

Call Accounting Manual

Five Star Hotel Systems Corporation

Call Accounting Software

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If your computer freezes during processing, or if you get an error or 'Problem' message on the screen while using Five Star, do not turn it off, do not press the reset button, and do not press control-alt-delete. If you do, you may damage Five Star Files. Try the following first:

Press the Esc button 3 times or press Ctrl-Break.

If the screen responds, press the * key and press Enter.

Type START and press Enter.

If the screen does not respond to these keystrokes, press Ctrl-Alt-Delete once. When the Close Program window appears select Five Star if not already highlighted, and click on the End Task button.

If these steps do not produce a response, your computer is actually already off, and your only recourse is to turn it off. Leave it off for 10 seconds, and then turn it back on. Let the Windows Scandisk program run, and then when you start Five Star, you should use the Data File Integrity Check program on the Administration menu, and then the Rebuild Room Cross Reference program on the Hotel Setup sub-menu. These programs ensure that all your hotel files are correct and are the same.

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Setting up Your Call Accounting

Five Star Call Accounting connects your phone switch to a computer running Five Star via an interface. Your phone switch sends Five Star a 'packet' of information every time a call is made from one of your phones. That packet contains the date, time and duration of the call. It also includes the extension the call was made from and the exact digits dialed. From this information Five Star can determine how much the call should cost based on call costs and your chosen markups.

An interface is a connection via your computer's serial port to another device such as a phone switch. The interface permits guest transactions from the machine to be transmitted via the serial port of your computer. The interface program automatically posts the transaction to the guest folio if you are using the Five Star Front Desk program.

What you will need to get started:

- 1) Five Star Call Accounting software.
- 2) The interface device (i.e. the phone switch). Check with the manufacturer to be sure that the version of the software included with the device has a Property Management System Interface or SMDR port. If not you will need to get an upgrade from the supplier.
- 3) A computer that will run the interface. The interface can run in the background on a computer used for Five Star or any other Windows program.
- 4) A cable to connect between the computer running the Five Star interface software and the phone switch. If you are using Call Accounting to connect to your phone switch you must have your phone service company make this cable according to the specifications from the phone switch manual.

Phone Service Company Requirements:

The first step is to call your phone service company and ask them to come to your property to set up the phone switch. They will have to do the following. You might provide them with this list to be sure all is done completely:

- 1) Activate the switch's CDR (call detect record) port. This is normally an RS232 (DB25 pin or DB9 pin) port on the switch.

2) Run an 8 to 25 wire serial cable from the switch to the computer you will be using to run the Five Star Call Accounting program on.

Note: The phone switch has maximum length stipulations for the cable. Be sure the phone service company is aware of this limit, and be sure the cable is no longer than this limit. Call detection will be unreliable if the cable is too long. The limit is defined in the installer's manual that is provided with your phone switch.

3) Have the phone service company put ends on the cables according to the phone switch's documentation. Be sure the cable ends are done correctly. Do not attempt to do this yourself. If the cable is made incorrectly you could short circuit your switch, causing very expensive damage.

4) Have the phone company test the cable and CDR port on the switch by connecting a simple notebook computer or serial printer to the cable and make some calls. The switch may need to be reprogrammed to ensure every call, including long distance, local, room to room and incoming calls should show up on the printer. If not the switch is not yet programmed correctly for transmitting call detect records. If transmission to the printer is correct, the system is ready for connection to the Five Star Call Accounting computer. If you don't see call records appear on the notebook computer or printer, Five Star will not be able to receive calls either. This testing must be done with your phone service company before attempting to connect to Five Star.

5) Find out from the phone service company what the serial communication parameters are, i.e. baud rate, data bits, stop bits and parity. We recommend 1200 baud, 8 data bits, 1 stop bit and no parity, but Five Star can be set to any setting. Faster communication may be necessary on a very busy switch, as many switches cannot buffer calls (they can't be held in the switches memory until the previous call is sent to the call accounting program). However, the faster the baud rate the greater the chance that the transmission will be bad, and you will lose calls. There is no way for the call accounting program to tell the phone switch that it did not receive the call cleanly (except on some late model switches) so you should be very conservative with the baud rate.

You will have to set up the Five Star computer with the identical serial communications parameters. Five Star can be set for any set of rules but your phone switch may be limited in its choices, so likely Five Star will be set to match the switch, not vice versa.

BE SURE ALL THE ABOVE STEPS ARE COMPLETED BY THE PHONE SERVICE COMPANY BEFORE ATTEMPTING TO CONNECT THE CALL ACCOUNTING COMPUTER TO THE SWITCH, OR BEFORE REQUESTING THAT FIVE STAR COME TO YOUR SITE TO DO THE INSTALLATION. INSTALLATION COSTS WILL BE MUCH HIGHER IF THESE STEPS ARE NOT COMPLETED FIRST.

Initial Hardware Setup:

Connect the computer which will run Five Star Call Accounting to the phone switch using the serial cable made by the phone service company and one of the computer's serial ports. Note whether you use serial port #1 or #2, known respectively as COM1 or COM2. Typically you will connect the call accounting cable to COM2, as most computers have a mouse attached on COM1. If you don't have a mouse, we still recommend using COM2, especially if COM1 is a 9 pin port and COM2 is a 25 pin port. 25 pin ports are the standard size, and 9 pin ports are really designed for mice.

If you are using a mouse, and a Nortel SL1 switch, we recommend that you remove the mouse from the call accounting computer. Then, using the setup screen in windows, change the mouse setting to "No mouse or pointing device". When Windows checks a serial port for a mouse it sends a signal to the SL1 phone switch that the switch misinterprets as noise on the line, and it will shut down its call record transmission.

Be sure there are no IRQ conflicts with other devices like an internal modem or network card. If you are unsure that you may have a conflict, see your hardware supplier. Frequently if you have an internal modem in the computer it will conflict with COM2, the recommended serial port for call accounting. While first setting up and testing call accounting you must remove any internal modems, and you must un-install the modem driver in the Windows control panel. You should have your hardware company assist you if there is a modem and/or driver in your computer.

If you are installing call accounting on a Windows 95 or 98 computer follow these instructions:

Click Start, then Settings, then Control Panel, then double click the System icon. Then click on the Device Manager tab in the System window. Then scroll down the device list until you see Ports (Com & Lpt). Double click on this selection. Then double click on the port you intend to connect the call accounting to, likely COM2. Next click on the Port Settings tab, and set the parameters to match the information given to you by the phone service company. Change the Flow Control field to Hardware, and Ok the screen. Close all the windows and restart the computer.

If you are installing call accounting on an NT computer follow these instructions:

Add the line

MODE COM2:12,n,8,1

to your autoexec.bat file, if you are connecting the cable to COM2 (recommended) or

MODE COM1:12,n,8,1

if connecting to COM1. The 12 indicates the baud rate (1200 baud).

The rules in this command must match the rules from the phone switch. Your phone service company will give you this information. You must get it from them, because the interface cannot function if the rules for the call accounting do not match the rules for the phone switch. In the example above the rule is broken down as follows:

Com port: This can be set to COM1, COM2, COM3, or COM4. Most computers have only a COM 1 or 2.

Baud rate: This example uses 1200 baud (the 12). This can be set as follows:

- 300 - 300 baud
- 600 - 600 baud (rarely used)
- 12 - 1200 baud (the most common rate for call accounting)
- 24 - 2400 baud (a fast rate used by more current phone switches)
- 48 - 4800 baud (rarely used)
- 96 - 9600 baud (the fastest rate used by only digital high tech switches)

Parity: In this example it is set to n for no parity. Almost always set to n, i.e. to no parity. Other options include e for even parity or o for odd parity.

Data bits: In this example it is set to 8 data bits. This option can be set to 7 or 8 data bits and is just as likely to be one as the other.

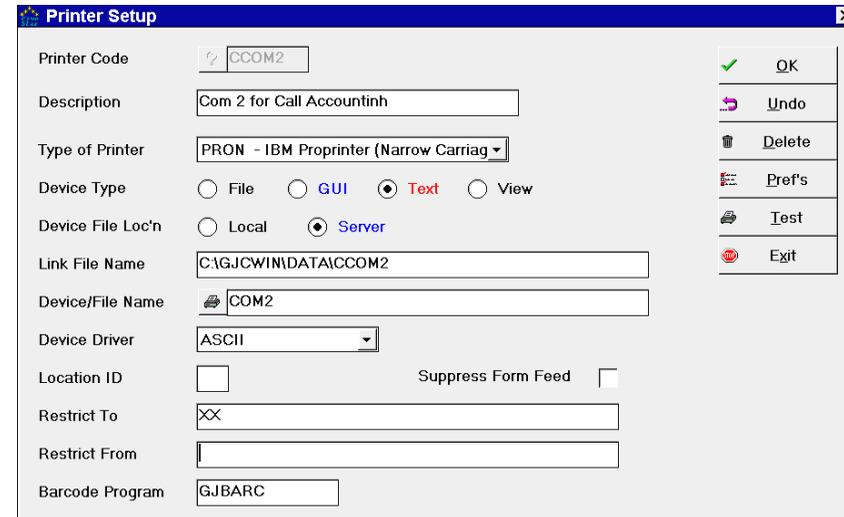
Stop bits: In this example it is set to 1. This may be set to 1 or 2 stop bits. Normally it is set to 1, but some very old models of Mite SX20 and SX50 switches can only use 2 stop bits.

We recommend the use of a serial in-line buffer with a UPS. This would be installed between the phone switch and the call accounting computer. Most phone switches cannot store call detect records, and if your call accounting computer is disabled call revenue will be lost. The in-line buffer solves this problem by storing each call as it comes from the phone switch. It communicates with the call accounting computer, and sends it calls only when the call accounting computer is receiving properly. This is a very wise investment over a 5 year period.

Configure the COM port

From the main menu select the Administration Menu. From it, choose Printer Setup:

Figure - Setup/Edit Printers



Using the screen:

Fill in the screen exactly as shown. In the Device/File Name field, enter COM2 (must be in capital letters) or COM1 if you will be using this port instead of COM2

Set Up an Automatic Login Password

The next step is to create a user login and password that causes call accounting to start automatically if your computer is ever rebooted. This helps make call accounting more reliable in the event of a computer shutdown. Your staff doesn't have to remember to restart the program.

From the Administration menu select User Logins, Administration. Set the screen up as follows:

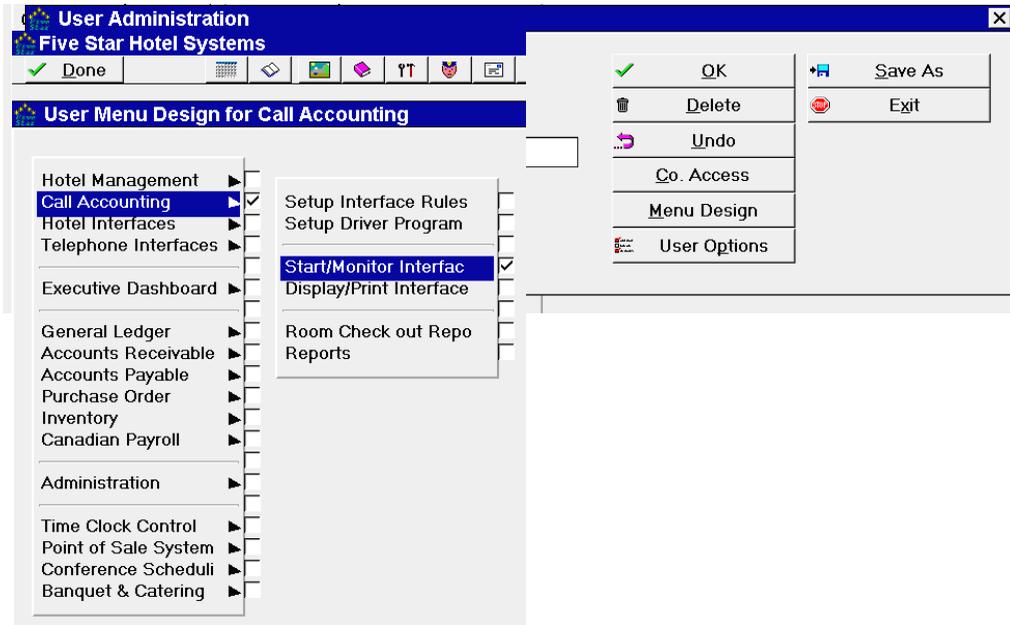


Figure - User Logins & Administration

Using the screen:

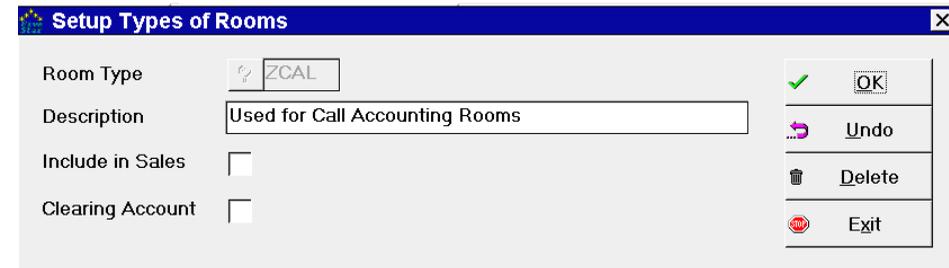
Set up the screen exactly as shown. The user named CALL is a special user code. When the call accounting start up program sees this user it automatically logs it in. The next step creates a simple menu for this 'user' which automatically starts the call accounting function. Choose Menu Design from the option line. Five Star now shows you a picture of the menu system used to access its programs.

Remove all the checkmarks to block out all options except Call Accounting on the Applications Menu. Highlight the Call Accounting menu and press enter. Within Call Accounting Menu block all options so that only Startup/Monitor Interface is showing. It is very important to make sure you block all other options, including the lines dividing options.

When complete press F4 to return to User Logins, Administration setup screen and accept it. This step causes Five Star to automatically go straight to the interface program when it starts.

Setup Room Types

Set up a new room type specifically for 3 'special' guests in three special rooms. Select the Setup Room Types screen from the Hotel Setup menu. Fill it in as follows:

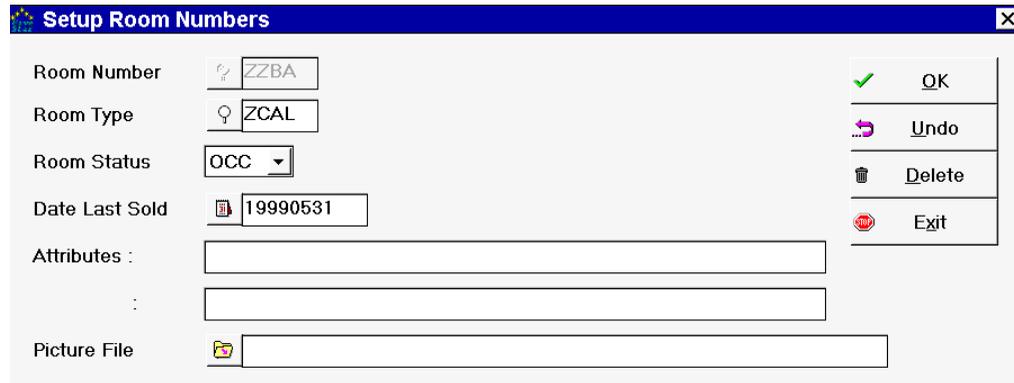


Room Type	<input type="text" value="ZCAL"/>	<input checked="" type="checkbox"/> OK
Description	<input type="text" value="Used for Call Accounting Rooms"/>	<input type="checkbox"/> Undo
Include in Sales	<input type="checkbox"/>	<input type="checkbox"/> Delete
Clearing Account	<input type="checkbox"/>	<input type="checkbox"/> Exit

Fill in the screen exactly as shown. This creates a special room type which does not affect sales statistics, and will allow you to transfer telephone charges from these rooms as required.

Setup Room Numbers

Skip this step if you are not using the front desk module. There are three special room numbers needed for call accounting. Go to the Hotel Setup Menu and then into the Setup Room Numbers screen:



Room Number	<input type="text" value="ZZBA"/>	<input type="button" value="OK"/>
Room Type	<input type="text" value="ZCAL"/>	<input type="button" value="Undo"/>
Room Status	<input type="text" value="OCC"/>	<input type="button" value="Delete"/>
Date Last Sold	<input type="text" value="19990531"/>	<input type="button" value="Exit"/>
Attributes :	<input type="text"/>	
:	<input type="text"/>	
Picture File	<input type="text"/>	

Figure - Setup Room Numbers

You must set up three new room numbers set up for Call Accounting; ZZUN, ZZBA, ZZAD. For example set up the screen as follows three times, once for each room number ZZUN, ZZAD & ZZBA:

Room Number	ZZUN
Room Type	ZNON

Press ENTER to accept defaults for remaining options then accept.

Check-In Some 'Special' Guests

Skip this step if you are not using the front desk module

Five Star Hotel Systems

Guest Check In / Walk In

Res.#

Last Name ZZUnoccupied Rooms

First Name Do Not Check Out!

Addr 1

Addr 2

Addr 3

Postal/Zip

Telephone

Settlement

Cr. Card # 111111111

Expiry Date 1000 Oct 00

Status

Group #

Room(s)

Guaranteed

Corp. Code

Travel Agent

Arriving Jun 1/99 # of Adults Room Type

of Nites # of Kids Rate Type

Departing Feb 24/02 # of Rooms Room Rate

OK & C/I

Cancel

Undo

Block Rooms

Guest Prefs

Other

Daily Chgs

Exit

Figure - Walk In Guest

Check in the three rooms just created. Make sure the room rate shows 0 and that you use Block Rooms to assign the proper room number to each account. Change number of nights to 999.

The names for the three rooms are as follows;

ZZUN ZZUnoccupied Rooms
ZZBA ZZBad Call Records
ZZAD ZZAdministration Calls

Billing/Receipt Codes:

Use Billing & Receipt Codes to define your telephone sales codes, profit codes and tax codes.

For each code you can define surcharges. This capability allows you to create any kind of tax rules imaginable (and you know how imaginative politicians can be when it comes to taxing you!), including tax on tax and hidden (not displayed on the folio) tax. The surcharge feature also allows you to easily add a markup to long distance billing, without the markup being visible on the guest folio.

Here is a list of billing and receipt codes you might set up. You may not require all of them:

Code	Purpose
------	---------

Taxes - each type of tax (currently GST & PST) you must charge each as a separate billing code. Enter these first because many of the other codes use taxes as surcharges

Service charge - enter one code called service charge if you intend to mark up some of your services like long distance telephone charges. It is not uncommon for markups from 20% to 200%, as the long distance service should be run as a profit center just like any other service in the hotel.

Fax	“	fax services	“
Telephone	“	local calls	“
Long Distance	“	long distance/chargeable services	“
Directory Assistance			

To enter billing and receipt codes select the Billings / Receipt Codes program from the hotel management menu's administration sub-menu .

	Surcharge Code	Amount or %	Amount / Rate	Base/ Total	Minimum Charge	Maximum Charge	Show on Folio
#1	SURCH	%	30.00	B	0.75	0.00	<input type="checkbox"/> #
#2	TAX1	%	7.00	T	0.00	0.00	<input checked="" type="checkbox"/> #
#3	TAX2	%	8.00	T	0.00	0.00	<input checked="" type="checkbox"/> #
#4		%		B			<input checked="" type="checkbox"/> #
#5		%		B			<input checked="" type="checkbox"/> #
#6		%		B			<input checked="" type="checkbox"/> #
#7		%		B			<input checked="" type="checkbox"/> #
#8		%		B			<input checked="" type="checkbox"/> #

Figure - Billings / Receipt Codes

Using the screen:

Billing Code: We have already set up most of the standard codes used by all hotels. You fill in this screen once for each billing and receipt code you want to set up. Enter a code for sales tax first (also known as local tax, sales tax room tax etc.). Set up tax first before you set up other revenue codes so you can use the tax code in the surcharge section of each of the other billing codes.

In addition, the next code you should set up if you mark up long distance telephone charges, is a surcharge code for phone charges. This allows you to make a profit on the long distance services you provide for your guest. This surcharge can be set up so that it will not be shown separately on the guest folio, that is it will blend in with the basic long distance charge shown on the folio.

Description: Type the description as you want it to appear on reports. We suggest you capitalize the first letter and type the rest in lower case for the best presentation.

G/L Account: If you don't use the optional Back Office Accounting module, it does not matter what you put in this field.

If you do use Back Office this field requires you to enter three pieces of information: the company number, the general ledger account number and the department or division number. Use the F2 pop up window in each field to find the appropriate account number. The company number is filled in for you as you have only one. The division will be 0 if you don't report by division on your profit and loss statements. Divisions are commonly reported for room sales, dining room sales, gift shop sales, bar sales, and other sales.

Daily Report Code: A window pops up in this field showing you all the valid choices.

Tax/Surcharge Section: This section of the screen gives it its unique power. First it lets you define your hotel's tax collection obligations. Most hotels will enter one or two lines of surcharges for the one or two types of tax they must collect. On long distance charges you can enter a service charge surcharge to mark up the cost of the call as reported by your telephone system.

When setting up charges on top of charges, like piggy backed taxes, enter the tax on which the other tax is calculated first. If the tax rules in your area require tax on tax, (e.g. sales tax on GST in some provinces of Canada) enter the GST as the first surcharge. Enter B in the bas/total field. Then on the second surcharge line enter the PST code. In the bas/total field enter T. This causes PST to be calculated on the total of the revenue amount plus the GST amount. The bas/total question in the surcharges section allows you to specify tax on the previous lines plus the basic revenue amount by entering a T in this field.

When you have entered information for all questions in the row, and have advanced to the next line, if you have no more surcharges to add, press F4 to advance to the option line.

Amount or %: If this surcharge is calculated as a percentage of the basic charge (as most are) enter the % sign in this field. Taxes and long distance surcharges are normally calculated on a percentage basis. If the surcharge is calculated as a lump sum amount (like a \$5 land use fee from the government), enter the letter A in this field.

Amount/Rate: If you entered the % sign in the previous field enter the percent number in this field. For example, enter eight percent as 8 not as 8% or .8. For tax surcharges enter the tax rate, whether it is charged on the base billing amount, or on the base billing amount plus other surcharges/taxes. If you indicated in the previous field that the charge is not a percentage but a flat rate, enter the dollar (and or cents) amount of the charge.

Base/Total: This question determines whether this surcharge is levied on just the basic billing / receipt code you are setting up, or if it is levied on the basic code plus surcharges entered on the lines above. On the first line the answer to this question must be B because at this point the base and the total are the same, namely the billing receipt amount. On second and subsequent lines you may determine whether the surcharge on the line is based on the billing / receipt amount (the base) or on the billing receipt amount plus the surcharges on the previous line.

In Canada for example, when setting up billing codes for which taxes are charged, put GST on the first surcharge line and enter B in the base/total field. Enter sales tax on the second line and in provinces where sales tax is charged on GST enter T in this field. In provinces which do not require that sales tax be calculated on GST, enter B in this field. If you are setting up a code like telephone charges and you enter a 30% surcharge on the first like, put GST on the second line and enter a T in this field. That way GST will be on the basic phone charge plus your 30% markup.

When setting up billing codes for long distance charges, enter the service charge surcharge on the first line and put B in the base/total field. Then enter the applicable tax surcharges, if any.

Minimum Charge, Maximum Charge: If this billing code is subject to a minimum or maximum surcharge, enter the minimum or maximum dollar amount in these fields. This field refers to a minimum or maximum for the surcharge, not for the actual billing code amount. For example, on your phone surcharge, some hotels want a 2.50 minimum profit. This affects the maximum surcharge (profit), not the maximum basic phone charge.

Show on Folio: If the folio will display the surcharge on a separate line, like

Room charges	Sept. 13, 1995	\$100.00
GST		7.00
Sales tax		8.00

enter Y in this field. Taxes normally show separately in all states and provinces. If the folio will not show the surcharges, as is the case for surcharges on long distance call sales, enter N in this field. For example if your phone system reports a cost of \$7.50 for a long distance call, and you set up the long distance call billing code with a service charge surcharge of 100%.

The folio will show:

Long distance call charges	Sept. 13, 1995	\$15.00
----------------------------	----------------	---------

so your mark up is invisible. If you added tax to the call you would put the service charge on the first surcharge line as shown above and the tax surcharge on the second line. Enter T in the total/base field and Y in the show on folio field. the folio will appear as follows:

Long distance call charges	Sept. 13, 1995	\$15.00	
Sales tax			1.20

if sales taxes are 8%.

Option Line: When you have entered information for all questions in the row, and have advanced to the next line, if you have no more surcharges to add, press F4 to advance to the option line. From the option line accept the billing / receipt code you set up, and continue to set up the rest of your billing / receipt codes.

Setup Call Accounting Rules

This is the main step in configuring the call costing program. It determines how guests dial various types of calls, like local or long distance, it determines what the costing rules and rates are, and it can also identify administration versus room extensions. To setup the call accounting rules, choose Setup/Edit Call Accounting Rules from the call accounting menu:

Setup/Edit Call Accounting Rules

Call Acct Code: 1

Description: Call Accounting

Type of Diskette Phone Bill: Bell Phone Bill

Driver Program Name: HCSX200 Mitel SX-200 Call Accounting

Terminal I.D. used to Start the Interface: TC

Data Communication Port to use: ccom2

Integrated to Front Desk System:

Audit Print for Chargable Calls:

Default Billing Code:

Room # to Post to if Invalid:

Room # to Post to if Not Occupied:

Call Identification:

	#1	#2	#3
Local Calls start with:	9		
Long Distance Calls start with:	91		
International Calls start with:	8011		
Operator Assisted Calls start with:	80		

Buttons: OK, Undo, Delete, Extension#, Call Costing, Near Area Codes, Discount Codes, Exit

Figure - Call Accounting Setup

Using the screen:

Call Acct Code: CALL

Description: Call Accounting

Type of Diskette Phone Bill: Press F2 to get available options. The Five Star call accounting program has the ability to import your phone bill if you receive it on diskette. Call Five Star for details on your phone bill. Skip this field if you don't get your phone bill on disk.

Driver Program Name: Press F2 to get a list of available phone switch drivers and choose the one that matches your phone switch.

Data Commun. Port: CCOM1 (or CCOM2)

Integrate to Front Desk: enter Y if you use the front desk module or N if you don't

Default Billing Code: T2 (or whatever your Long Distance charge code is set to)

Room to Post if Invalid: ZZBA

Room to Post if Not Occ: ZZUN

Call Identification:

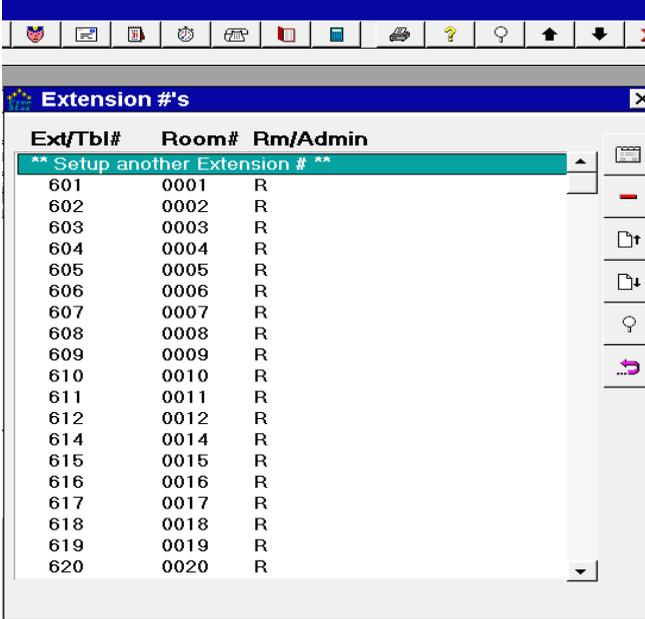
- | | |
|--------------------------------|---|
| Local Calls Start With | - enter the dialing sequence local calls start with at your establishment.
- i.e.: 9-453-6675 |
| Long Distance Calls Start With | - enter the dialing sequence long distance calls start with at your establishment.
- i.e.: 91-123-456-7890 |
| International Calls Start With | - enter the dialing sequence international calls start with at your establishment.
- i.e.: 9011-44-123-45345 |
| Operator Assisted Calls | - enter the dialing sequence operator assisted, calling cards, collect calls, etc. start with at your establishment.
- i.e.: 90-123-456-7890 |

EXCEPTIONS to Call Identification:

- the Meridian SL 1 setup for these options must begin with the trunk routing number. (i.e.: if trunk number is 8...local calls for the above example would be 89)

- the Nitsuko setup for these options do NOT require the call identification sequence. (i.e.: if at your hotel you dial 91 for long distance with the Nitsuko driver Call Identification for long distance would be entered as 1)

Option Line: From the option line select Ext #'s.



The screenshot shows a software window titled "Extension #'s". It contains a table with three columns: "Ext/Tbl#", "Room#", and "Rm/Admin". The table lists various extension numbers and their corresponding room numbers and administrator assignments. A header row is highlighted in green with the text "** Setup another Extension # **".

Ext/Tbl#	Room#	Rm/Admin
** Setup another Extension # **		
601	0001	R
602	0002	R
603	0003	R
604	0004	R
605	0005	R
606	0006	R
607	0007	R
608	0008	R
609	0009	R
610	0010	R
611	0011	R
612	0012	R
614	0014	R
615	0015	R
616	0016	R
617	0017	R
618	0018	R
619	0019	R
620	0020	R

Figure - Extension Numbers

Use this screen to enter all administration extensions. Five Star tracks and costs administration extensions, but does not add a mark up. If you use the front desk module too, it will not post administrative calls to folios. You must also enter all room extensions for which your room number and your phone extension is not the same. For example if your rooms are numbered 101 to 199 and your extensions are 7101 to 7199, all must be entered in this screen. Or, for example, if you have a room number 34a and 34b, you must enter these extensions.

Extension #: enter the phone switch extension number

Room # to Post to: Enter the associated room number.

Room/Administration: entering an A in Room/Administration means that the administration calls will show on the Call Accounting report but not on the ZZAD folio. Entering an R in Room/Administration means that the administration calls will be treated just as if the call was placed from a guest room and will be charged accordingly and posted to the room number assigned in Room # to Post to.

When all required extensions are entered, press F4 from the Extension number field and you will be returned to the main rules screen. Next select the call costing option.

Setup/Edit Call Acc Rules - Call Costing

Day of the Week:

	Cost/ Minute	Min/ 6Sec	Disc. Code	Minimum Duration	Minimum Cost	Maximum Cost	Charge Code
411 Calls	1.25	S		4.00	1.25	1.25	T1
911 Calls	0.00	S		0.00	0.00	0.00	
Local Calls	0.00	S		0.00	0.00	0.00	
Near Area Long Distance	0.45	S		5.00	2.50	0.00	T2
N.America Long Distance	0.58	S		6.00	2.50	0.00	T2
International Calls	5.00	S		8.00	5.25	0.00	T2
1 800 Calls	1.00	S		6.00	1.00	1.00	T2
1 900 Calls	5.00	S		8.00	20.00	0.00	T2
1 976 Calls	5.00	S		8.00	20.00	0.00	T2
Operator Assisted Calls	0.00	S		0.00	0.00	0.00	T2

Figure - Call Costing

Using the screen:

Call Costing: Use this screen to define costs and billings for the calls.

Cost/Minute: the amount you wish to charge per minute (or per 6 second interval) for the call. We recommend \$1.05 for directory assistance, \$0.50 for local calls, \$0.40 for near area long distance, \$0.57 for North American long distance, and \$2.50 for international calls. These rates are accurate enough to cost calls and return an acceptable profit on your phone system. Five Star gives you complete, easy control over these rates so you can fine tune them whenever needed, and maximize the profits from your phone system. No other call accounting system is as simple and as controllable by you as Five Star.

Min/6Sec: Enter M in this field.

Disc. Code: enter the code (if any) as defined in C. Discount Codes. This feature causes call accounting to pass along time of day discounts to your guests. Only a very few hotels do this because in the past HOBIC did not give you the time of day discount. Most hotels will leave this field empty. If you want to pass along time of day discounts, leave the field empty, finish this screen, complete the discounts option, return to this screen and fill in the fields.

Minimum Duration: this will determine how long call must be before the system will charge the call. For example if a long distance call takes 48 seconds to get an outside line and ring a few times, enter .75 (i.e. 3/4 of a minute or 48 seconds). We recommend .5 minutes for directory assistance, .75 minutes for long distance and local calls, and 1.5 minutes for international calls.

This is one of the most important fields in the system. Most phone switches don't know if a call was simply attempted or actually completed. So they transmit every call to the call accounting identically even if the caller did not get through. By specifying a minimum duration that a chargeable call must be, calls that are not completed (which tend to be short calls) most of the incomplete calls will not be charged.

Five Star comes preset with recommended minimum call duration. This duration varies with the type of call. For example, directory assistance calls can be very short, while international calls tend to take up to 90 seconds to connect. If your switch is fast at getting outside lines, or very slow, you may need to adjust the preset duration in this field.

We recommend that you place a label on each of your phones saying "Call charges begin after 6 rings". This lets people know that they will be charged if they let the phone ring and ring. The alternative is to invest in a device from your phone service company that allows your phone switch to determine if calls are actually picked up (completed). These devices tend to be fairly expensive.

Minimum Cost: This is the amount that will be charged if the call takes less than the first minute or first 6 second interval. For fixed rate calls like directory assistance (\$1.05) or local calls (\$0.50), or operator assist and 800 calls (\$1.00) enter the fixed rate in both the minimum and maximum cost fields.

Since most hotel guests are used to paying HOBIC rates, we recommend you enter the HOBIC minimums in this field. That way you charge the same rates you would with HOBIC. For near area and North American Long Distance use \$2.50 (see your provinces phone company for more exact rates.) For international calls use \$5.25.

Maximum Cost: This is the maximum amount that will be charged regardless of the length of the call. We recommend that you only fill in this field for fixed price calls like directory assistance and local calls.

Charge Code: This is the code which Five Star will use to post the call charges to the guest account. It is used only if you are also using the front desk program too.

Discount Codes: Use this option from the option line to set up the codes if you wish to offer your guests the time of day discounts from the phone company. Most hotels do not offer time of day discounts. An example is the simplest way to illustrate how to set up discounts. For this example we will use Bell Canada's standard discounts as follows:

- 08:00am to 06:00pm ... no discount
- 06:00pm to 11:00pm ... 35 %
- 11:00pm to 08:00am ... 60 %

This is a typical Monday to Friday discount structure. You can set up as many of these as you need, like weekend structures and international structures.

Discount Period #	Starting Time	Ending Time	Discount % Rate
#1	:	:	0.00
#2	:	:	0.00
#3	:	:	0.00
#4	:	:	0.00
#5	:	:	0.00

Figure - Discount Codes

Using the screen:

Discount Code	MONFRI		
Description	Monday to Friday		
	Starting Time	Ending Time	Discount % Rate
Discount Period #1	0001	0799	60.00
#2	800	1759	0.00
#3	1800	2259	35.00
#4	2300	2400	60.00

Near Area Codes: Use this option to list the near area codes for your particular area.

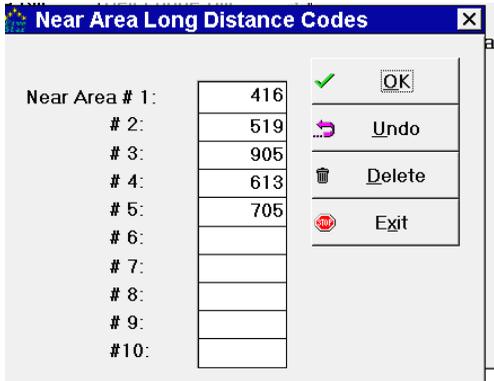


Figure - Discount Codes

This screen is used to set up the two rates for long distance within North America. Since rates vary about 17 cents a minute from the cheapest to the most expensive within the continent, this increases the accuracy of a costed call to within 8 cents a minute on average, without increasing the complexity of the costing rules, or of the ease with which you can fine tune your costing. For all areas in Canada enter the 6 closest area codes in this screen. For example in Ottawa, enter 613, 705, 905, 416, 819 and 514. In Atlantic Canada, enter 709, 902, 506 and 418. Normally this screen will be set up for you when Five Star is shipped to you.

Reconfiguring your Phone Switch

If you are upgrading from an existing call accounting system to the Five Star Call Accounting you can skip the changes to your phone switch, because they most likely were done when you installed the previous call accounting system. On the other hand, when you convert from 'HOBIC' or 'Autoquote' (as the old system is commonly known), and when Five Star Call Accounting is installed, have your phone service company make some changes to the programming of your switch. Have them configure the phone switch to permit the following dialing sequences:

Dial 9 and the number for a local call.

Dial 91 and the number for a long distance call

Dial 9011 and the number for international calls.

Dial 80 and the number for Bell Calling Cards

Dial 81 and the number for 1 800 type calls.

Have them configure the switch to deny (block) the following:

8011
and 90.

If your switch cannot permit 9011 but block 90, have it configured to block 90 altogether and permit 8011 or 80 altogether.

Probably the only change required from how your switch works now is permitting the 91 sequence for allowing direct dial long distance. Most likely your switch is presently set for all of the other rules.

These changes are done with simple commands the phone service company will make using the phone console. Have them do it when they make the cable that runs from the switch to the call accounting computer. Don't try to do it yourself. You will probably incur a cost of up to \$150 for the service call to run the cable and reconfigure the switch.

Many switches can be programmed to not send short calls or local calls or administrative extension calls to the call accounting system. We suggest you have your phone service company set the switch to send all three of these types of calls. That way you can control all aspects of call accounting from Five Star and you won't need to involve the phone service company in the future if you change your policies. Five Star can easily set the minimum duration of a call for calculating charges, as described below. If your switch is set to not send calls shorter than say 45 seconds (which is common) then even if you want to charge for 30 second calls you can't, since call accounting won't get them. If you don't want to charge for local calls now, but might in the future, and if the switch is set to not send local calls to the call accounting, you won't be able to here either. And last, if administrative calls are not sent, you can't take advantage of Five Star's ability to show you the number and cost of your staff calls.

Because your switch may be set to not transmit local calls, short calls or administrative extension calls, we request that when you are testing a new installation of call accounting, that each test call you place should come from a bedroom (I.e. not from an administrative extension) it should be long distance, and not local, and it should be at least a minute long. This way we can be sure your switch will transmit the call to the call accounting. We suggest you call your mother for test calls. She wants to hear from you any way!

Changing the Information Card in the Room by the Phone

Change the cards by the phone in each room to say:

Dial 9 and the number for a local call. Local calls are 50 cents (or free, or whatever).

Dial 9 and 1 and the number for a direct dial long distance call. Long Distance charges will be added to your guest folio.

Dial 9 and 011 and the number for international calls. Long Distance charges will be added to your guest folio.

Dial 8 and 0 for calling card, collect or operator assist calls. There is a charge of \$1.00 per call for these services (or whatever).

Dial 8 and 1 and the number for 1 800 calls. There is a charge of \$1.00 per call for these services (or whatever).

Please note: call charges begin automatically after 6 rings.

If you don't advise your guests of the change they will continue to dial 81 for long distance, and so these calls will be routed through the HOBIC operator, and you will not enjoy the savings of direct dial calls. You still need to permit the 81 calls though so calling card and 1 800 calls can be routed through the HOBIC lines for the reasons described in the section below.

When the switch has been changed to follow these rules, you must go to a bedroom to test them. Try a call using each of the following :

9 and the number for local calls (this should work and with no operator intervention)

8 and the number for local calls (this should be blocked)

91 and the number for long distance (this should work and with no operator intervention)

90 and the number for long distance (this should be blocked)

81 and the number for long distance (this should work and the HOBIC operator should ask the room #)

80 and the number for long distance (this should work and the HOBIC operator should ask the room #)

9011 and the number for international (this should be blocked)

8011 and the number for international (this should work and the HOBIC operator should ask the room #)

Also try each of these calls from an admin extension. If you have a different dial prefix for admin calls, such as dialing 7 and the number, be sure to test these as well, and set up the rules in call accounting.

Dealing Effectively with Short Calls

HOBIC has some inherent problems call accounting does not have. Call accounting will never charge a call to a wrong room or forget to call you back with the charges, or call you back late after the guest has checked out. However it does have one inherent disadvantage when compared to HOBIC. That is, the switch creates a call record for every call made, and sends the record to the call accounting system whether the call was actually answered or not. Since the switch is the origin of the call record (and since it has no way of knowing if the call was actually answered) unfortunately call accounting systems have no way of knowing either. That means if a caller makes a call, and no one answers, a call record is generated. On the other hand, HOBIC would not call back for calls when the call is not answered.

There is an option to your service you can purchase from your phone company that can eliminate this problem, but we see it only very occasionally. It is called 'Called Party Answer Detect.' It is a technique your phone company offers that can notify the switch that the call was answered. The switch responds by sending a call record to call accounting only if the call was answered. Since few properties have this feature, we will assume for the rest of this section that you don't. If you do have it, set the minimum duration on your call accounting to 0 so all calls that are sent from the switch are charged, regardless of the length.

It is because of this problem with all call accounting systems (the problem is really a limitation of the switch's inability to distinguish an attempted call from an answered call) that we recommend that you put a sticker like "Please Note: Call charges begin automatically after 6 rings." right on the telephone. We have seen simple metallic stickers on the phone with this message. It can go a very long way towards relaxing the argument at the desk on check out over the call where the phone rings 20 times for the person who is not home.

There is a parameter in the Call Costing screen (on the Call Accounting Setup screen) called the Minimum Duration that can help with this limitation, and it is actually the most important parameter in your whole call accounting rules screen.

Setup/Edit Call Acct Rules - Call Costing

Day of the Week:

	Cost/ Minute	Min/ 6Sec	Disc. Code	Minimum Duration	Minimum Cost	Maximum Cost	Charge Code
411 Calls	1.25	S		4.00	1.25	1.25	T6
911 Calls	0.00	S		0.00	0.00	0.00	
Local Calls	0.50	S		4.00	0.50	0.50	T1
Near Area Long Distance	0.46	S		4.00	2.50	0.00	T2
N.America Long Distance	0.58	S		5.00	2.50	0.00	T2
International Calls	5.50	S		8.00	5.50	0.00	T2
1 800 Calls	1.00	S		5.00	1.00	1.00	T6
1 900 Calls	10.00	S		8.00	20.00	0.00	T2
1 976 Calls	5.00	S		8.00	20.00	0.00	T2
Operator Assisted Calls	1.00	S		5.00	1.00	1.00	T6

It works with the Min/6 Sec field. When the Min/6 Sec field is set to M (minutes) the Minimum duration field works in minutes or fractions of minutes. When the Min/6Sec field is set to S the Minimum duration field is set to work in 6 second increments. For example, set the Min/6 Sec field to S and the Minimum duration field to 4 and any call shorter than 24 seconds (i.e. 4 x 6 second increments) will not be charged to the guest folio. The idea is that a call that is shorter than 24 seconds is likely an unanswered call. With this setting Five Star will not charge the guest for a call shorter than 24 seconds in this example.

We suggest you set the Min/6 Sec field to S, i.e. so the Minimum duration field will work in 6 second increments. The alternative is to set it to M so the Minimum duration field would be filled in with fractions of a minute. For example, using the M(inutes) selection you might enter .50 for a 30 second minimum length. The result is the same, it is just a matter of how you like to think, in 6 second increments or in fractions of a minute.

Managing the Minimum Duration is the most important number in the system in generating revenue. Why? Because if you set it too low you get more complaints about charges for incomplete calls, If you set it too high you miss a great deal of profit, because the shortest calls are also more profitable. Some hotel managers set it high to reduce the complaints. But a 30 second call happens to be your most profitable call. It typically costs you under 20 cents. But most properties charge \$2.50 plus 38 cents a minute plus 30% mark up or more. This is the structure HOBIC charges, so most properties set the call accounting system to charge the same way, so the savings are not passed on to the guest. Thus this 20 cent call generates $(\$2.50 + .38) + 30\%$ or more than \$3.80!

We did a study of a 100 room property in the fall season that was generating about \$200 per month in call profits. They had set the minimum duration to 36 seconds. Their Bell phone bill reported about 30 calls lasting exactly 30 seconds, or about \$170 in missed profit. That adds to nearly \$2000 per year! So how do you get the minimum duration number down without generating too much ill will with guests over short calls? Some of our users have shown us how this can be done very effectively. They set the rates high and the minimum duration at about 24 seconds. They feel that they generate excellent profits from their phone system as a result. And when a guest complains that they didn't make a call, the response is a crisp and reliable "Oh yes Mr. Smith, I will correct that off your bill immediately." And since adjustments like these are so simple and fast in Five Star front office, you can't lose. These managers feel that the ratio of adjusted calls to paid profits is low, but at the same time the guest is never wrong. Being that cooperative can even win you points with a guest! Changing the minimum duration at the property we studied generated \$1600 additional revenue per year with no reduction in guest satisfaction.

Changing Traffic Patterns on your Phone Lines

When you use HOBIC and not a call accounting system, your phone lines out of the property will be of two types. HOBIC lines are routed to a special operator called the HOBIC operator, while some of your lines are standard phone lines, like any home or business would have. The HOBIC lines are necessary when you don't have call accounting because you need a way to identify the room a call comes from and what the charges are. When you do have call accounting, the HOBIC operator is not necessary since the call accounting can determine the source and destination and length of the call, and hence the charges.

When a call goes through the HOBIC operator, there is a basic charge of about \$2.50 per call depending on the phone company that supplies you the service. The long distance charges are calculated by the phone company at what is called the 'full tariff rate' which is something like your rack rate – i.e. the maximum rate you are allowed to charge for the service. This is why the minimum charge you typically see from a HOBIC operator routed call is about \$2.88. That is \$2.50 basic charge plus 38 cents for a 1 minute charge. By routing the call through your regular lines, you bypass the HOBIC operator, and pay the same rate you would pay for any long distance call. These days, a 1 minute call to anywhere in North America is under 20 cents, and can be as little as 5 cents.

Many of our call accounting competitors recommend that you have the phone company remove your old HOBIC lines and replace them with regular lines when you get call accounting. We do not! There are three important reasons. The logic behind getting rid of the lines is that since you will no longer be relying on your HOBIC operator for time and charges callbacks, you don't need the lines. But if you eliminate them, you will need to replace them with new regular lines, or the existing regular lines will be overburdened, and guests will get busy signals when trying to dial out of your property. Here are the reasons to keep your HOBIC lines:

- 1) HOBIC lines actually have a lower monthly rental cost from your phone company than regular lines. In fact they used to be free. We see month rental costs of about \$50 per month for regular lines and \$30 for HOBIC lines.
- 2) It will cost you about \$100 or more from your phone company per HOBIC line replaced for the service of changing the lines.
- 3) This is the big one: There is a loophole in the phone company service if you no longer have HOBIC lines. In this loophole, guests can rip you off. Here is how it works. If you don't have HOBIC you have to allow 9 and 0 as a dialing sequence to permit Bell Calling cards and collect calls to be processed. When you dial 9 and 0 in most phone company areas you hear what is called the "Bell Boing", the tone that signals you to enter your pin number if you are planning to use your Bell Calling Card, or enter the keys that start a collect call, etc.

However, some smart guests have figured out that if you dial 9 and 0 and simply wait, eventually the regular operator comes on (this is not the HOBIC operator, since the guest dialed 9 and 0 not 8 and 0. The guest then says charge this call to my bill, and the operator does, because they don't know this call is not coming from a regular home or business. (The operator probably thinks – what a dumb person, they could have dialed direct and not bothered me.) But the charge shows up on your bill as regular long distance. And since the guest dialed the call just like a calling card or collect call (I.e, 9 and 0) the call accounting thinks it is that type of call and charges according to the rules you set for an operator assist, calling card or 1 800 type call, usually much less than the long distance charge would be, if charged at all.

You can avoid each of these problems by leaving the existing HOBIC lines. By following the guidelines shown above in the section titled Reconfiguring Your Phone Switch you can keep your HOBIC lines for usage other than long distance. Local and regular dialed long distance and international calls will be routed through your regular lines. However, calling card, 1 800 calls, and operator assisted calls will go through the HOBIC lines. This type of use does not attract the high rates charged for HOBIC long distance. In fact they cost you nothing at all. So you get the cheaper lines, you don't pay the high rates for the HOBIC operator, and you don't pay for the replacement and addition of new lines.

You also beat the guest who could rip you off if you had only regular lines. Why? Because the 9 and 0 sequence is not permitted, but the 8 and 0 sequence is. So when the guest waits for the operator to come on the line, and says charge this to my bill, the operator, who is a HOBIC operator, knows to ask for the room number, and will call back with the time and charges.

We would like to point out that all of our competitors in the Call Accounting business seem to recommend you eliminate your HOBIC lines, and so are not saving you with their advice. Five Star for this reason, and many others, continues to be your best solution!

Of course, the phone company wants you to eliminate the HOBIC lines too! They don't want to provide you with cheaper lines if they are not getting the big rates! So the last and perhaps best benefit of this approach is – you get back at the phone company for all those years of huge phone bills!!!

Internet Usage

Many properties complain of overload on their phone lines due to guests who use their computers in the evening to access the internet. Calls like these can be very long and can overload the lines you have. The solution may be to get more lines, but there may also be a solution built into your call accounting system. If you set the Call Costing Rules screen (on the Setup Call Accounting Interface screen) so that local calls cost 10 cents a minute with a minimum duration of 20 minutes, you can reduce the problem. Make sure you add a note to your card by the phone in the room that says *'local internet calls longer than 20 minutes are charged 10 cents a minute'. Regular local calls shorter than 20 minutes are free.'* A charge like this can discourage computer users from tying up your lines for long periods.

Optimizing Long Distance Profits

Your phone switch can be the source of the second best profit centre in your property. 'Check In Check Out', the preeminent textbook on hotel management suggests that the phone switch should be your second most profitable department, after the rooms division, and even before the food and bar divisions! We have users of the Five Star Call Accounting system that agree! The biggest advantage of Five Star Call Accounting is the ease of which you can manipulate rates. Many properties change room rates constantly for optimal yield management.

So why do they not do the same with long distance rates? The most common answer we hear from users of other call accounting systems is because they don't know how to. Most other call accounting systems rely on complex rate tables for call costing, while all of the rules in Five Star are found on one easy to use screen – the Call Costing Rules screen. Many of our users play with rates once or twice a month, to tweak them for optimal yield. The best numbers to change are the near area long distance rate per minute, the North American long distance rate per minute, and the international call rate per minute. Even more important, as discussed above, is the minimum duration number for the three long distance categories. Our users set the rates slightly higher or the duration numbers slightly lower, and then wait a few weeks to see if guests respond. If not, the rates ease higher. If they do, the rates ease lower. Managers who do this report to us significant improvements in profits from the phone system.

Using Call Accounting

Once set up, call accounting is very easy to use. If all of the steps in the previous section have been followed, whenever you start up your computer, call accounting will automatically start. If it doesn't, review the steps above and make corrections. If it still doesn't start, call the Five Star support line and we will help you solve the problem.

You should see transactions appear on the screen as they are received from the interface. Test the system by making calls from one of your guest's rooms. To terminate the interface press Ctrl-Break and choose Yes to end it. You may need to press Ctrl-Break a few times if there is a transaction being processed as you press the keys.

If a 911 call is made from a room the call accounting program will start beeping and will show you the room number on the screen. If an error takes place while call accounting is running, the program will beep until the error is eliminated. If you ever hear call accounting beep, you should check it out immediately.

If you use the front desk program, call revenue will be posted automatically to guest folios. If a call is made from an administration phone extension, revenue will not be posted to a folio but your cost reports will reflect the cost of the calls. If a call is made from an unoccupied room (e.g. staff uses a phone for personal calls) the call will be posted to the ZZUN room folio. You can use this folio to catch call misuse. The only thing you will need to use call accounting if you also use the front desk program is for printing cost and billing reports.

If you don't use the front desk program, you will use the call accounting program every time you check out a guest. If you use call accounting on a DOS (not Windows) computer, the call costing process will be continually displayed on the screen. When a guest checks out, press F9 and follow the instructions on the screen to print a report on the guest's charges. After printing the charges, you can clear the calls for the room so that the next guest checking in gets a new bill (without the last guest's charges).

If you do use Windows, we recommend that instead of using the F9 key on the call costing screen, leave it running in the background as specified above. Start a second window and access the guest checkout reports from the Call Accounting menu instead. Calls will be costed slightly more quickly this way.

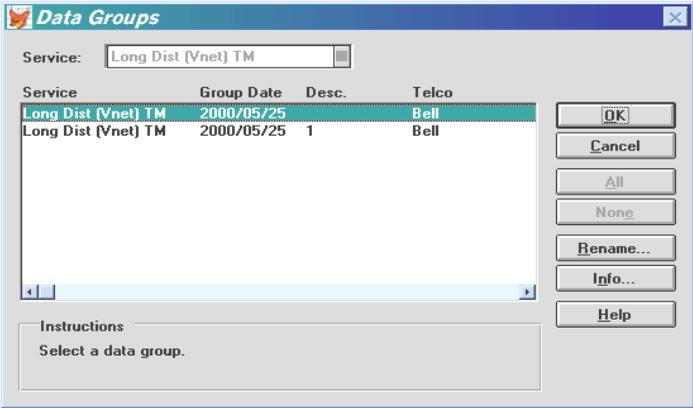
Bill 2000 Phone Bill Analysis Report Design for Five Star

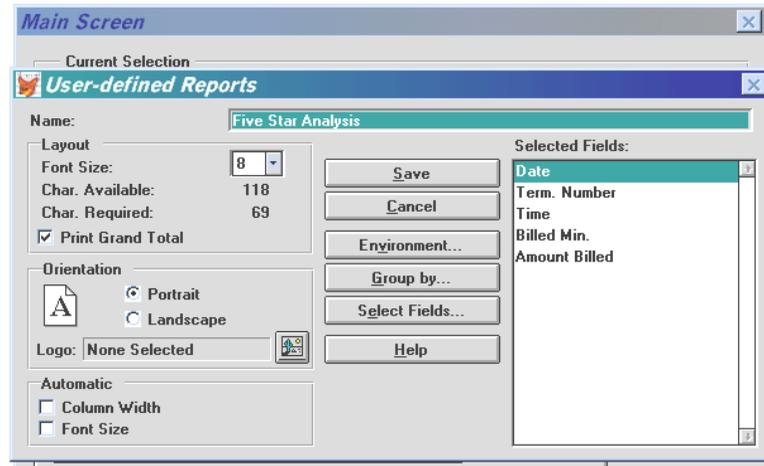
Choosing your Bell Data

After loading the data from the Bell CD, choose Long Distance Usage



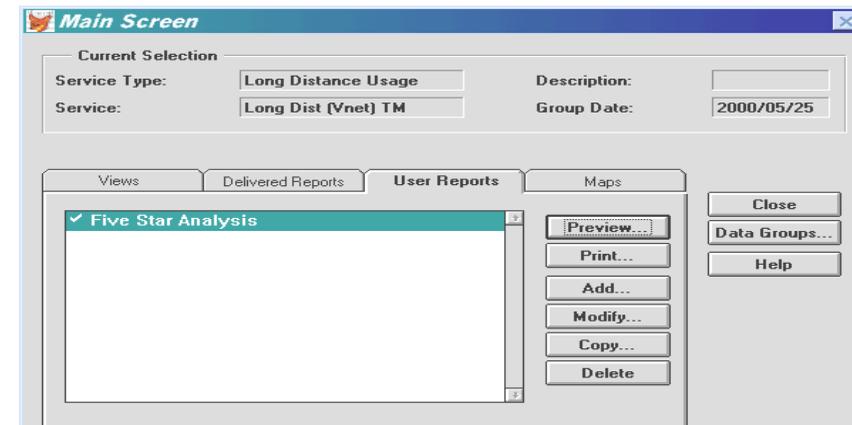
Highlight the data group representing your Bell data and press OK.





Bill 2000 Report Design

If you have already designed the report, go to Step # 3. If this is the first time you are running this analysis, you will need to design the report. Click on the User Reports tab and choose Add.



Then choose Details and click on OK. Give the report a title like Five Star Analyses.

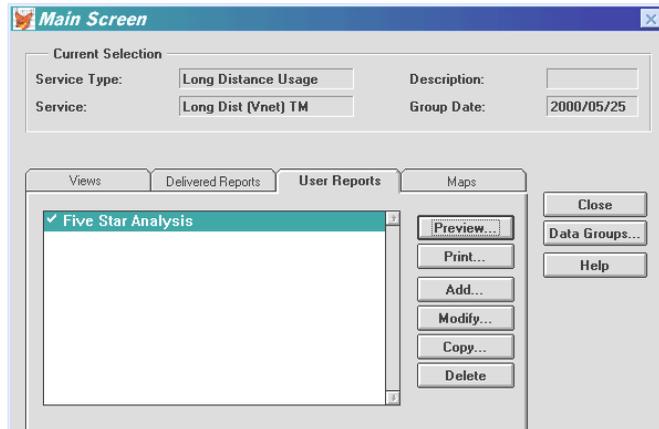
Click on Select Fields and choose the following fields in the given order

- a) Date
- b) Term. Number
- c) Time
- d) Billed Min.
- e) Amount Billed

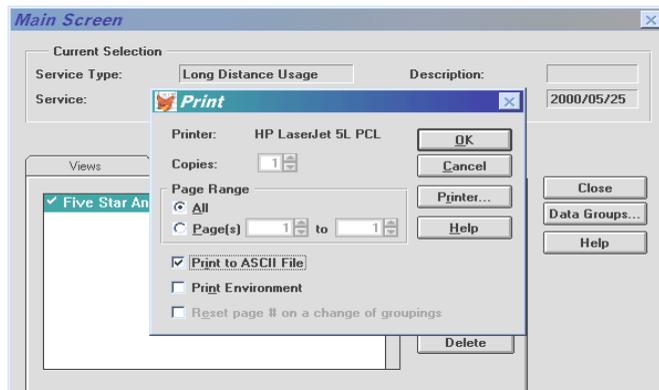
Click on Save

Creating the ASCII file for Five Star

Click on the User Reports Tab and click on the Print button.

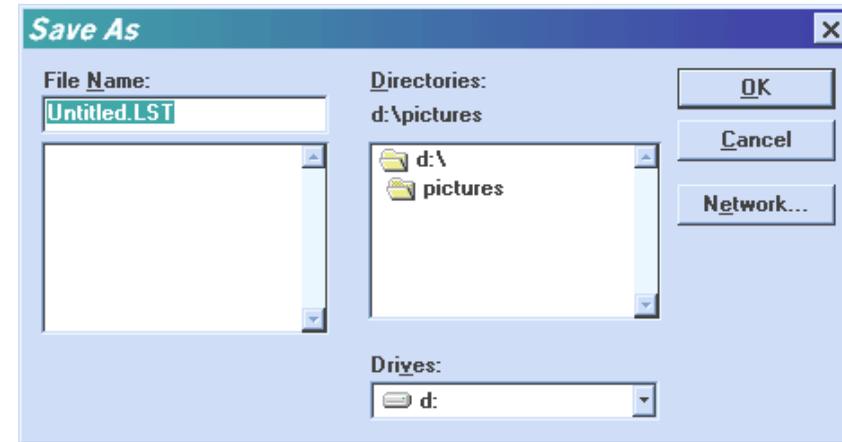


Put a check mark in the "Print to ASCII File" square then choose OK.



You will be prompted to enter a file name. Make sure it ends in .LST
Don't forget where it is saved. Choose OK.

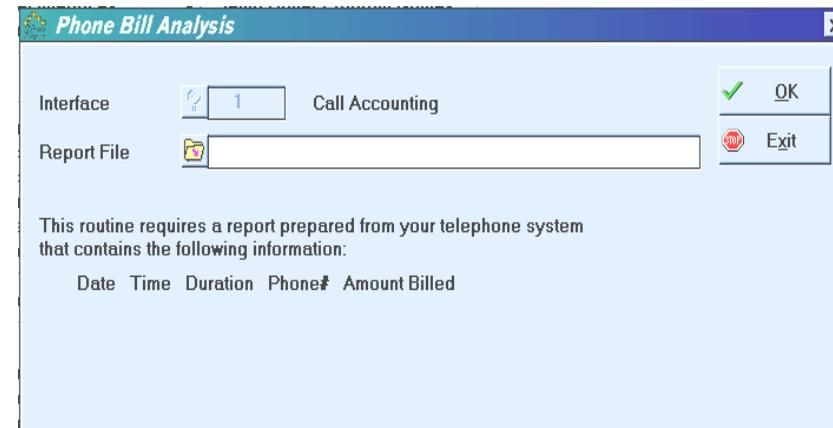
You will be prompted when the report has been completed. Close the Bill 2000 program.



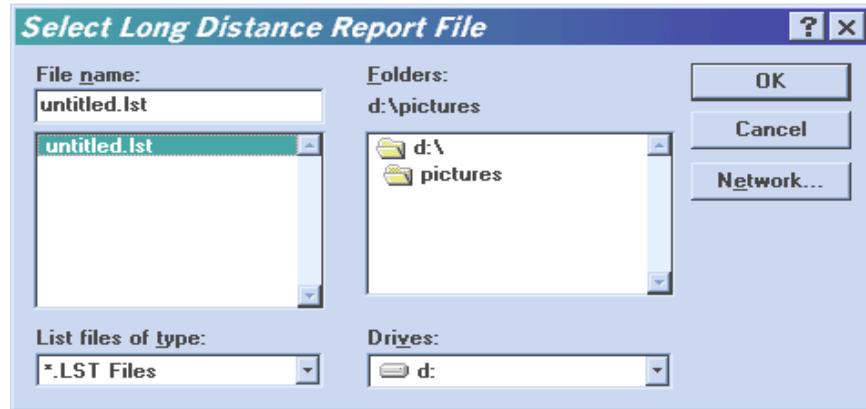
Running the comparison in Five Star

Start Five Star and go to the Call Accounting Menu, Phone Bill Analysis option. Choose Call Accounting from the menu and press Enter.

Click on the File Icon (next to Report File) to look up the Bill 2000 Report.

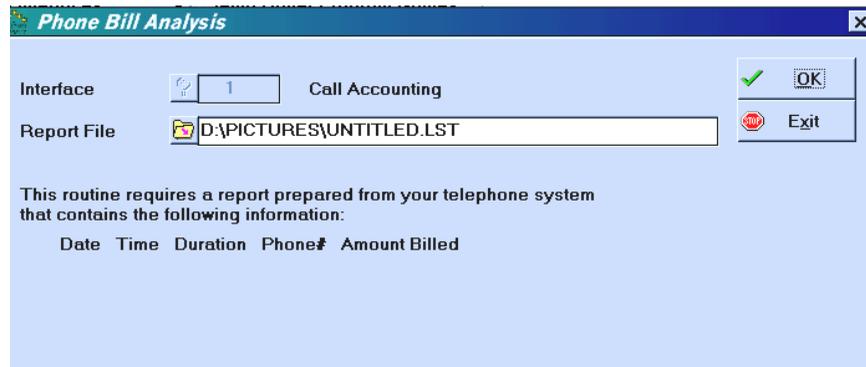


Once you have found the file created in the Bill 2000 program, click on it and press OK.



Click on OK and choose a printer.

You can choose to view it if you wish. It will take a few minutes to process while it checks for grace periods. This allows for differences between the time that Bell shows and the time recorded by Five Star. The maximum grace period allowed is 120 minutes.



Once it has completed the comparison it will take a few more moments to format the report.