

# CallSort Pro

For Windows <sup>TM</sup>

## *USER'S GUIDE*

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# 1 Installation

This document supports Vodavi's [CallSort Pro](#) v3.0. In the following chapters this phone system will be referred to as [CallSort Pro](#).

This chapter provides instructions to assist you with performing the following tasks:

- Prepare the [CallSort Pro](#) operating environment.
- Install and configure [CallSort Pro](#), both on the machine that will collect phone system data and on individual client machines.
- Connect the collection PC to the phone system with a proper cable.
- Collect sample call records.
- Perform any necessary troubleshooting related to configuring [CallSort Pro](#) for your phone system.

## Software Program Functions

[CallSort Pro](#) comes on high-density (1.44 MB) 3.5" diskettes that include the following set of software programs:

**BDE Configuration** -- This program allows you to configure the location of your databases.

**Call Collection** -- This module records telephone call data, including outgoing telephone number, extension, and duration of the call. This program is also responsible for real-time processing and formatting of the call data for report generation.

**CallSort Pro** -- This module allows you to configure and run reports on the data collected by this program. It is also used by the system administrator to setup extensions, create system users, and configure account codes.



For information on limitations regarding installation and copying of this software, refer to the *Warranty* section of the *License Agreement*.

## Installation Requirements

Both Data Collection and Client Workstation PCs must meet specific minimum requirements for [CallSort Pro](#) to operate efficiently. Refer to the next two sections to make sure your PC equipment is compatible.

### Data Collection PC

The PC to be used to collect data from the phone system must meet the following minimum requirements:

- An IBM PC or compatible with a 486 processor or higher
- 8 MB RAM
- A hard drive with at least 100 MB free disk space ([CallSort Pro](#) requires 19 MB disk of space for itself; the remainder is the recommended capacity for data storage.)
- Microsoft Windows 95 or 98, or Windows NT v.4.0 or higher
- One available COM/serial port

### Client Workstation

If you are installing the Administration and Reports program on a shared network drive, installation must meet the following minimum requirements:

- An IBM PC or compatible with a 486 processor or greater
- 4 MB RAM
- A hard drive with at least 10 MB of free disk space
- Microsoft Windows 95 or 98, or Windows NT v.4.0 or higher

## Cable Connections

This section guides you through the installation and testing of the cable connection between the phone system and a PC. The cable required for this connection depends on whether your phone system was set up to work with a PC, modem, or printer and is currently using a null-modem or straight-through cable.

- A null-modem cable is typically used to connect to PCs back to back.
- A straight-through cable is typically used to connect a PC to a modem or a printer.

PCs can have two types of RS-232 ports: 25-pin or 9-pin. They both provide the same functions but use different pins to do so. The following table lists the pins used for both the 9-pin and the 25-pin connectors and describes how they are used.

**Table 1-1: RS-232 Cable Pin-Outs**

9-Pin	25-Pin	Type of Signal	PC Provides Signal	Description
--	1	Protective Ground	--	A connection to the metal chassis of CallSort Pro.
3	2	Transmit Data (TD)	Yes	CallSort Pro considers this signal to be the outgoing data path.
2	3	Receive Data (RD)	--	CallSort Pro considers this signal to be the incoming data path.
7	4	Request To Send (RTS)	Yes	Signal is turned on by CallSort Pro to tell the phone system that CallSort Pro is ready to receive data.
8	5	Clear To Send (CTS)	--	Signal is turned on by the other device to receive data.
6	6	Data Set Ready (DSR)	--	Signal is turned on by telephone system to tell CallSort Pro to send data.
5	7	Signal Ground	Yes	Pin provides a ground with reference to pins 2 and 3.
1	8	Carrier Detect (CD)	--	When modems are used between the two devices instead of a hardwire cable, this pin indicates to CallSort Pro that its local modem has contact with the remote modem.
4	20	Data Terminal Ready (DTR)	Yes	Activated by CallSort Pro to indicate that it is ready and operational.

**CallSort Pro** only requires that data be sent on the Receive Data pin and the Signal Ground pin. All other input pins are ignored.

The phone system may be configured as a PC or a modem. Regardless, data sent from the phone system should be sent to the **CallSort Pro** machine's Receive Data pin.

When the **CallSort Pro** data collection starts, the Request To Send (RTS) and Data Terminal Ready (DTR) pins are "high" indicating to the phone system that the PC is ready to collect data.

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## RS-232 Communication Standard

RS-232-C is a communication standard established by the Electronic Industries Association. It defines three things with respect to establishing a communications link between two devices:

- Compatible signal and voltage levels.
- The design of the connector.
- Control information (such as handshaking protocols).

**Connector** -- The connector is designed with either 9 or 25 pins, each pin having its own function. (Refer to *Table 1-1* in this chapter.) Typically only 2 to 5 pins are used.

**CallSort Pro** only requires that the phone system send data on the Received Data pin. All other input pins are ignored, while output pins for RTS and DTR are always activate.

**Handshaking Protocols** -- Most printers require some sort of handshaking protocol due to their slowness. The handshaking is used to keep the sending device (usually a computer) from sending data too fast. This handshaking protocol can be implemented in either software (as control characters in the data stream) or in hardware (using the appropriate RS-232-C pins).

**CallSort Pro's** data collection program is a printer emulator. However, due to its internal buffering scheme, it can keep up with the sending device and does not need to support any handshaking protocol.

## New Cable Installation

Most equipment, including a phone system, can be interfaced to the PC via the null modem cable. The purpose of this cable is to reroute the incoming and outgoing data signals, and to hardwire the handshaking control signals so the transmitting device continually transmits.

- In the internal cable wiring, pins for TD and RD (pins 2 and 3 for both 9-pin and 25-pin cables) are switched between the PC and the phone system; this routes the transmitted data pin from one device to the received data pin on the other device.
- The RTS and CTS pins on each end of the cable are shorted together when the transmitting device activates the RTS pin, it immediately gets the CTS signal.
- The DTR pin is connected to the DSR and CD pins; this always activates the Data Set Ready and Carrier Detect signals.

## Existing Cable Installation

If you previously had a printer connected to your transmitting device (e.g., your phone system), the cable used to connect the printer to the phone system may or may not work with the PC. Obviously, the first thing to do is try the cable. If it doesn't work, the easiest solution may be buying a gender changer from a computer supply dealer.

The gender changer needed consists of two female 25-pin connectors joined together by a short piece of cable. It is connected to your original cable and the PC. (Refer to chapter 6, *FAQs and Troubleshooting* for more suggestions.)

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## Installing CallSort Pro

To install **CallSort Pro** on the PC designated to collect call data, perform the following steps.

1. Make backup copies of your **CallSort Pro** master diskettes. Use the copies to install **CallSort Pro**. If something happens to the copies, you can make another backup from the master diskettes. Store your master diskettes in a safe place.
2. Start Microsoft Windows.
3. Place **CallSort Pro** Disk 1 in the diskette drive.
4. Select <Start>, <Run>.
5. In the dialog box that displays, type the following command: (X):\SETUP and press <Enter>. (The letter X represents the A: OR B: floppy disk drive on your PC.)
6. Enter your name and the name of your company in the next screen then click on <Next>.
7. The next screen gives you the option of installing all of **CallSort Pro** or selected modules. Select both options for a full installation, and click on <Continue>.
8. The next set of screens are used to determine where to install the program files.
  - If you want to choose locations other than the defaults, enter them. Click on <Continue> to proceed with the installation.
  - The setup program then begins copying files from the **CallSort Pro** diskettes.
  - When prompted, replace Disk 1 in your diskette drive with Disk 2, and click on <OK>. Continue this process for the third diskette.
9. Restart the PC so the changes made to system files will take effect. When the PC has been restarted, the **CallSort Pro** group is displayed and the program is ready for use.



## Communications/Collection Setup

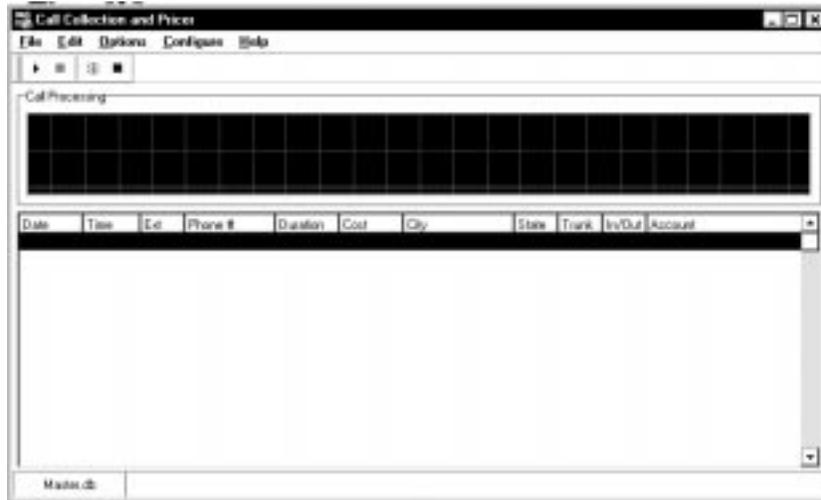
Before you can access the Call Collection module, the RS-232 cable must be connected from the phone system to a serial communications port on your PC (either COM1 or COM2).

You should then collect sample data from your phone system for the following reasons:

- To verify that the cable is connected correctly.
- To collect sample call records for further use in configuring the Collection module.

Collection module configuration is covered completely in Chapter 2, *Configuring Collection*. The remainder of this chapter shows you how to complete the communications setup for data collection and to collect sample call records.

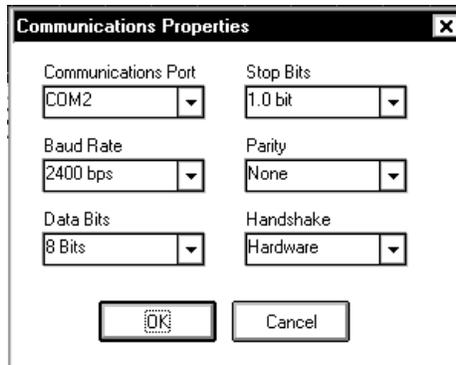
To begin, double-click the Call Collection icon in the **CallSort Pro** program group. The following screen is displayed. From here you execute collection and pricing operations.



## Changing Communication Settings

Next, you must make sure **CallSort Pro** is properly configured for communications with your telephone system.

1. From the Configure menu, select Communications. (The dialog box displays a list of previously configured communication setups.)



2. Change the Communication Properties to match your phone system settings using the following descriptions:
  - Communications Port -- Serial port that you want the PC to use for collecting SMDR records (typically COM1 or COM2).
  - Baud Rate -- Transmission rate for which your phone system is configured.
  - Parity, Data Bits, and Stop Bits -- These settings must match the phone system configuration for transmission of SMDR records.
  - Handshake -- These options determine the handshaking to be used between the PC and the phone system. If no option is selected: flow control is turned off; hardware flow selects Request to Send/Clear to Send handshaking; Xon/Xoff selects ^Q/^S start/stop flow control. (Use RTS Disable and DTR Disable only if you know they are required by your phone system.)
3. When you have finished with the communications parameters, click <OK> to save the new settings as the defaults.

## Collecting Sample Data

Now that you have installed the cable and properly set the communication parameters, you are ready to collect sample call records. To collect sample data, select and define your phone system as follows:

1. Choose Configure/PBX Define. (The PBX Select tab displays a drop-down list of PBX Names.)
2. Select the appropriate phone system for your installation and click on <Done>.

### **If you are already hooked to a phone system, follow these steps to collect data.**

1. Select Options/Collection ON. ([CallSort Pro](#) is now ready to collect data.)
2. Generate several telephone calls from a phone connected to the phone system.
3. Once you are receiving data (call records appear on the screen as they are being collected into a raw data file), allow the PC to run for about an hour to collect sample call records.



If you cannot see any raw data, refer to *Configuration and Data Input Source* in Chapter 6, *FAQs and Troubleshooting*.

4. To end the data collection, select Connection OFF from the Options menu. Keep the call records displayed on the screen to use for the remaining configuration process.

### **If you already have phone system data stored on floppy or hard disks, follow these steps to process data.**

1. Make sure you have at least 100 records of sample data to work with.
2. Start the Collection module.

3. Select Configure/Options from the Configure menu.
4. Click on the Input tab. Select Input from File, then click on <OK >.
5. Select the drive and directory that contains the raw data. Select the data file, then click on <OK>.
6. Click on <Options/Display Processed>.

At this time you should see priced data records (properly formatted and in the correct columns) appear on the bottom part of the screen. You can generate all standard reports based on the priced data. Once you have successfully collected call records, proceed to the next chapter to finish configuring the Collection module.

## Collection/Pricing Menu Options

In the Collection module, you can perform a variety of collection and pricing functions by using the menu options located on the Call Collection and Pricer screen.

**File Menu** provides access to the following functions:

- View Error Log -- Allows you to view any errors by [CallSort Pro](#). These errors are related to area code mismatches and pricing errors.
- Verify Table Structure -- Allows you to correct errors in data. The Collection, Reporting, and Other table options scan each table for errors or flaws in the structure of the table, then corrects the problem. When scanning Other Tables, [CallSort Pro](#) scans tables related to: Account Codes, Extensions, Users, and Trunks. You are prompted for a password, enter MASTER.
- Update Archives -- Causes [CallSort Pro](#) to perform an archive based on your archive settings under the Configure/Options/Archive Tab.

**Edit Menu** contains the Password option which requires that you enter a password before closing the Collection module. When creating the password, the following screen displays:

<b>Edit</b>	<b>Options</b>
<b>Password</b>	

The Password option requires that you enter a Password, New Password, and Confirm Password option.

- If this is your first time accessing this option, you can enter anything in the Password entry and the password will be changed.
- Type the password you desire in both the New Password and Confirm Password fields.

**Options Menu** is defined in Chapter 3, *Running Collection*.

**Configure Menu** is defined in Chapter 2, *Configuring Collection*.

**Help Menu** contains Help-About which provides version and copyright information regarding the Collection module and Help-Contents which is reserved for future use.

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## 2 **Configuring Collection**

The Collection module in [CallSort Pro](#) interfaces with your phone system and collects, processes, and places SMDR data in the database for reporting. This chapter defines the Collection module and its two main features: SMDR layout definition and Pricing.

- SMDR Layout or PBX Define Features -- Allows you to customize the [CallSort Pro](#) Collection module to recognize the different record types from you phone system, to allow you to define what information is placed in your master or reporting database.
- Pricing Customize Feature -- Allows you to define how calls are priced. The calls can be priced on per minute charges based on time of day and where the call is being placed. Additionally, you can define taxes and markups for calls.

When you are finished with this chapter, you'll be ready to begin running the Collection module to collect data for future reporting.



This chapter assumes you have followed all of the instructions in the Installation chapter. If not, return to *Chapter 1* before proceeding, leaving the SMDR records displayed on the screen for later use.

### **Setting Up Call Record Types/Layout**

The PBX Define function configures the Collection module for your phone system. This is necessary because different phone systems record data in different ways. For example: one manufacturer's phone system might define Date fields as MM/DD/YY, where another might define them as YY/MM/DD. PBX Define makes sure that [CallSort Pro](#) accommodates your record types and layout.

To specify SMDR record types and their layout, select Configure/PBX Define and the following tab options are displayed on the PBX Properties screen:

- PBX Select -- Defines what phone system [CallSort Pro](#) is interfacing with.
- Layout -- Defines the exact layout of each call record. It also defines what fields in the SMDR data should be placed in the Master table.
- Filter -- Allows you to filter unwanted information from call records before placing the information into the master table.
- Call Types -- Defines incoming and outgoing calls based on the data setup in the Layout section.

Click on the PBX Select tab and choose your phone system from the PBX drop-down list. (If your phone system is not listed, contact technical support for assistance.)



**Figure 2-1: PBX Select Tab (PBX Properties Screen)**

Use the following guidelines to adjust the PBX Select parameters:

- Name -- Enter a name for this configuration that helps you identify it in the future (when you return to the original PBX Define screen).
- Date and Duration Options -- Check the date and time formats. Adjust them if necessary to support the date and time formats of your phone system.
- Call Record Options -- If you want to eliminate brief calls or incoming calls from collection, click on the appropriate option. Short Calls are defined by the parameter you set for Grace Period, as defined in Specifying Markups/Minimums later in this chapter.

Then proceed with Layout, Number Filters, and Call Record Types as described in the following sections.

## Defining Layout Information

To define your phone system's layout information:

1. Select PBX Define from the Configuration menu and click on the Layout Tab. The following screen is displayed.

Figure 2-2 shows the 'PBX Properties - Vodem (All)' dialog box with the 'Layout' tab selected. The 'Name' field is set to 'Incoming' and 'Order' is '1'. The 'Selected By' field is '31'. A list of SMDR data is displayed, with the first line highlighted: '123456789012345678901234567890123456789012345678901234567890'. Below this, the 'Layout Name' is 'Incoming' and 'SelectedText' is 'SelectedText'. A table lists various fields with their 'Start' and 'Length' values:

Field	Start	Length	Field	Start	Length
Date	22	8	Group	0	0
Start Time	16	5	Account	0	0
End Time	0	0	Answer Time	0	0
Duration	7	8	In Out Flag	31	1
Phone Number In	0	0	Reference	0	0
Phone Number Out	0	0	Extra 1	0	0
Trunk	4	2	Extra 2	0	0
Carrier Select	0	0	Extra 3	0	0
Extension	0	3	Switch Price	0	0

Buttons on the right include 'Add Layout', 'Delete Layout', 'New Test Line', and 'New Test File'. A 'Done' button is at the bottom right.

Figure 2-2: Layout Tab (PBX Properties Screen)

2. Click on either <New Test File> or <New Test Line> on the right-hand side of the screen. This brings up a screen with several lines of raw data. Select a line, and click on <OK>. This brings you back to the Layout screen shown above.
3. Click on any of the buttons at the bottom of the screen to verify the data for that particular field.
4. If the data for a selected field is incorrect, highlight the information in the sample line of SMDR data, then click on the corresponding button at the bottom of the screen. (Incorrect information is displayed in the box to the right of the Layout Name field.)



The SMDR information from your telephone system may not contain all desired fields. Contact your phone system manufacturer for more information on SMDR output.

The fields in the Layout screen are explained in the following table:

**Table 2-1: Layout Field Descriptions**

Field Name	Description
Name	Specifies the name of the call type (changing this field also changes the Layout Name field).
Order	Indicates how the information is looked up.
Start Time	CallSort Pro automatically calculates the Duration when the SMDR information has a Start Time, and End Time has an entry in the call record. (If the SMDR data only provides the Duration, DO NOT select Start Time.)
End Time	CallSort Pro automatically calculates the Start Time when the SMDR information has an End Time, and End Time has an entry in the call record. (If the SMDR data only provides the Duration, DO NOT select Start Time.)
Duration	Duration is provided in two ways: If a Start Time and End Time are defined in the call record, CallSort Pro automatically calculates the Duration. If the Duration of the call is contained in the SMDR record, highlight the Duration in the sample record and click on Duration.
Phone Number In	Incoming phone number provided by ANI/CLID information. (This feature may not be supported by all phone systems or may require additional software. Consult your phone system manufacturer for more information.)
Phone Number Out	The number that was dialed (should only be used on outgoing call records).
Trunk	Indicates the incoming or outgoing trunk the call used.
Carrier Select	Defines which carrier was selected for a particular phone call. Special digits can be dialed before a phone number to define a particular long distance company, the Carrier Select field is for storing this information.
Extension	Represents the extension that either made or received the call.
Group	Specifies a particular department's information.
Account	Indicates account code information.
Answer Time	Time it takes to answer the call.
In Out Flag	Works in conjunction with Selected By field. These are unique characters on a line of data that tell whether a call is incoming or outgoing.
Reference	Indicates a number that references an account code.
Extra 1, 2, 3	Additional fields that you may want to filter call reports on.
Switch Price	How much the switch says a call will cost.

On the right-hand side of the screen, the Add Layout field provides blank fields in which to enter new information; the Delete Layout field allows you to delete field information.

## Setting Up Number Filters

**CallSort Pro** allows you to set filters on the data in the phone number field. The Phone Number In and Phone Number Out fields are used to filter this information. Filters apply to the information in the phone number fields, Phone Number in and Phone Number Out defined by the Layout tab. (Refer to *Defining Layout Information* in this chapter for more details.)

The Filters function uses special characters non-alphanumeric characters or Filter Variables to help define filters for **CallSort Pro**. These Filter Variables provide you with the means to process the maximum number of call records with minimal number of call filters or rules. These filters allow **CallSort Pro** to define long distance, local, international, or operator assisted calls with a small number of call filters.

To perform any necessary filtering, perform the following steps:

1. In the PBX Properties dialog box, click on the Filter tab. The following screen is displayed.

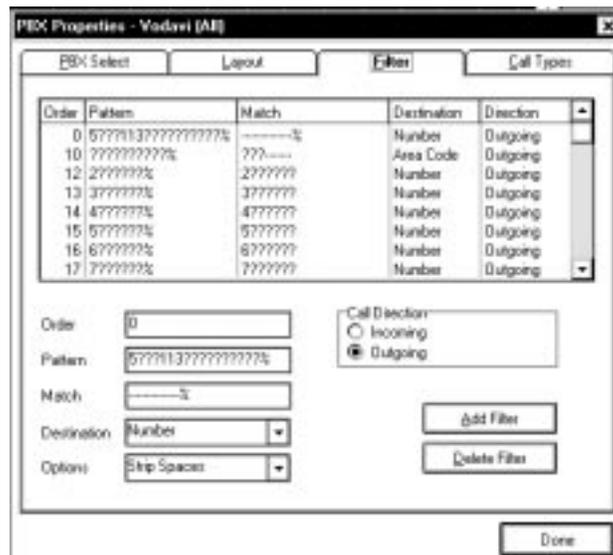


Figure 2-3: Filter Tab (PBX Properties Screen)

2. Highlight the filter to modify, or click on <Add Filter> to create a new filter, or on Delete Filter to delete a filter.

3. Make your changes based on the following options:

**Table 2-2: Filter Fields and Descriptions**

Field	Description
Call Direction	Select Incoming or Outgoing depending on whether this filter should apply to incoming or outgoing telephone calls. The SMDR Layout determines incoming or outgoing calls, refer to <i>Defining Layout Information</i> in this chapter for more details regarding call layout. The default is Outgoing.
Order	This number defines when the filter will be applied. Number filters are applied in descending order.
Pattern	Tells CallSort Pro what information to look for in a phone number field (Phone In or Phone Out from SMDR Layout). This option uses Filter Variables. (Refer to next section for more information.)
Match	CallSort Pro replaces the Pattern it finds in the phone number field and replaces it with what is in the Match field. This option uses Filter Variables. (Refer to next section for more information.)
Destination	CallSort Pro takes the resulting information from the Pattern and Match and places it in the field defined.
Options	The Options field defines what to do with non-numeric characters in the phone number field. CallSort interprets the options as follows: <ul style="list-style-type: none"> <li><input type="checkbox"/> None -- Do NOT strip non-numeric characters from the phone number field.</li> <li><input type="checkbox"/> Strip spaces -- Strips any spaces from the phone number field, but leaves all other characters.</li> <li><input type="checkbox"/> Strip after * or # -- Strips any characters from the phone number field after an * or # symbol.</li> <li><input type="checkbox"/> Strip * and Spaces -- Strips any characters from the phone number field after an * to include all spaces.</li> </ul>

## Filter Variables

Filters allow [CallSort Pro](#) to process a large number of call records as follows:

- A filter allows [CallSort Pro](#) to match a specific telephone number, or remove information from that telephone number, then place the information into a field in the master table.
- The filter Variables allow the smallest number of filters to process the largest number of call records.

## Special Characters for Pattern Matching

The Collection module uses three special characters for pattern matching in number strings: a question mark (?), a minus sign (-), and a percent sign (%), the symbols function as follows:

- In Source String -- A ? is used to match any single character, and a % is used to match any sequence of 0 or more characters. Any other character requires an exact match from the source string.
- In Result Strings -- A ? means to copy the corresponding ? character from the source string into the result string, a minus sign (-) means to skip the corresponding ? character, and a % means to copy all of the characters which matched the % pattern. Any other characters are copied. Therefore, if the source string was 17701996621052 it would match the pattern ???199% but not match ?????199% (as there aren't 5 characters before the 199) or ???199??????? (as the source has 14 characters, not 15).

Result string specifications must have the same number of question marks (?) plus minus signs (-) as the template string has question marks (?). Thus, if you wanted the target string for the above match to be the area code 770, the target specification would be -???

**Table 2-3: Filters - Special Characters Used**

Symbol	Function	Example
?	<ul style="list-style-type: none"> <li>□ In the Pattern field, the ? symbol is used when a single digit or character is unknown or irrelevant.</li> <li>□ In the Match field, this symbol will leave a character unaffected by the filter.</li> </ul>	<p>The Pattern field is set to <b>5??6</b> and the Match field is set to <b>4??6</b>.</p> <ul style="list-style-type: none"> <li>□ If the phone number dialed is <b>5936</b>, the result will be <b>4936</b>.</li> <li>□ If the phone number processed is <b>9936</b>, or <b>53946</b>, the filter will not take effect.</li> </ul>
%	<p>The % symbol is much like the question mark, but is used when an unknown quantity of characters are irrelevant.</p>	<ul style="list-style-type: none"> <li>□ If both the Pattern and Match fields are set to %, then any outgoing call will be processed.</li> <li>□ If the Pattern field is set to <b>1%</b> and the Match field is set to %, then any call that begins with the number one will have its number stripped.</li> </ul>
-	<p>The minus sign (-) is used only in the Match field, and will cause a character identified with a "?" to be eliminated.</p>	<p>If the Pattern field is set to <b>5??6</b> and the Match field is set to <b>5--6</b>, then <b>5846</b>, <b>5916</b>, and <b>5286</b> will all become <b>56</b> after passing through the filter (but <b>9936</b> or <b>53946</b> won't be processed).</p>

**Table 2-3: Filters - Special Characters Used**

	The   character is used by the filter to separate the Pattern field from the Match field. It is used for on-screen clarity, and does not need to be typed in.	--
--	---	----

### Pricing Calls By Department - Example

In the final example, any numbers that start with 10288 will have the letter A added as a suffix. The letter A is an example and can be any letter. This is done for informational purposes to help you keep up with calls transferred to a specific place. In this case, the A could stand for accounting. The Transfer To field would be set to Accounting as well. This type of filter is useful when you want to price a call by department.

**Table 2-4: Filter Examples - Pricing Calls by Department**

In this field ...	Type this ...	To filter like this
Pattern Match	10288% %	102884043451234 4043451234
Pattern Match	41???% ???%	414561234 4561234
Pattern Match	10288% A	102889325873495 A

### Filter Setup Example

The following paragraphs provide an example of a fictitious phone system to illustrate how to configure call filters for SMDR records.

The first filter is used to strip out leading and trailing spaces, since the number called is of variable length and sometimes has the character X inserted before the number: It does not show in the following table, but for this filter the strip out non-numbers check box was checked.

Table 2-5: Filter Templates - Record Configuration Examples

	Template Priority and Description	Match	Result	Destination
1	Strips out leading and trailing spaces.	%	%	number
2	Detects the AT&T carrier select string and, if a match, puts the single character A in the carrier select string. Since it is possible to have a valid number of 950-1022, the extra ? was added prior to the %. This insures no match unless the number has at least 12 characters in it.	????9501022?%	---A-	carrier select
3	Removes the 9501022 carrier select string from the number and puts the result back into the number string.	????9501022?%	?????%	number
4	Performs a similar function as priority 2, but for MCI. Note that in this case extra ?s must exist to ensure that we don't match a 261 exchange in some area code. This match template requires at least 12 characters for a match.	????261?????%	---M----	carrier select
5	Strips out the 261 code for MCI.	????261?????%	????????? ?%	number
6	Ensures that an overseas 011 call is not interfered with by the priority 9 and 10 template. This is accomplished by inserting a 1 in front of these calls, which will be stripped back off by the priority 11 template.	011%	1011%	number
7	Detects a leading 0, meaning that the call was operator-assisted. If there is a leading 0, a Y is placed in the Op Assist string.	0%	Y	op assist
10	Strip off the leading 0 or 1 from long distance calls. Note that the 0 strip must occur before the 1 strip or the international calls would not be properly treated.	0%	%	number
11		1%	%	number
12	Extracts the area code from any number that is at least 10 digits long, placing the area code into the Area Code string.	??????????%	??------	area code

## Configuring Call Pricing

In this section you can configure the Call Pricing options available as follows:

- Add or modify the call model.
- Set up the pricing method for different call types, such as fixed price or charge bands.
- Specify markup charges and minimum durations for the charges.

### Defining Call Model

1. To begin, select Pricing Customize from the Configure menu. This screen displays:

Order	Name	KindName	MarkupName
1	Incoming	Fixed Pric	No Adders
2	Local	Fixed Pric	No Adders
3	Toll Free 800	Fixed Pric	No Adders

Name:  Order:

Call Direction:  Outgoing  Ingoing

Selection Pattern:  Field:

Figure 2-4: Selection Tab - Call Pricing Screen

2. Under the Selection tab, highlight the Call Model you want to modify from the list or click on <Add New> if you want to define another service.
3. Use the following dialog box to modify or create a Call Model.
  - Order -- Service priority determines the order in which the test is made to determine which service to use.
  - Name -- Service name you want displayed in reports and other dialog boxes.
  - Call Direction -- Specifies whether to apply a pricing to incoming or outgoing calls.
  - Selection Pattern -- Determines what pattern to match. The Selection pattern uses the ? and % Filter variables. (Refer to *Filter Variables* in this chapter for more data.)

- Field -- Specifies what field to look for the selection pattern in the master table. There are two criteria fields under the Selection Pattern option. When both the first and second criteria have entries, they are Boolean ended together so that if both Criteria 1 and 2 are true, the filter applies. Otherwise the filter doesn't apply.
4. Then proceed to the remaining two tabs in the Pricing Customize dialog box, Method and Markups, as described in the following sections.

## Pricing Method Setup

Select the Method tab to specify the type of pricing to be used, Fixed Cost or Price Band.

- Fixed Cost -- If a single charge is to apply, regardless of time of day (as with local calls).
- Price Band -- For a pricing mechanism that is time-of-day and duration sensitive for all calls with this service. This is useful for leased lines or other special services.

From the dialog box, you can choose the band to use and click on <Done>, click on <Modify>, or <Add New> as needed for new band definition.

The screenshot shows a dialog box titled 'Incoming' with three tabs: 'Selection', 'Method', and 'Markups'. The 'Method' tab is active. It contains a 'Pricing Method' dropdown menu set to 'Fixed Cost'. Below this are four input fields arranged in two columns. The left column has 'Initial Period (sec)' and 'Additional Periods', both set to '60'. The right column has 'Initial Cost' and 'Additional Cost', set to '\$2.00' and '\$0.10' respectively. A 'Done' button is located at the bottom right of the dialog box.

Figure 2-5: Method Tab - Fixed Cost

## Modifying or Adding a Fixed Cost Call

Using fixed pricing causes [CallSort Pro](#) to charge a set rate by the minute. To set up such a charging schedule, perform the following steps:

1. From the Configure menu, select Pricing Customize.
2. Select the type of call you want to price under the Selection tab.
3. Click on the Method tab.
4. Select Fixed Cost as the Pricing Method

5. Enter the pricing and time periods described as follows:

**Table 2-6: Fixed Cost Field Descriptions**

Field	Description	Example
Initial Period	Initial time period for pricing in seconds.	To charge for the initial minute of the phone call, enter 60.
Initial Cost	Cost for the initial period.	To charge \$1 for the initial minute of the call, enter 1.00.
Additional Periods	Unit of time for each additional time period.	<input type="checkbox"/> To charge per minute, enter 60. <input type="checkbox"/> To charge per second, enter 1.
Additional Cost	Cost for the time period listed in Additional Period.	<input type="checkbox"/> To charge 50 cents per minute, enter 60 in Additional Period and .05 for Additional Cost. <input type="checkbox"/> To charge one cent per second, enter 1 in Additional Period and .01 in Additional Cost.

### Modifying or Adding a Price Band

Price Bands allow pricing based on time of day and day of week. Price Bands also allow more flexibility over how calls are priced. These instructions describe how to configure Price Bands.

1. At the Collection module's main screen, select Configure then Price Customize.
2. On the Selection tab, highlight the call type you want to price. If you want to create a new Call Model, click <Add New>. Refer to *Defining Call Model* for more details.
3. Click on the Method tab, then the Pricing Method pull-down menu; choose Price Band.

Start	Finish	Week	Sat	Sun	ICost	Initial	IPer	NCost	RCost	Next
8:00 a	9:59 a	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1.50	60	60	.50	.50	60
10:00 a	5:59 p	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.50	60	60	.30	.50	60

- In the Select Band pull-down menu, highlight the band to modify, and click on <Modify>, or click <Add New> to define a new band. A dialog box similar to the following is displayed (it will contain entries if you are modifying):

Start	Finish	Initial	ICost	IPer	Next	NCost	NPer	Rest Cost	RPer	Weekdays	Saturday	Sunday
8:00 a	9:59 a	60	\$1.50	60	60	\$0.50	60	\$0.50	60	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10:00 a	5:59 p	60	\$1.50	60	60	\$0.30	60	\$0.50	60	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Start:  End:

Band Element in Effect on:

All days  
 Weekdays only  
 Weekends only  
 Saturday only  
 Sunday only

Effective (sec) Cost/Period Period (sec)

Initial

Next

Rest

Figure 2-6: Method Tab - Price Band

- In the Start and End fields, enter the time of day that the band should be in effect. This will allow you to set up different price schedules for different times of the day. If the band should be in effect 24 hours a day, set Start to 00:00 and End to 23:59. Use 24-hour (hh:mm) notation to define the Start and End times. Make certain that you account for all hours of the day when assigning charges or the system may behave erratically.
- In the Band Element in Effect On area in the bottom left-hand corner of the screen, check the time period that applies. These options allow you to charge different rates on certain days. If you want your charge band to be in effect 365 days a year, check All Days.
- Under the Initial-Effective (sec) field, enter the time period to represent the first charge period (for example, 60 to make the first charge period one minute long). This will make the first charge period one minute long. Set the first Cost/Period field to the cost for this period, and re-enter the time in the per seconds box (for example, .15 per 60 seconds to charge 15 cents for the first minute).

8. In the pricing table, enter the following values as described.

**Table 2-7: Pricing Band Field Descriptions**

<b>Field</b>	<b>Description</b>
Initial-Effective (sec)	Initial time for the entire cost/period to be in effect.
Initial-Cost/Period	Price per period.
Initial-Period (sec)	Amount of time priced for the Initial Cost/Period option.
Next-Effective (sec)	Time period to represent the next time for the entire cost/period to be in effect.
Next-Cost/Period	Price per interval defined by the Next Period (sec) option.
Next-Period (sec)	Interval priced by the cost the Next Cost option.
Rest-Cost/Period	Price per interval defined by the Rest Period (sec) option.
Rest-Period (sec)	Interval priced by the cost defined by the Next Cost option.

### CALL PRICING EXAMPLE

I would like to price the calls between 7:00a and 5:30p, Monday through Friday, using these costs:

- \$1 per minute during the first minute of each call.
- Each additional minute at 50 cents per minute.
- 1 cent per second during the initial minute of the call.
- The next minute at 2 cents per second during the second minute of the call.
- Each additional minute at 50 cents per minute.

To set up this scenario, perform the following steps:

1. Select the appropriate Call Model for this pricing method. (Choose Local for this sample.)
2. Click on the Method tab, choose Price Band as the Pricing Method, and click on <Add New>.
3. Type a name for this Price Band in the Name field and click on <Modify>.
4. Enter 07:00 for the Start Time and 17:30 for the End Time.

5. Click on <Weekdays Only>, under the Band In Element On option, and enter as follows:

Initial-Effective = 60	Next-Cost/Period = 0.05
Initial-Cost/Period = 1.00	Next-Period = 60
Initial-Period = 60	Rest-Cost/Period = 0.05
Next-Effective = 60	Rest-Period = 60

6. Click on <New Element>; enter 00:00 for the Start Time and 06:59 for the End Time, click on <Weekdays Only> under the Band in Element On option, and enter as follows:

Initial-Effective = 60	Next-Cost/Period = 0.05
Initial-Cost/Period = 0.05	Next-Period = 60
Initial-Period = 60	Rest-Cost/Period = 0.05
Next-Effective = 60	Rest-Period = 60

7. Click on <New Element>; enter 17:31 for the Start Time and 23:59 for the End Time, click on <Weekdays Only> under the Band in Element On option, and enter as follows:

Initial-Effective = 60	Next-Cost/Period = 0.05
Initial-Cost/Period = 0.05	Next-Period = 60
Initial-Period = 60	Rest-Cost/Period = 0.05
Next-Effective = 60	Rest-Period = 60

8. Click on <New Element>; enter 00:00 for the Start Time and 23:59 for the End Time, click on <Weekends Only> under the Band in Element On option, and enter as follows:

Initial-Effective = 60	Next-Cost/Period = 0.02
Initial-Cost/Period = 0.01	Next-Period = 1
Initial-Period = 1	Rest-Cost/Period = 0.05
Next-Effective = 60	Rest-Period = 60

9. If you need to set up more price rates for different times of the day or week, do so now. Otherwise, press <OK>.

## Specifying Markups/Minimums

To specify markup charges and minimum durations for charges, perform the following steps:

1. At the Collection module's main screen, select <Pricing Customize> from the Configure menu.
2. In the Service dialog box, specify the markups and minimums you want.
3. In the Define Service dialog box, click on <Markups>.

The screenshot shows a dialog box titled "Incoming" with a close button (X) in the top right corner. The dialog is divided into three tabs: "Selection", "Method", and "Markups". The "Markups" tab is active. It contains the following fields and controls:

- Markup Group:** A pull-down menu showing "Long Dist - 35% off". To its right is an "Add New" button.
- Name:** A text field containing "Long Dist - 35% off". To its right is a "Delete" button.
- Connect Time:** A text field with "15".
- Markup %:** A text field with "0.20".
- Federal Tax:** A text field with "0.05".
- Min Duration:** A text field with "15".
- Surcharge:** A text field with "\$0.00".
- State Tax:** A text field with "0.02".
- Min Dur Cost:** A text field with "\$0.00".
- Min Cost:** A text field with "\$0.00".
- Local Tax:** A text field with "0.00".

At the bottom right of the dialog is a "Done" button.

Figure 2-7: Markups Tab

4. In the Markup Group pull-down menu, you can use the pre-defined markups and minimums, or click on <Add New> as needed for further definition.

5. Use the following table to complete the markup and minimum duration charge fields as described:

**Table 2-8: Markup/Minimum Field Descriptions**

Field	Description
Markup Group Select	Name of the markup scheme you would like to use.
Name	When creating a new Markup scheme, you enter the name of the markup scheme here.
Connect Time	Amount of time that is allotted before pricing is started.
Min Duration	If a call is shorter than the minimum duration, the call will not be priced by normal pricing methods.
Min Dur Cost	Dollar amount to charge for the minimum duration of a call. Note that Connect Time + Min Duration time are only charged this amount. This is before any other pricing begins. Taxes are applied to this cost.
Markup Percentage	Markup for the total cost of the call.
Surcharge Any	Additional amount, in dollars, to be applied to a call.
Min Cost	Minimum cost of any telephone call. If a call does not reach this threshold via other pricing methods, the call is priced at the minimum cost.
Federal Tax	Percentage of tax to apply to the cost of the call, plus any markups or surcharges.
State Tax	
Local Tax	

### Completing Collection Configuration

When you have finished the procedures covered in this chapter, you can begin having [CallSort Pro](#) collect call records for use in reports. Proceed with Chapter 3, *Running Collection*.



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## 3 Running Collection

Now that you have defined SMDR records and configured the Collection module to price calls, you're ready to have [CallSort Pro](#) begin collecting data from your system.

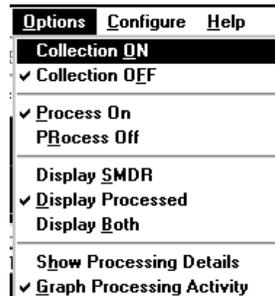
### Ongoing Operation

Collecting data on an ongoing basis is a very straightforward process.



Refer to your *Operating System Instructions* for information on how to place the Collection module in your system's Startup group.

Set the Collection module to run properly with selections from its Options menu, and leave it running. The Options menu should look similar to the following display during normal operation.



You should select from the first four options on this menu as follows, and leave the settings indicated whenever the Collection module is in operation:

- Collection ON/OFF -- Select Collection ON to cause the Collection module to receive the SMDR records from the RS-232 connection. It should be OFF only when you are first configuring the Collection module.
- Process On/Off -- Select Process On to transfer data to the Reporting Master table for storage and Reports. If Process On is not selected, information collected in the Collection Master table WILL NOT be transferred to the Reporting Master table.

## Database Overview

[CallSort Pro](#) uses two databases, one for collecting data, the other for generating reports.

- The Collection Master database contains raw SMDR data that has been processed, is typically stored for a short period of time, and is archived periodically.
- The Reporting Master database contains the call record data used to run reports, is not archived frequently, and can increase to a very large file size (backup is recommend).

## Controlling the Display Screen

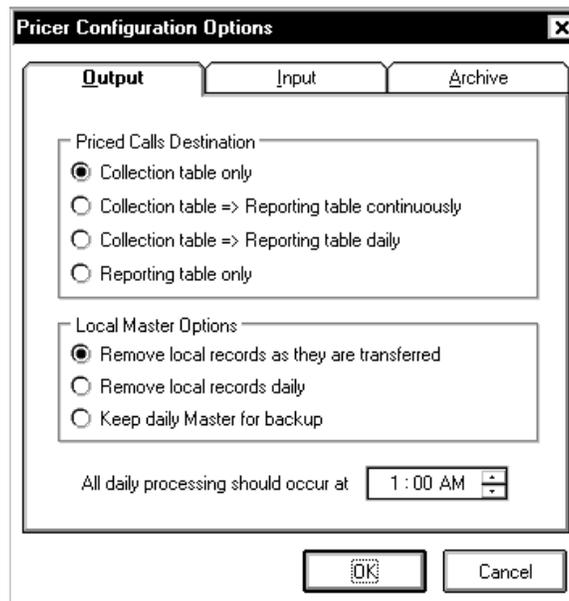
The remaining options on the Options menu control the screen display during Collection module operation:

- Display SMDR -- Displays lines of raw SMDR data on the screen as it is processed.
- Display Processed -- Displays pricing operation results during processing which includes the time, duration, cost, phone number, and destination location for each call.
- Display Both -- Turns on both of the above display selections.
- Show Processing Details -- Typically used for troubleshooting during communications with the technical support staff.
- Graph Processing Activity -- Graphs call activity.

---

## Pricer Configuration Options

To control pricer configuration options, select Options from the Configure pull-down menu. The following screen is displayed:



The Pricer Configuration Options menu contains Output, Input, and Archive options which are described in the following sections.

### Output Options

The Output menu provides various options for getting information from a local Master (collection) table to a Reporting Master table. The Priced Calls Destination dialog box provides the following options for call destination:

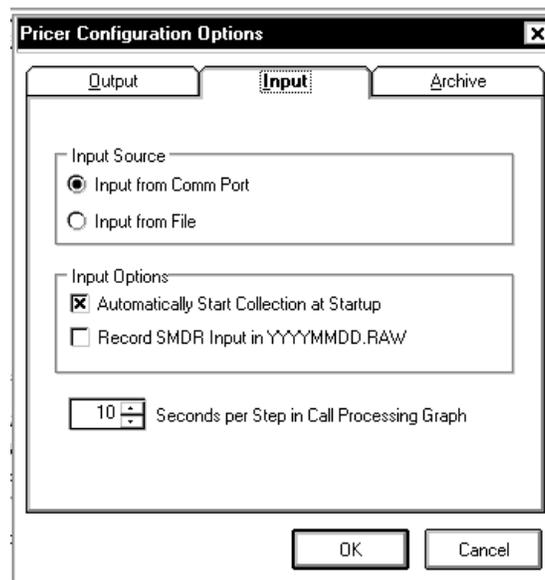
- Collection Table Only -- Keeps all calls in the collection table.
- Collection Table => Reporting Table Continuously -- Sends calls from the Collection table to a Reporting table on a continuous basis.
- Collection Table => Reporting Table Daily -- Sends calls from the Collection table to a Reporting table on a daily basis (you can specify a time at the bottom of the screen).
- Reporting Table Only -- Sends all calls to the reporting table.

The Local Master Options allow you to define what to do with the Collection Master table. The options are:

- Remove Local Records as They are Transferred -- Deletes records from the Collection Master table as they are moved to the Reporting Master. This option helps to reduce the size of the Collection Master table.
- Remove Local Records Daily -- Deletes records from the Collection Master table at the time specified by the All Daily Processing Should Occur at option.
- Keep Daily Master for Backup -- Allows you to make a backup of the Collection Master table, and then removes daily records from the Collection Master table.

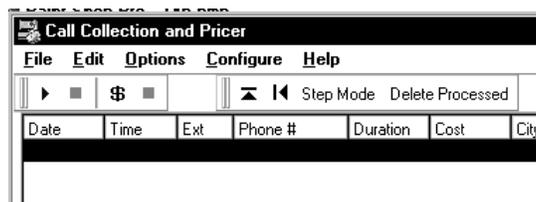
## Input Options

Use the Input option when you are connected to a phone system. Select the Input tab to view the following menu:



The Input Source options allow you to determine the source of the SMDR data.

- Input from Comm Port -- Causes SMDR data to be read from the COM port on the Collection PC. The COM port settings are determined by the Communications, refer to *Changing Communication Settings* in chapter 1 for more information on COM port settings.
- Input from File -- [CallSort Pro](#) reads SMDR data from a file on the system. When you start SMDR collection, [CallSort Pro](#) requests the filename for SMDR data and gives you the option to process the file in Step Mode. Step Mode allows you to process the file line by line and is useful for troubleshooting.



In the Input Options dialog box, the following options are available:

- Automatically Start Collection at Startup -- Starts collecting and processing data automatically when you start your PC. (Refer to your *Operating System Instructions* for using the Startup Group capabilities.)
- Record SMDR Input in YYYYMMDD.RAW -- Back up your raw data when checked.

The Seconds per Step in Call Processing Graph field allows you to choose how often the graph updates itself.

## Archive Options

The third tab is Archive. This tab controls when the system archives data.



With the Archive option, you can select the following:

- Days to Keep SMDR.RAW files -- Defines how many days [CallSort Pro](#) keeps SMDR.RAW data from the phone system.
- Days to Keep Local Master Copies -- Number of days for [CallSort Pro](#) to keep copies of the Collection Master table.
- Maximum Reporting Days Active -- Total number of days available in the Reporting Master table.
- Create Archives of Calls Every -- Create an archive of the Reporting Master table every Week, Month, Quarter, or Never.

In the Options box you can specify when to verify and repair the Collection Master table by selecting one of the following:

- Verify and Repair Master Daily -- Checks daily when collection table is not busy.
- Verify and Repair Master Once (tonight) -- Checks collection table tonight only.

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## 4 System Administration

The Administration and Reporting module provides the capability to manage account administration and report generation. This chapter provides instructions for running the System Administration program to prepare **CallSort Pro** with information specific to your organization. This prepares you to set up the Administration module by entering information on the company, the system's users, phone extensions, accounts, and trunk lines. After you have completed this process, you are ready to begin generating reports with **CallSort Pro**. (How to produce and create reports is described in more detail in Chapter 5, *Generating Reports*.)



Before proceeding, be sure you have completed all procedures described in the previous chapters.

### Administration Setup

To begin Administration Setup, select **CallSort Pro** from the available **CallSort Pro** program options. When prompted to enter your user name and password for the first time, enter **MANAGER** in both fields. (To change the password, refer to *Menu Options Available* in chapter 1.) Then click on <OK>, the following screen is displayed.



Figure 4-1: System Administration Screen

Use the icons on the tool bar that represent a different action or screen view as described:

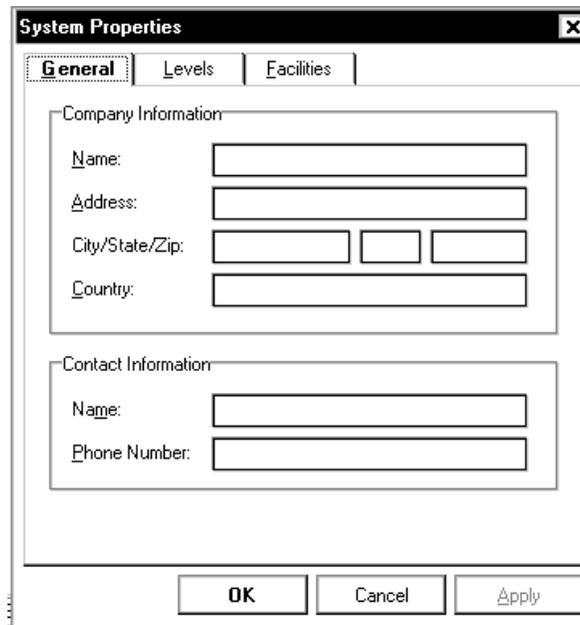
**Table 4-1: Administrative Icons Described**

  	<p><b>Report Screen</b> -- Allows you to configure and schedule reports, and shows what reports have already been defined. Refer to <i>Contact Information</i> in this chapter for more information.</p> <p>Icons available when viewing the Reports screen:          Arrow -- Runs a query on the database for the report designated on the Report screen.          Square -- Stops a report from generating once it has been started.</p>
	<p><b>Extension Screen</b> -- Allows assigning a user to a particular extension or extensions within CallSort Pro. Refer to <i>Extension Information</i> in this chapter for more information.</p>
	<p><b>Account Code Screen</b> -- Allows account codes to be associated with a particular user or contact information. Refer to <i>Account Codes</i> in this chapter for more information.</p>
	<p><b>Trunk Screen</b> -- Shows facility, telephone and telephone numbers associated with particular trunks within the telephone system. Refer to <i>Trunk Line Information</i> in this chapter for more information.</p>
	<p><b>User Screen</b> -- Defines user names, access levels, and passwords on the CallSort Pro system. Refer to <i>User Information</i> in this chapter for more information.</p>
	<p><b>Contact Screen</b> -- Defines contacts related to account codes and typically represent customers of the business where CallSort Pro is installed. Refer to <i>Contact Information</i> in this chapter for more information.</p>
	<p><b>Master Table</b> -- Allows you to view the Reporting Master Table. Refer to chapter 5, <i>Generating Reports</i>, for more information.</p>
	<p><b>Editing Icons Available:</b>          Plus -- Inserts a new item.          X -- Deletes the currently selected item.          Duplicate Pages -- Copies the currently displayed item and creates a new item with similar properties.</p>

## Setting Up Company Information

This information is used to create the header of the report when a report is generated. To begin entering information about your company, perform the following steps:

1. Select System Properties from the File menu, then select the General tab at the top of the screen. The following screen is displayed:



The screenshot shows a dialog box titled "System Properties" with three tabs: "General", "Levels", and "Facilities". The "General" tab is selected. The dialog is divided into two sections: "Company Information" and "Contact Information".

**Company Information:**

- Name:
- Address:
- City/State/Zip:
- Country:

**Contact Information:**

- Name:
- Phone Number:

At the bottom of the dialog are three buttons: "OK", "Cancel", and "Apply".

2. Enter the Name, Address, City/State/Zip and Country for your company.
3. Enter the Name and Phone number for the person responsible for maintenance of [CallSort Pro](#).

## Defining Organization Levels

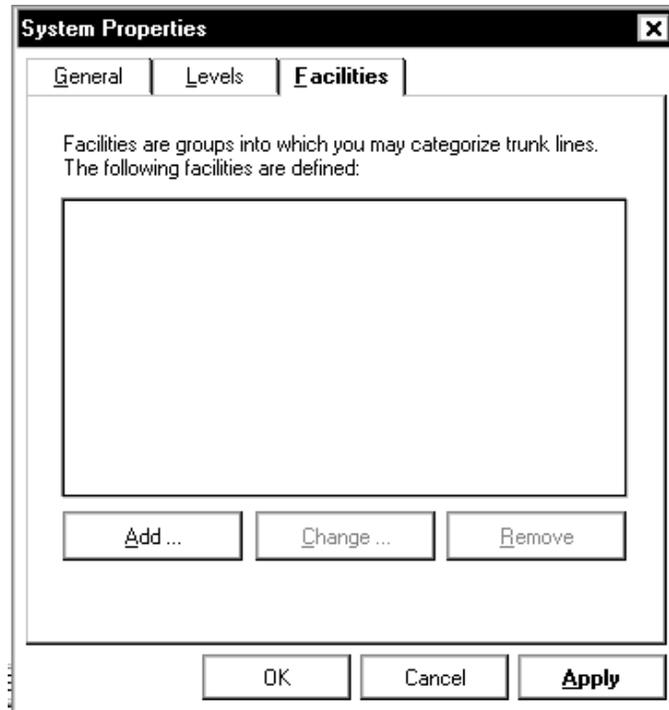
To define levels in your organization, from lowest to highest, select System Properties from the File menu, then select the Levels tab at the top of the screen. The following screen is displayed:



The level information is used in generating reports, and should reflect the divisions of your organization are related to call accounting. Common levels would be Location, Branch, Division, and Department.

You can enter any number descriptive names for each level. For example, if Level 2 is named Department, you can enter Accounting, Sales, Technical Services and any other department relevant to your application. When creating a report, you will see an option to filter the report on Department. The options under Department will be Accounting, Sales and Technical Services.

Trunk lines can be categorized into groups called facilities. Enter this information through the File pull-down menu by selecting <File>, <System Properties>. Then click on the Facilities tab, the following screen is displayed



## Entering Administration Information

The following pages show you how to enter user and extension information through the Administration module's screens. All administration information (users, extensions, accounts, contacts, and trunks) can be entered through the View pull-down menu or by using the icons along the top of the screen.

## User Information

To begin entering a new user:

1. Select View then Users, or click on the face icon at the top of the screen. The following screen is displayed.



User Name	Full Name	Phone	Email
MANAGER	Manager System		

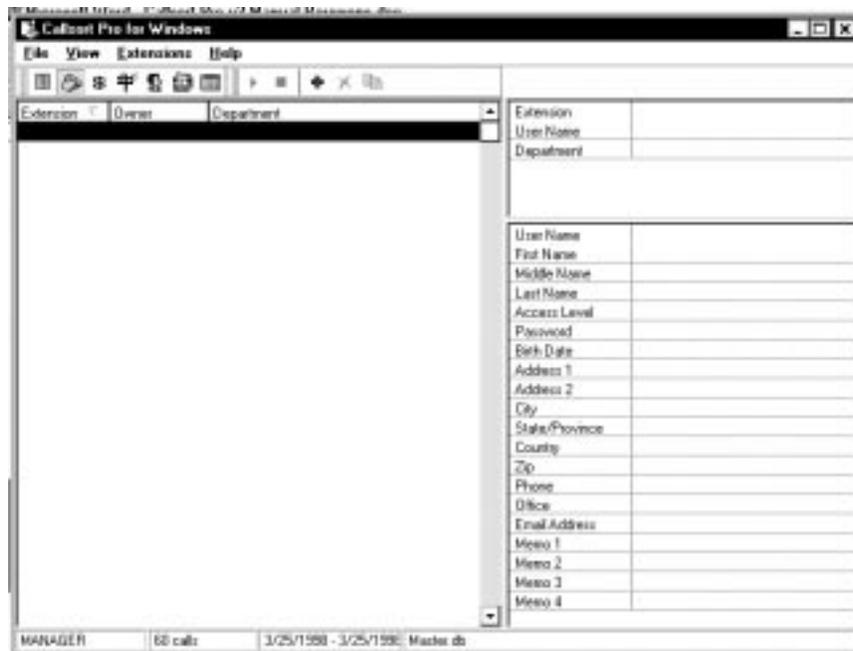
User Name	MANAGER
First Name	System
Middle Name	
Last Name	Manager
Access Level	7
Password	MANAGER
Birth Date	
Address 1	
Address 2	
City	
State/Province	
County	
Zip	
Phone	
Office	
Email Address	
Memo 1	
Memo 2	
Memo 3	
Memo 4	

2. On the right-hand side of the screen, enter the following user information: CallSort Pro user name and user first/middle/last names as they should appear on reports.
3. Then, enter the access level granted to this user as follows:
  - 0 for no access
  - 1 for reports only on the user's own extension
  - 2 for reports on the 1st defined level of organization
  - 3 for reports through the 2nd defined level of organization
  - 4 for reports through the 3rd defined level of organization
  - 5 for reports through the 4th defined level of organization
  - 6 for all reports, but no system management access
  - 7 for all reports and system management access
4. Enter your password and modify all other fields for this user. This information is used when composing reports. The information entered for each User is used when entering their extensions. The User information is then assigned to the extension.

## Extension Information

When you have entered all user information:

1. To access the Extension Editor screen, select <View> then <Extensions>, or click on the telephone icon at the top of the screen. The Extension Editor screen allows you to enter extensions separately from user information to allow more than one extension per user. 

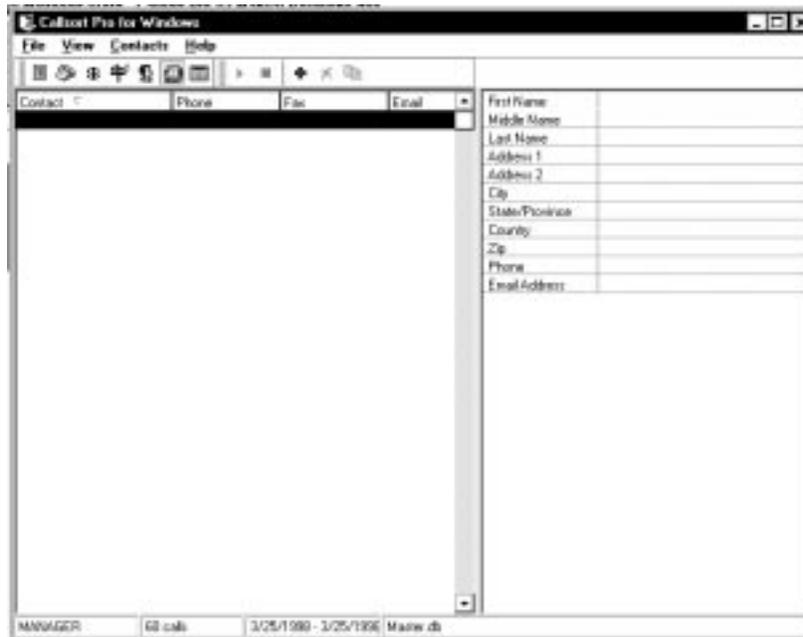


2. Then complete the Extension and User Name fields as follows:
  - Extension -- Enter the extension number that you would like to modify.
  - User Name -- Type or use the pull-down menu to enter the user names. The information at the bottom of the screen is the user information. (Refer to *User Information* in this chapter for more information regarding Users.)
3. To change the remaining fields which are related to the Levels previously defined, use the pull-down menus or type the new information for the levels. (Refer to *Defining Organization Levels* in this chapter for more information regarding Levels.)
4. To adjust the information entered for a particular extension, select <View> and <Extensions>, or click on the telephone icon. Then use the drop-down Extension list in the Extension Editor screen to locate the extension to change any necessary fields.

## Contact Information

To edit contact information:

1. Select <View> then <Contacts>, or click on the contact icon at the top of the screen. The following screen is displayed.



2. Enter contact information as needed in the fields along the right-hand side of the screen. The information entered is used when creating account codes as described in the *Account Codes* section that follows.

## Account Codes

CallSort Pro is capable of producing detailed and summary reports for billing customers for telephone calls, if you configure account codes and your telephone system supports account codes. The account code reports save you the tedious and time-consuming task of sorting through the phone bill to collate billing information.



To use this feature, your phone system must be capable of attaching an account code (which the user enters when dialing) as a field in the call record.

To begin entering account information:

1. Select <View> then <Accounts>, or click on the dollar sign icon at the top of the screen. The following screen is displayed. 
- The tab in the lower right-hand corner of the screen allows you to enter the User related to this account. Typically, the User is the person in the company responsible for this account.
  - The Contacts tab relates to the contact or billing information for this account code.

Account #	Owner	Name	Field	Percent	Call
1002		Billy Bob's T-shirts	\$0.00	0%	Th
1002		Jerobo's Eatery	\$0.00	0%	Th

Account #	1002
Account Name	Billy Bob's T-shirts
Owner	
Contact	Theron Billy Bob
Field Markup	\$0.00
Percent Markup	0%
User Name	
First Name	
Middle Name	
Last Name	
Access Level	
Payment#	
Bill Date	
Address 1	
Address 2	
City	
State/Province	
Country	
Zip	
Phone	
Office	
Email Address	
Memo 1	
Memo 2	
Memo 3	
Memo 4	

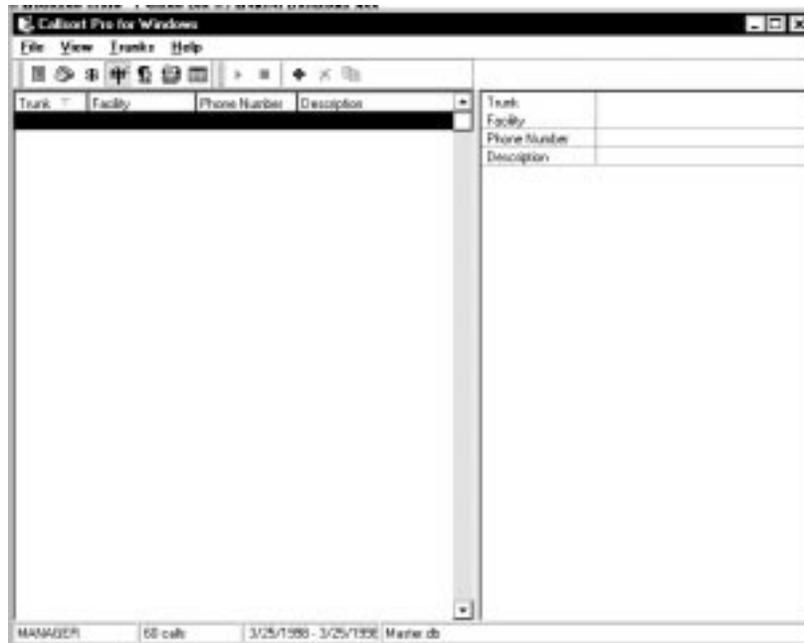
2. Enter the account information as follows:
  - Account -- Enter account code for this information.
  - Account Name -- Enter the name of the account for this account code. For example, this would typically be the company name associated with the Account number.
  - Owner -- The person within the company that is responsible for this account. You can either type in a name, or use the pull-down menu. When you select an owner, you will see the bottom of the screen fill with the owner's information.
  - Contact -- Person at the billed company that is responsible for the bill. You can either type in a name, or use the pull-down menu. When you select a Contact and click the Contact tab, you will see the bottom of the screen fill with the contact's information.
  - Fixed Markup -- Enter a number to be added to the total amount of the cost of the call. This markup is a fixed markup added to each telephone call no matter how long the telephone call is. This is in addition to any markups or taxes added to the price of the call. (Refer to regarding pricing.)
  - Percent Markup -- Enter a number that is the percentage markup for the call in addition to any other markups or taxes. (Refer to *Account Codes* in this chapter regarding pricing.)

The information in the Users and Contacts sections of the screen can be modified and is reflected in the user or contact record. (Refer to *Users Information* and *Contact Information* in this chapter for more details.)

## Trunk Line Information

With [CallSort Pro](#), you can obtain detailed and summary reports on trunk line activity. This enables you to identify possible trunk load levels that require attention. To assign trunks for reporting purposes:

1. Select <View> then <Trunk Lines>, or click on the right telephone icon at the top of the screen. The following screen is displayed:



2. Address the fields along the right-hand side of the screen as follows:
  - Trunk -- Enter the number for the trunk that appears in the SMDR data.
  - Facility -- Type the name or use the pull down menus to enter the facility name. The Facilities tab under the System properties defines the facilities options.
  - Phone Number -- Enter the phone number associated with this trunk. For example, enter 123-123-1234.
  - Description -- Enter a description of this trunk's function. For example, enter Main Number.

Facilities allows you to group trunk lines. You can define any number of facilities. When you modify trunk line settings, the facility options are displayed. For example, if you have multiple locations you can define the facility. You can enter Atlanta as one facility and Birmingham as another. Then when modifying the trunk lines you can define whether the trunk line is going to the Atlanta or Birmingham facility.



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## 5 Generating Reports

After call records are priced and processed in the Administration module, you can use the CallSort Pro Reports module to create and generate call reports. This chapter explains how to use the reporting options and describes the various reports.

### Administration Setup

To begin Administration Setup, select **CallSort Pro** from the available CallSort options. When prompted to enter your user name and password for the first time, enter **MANAGER** in both fields, and click on <OK>. (To change your password, refer to *Menu Options Available* in the *Installation* chapter; assign yourself access level 7, and enter the new password.)

After the password is accepted, the following screen displays, from which you complete all Administration configuration operations. This screen also provides access to the various reports and directory lists available from **CallSort Pro**.



The bottom of the screen displays: which user is logged in, number of records in the reporting master table, date range of the calls records in the database, and the currently open database.

## Report Options

The right-hand of the screen contains all options that are related to reporting. Any field with an \* (asterisk) is required for reports. Modify the fields as options:

**Table 5-1: Report Options/Descriptions**

Name	A descriptive name for the report.
Types*	There are three general report categories. <ul style="list-style-type: none"><li><input type="checkbox"/> Traffic Reports lend insight into the operation of the phone system by providing information on: total/average call duration and call counts; costs based on total, average, and per-minute average.</li><li><input type="checkbox"/> Organization reports provide both Detail and Summary phone activity information within your organization by extension, department, cost center and other hierarchies.</li><li><input type="checkbox"/> Analysis reports contain special information that helps you examine the call database to identify usage trends and other associated costs.</li></ul>
Report*	This is the actual report that is run. The report options are based on the report type you select.
Report Title	Information that appears in the header of the report.
Scheduled	Determines when the report is run. If Manually is selected the report is run when the user presses the run report button. If another option is selected the report options, for example dates and times, are automatically adjusted. The pull down menu contains the following options: <ul style="list-style-type: none"><li><input type="checkbox"/> Daily -- Runs the report daily and adjusts the date report options.</li><li><input type="checkbox"/> Manually -- Runs the report once, when you decide.</li><li><input type="checkbox"/> Monthly -- Runs report on a monthly basis on the date defined.</li><li><input type="checkbox"/> Once -- Runs the report once on the date defined.</li><li><input type="checkbox"/> Weekly -- Runs the report on a weekly basis on the date and time defined.</li></ul>
Schedule Date	If you choose Daily, Monthly, Once, or Weekly is selected as the Scheduled option, this is date the report will be run.
Schedule Time	If you choose Daily, Monthly, Once, or Weekly is selected as the Scheduled option, this is time the report will be run.
Start Date*	Determines the start of the date range for the report.
End Date*	Establishes the end of the date range for the report.
Start Time	Determines the start of the time range for the report.
End Time	Establishes the end of the time range for the report.
Extension	The selection criteria that produces a report for the designated extension.
User Name	This option allows you to run a report for all extensions allocated to this user name. (Refer to <i>System Administration</i> for more information on users.)

**Table 5-1: Report Options/Descriptions**

Level Options	<p>There are 1-4 options depending on how your system is configured. These options allow you to run a report for a specific level of your company. For example:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Level 2 is defined as Department and you have defined Sales, Technical Services and Accounting departments.</li> <li><input type="checkbox"/> If you wish to run a report on the Sales department, you define the Department option as Sales and all extensions within the Sales department.</li> </ul>
Minimum Cost	Selects calls of greater than a specific dollar amount.
Minimum Duration	Selects calls of a greater duration than the specific amount of time (calculated in seconds.)
Facility	Selects a particular facility for reporting. This option offers a drop-down list of facilities for selection.
Trunk	Defines a specific trunk for the report.
Account	Defines a specific account code for the report.
Call Type	Defines whether the report should be run on incoming only, outgoing only, or incoming and outgoing calls.
Phone Number	If you would like to report on a specific telephone number, type the phone number in here.
Graph	Defines the type of graph to be displayed. (The graph is displayed on the second page of the report.) The options are: Bar Chart 2-D, Bar Chart 3-D, None, Pie Chart 2-D and Pie Chart 3-D.
Graph On	Defines the axis for the graph defined in the Graph option.
Page Orientation	Declares the orientation of the data on the page; landscape or portrait are the options.
Page Breaks	<ul style="list-style-type: none"> <li><input type="checkbox"/> If yes, this option creates a header at the top of each page of the report.</li> <li><input type="checkbox"/> If no, the header is not at the top of each page.</li> </ul>
Output	Defines whether the information is printed to the screen or to a printer.
Output File	Allows you to define a name for this report. The report will be printed directly to a file for future use.
Fields	Allows you to define which fields you see in the report. You can name as many or as few fields as you like, but you may not be able to see all fields due to the limitations of the printed page.



## Scheduling Reports to Run Automatically

While many of the reports you will run with *CallSort Pro* provide on-demand answers, there may be other reports you'll want to run on a regularly scheduled basis. Any report generated by *CallSort Pro* can easily be set up to run automatically at regularly scheduled intervals.

### Adding a Report to Scheduled Reports

Scheduled reports are categorically divided into Daily, Manually, Monthly, Once, and Weekly reports. Reports can be scheduled to run automatically by first manually generating a report as described in the previous section. Next, save the report as a scheduled report by pressing the Save button on the icon toolbar. Finally, turn on the scheduler by selecting the Schedule Date and Schedule Time options. When you save the report, *CallSort Pro* asks you to supply a name for the saved report.



Remember to set the report output (defaults to the printer) by selecting the Output field on the main Administration menu.

## Reports Available

With its wide range of reports and user control over report content, *CallSort Pro* provides a wealth of information to help monitor and improve the effectiveness of your telephone system.

Which reports are most helpful will probably vary between departments or managers; the following sections provide helpful hints for using some of the reports available to you.

**Analysis Reports** contain information that help you examine the call database to identify usage trends and their associated costs. Specific Analysis reports include the following information, for the period that you specify:

- Directory Assistance identifies calls to your phone company's directory assistance number.
- Expensive Calls lists the most expensive calls.
- The Frequently Called Numbers shows the most frequently called telephone numbers.
- Frequently Called States shows calls for the most frequently called states, in state order.
- International Calls lists calls involving international dialing.
- Longest Calls lists the longest calls.
- Operator Assisted Calls shows calls placed through your phone company's operator.
- Unanswered Calls shows unanswered calls placed through your phone system.

**Organization Reports** provide both Detail and Summary information regarding general phone activity within your organization.

- Detail reports itemize all telephone activity, listing the actual numbers that are dialed, or in the case of incoming calls, providing the time the call came in.
- Summary reports provide condensed information, including total number of calls, duration, and cost. Use these reports to control abuse, perform client billing, resell long distance services, and allocate costs.

Specific Organization reports are available in both Detail and Summary, except where noted, and include the following:

- Account Code reports provide information regarding calls with an identifiable account number, as specified in the Administration module.
- Chronological reports (Detail only) show calls over a time period.
- Extension reports show activity sorted by extension number.
- Hierarchical reports (Summary only) show activity by organizational level.
- Organizational Level reports show call activity sorted by organizational level (as specified in the Administration module).

**Traffic Reports** lend insight into the operation of your phone system as follows:

- Provides summary information for total and average call duration.
- Specifies criteria you want to report such as: total, average, and per-minute costs.
- Helps to highlight trunk lines that are malfunctioning or are blocked.
- Indicates whether special lines are practical.
- Provides a means for verifying phone bills.
- For scheduling purposes.

Specific Traffic reports are available to provide summary information on the following:

**Table 5-2: Traffic Summary Reports**

Area Code Summary	Date Summary	Time of Day Summary
Call Area Distribution	Duration Summary	Trunk Detail
Call Type Distribution	Region Summary	Trunk Summary
Cost Distribution	State Summary	

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## 6 *FAQs and Troubleshooting*

### Frequently Asked Questions

This section lists the questions we receive most often about using [CallSort Pro](#), along with the answers for each. If you are having difficulty with [CallSort Pro](#), scan the questions here. Chances are it's a commonly asked one and that you'll find the answer quickly.

Questions and answers in this section are organized as follows to help you find the information you need:

- General Hints and Tips
- Installation Q&A
- Collection Q&A
- Administration Q&A
- Reports Q&A

### Hints and Tips

**Q: I would like to filter out a specific sort of calls, such as 1-800 calls, from my reports. How can I cause CallSort Pro to ignore these records?**

A: [CallSort Pro](#) has the ability to selectively ignore records based on various criteria, as described in Setting up Number Filters in the XXX chapter of this manual. In the example below, we show how to eliminate all 1-800 calls, but you could filter out any area code with this method. First, we will establish a number filter so that [CallSort Pro](#) can identify 1-800 numbers. Next, we will set a call record type based on that number filter and tell [CallSort Pro](#) to ignore this record type. Follow these steps:

1. Start in the Collection module. Select PBX Define from the Configure menu.
2. Select your phone system type from the list (it is probably already highlighted) and select the Filter tab. Then click on <Add Filter>.
3. Under Call Direction, select Outgoing. Under Destination, select Reference.
4. Under Order, type in a number after the number you use for international processing. (The international processing filter looks like this: [011??????%|1011??????%]. The number for our new filter should be higher than the number to the left of international processing).
5. In the Pattern field, type: 1800%. In the Match field, type X (or any other letter NOT used in any other number filter).
6. Click on <Call Types>.

7. Click on <Add Definition>. Under CallType, select Date. Under Field 1, select Destination Number, then click on <Reference>.
8. In the Field 1 Value option, type: X (or whatever letter you used in Step 5).
9. Click on <First Line>, then click on <OK>. All 1-800 calls will now be ignored.

**Q: How can I filter out my short calls?**

A: Follow these steps:

1. Start in the Collection module. Select Pricing Customize from the Configure menu.
2. Click on the service for which you want to filter out short calls. For example, if you want to filter out short long distance calls, click on <Default Long Distance>. If you want to filter out short local calls, click on <Local>. Then click on <Markups> at the top of the screen.
3. Select the markup group that you are using. Typically, this is No Adders. If you have a markup scheme established, click on it instead.
4. Observe the Connect Time box. This is the length of calls, in seconds, that will be filtered out by [CallSort Pro](#). Set this field to the number of seconds that defines a “short call.”
5. Click on <Done>. Select PBX Define from the Configure menu.
6. Select your phone system. Select the Drop Short Calls option. Short calls will now be ignored.

**Q: I would like to price certain local calls, such as those that begin with the prefix 555, differently than other local calls. How can I do this?**

A: You can tell [CallSort Pro](#) to price unlike numbers differently. With the use of wildcards such as ?, you can either specify a certain number for different pricing rates, or you can specify a prefix or suffix for different pricing rates. Refer to *Filter Variables* in chapter 2 for more information. In this example, we will set all local calls that begin with the prefix 555 to ten cents a minute. Follow these steps:

1. Start in the Collection module. Select Pricing Customize from the Configure menu.
2. Click on <Add New>. In the Name field, type a name for this type of call, such as Local 555. Under Order, type: 0. If the priority is higher than 0, these calls will be treated as local calls and will never be processed.
3. Click on <Selection Pattern> field. Under Field, select the Phone Number option. Under Selection Pattern, type 555?????. If you wish to charge for a different prefix instead, use that prefix. If you wish to charge for a specific number, such as 555-1212, type that number in the Selection Pattern field.
4. Next, click on <Method>.
5. Select Fixed Cost, and type .1 in the Initial Cost field. [CallSort Pro](#) will now charge 10 cents a minute for any call beginning with 555.

**Q: My phone system supplies account codes for working with various departments. I would like to be able to generate reports based on account codes. Can I do this?**

A: A few phone systems specify account codes in the call records, enabling you to sort records by department. To take advantage of this, you will need to define your layout to recognize account codes. Starting in the Collection module, follow these steps:

1. Select PBX Define from the Configure menu.
2. Pick your phone system name from the list and click on <Layout>.
3. Select a line of data that has an account code.
4. Highlight the account code on your line of raw data at the top of the screen, then click on <Account>. You can now identify records by the account number.
5. Make this modification for all call record types using the Name drop-down box on the Call Records Layout screen.

**Q: I need to get into the Administration module, but I have forgotten my password. What can I do?**

A: Call Vodavi's technical support department.

**Q: How can I add an extension for a new employee?**

A: Start up the Administration module, and refer to *User Information* in chapter 4. You must enter user information before adding a new extension. Follow all procedures in that section.

**Q: How can I edit an existing extension?**

A: Refer to *Extension Information* in chapter 4.

**Q: I have 10 (or 30, or 50, or 100) extensions set up in the Administration module. I need to add some more, but the program tells me that I have reached my limit. How can I add more extensions?**

A: You will need to upgrade your version of [CallSort Pro](#) to accommodate your new extensions. Contact our sales department for the latest pricing information.

**Q: I would like to delete all the data in my [CallSort Pro](#) database and start over. How can I do this?**

A: If you just want to get rid of the call records and not the extension and administration data, follow these steps:

1. Close the Collection and Administration modules.
2. Renaming files is easiest using the DOS prompt. Select Start and Run and type: *command* for Windows 95/98 or *cm* for Windows NT. You will now be at the DOS prompt.
3. Type: *cd\callsort\data\*
4. Rename current database to BACKUP.\* by typing: *copy master.\* backup.\**
5. Copy original databases over by typing: *copy master\$t.\*master.\**
6. To leave DOS prompt, type: *exit*

A: If you want to delete all data and start over, all original databases are stored in C:\CALLSORT\ORIGINAL\DATA and C:\CALLSORT\ORIGINAL\PRICER.

1. Close the Collection and Administration modules.
2. Renaming files is easiest using the DOS prompt. Select Start, then Run, and type: *command* for Windows 95/98 or *cmd* for Windows NT. You will now be at the DOS prompt.
3. Type: *cd\callsort\*
4. These steps do not backup your current data, so make sure you are willing to lose all information.
5. Copy collection and pricing databases by typing: *copy original\pricer\\*. \* pricer*
6. Copy reporting and administration databases by typing: *copy original\data\\*. \* data*
7. To leave DOS prompt, type: *exit*

## Installation

**Q: I am trying to install my CallSort Pro for Windows disks, but get the error message “Severe Error: Problem copying or decompressing files.” What does this mean?**

A: Although this can imply a bad disk, it usually means that you are trying to install CallSort to the wrong directory. CallSort Pro checks your LASTDRIVE statement in your CONFIG.SYS, then attempts to install itself to that drive. When installing CallSort Pro, be sure to specify the correct drive and directory.

## Collection Module

**Q: When I start up the Collection module, it does not display any SMDR data.**

A: The first thing to check is the configuration of your COM ports and your network cards. If these are not configured correctly, you will not get anything. Also, you may be having a conflict with another Windows or DOS program.

1. Close down any unneeded programs, such as screen savers or communications programs and try restarting Collection in Autostart Mode.
2. Open the Collection module, select Options from the Configure menu, and select Automatically Start Collection at Setup under the Input button.
3. Exit the Collection module, drag its icon into the StartUp group in Windows, then Restart Windows.

**Q: The Collection module does not appear to be saving my configuration information.**

A: Make sure that as you go from one dialog box to another, you click on **Done** in each of these boxes. This is the action that saves your information in each step of the process.

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**Q: My calls are being priced but all local calls are showing as either the 770 area code or another incorrect area code.**

A: Verify the following information:

1. Check to make sure the length that you have defined for phone numbers in SMDR Layout is long enough. If, for example, you have the phone number length set to 9 characters, [CallSort Pro](#) may decide that a 9-digit telephone number is a local call.
2. Under the Options menu, verify that you have Display Processed selected.
3. Make sure your area code number filters are correct (refer to *Setting Up Number Filters* in chapter 2).

**Q: The Collection module does not start executing when Windows is activated.**

A: Restart Collection in Autostart Mode. To do this, open the Collection module, select Options from the Configure menu, and select Auto start pricer. Exit the Collection module, then restart Windows (also be sure the Collection module is in the startup group). Note: Auto Start Pricer is on the Input tab.

**Q: The Collection module is not calculating my prices correctly.**

A: First, check under Pricing Customize and Markups to make sure you have not added a markup. If Collection is set to charge 8 cents a minute for calls, but you added a markup, the price will be higher than 8 cents a minute. Note that the prices are calculated after subtracting the grace period. Therefore, if you set a minimum duration at 30 seconds and the call's duration is 1 minute and 20 seconds, the charge will be for 50 seconds, even though the duration is listed as 1:20. Finally, check to make sure that you have not accidentally charged an incorrect amount of tax.

## Reports Module

**Q: My reports are not printing current data, or they are printing no data at all.**

A: Consider the following:

In the Reports module, check the information at the bottom of the screen.

- It should contain the name of the master database, MASTER.DB, the range of dates in MASTER.DB, and the number of records contained in the database.
- If the database is set to \PRICER\MASTER.DB, Collection may be unable to access MASTER.DB in \CALLSORT. Shut Collection down and start it again. This may correct the problem.

If the Collection module has not been configured properly for your phone system it will not append to the MASTER.DB database. To check your configuration:

- Switch to the Collection module.
- Select the Options menu, then Display Processed. If you can see properly displayed priced data you can be assured that the data is being collected.

- Check the date on the phone system and the PC, then make sure that the data has the correct date. **CallSort Pro** sorts the records by date. If for some reason the current date is set to a date before the date found on the last record, then it would appear as if the data is not being appended. In this case, the data is stored in the database but with the wrong date. You can run a chronological detail report to identify a call that you have made and determine if the date is set correctly.

**Q: I am trying to run reports, but keep getting Paradox errors.**

A: Using Windows Program Manager, check to see if the file \CALLSORT\DATA is increasing in size as SMDR data comes through your phone system. (When the Program Manager is open and MASTER.DB is visible, press F5 as calls come in to see if the file's number of bytes is increasing).

- If MASTER.DB does not grow, the Collection module is not writing to it. This should be set to MASTER.DB in the \CALLSORT\DATA directory.
- If it is set to \CALLSORT\PRICER, the Collection module may be unable to access the MASTER.DB in \CALLSORT\DATA. Shut down the Collection module and restart the program. This may correct the problem.
- In order to print a report, data must be added to the MASTER.DB in the \CALLSORT\PRICER directory. If data is not being added to the MASTER.DB file, the MASTER.DB may be corrupt. Follow these steps to create a new MASTER.DB file.
  1. Type `cd\callsort\callsort`. If **CallSort Pro** was installed in a different directory, change to that directory instead.
  2. Type `del master.*`. If you would prefer to save a copy of your master database, type: `ren master.*test.*` instead. This command will rename your master database to TEST. If you need to restore this database, type `ren test.*master.*`.
  3. Type `cd\callsort\data`. If **CallSort Pro** was installed in a different directory, change to that directory instead.
  4. Type `copy master$t.*master*`. This command will start a blank copy of the master database.

**Q: I am trying to open **CallSort Pro** but get the message "Login Failed."**

A: Call Vodavi's technical support department.

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## Troubleshooting

If you have any difficulty operating any aspect of [CallSort Pro](#), access the [CallSort Pro Knowledge Base](#) by starting the Reports module and selecting Knowledge Base from the Help menu.

The Knowledge Base is similar to a standard help file, you can select specific topics to display information related to your problem or displayed error message. The following text provides additional information related to specific problems you may have.

### Existing Cable Connection

**The data being transmitted by the phone system is coming in on the wrong pin.**

On the PC side, a 9-pin connector must have the data coming from the phone system sent on pin 2. For a 25-pin connector, the data must come in on pin 3. Swap the wires between pins 2 and 3. Also make sure that for a 9-pin connector, the ground is pin 5 and for a 25-pin connector, the ground is pin 7.

**The transmitting device phone system is expecting a handshaking signal that is not being provided.**

If the cable being used is terminated with a male connector, the PC is not supplying a handshaking signal needed by the transmitting device.

While the Sample Collection program is running it causes the Data Terminal Ready (DTR) and Request to send (RTS) pins to be activated at the PC connector.



The DTR and RTS pins are always activated (no handshaking protocol is needed or supported). Depending on the transmitting device (differs between manufacturers), these signals may need to be routed to one or more of the following pins on the transmitting device: Pin 5, Clear to send Pin 6, Data Set Ready Pin 8, Received Line detector Pin 20, Data Terminal Ready.

All pin numbers listed are for a 25-pin connector.

Refer to *Cable Connections* in chapter 1 for more information.

## Configuration and Data Input Source

**If you cannot see any raw data on the screen when performing step 1 of Collecting Sample Data in Chapter 1:**

1. Close the Collection module.
2. Activate the Hyperterminal program (typically located in your Accessories program group).

3. Click on **Call** then **Connect**, and follow the instructions on the screen. (Configure the Hyperterminal settings to match your phone system SMDR settings.)

**If you are not receiving raw SMDR data from your phone system in the above procedure:**

1. Make sure your phone system is set up to send SMDR.
2. Make sure your phone system cables are connected properly.
3. Make sure the transmit pin on the phone system is connected to the receive pin on the PC (as discussed in “Purchasing or Fabricating a New Cable” earlier in this chapter.
4. Make sure the RS-232 is working on your PC.
5. If this procedure fails, contact the phone system vendor.

**If you receive SMDR data within the Terminal program but did not receive data from the Collection module:**

1. Exit Windows.
2. Turn your computer off, wait 30 seconds, then turn it back on.
3. Start Windows and then start the Collection module.
4. Select Options/Collection On.
5. Return to the Options menu and select Process On.
6. If you are still not receiving call records, recheck the communications configuration for possible adjustments you may have to make, such as selecting a different COM port.

If you are still unable to receive data after following this procedure, contact Vodavi’s Technical Support department.



If your phone system type is not one of those listed in the screen above, please contact Technical Support at Vodavi at (Phone Number For Support Here). We will provide assistance in configuring CallSort Pro for your data.

## Call Collection

### The Collection Module Does Not Collect Any Data

Specific information related to this potential problem when first setting up the Collection module is presented in Chapter 1, *Installation*, if you are having problems collecting data.

If problems arise after the Collection module has been running successfully, consider the following:

- Make sure you have the correct communications configuration (i.e., baud rate, parity, stop bits, and data bits). Incorrect parameter entry is the primary cause for non-transmission of data. The Collection module will not work if these are set incorrectly.

- Check to make sure that the phone system is definitely sending data. Make sure the transmit pin on the phone system is connected to the receive pin on the PC.
- Make sure that transmit on your phone system is connected to the receive on your PC. Some phone systems require a handshaking signal to send data, make sure these are set.
- Check the RS-232 board on your PC and make sure it works. This can be done for you at the place where you purchased the PC.
- If you run any program (such as a communications program) that may re-initialize the RS-232 port the Call Collection program is using, the data collection will stop. To test this, make sure that the data is being collected by the background program. Then load the program that may be re-initializing the RS-232 port, and see if data is still being collected. If it stops, you should discontinue the use of the communications program on the call collection PC.

## Garbage in the Data

Check the following items to correct the problem:

- The length of your RS-232 cable. EIA standard allows a maximum of 50 feet. However, you might be able to use a longer wire if you make sure it is shielded and does not go in the vicinity of a noisy environment.
- The baud rate, parity, and number of stop bits.
- The RS-232 board on your PC.
- Your RS-232 connection.

## Call Recording and Reporting

### Excessive Amount of Call Records are Filtered Out

- This is probably due to an incorrect selection character. Your call records will not be processed if the selection character cannot be found or only matches a few records.
- Reconfigure again and make sure you do not use the very first record that is displayed on the screen.
- Occasionally, when the data collection module is activated, a call record has just been transmitted and possibly only a partial record is stored.
- This record can have a few characters missing, making it appear as if it is shifted to the left. If you configure using this record, all the remaining data will be misread.



Note that transmission corruption is also possible with cables that are longer than 50 feet.

## Out of Memory

**CallSort Pro** needs at least 8K of available RAM. Note that you must remove any memory-resident programs.

## Generating Reports

### No Report is Printed; Message Indicates No Data Was Found

- Check the bottom of the **CallSort Pro** main screen, which shows the current number of records. If the number of records is one or zero, Call Configuration was not configured properly and all data was filtered out.
- Check the report parameters and all filters. It is possible that you have set parameters that cannot be found to be true for any record processed (for example, requesting only long-distance calls when there were none).
- Make sure your date range is valid and falls within your data period, and is in ascending order (the start date must precede the end date).
- Make sure your extension range is for a valid set of extensions.

### Corrupt Data Is Noticed In A Report

- If you notice data in a report that appears corrupted (for example, a report that lists a trunk number that does not exist) this probably is a result of incorrectly defining the fields of the call record.
- Go back and verify that you have done this correctly (refer to *Defining Call Model* in chapter 2). If descriptive information, such as the extension or department name, does not appear in a report, it is because it has not been entered into the database.
- This information is entered in the Administration module, as described in the *System Administration* chapter.

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## 7 *Customer Support*

This chapter contains important customer, product, and technical support information. Please read it carefully.

### **Customer Registration**

Please fill out and return your registration card today. Doing so entitles you to the following benefits:

- Telephone technical support
- Expedited technical assistance
- Notification of enhancements, updates, and new modules at special reduced prices
- Purchase of replacement disks in case of loss, destruction, or defect (when out of warranty) for a nominal charge
- Ongoing product support

### **Product Support**

The best source of support may be your [CallSort Pro](#) dealer, your own organization, or Vodavi, depending on the nature of the problem and where you purchased the product.

You are entitled to 90 days of telephone support (from the date of purchase). For additional support refer to the *Maintenance Agreement* described later in this chapter. Your warranty statement is included in the [CallSort Pro](#) package; please read it carefully.

If you experience problems, we recommend the following steps:

1. Review this document first. It answers most questions.
2. Check your [CallSort Pro](#) configuration and make sure you have all the necessary components.
3. If applicable, consult your dealer. This may be your best source of convenient, local support.

## Technical Support

Telephone Technical Support is available Monday through Friday, 8:00 am - 5:00 p.m. EST. The Technical Support number is: (877) 4-VODAVI. Follow the instructions to reach the proper support department.

**IMPORTANT --** Before you call Technical Support you must follow these steps:

1. Have returned the completed Registration Form (preferably via fax at 770-662-1536).
2. Try to isolate the problem. Is it related to [CallSort Pro](#) or to some aspect of your system?
3. Be sure to have the serial number that appears on the [CallSort Pro](#) disk #1 available when you call.
4. Have available any materials pertaining to your question such as: printouts for you to refer to or notes you made while operating the system. (This makes it easier for our technical support analyst to understand the problem and assist you promptly.)

### Web/Internet Technical Support

For Web / Internet support, use <http://www.vodavi.com>

Select <Support> followed by <[CallSort Pro](#)>

### E-Mail Technical Support

For e-mail support, send to Vodavi Technical Support at: [support@vodavi-ct.com](mailto:support@vodavi-ct.com).

### Facsimile Support

Our facsimile number for sending your Registration or other information is: (770) 662-1536

## Product Replacement Program

In the event that [CallSort Pro](#) is found to be defective in materials or workmanship, please contact Vodavi Technology, Inc. for a return authorization. You will receive instructions on returning the defective disk for replacement.

- Within ninety (90) days of purchase, Vodavi will replace a defective disk free of charge to registered users.
- After ninety days, and for up to one year after the date of purchase, replacement disks are available to registered users at \$20.00 for each defective disk, plus a shipping and handling charge.

**If you have not sent in your registration**, you will need to send your registration form along with the defective disks, proof of purchase, and \$30.00 per disk.

Returns and payment, if required, are sent to:

Vodavi Technology, Inc.  
8300 E. Raintree Dr.  
Scottsdale, AZ 85260  
Attn: Technical Support

### **Maintenance Agreement**

After your 90 days of free support, you may purchase a maintenance contract to extend ongoing support.

The maintenance contract is available for purchase on a yearly basis and entitles you to receive the following:

- Ten hours of telephone technical support
- 24-hour Technical HOTLINE (877-4-VODAVI)
- 24-hour Technical Support Bulletin Board
- 24-hour Facsimile Support including Fax Bulletin Board
- All software maintenance releases during the year

### **Maintenance Cost**

Effective April, 1999 -- The price of the maintenance agreement is \$500 and is subject to change without notice.

### Maintenance Order Form

If you haven't already returned your [CallSort Pro](#) Registration, return it with this form to receive continued support after the initial 90 days.

Maintenance Order Form	
Company	_____
Contact	_____
Address	_____
	_____
Phone	_____
Serial #	_____
	_____

Please enclose a check for the appropriate amount, payable to Vodavi Technology, Inc., for the cost of your maintenance agreement.

For further assistance, please call (770) 662-1500 and press 2 for the Sales Department.

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