Time	60 seconds	60 seconds is the minimum.	
Disk Spy Sleep Time	600 seconds	300 seconds is the minimum.	
Critical Low Disk Space	10%	Choose whatever is most appropriate for you depending on your disk size.	
Warning Low Disk Space	20%	Choose whatever is most appropriate for you depending on your disk size.	
Contact List Sleep Time	900 seconds	900 seconds (15 minutes) is the recommended minimum value.	

Table A-3. Actions

ACTION	PARAMETER1 Explanation	Value	PARAMETER2 Explanation	Value
broadcast	None	▨	None	▨
call_group	Contact list group number to call.		None	▨
cma_send	None	▨	None	▨
email	User to send E-mail to.		None	▨
log_1line	Filename in which to log the event (1 event per line).		None	▨
log_event	Filename in which to log the event.		None	▨
make_call	None	▨	None	▨
page_alpha	Telephone number for calling the pager.		The pager number.	
reboot	None	▨	None	▨
send_file	The destination file for the uucp (of the form machine!dir/filename).		None	▨
after	Number of times the event occurs before running the action.		The action to run.	
IGNORE	None	▨	None	▨

Continued on next page

Table A-3. Actions — *Continued*

ACTION	PARAMETER1 Explanation	Value	PARAMETER2 Explanation	Value
broadcast	None	▨	None	▨
call_group	Contact list group number to call.		None	▨
cma_send	None	▨	None	▨
email	User to send E-mail to.		None	▨
log_1line	Filename in which to log the event (1 event per line).		None	▨
log_event	Filename in which to log the event.		None	▨
make_call	None	▨	None	▨
page_alpha	Telephone number for calling the pager.		The pager number.	
reboot	None	▨	None	▨
send_file	The destination file for the uucp (of the form machine!dir/filename).		None	▨
after	Number of times the event occurs before running the action.		The action to run.	
IGNORE	None	▨	None	▨

Custom Speech Phrases

B

Silent Sentry has prerecorded custom speech that gives detailed event information identifying certain errors and machines. The following pages detail the speech phrases provided by Silent Sentry. Customized speech is not listed here. Using customized speech requires entries in the CO_PHRASES database table (see "Phrases Database Table" on page 7-22).

As there are many error conditions to identify (and therefore numerous phrases), the actual speech is not listed in this book. Run Script Builder on the callout script and use the Speech Administration option to listen to these phrases.

Callout Script Custom Speech

Table B-1. Callout Script Custom Speech

Phrase Tag	How Used	Recorded As
100 Greeting	First phrase spoken.	This is the Silent Sentry calling. I've noticed an event.
101 Prompt1	Prompts for a 1 (accept).	To accept this call, press 1.
102 Prompt2	Prompts for a 2 (hold).	To have the system hold, press 2.
103 Prompt3	Prompts for a 3 (disable).	To have the system disconnect and not call again, press 3.
104 Classification	Spoken when there is no customized speech for the classification field.	classification
105 Event	Spoken when there is no customized speech for the event field.	event
106 Number	Spoken before all numeric fields.	number
107 has occurred on machine	Spoken before the machine name.	has occurred on machine
108 Confirmation Prompt	Confirmation prompt.	Please enter your PIN to confirm receipt of this notification.
109 Confirmed	Spoken after the notification is confirmed.	This notification has been confirmed.
110 Hold Msg	Spoken while the system is holding.	Press any button on your touch-tone phone to continue.
111 There is nothing to report	Spoken when someone calls the callout script and there are no callout events.	There is nothing to report.
112 Goodbye	Spoken when the system hangs up.	Goodbye.
113 Not Confirmed	Spoken when the notification is not confirmed.	You did not confirm this notification.

Continued on next page

Table B-1. **Callout Script Custom Speech — *Continued* — *Continued***

Phrase Tag	How Used	Recorded As
114 Called again	Spoken when the notification is not confirmed.	You may be called again.
115 Not Called Again	Spoken when the contact presses 3 (disable) at the first prompt.	You will not be called again.
117 Greeting - prompt for group	Spoken when someone calls the callout script.	Hello, you have reached the Silent Sentry. Please enter your contact list group number.
200 Sorry, no more tries	Spoken when the call has been on hold for 90 seconds	Sorry, you have no more tries.
201 Unknown	Spoken when a classification, ID, or machine field is blank.	Unknown.

NOTE:
You can re-record this speech, the customized speech, or the standard speech by using Script Builder on the callout script.

Admin/Demo Speech

There are also custom phrases used by the admin/demo script. These phrases are:

- *Thank you for calling Gold Savings & Loan.*
- *For information on your checking account, press 1.*
- *For information on your savings account, press 2.*
- *For information on your loan account, press 3.*
- *That is an invalid entry. Please call again.*
- *Please enter your account number.*
- *Please wait while we access your account.*
- *We're sorry, account information is not available.*
- *Please call back later.*
- *Goodbye.*
- *Please enter your PIN.*
- *The PIN you have entered is not correct.*

NOTE:
You can re-record this speech by using Script Builder on the admin/demo script SsentryDemo.

Using the Silent Sentry Demo

C

Before you run the Silent Sentry demo, see "Admin/Demo Script" on page 6-6.

Before you begin with the demo, call the admin/demo script and enter a **9** at the first prompt to clear out the contact list.

Notifying a Contact

Follow these steps to notify a contact in the Silent Sentry demo.

1. Enter **1**, **2**, or **3** at the first prompt.
2. When prompted for an account number, enter the phone number of the phone you would like it to call, followed by **#**.
3. When prompted for the PIN, enter **1111#** (indicates a voice call).
4. Listen to the “host-is-down” problem.
5. Hang up.

   In a few minutes, Silent Sentry will call that phone number to report a 1330 error.
6. Accept the call by pressing **1**.
7. Confirm the event with the PIN of **4653#**.

Adding a Pager to the Contact List

Follow these steps to add a pager to the contact list in the Silent Sentry demo.

1. Enter **1**, **2**, or **3** at the first prompt.
2. When prompted for an account number, enter the phone number of the numeric pager you would like it to call.
3. When prompted for the PIN, enter **2222#** (indicates a numeric pager call).
4. Listen to the "host-is-down" problem.
5. Hang up.

   In a few minutes, Silent Sentry will call you at the first number to report a 1330 error.
6. Hang up without confirming.

   Silent Sentry will send *999 100-1330* to the pager.

   In a minute (or so) Silent Sentry will call the first phone number again.
7. This time when it calls, confirm the event or do the next demonstration, "Confirming an Event."

Confirming an Event

Follow these steps to confirm an event in the Silent Sentry demo.

1. After Silent Sentry pages you again, call the admin/demo script again. (It may be busy if Silent Sentry is calling out on the same channel. Keep trying. See the preceding section, "Notifying a Contact.")
2. At the first prompt, enter an **8** to run the callout script.
3. When Silent Sentry asks you for your group number, enter a **0**.
4. Listen to the event and confirm it.

Cleaning up the Contact List

Follow these steps to clean up the contact list after you confirm an event in the Silent Sentry demo.

1. Call the admin/demo script again. (See the preceding section, "Notifying a Contact.")
2. At the first prompt, enter a **9** to clear out the demo contact list.
3. Next, enter an **8** to run the callout script.

   Silent Sentry will say *There is nothing to report.*

Default Data

D

Actions

Table D-1. Default Actions

Class	Condition	Action
DIE	DEFAULT	Always call group 1.
DISK	CRITICAL	Broadcast the event up to twice a day.
DISK	CRITICAL	Send E-mail to the ssentry login up to 5 times a day.
DISK	WARNING	Broadcast the event up to twice a day.
DISK	WARNING	Send E-mail to the ssentry login up to 5 times a day.
cvis	1330	Always call group 0.
CVIS ALERT	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ASAI	0011	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ASAI	0013	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ASAI	0016	Call group 1 once daily and send E-mail to the ssentry login once daily.

Continued on next page

Table D-1. Default Actions — *Continued*

Class	Condition	Action
CVIS ASAI	0020	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ASAI	0030	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ASAI	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS BRDG	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS BRDG	MAJOR	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0002	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0004	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0005	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0006	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0008	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0009	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0010	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0011	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0012	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0014	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0015	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	0017	Call group 1 once daily and send E-mail to the ssentry login once daily.

Continued on next page

Table D-1. Default Actions — ***Continued***

Class	Condition	Action
CVIS CGEN	0018	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS CGEN	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS DB	0007	Send E-mail to the ssentry login up to 5 times a day.
CVIS DB	0008	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS DB	0010	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS DB	0016	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS DB	013	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS DB	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS DBC	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS EFT	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ET	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS EXTA	0006	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS EXTA	0009	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS EXTA	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS FFE	0003	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS FFE	0004	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS FFE	0006	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS FFE	0007	Call group 1 once daily and send E-mail to the ssentry login once daily.

Continued on next page

Table D-1. Default Actions — *Continued*

Class	Condition	Action
CVIS FFE	0008	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS FFE	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS GEN	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0001	Send E-mail to the ssentry login up to 5 times a day.
CVIS HOST	0003	Send E-mail to the ssentry login up to 5 times a day.
CVIS HOST	0004	Send E-mail to the ssentry login up to 5 times a day.
CVIS HOST	0005	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0006	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0007	Send E-mail to the ssentry login up to 5 times a day.
CVIS HOST	0009	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0011	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0012	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0013	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	0017	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS HOST	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS ICK	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS INIT	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS LOG	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS MTC	0001	Send E-mail to the ssentry login up to 5 times a day.

Continued on next page

Table D-1. Default Actions — *Continued*

Class	Condition	Action
CVIS MTC	0003	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS MTC	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS RECOG	0001	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS RECOG	0002	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS RECOG	0003	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS RECOG	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS SCCS	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS SP	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS SPIP	0005	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS SPIP	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS SYS	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TRIP	0001	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TRIP	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TSM	0004	Send E-mail to the ssentry login up to 5 times a day.
CVIS TSM	0007	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TSM	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TTS	0001	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TTS	0002	Call group 1 once daily and send E-mail to the ssentry login once daily.

Continued on next page

Table D-1. Default Actions — *Continued*

Class	Condition	Action
CVIS TTS	0003	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TTS	0005	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TTS	0006	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TTS	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0008	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0012	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0013	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0014	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0015	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0016	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0017	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0018	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	0022	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS TWIP	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS UNIX	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS VROP	0003	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS VROP	0004	Call group 1 once daily and send E-mail to the ssentry login once daily.

Continued on next page

Table D-1. Default Actions — *Continued*

Class	Condition	Action
CVIS VROP	0007	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS VROP	0007	Send E-mail to the ssentry login up to 5 times a day.
CVIS VROP	0008	Send E-mail to the ssentry login up to 5 times a day.
CVIS VROP	0009	Send E-mail to the ssentry login up to 5 times a day.
CVIS VROP	0012	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS VROP	0014	Call group 1 once daily and send E-mail to the ssentry login once daily.
CVIS VROP	0014	Send E-mail to the ssentry login up to 5 times a day.
CVIS VROP	0016	Send E-mail to the ssentry login up to 5 times a day.
CVIS VROP	0019	Send E-mail to the ssentry login up to 5 times a day.
CVIS VROP	CRITICAL	Call group 1 once daily and send E-mail to the ssentry login once daily.

Page Maps

Table D-2. Default Page Maps

String	Number	String	Number
cvis 1	001	CVIS	100
cvis2	002	cvis	100
cvis3	003	CVIS FFE	100
cvis4	004	CVIS ALERT	101
cvis5	005	CVIS ASAI	102
cvis6	006	CVIS BRDG	103
cvis7	007	CVIS CGEN	104
cvis8	008	CVIS DB	105

Continued on next page

Table D-2. Default Page Maps — *Continued*

String	Number		String	Number
cvis9	009		CVIS DBC	106
cvis10	010		CVIS ET	107
cvis11	011		CVIS EFT	108
cvis12	012		CVIS EXTA	109
cvis13	013		CVIS GEN	111
cvis14	014		CVIS HOST	112
cvis15	015		CVIS ICK	113
cvis16	016		CVIS INIT	114
cvis17	017		CVIS LOG	115
cvis18	018		CVIS MTC	116
cvis19	019		CVIS RECOG	117
cvis20	020		CVIS SCCS	118
cvis21	021		CVIS SP	119
cvis22	022		CVIS SPIP	120
cvis23	023		CVIS SYS	121
cvis24	024		CVIS TRIP	122
cvis25	025		CVIS TSM	123
cvis26	026		CVIS TTS	124
cvis27	027		CVIS TWIP	125
cvis28	028		CVIS UNIX	126
cvis29	029		CVIS VROP	127
cvis30	030		TIMER	700
UNIX	001		DIE	888
unix	001		EXIT	888
			LOWSPACE	1111

Abbreviations

A

admin
administration

ASAI
Adjunct/Switch Application Interface

B

BRDG
call bridging (process)

C

CFG
configuration

CGEN
voice-system general (message class)

COND
condition

CVIS
CONVERSANT voice information system

D

DB
database

DBC
database checking (process)

demo
demonstration

destfile
destination file

DIP
data-interface process

E

E-mail
electronic mail

env
environment (variable)

ET
error tracker

EXTA
external-alarms feature (message class)

F

FACE
Framed Access Command Environment

FFE
Form Filler Plus feature (message class)

FMLI
Forms and Menu Language Interpreter

G

GEN
PRISM logger and alerter general (message class)

I

ICK
integrity-checking (message class)

ID
identification

INIT
voice-system initialization (message class)

M

MAP
Multi-Application Platform

MTC
maintenance (process)

N

NPGR
numeric pager

P

PgDn
Page Down (keyboard key)

PgUp
Page Up (keyboard key)

PIN
personal identification number

R

RECOG
speech-recognition feature messaging class

RES
result

RS
recommended standard (as in RS-232 serial connection)

S

SCCS
switching control center system

SP
signal processor board

SPIP
signal-processor interface process

SYS
UNIX system calls (message class)

T

TRIP
tip/ring interface process

TSM
transaction-state machine (process)

TTS
text-to-speech

TWIP
T1 interface process

U

usr
user (directory)

utils
utilities (directory)

V

VIS
voice information system

VROP
voice-response output process

Glossary

A

actions
Commands run by the dispatcher when an event occurs. An action can be built-in or can reside in the *$INFORMIST*/actions directory.

actions table
An ORACLE database table that specifies which actions to run when a certain event occurs.

admin/demo script
A Silent Sentry CONVERSANT script that demonstrates the Gold Savings & Loan example and allows a contact to call in and confirm callout events. The name of this Script Builder script is *SsentryDemo*.

alphanumeric pager
A pager that can accept and show character data. Use the **page_alpha** action for pagers of this type.

apager
A Silent Sentry alphanumeric paging utility (mnemonic, *alphanumeric pager*).

B

backup_df
A Silent Sentry utility (mnemonic, *back up data files*).

C

callout events
Events that the callout script reports to the contact list. An event becomes a callout event when the **make_call** action or **call_group** ***n*** action runs for that event.

callout results table
An ORACLE database table that stores the results of notifying the contact list of callout events. This table is cleared of data every night.

callout script
The Silent Sentry CONVERSANT script that notifies the contact list about callout events. The name of this Script Builder script is *callout*.

change_params
A Silent Sentry utility that can change parameters set during installation (mnemonic, *change parameters*).

CHG-KEYS
A FACE user-interface option that changes the set of functions provided by the function keys (mnemonic, *Change Keys)*.

clear_co_events
A Silent Sentry utility that clears the callout events table (mnemonic, *clear callout events*).

cma_send
A Silent Sentry action that sends information to Star SENTRY via the computer manager (mnemonic, *computer manger send*).

CO_CONTACTS
Callout contact list table.

CO_NPGR_CFG
Callout numeric pager configuration table.

CO_PAGE_MAP
Callout pager mapping table.

CO_PHRASES
Callout customized phrases table.

CO_RESULT
Callout results table.

COC_CONTACT_ID
A field in the CO_CONTACTS table (mnemonic, *callout contact identification*).

Command DIP
A data interface process (DIP) that allows you to run UNIX commands from a Script Builder script.

COC_DISABLED
A field in the CO_CONTACTS table (mnemonic, *callout contact disabled*).

COC_GROUP
A field in the CO_CONTACTS table (mnemonic, *callout contact group*).

COC_IN_OR_OUT
A field in the CO_CONTACTS table (mnemonic, *callout contact in or out*).

COC_ORDER
A field in the CO_CONTACTS table (mnemonic, *callout contact order*).

COC_PHONE_NUMBER
A field in the CO_CONTACTS table (mnemonic, *callout contact phone number*).

COC_TYPE
A field in the CO_CONTACTS table (mnemonic, *callout contact type*).

COE_CLASS
A field in the CO_PHRASES table (mnemonic, *callout event class*).

COE_ID
A field in the CO_PHRASES table (mnemonic, *callout event identification*).

COE_MACHINE
A field in the CO_PHRASES table (mnemonic, *callout event machine*).

CON_CALL_TYPE
A field in the CO_NPGR_CFG table (mnemonic, *contact call type*).

CON_COMMENT
A field in the CO_NPGR_CFG table (mnemonic, *contact comment*).

CON_NRINGS_INTELLIGENT
A field in the CO_NPGR_CFG table (mnemonic, *contact number of rings for intelligent*).

CON_PHONE_NUMBER
A field in the CO_NPGR_CFG table (mnemonic, *contact phone number*).

CON_PIN_DELIM
A field in the CO_NPGR_CFG table (mnemonic, *contact personal identification number delimiter*).

CON_TYPE
A field in the CO_NPGR_CFG table (mnemonic, *contact type*).

CON_WAIT_SEC_AFTER_DIAL
A field in the CO_NPGR_CFG table (mnemonic, *contact wait seconds after dialing*).

CON_WAIT_SEC_AFTER_PIN
A field in the CO_NPGR_CFG table (mnemonic, *contact wait seconds after personal identification number*).

CONT
A FACE user-interface option (mnemonic, *Continue*).

contact list
A list of phone numbers for the people who are notified of callout events. A contact phone number can be for a person's phone (or answering machine) or numeric pager.

contact list group number
The number of a group to which a contact belongs. Group number *0* is used by the admin/demo script. Group number *1* is used as the default for CONVERSANT and disk errors and is also the group called by the **make_call** action.

COP_NUMBER
A field in the CO_PAGE_MAP table (mnemonic, *callout pager number*).

COP_NX
A field in the CO_PHRASES table (mnemonic, *callout pager CONVERSANT phrase number*).

COP_STRING
A field in the CO_PAGE_MAP table (mnemonic, *callout pager string*).

COP_TAG
A field in the CO_PHRASES table (mnemonic, *callout pager tag*).

COR_TYPE
A field in the CO_RESULTS table (mnemonic, *callout results type*).

cron
A UNIX command that specifies a time to run another command or program.

cu
A UNIX command that calls another UNIX system.

custom speech
The nonstandard speech phrases for the callout script. These phrases have numbered phrase tags. The **100 Greeting** phrase is an example of custom speech.

customized speech

The speech phrases which match field values that have corresponding entries in the phrases database table. A machine name is an example of customized speech.

CVIS spy

The spy that monitors CONVERSANT errors. It checks the CONVERSANT error log and converts errors into Silent Sentry events. You can specify a list of up to 10 CONVERSANT error messages for the CVIS spy to ignore by editing the file *$INFORMIST*/data/cvis_ignore. See "Ignoring CONVERSANT Errors" on page 7-3.

cvis_menu

The standard CONVERSANT interface to CONVERSANT Script Builder scripts.

D

disk spy

The spy that monitors low disk space. Low disk space errors have two levels — CRITICAL and WARNING. You can also specify file-system-specific levels with the *$INFORMIST*/data/fs_limits file.

disp

A CONVERSANT command (mnemonic, *display*).

dispatcher

Matches events to actions, runs the actions, and then logs results.

displaypkg

A UNIX command (mnemonic, *display package*).

disp.out

The file name of the dispatcher log.

E

event

Something that can be noticed by the dispatcher and can trigger an action. An event is typically an error, but it could be anything.

events table

An ORACLE table that is monitored by the dispatcher. Events are typically entered into this table by the spies.

F

file-system-specific limits

The disk spy allows you to set up CRITICAL disk space limits and WARNING disk space limits for different file systems. The disk spy reads the *$INFORMIST*/data/fs_limits file to get the disk space limits you specify.

fs_limits

A Silent Sentry file (mnemonic, *file system limits*).

G

getty

A UNIX process executed from the system scheduler as a result of placing an entry in the inittab file. A getty listens for incoming messages to the tty device (port) specified and facilitates connections or log-ins to the system. Running a getty on a port used for alphanumeric paging will cause a conflict (see "Alphanumeric Pages" on page 7-11). See your UNIX system reference for more information. (See also **inittab**.)

Group Administration

A Silent Sentry user-interface option that allows you to specify a group's in-hours.

H

hidden option

An option in a voice application that is not spoken, but can be entered. An example of a hidden option is pressing 8 when at the first prompt of the admin/demo script to clear demo contacts.

I

in-hours contact

Represents a contact number to call during in-hours. The COC_IN_OR_OUT field for an in-hours contact number should be set to *I* or *i*. Each group has its own definition of in-hours. Use the *Group Administration* option in the Silent Sentry user interface to set up in-hours contacts.

INF_ACTION

Informist action table.

inf_dis

A file that indicates Silent Sentry is disabled (mnemonic, *Informist disabled*).

INF_EVENTS

Informist events table.

inf_kill

A Silent Sentry command (mnemonic, *Informist kill*).

inf_off
A command that disables Silent Sentry (mnemonic, *Informist off*).

inf_on
A command that enables Silent Sentry (mnemonic, *Informist on*).

inf_ps
A command that tells what spies are enabled (mnemonic, *Informist process*).

inf_restart
A command that causes all Silent Sentry processes to stop and restart (mnemonic, *Informist restart*).

inf_stat
A command that verifies Silent Sentry is enabled (mnemonic, *Informist status*).

inf_unkill
A command that kills all Silent Sentry process and causes them not to respawn (mnemonic, *Informist unkill*).

ini
A file-name extension (mnemonic, *initialization*).

inittab
A UNIX file that lists commands to always keep running (mnemonic, *initialization table*). The inittab file is a UNIX database composed of lines listing fields separated by a colon (:). See your UNIX system reference for more information. (See also **getty**.)

$INFORMIST
The UNIX environment variable that is set to the Silent Sentry directory. This should be /usr/add-on/silent_sentry.

installpkg
A UNIX command (mnemonic, *install package*).

L

log files
Files that list the start-up parameters, output results, and errors encountered by the dispatcher, the spies, and the Silent Sentry DIP. Log files are located under *$INFORMIST*/logs with the file-name extension ‘‘*.out*’’.

N

NEXT-FRM
A FACE user-interface option (mnemonic, *Next Frame*).

numeric pager
A pager that takes touch-tone digits and displays them as numbers.

NX number
A number that identifies a CONVERSANT phrase. It is the second field in the ‘‘*.pl*’’ file.

O

out-of-hours contact

A contact number to call during out-of-hours periods. The COC_IN_OR_OUT field for an out-of-hours contact should be set to *O* or *o*. Each group has its own definition of in-hours and out-of-hours. Out-of-hours is defined as all time that is not in-hours. Use the *Group Administration* option of the Silent Sentry user interface to administer in-hours and out-of-hours periods.

P

page_alpha

A Silent Sentry action (mnemonic, *page alphanumeric*).

pager mappings

The database table that indicates how character fields should be mapped to digits for numeric pager contact numbers.

phrase tag

The text that identifies a CONVERSANT phrase. It is the third field in the ‘‘*.pl’’* file.

PIN

Personal identification number. Used to confirm callout events over the phone, either when Silent Sentry calls a contact, or when a contact calls Silent Sentry. The PIN is **4653**.

port spy

The spy that monitors a serial port for events and turns them into Silent Sentry events. This spy is not run on installation and requires additional setup.

PRV-FRM

A FACE user-interface option (mnemonic, *Previous Frame*).

process

A running program.

R

removepkg

A UNIX command (mnemonic, *remove package*).

restore_df

A Silent Sentry command (mnemonic, *restore data files*).

results table

An ORACLE table with all the results from the dispatcher.

S

shell script

An organized set of specified commands that is executed by the UNIX system's command interpreter, or "shell." Although writing these scripts requires a higher level of UNIX understanding to:

- Realize the intended goal of each script
- Avoid unintended, and sometimes serious, consequences

these scripts can also provide an enhanced interface for issuing Silent Sentry command sets. (See your UNIX system reference for more information.)

show_chans

A Silent Sentry utility that shows the channel used for a script (mnemonic, *show channels*).

show_cresults

A Silent Sentry utility (mnemonic, *show callout results*).

show_npgr_cfg

A Silent Sentry utility (mnemonic, *show numeric pager configuration*).

show_page_maps

A Silent Sentry utility (mnemonic, *show pager mappings*).

show_params

A Silent Sentry utility (mnemonic, *show parameters*).

show_sum

A Silent Sentry utility that summarizes dispatcher results (mnemonic, *show summary*).

show_tresults

A Silent Sentry utility that shows the text fields of the dispatcher results table (mnemonic, *show fields Text1 and Text2*).

Silent Sentry DIP

The data interface process, named infdip, that allows Silent Sentry to call the contact list. This process must always be running for Silent Sentry to call this list.

SkyPager

A pager that uses the phone number 1 800 258-0000 to receive numeric pages. Contact numbers for SkyPagers must have a COC_TYPE of *3* and use the pager's PIN in the COC_PHONE_NUMBER field.

sleep time

The interval for "looping" (making a complete pass through the list and then starting another pass) through the contact list.

spy

A process that continuously monitors the system. When an event occurs, it is recorded in the events table.

ssentry

The Silent Sentry login. Many of the default action table entries send E-mail to this login.

standard speech

The standard speech phrases for a CONVERSANT script. For example, the letters of the alphabet are all standard speech.

T

timer spy

The spy that allows you to set a time to run specific commands. When the timer goes off, the commands that you specified are run.

U

uname

A UNIX command that returns the name of your machine.

user interface

In this book, *user interface* refers to the Silent Sentry menu-based administration environment in which you choose commands from menus presented as forms displayed on your computer monitor.

uucp

A command that copies from one UNIX system to another.

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