Ultimate Call Accounting GENERAL DESCRIPTION

Ultimate Call Accounting
Integrated with your Telephone System
To Generate Useful Reports Of
Incoming, Outgoing, Station to Station, And
Network Call Traffic



Business Management Solutions

Ultimate Call Accounting

Release 9.50

Business Management Solutions General Description

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This Agreement is governed by the laws of the State of Wisconsin.

Should you have any questions concerning this Agreement, or if you wish to contact USPI for any reason, please write: *Ultimate!* Software Products, Inc./2751 S. Calhoun Road/New Berlin, WI 53151.

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I. SALES SUPPORT & CONTACT INFORMATION

Dear Ultimate Dealers and Prospective Users,

- Ultimate! Software Products, providers of the Ultimate Call Accounting, assists our dealers with pricing configurations and live demonstrations.
 - If you are a <u>prospective user</u> and would like assistance in locating a dealer, contact Roy Catron, at 1-262-789-9654.
 - If you are a <u>dealer</u> and would like to schedule Ultimate Call Accounting training for your staff, receive a quote, or schedule a customer demonstration, call Roy Catron, National Sales Manager at 1-262-789-9654 (Demo-on-Demand number is 1-262-789-9649)
- After the installation, *Ultimate!* Software Products, Inc. performs remote maintenance and offers a post warranty service program.
 - For maintenance or warranty information, call 1-262-789-9654
 Roy Catron, National Sales Manager

Key contacts and phone numbers for use by our dealers are as follows:

•	Ultimate Call Accounting Sales	262-789-9654 (Roy Catron)
	Demonstrations or Training	262-789-9649 (Demo on Demand)

Software Activation Line 262-784-2312

 Ultimate Call Accounting Tech Support 262-789-9616 or techsupport@uspnet.com

InnService for Strata CIX™

II. OTHER *Ultimate!* PRODUCTS TO BENEFIT BUSINESSES

Besides Ultimate Call Accounting, *Ultimate!* Software Products has developed many other applications over the past sixteen years. These applications are sold nationwide via our vast dealer network. Ultimate Smoke Signal, Ultimate InnService for Strata CIX, Ultimate Care-Giver, and OnTime4Class are also found to be highly beneficial to meeting the needs of businesses.



Ultimate Smoke Signal allows several individuals to be called or text messaged at one time and to hear a pre-recorded message. This can be used for emergency situations or to make general announcements. It also can serve as a reminder call for such items as doctor appointments. Contact Roy Catron at 262-789-9654 for more information and/or to see a demonstration.

Ultimate InnService for Strata CIX is primarily for the hospitality industry but can be effective in the business industry as well when renting/sharing office space. InnService turns the phone in an office (or guest room in a hotel) on or off depending upon the check-in or check-out status of an individual. It also can assist in generating a bill at the end of one's stay. InnService integrates a hotel's new or existing property management system to a Toshiba Telephone System. Visit www.ToshibaHotel.com or contact Cindy Ovokaitys at 262-789-9609 for more information and/or to see a demonstration. This product is sold through Toshiba America Inc.'s dealer network.

Ultimate Care-Giver is a comprehensive and cost-effective Nurse Call System for assisted care centers, rehab clinics, long-term healthcare centers and retirement communities. Care-Giver blends wired and wireless technology into a powerful management tool for a new generation of healthcare services. Reports to indicate nurse response times make this product especially attractive to management. Contact Roy Catron at 262-789-9654 for more information and/or to see a demonstration. This product is for Toshiba telephone systems.

Ultimate! Software Products' **OnTime4Anything** helps schools, factories, libraries and penal institutions "Stay on Schedule & Keep Safer." The OnTime4Anything Software includes menu driven options for setting up schedules, zones and sounds. It also includes easy to use windows interface for schedule changes, viewing, and printing of the daily schedule. Call Roy Catron at 262-789-9654 for more information and/or to see a demonstration.

III. THE Ultimate! DIFFERENCE

Because *Ultimate!* has a National Dealer Support Network, customers have the opportunity to purchase Ultimate Software Products and receive training and support from a local presence. Our national service and dealer network have a service-based philosophy.



IV. DEFINITIONS

<u>Call Accounting Software</u> This takes data from the phone system regarding incoming and outgoing traffic and organizes data into useful reports. It serves as both a troubleshooting tool and management aid.

<u>Saved Call Record Data</u> Call Record Data is comprised of items collected from SMDR and stored in the Database.

SMDR (Station Message Detail Recording) or CDR (Call Detail Recording)

This is the data provided by the phone system for every call that has one endpoint within the phone system and one endpoint outside the phone system. In some phone systems, data are also provided for calls that both originate and terminate within the phone system (intercom or station-to-station calls).

<u>Duration</u> This is the length of time from initiating the call to the termination of the call.

<u>Date/Time</u> SMDR date and time is not used. The time and date are retrieved from the computer each time a record is received. This provides a greater degree of accuracy.

<u>Transfer flag</u> When SMDR indicates that a call is transferred, that call is flagged. The transfer flag allows Call Accounting to isolate those records from a report.

Extension This is the station number that received or placed a call.

Circuit Number This is the trunk number that handled the call.

<u>Number Dialed/Received</u> For outbound traffic, this is the number that was dialed. For incoming calls, this is the caller-id, ANI or DNIS. (Digits Only)

Account Code This is the code entered by the user during the call.

V. CAPACITIES

Account Codes

Names may be associated to 2000 account codes. Names will be displayed in account code reports and enhanced format reports.

Circuit Groups

There are 200 groups available to sort up to 2000 circuits. These groups may mirror the phone system or be divided to suit your needs. The ability to save data, send to Communicator, default pricing and other pricing options is present in each circuit group.

Department/Extension

There are 255 departments available to sort up to 8000 extensions. Each department and extension may be assigned its own name. Names are displayed in phone directory reports and in department/extension reports.

VI. FEATURES

Call Accounting provides 50 customizable template reports that can be defined by an assortment of filters and report formats. There are also 3 phone directory reports and a traffic study report.

- Equip managers with timely information about employee telephone usage and expose misuse of time on the telephone
 - Detail Reports may be chronological, or be indexed by Department/Extension, Account Code. There is also an enhanced report where the account code is replaced by the account code name.
 - Summary Reports may be chronological or indexed by Department/Extension, Account Code
 - Frequently Dialed Number Report lists up to ninety-nine numbers dialed with number of occurrences. By displaying numbers dialed, numbers received, or both combined, this report can detect potential caller abuse and misuse of the business lines.

In the example below, the most frequently dialed number is 799-9494, which happens to be a local radio station. With an additional report (not shown here) we discovered two hourly employees spent an hour making the majority of these calls. At fifteen dollars an hour that is \$30.00 of lost productivity for this week. Over the course of a month that could exceed \$120.00, plus phone service charges.

@PhoneService for You											
Caller Abus	e/Misuse - Fre	quently Dial	ed Numbers.								
From 06/	19/2000 00:00	to 06/23/200	0 23:59								
1.	7999494	121	calls								
	2784126		calls								
	5428036		calls								
	12627349171		calls								
5.	4824410	38	calls								
6.	17158342046	38	calls								
7.	2973565	29	calls								
8.	16082770610	29	calls								
9.	4625470	25	calls								
10.	4616740	22	calls								
11.	17158425577	20	calls								
12.	12626364971	20	calls								
13.	4499191	18	calls								
14.	4470270	17	calls								
15.	3727200	16	calls								

 Directory Assistance Calls Report - At the end of this report, it shows the total number of directory assistance calls made. At one dollar per call, charges can add up quickly. Below, we see a total of \$113 for a month.

```
Department: Warehouse

Ext. 107 Bischoff, Nicholas

Totals for ext. 107: 6 call(s). 0 hours, min. $6.00

Dept. Warehouse had 6 call(s).

Totals: 0 hours, 3 min. $6.00 Averages: 0 min., 22 sec. $1.00

Total Calls: 113

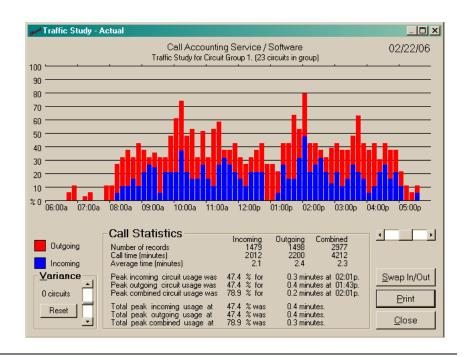
Total Length of Calls: 1 hours, 37 minutes

Total Cost of Calls: $113.00

Average Length of Calls: 0 minutes, 33 seconds

Average Cost of Calls: $1.00
```

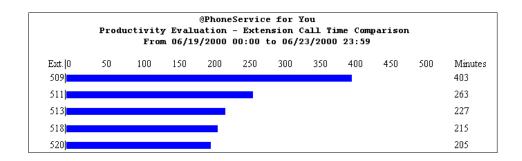
- Display precise information about your telephone line usage
 - There are 255 groups available to sort up to 2000 circuits.
 These groups may mirror the phone system or be divided to suit your needs. The ability to save data, send to
 Communicator, default pricing and other pricing options is present in each circuit group.
 - The Traffic Study Report shows how busy the telephone system is over ten-minute increments throughout the day. This report is used to determine if a system has enough capacity for the traffic going through it.



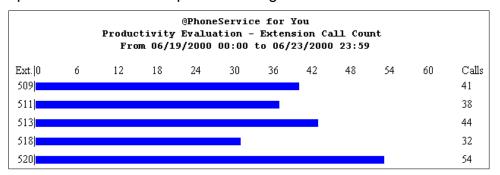
- Fixed Cost Report You may run a report with a fixed per minute rate for incoming and outgoing calls without affecting the standard or alternate rates.
- International Pricing Ultimate! Call Accounting includes default Sprint pricing for International Calls based on country codes.
- Pricing Customization Pricing may be customized beyond the pricing wizard, including 10-digit locals, circuit groups, long distance pick codes, area codes and office codes
- Quick Start Pricing Wizard The pricing wizard feature allows for quick pricing setup. 7-digit locals are priced at one rate while 10-digit long distance calls are priced at another per minute rate.
- Identify positive and negative telephone trends
 - Frequency reports are bar graphs where the horizontal axis is either call time or call count. The vertical axis may be any of the following:

Area code	Circuit number	Extension
Account code	Cost	Port Number
Call Type	Day of Week	Rate Band
Carrier	Department	Time of Day
Circuit group	Duration	State/Province

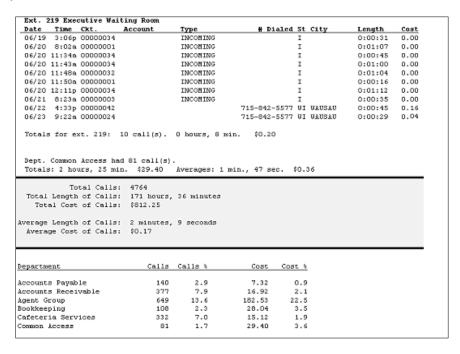
 Extensions call time & count report - Compare salespeople by the amount of time on the phone or by the number of calls made for the same time period.



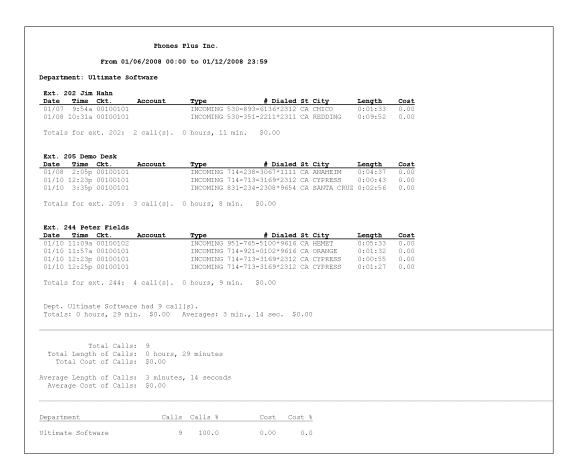
In our example (above and below) we find that extension 520 spent the least amount of time on the phone, but made the highest number of calls. 520 happened to be a new employee in need of additional training, while 509 made fewer calls, but spent more time on the phone making the most sales.



- Allocate telecom expenses to each department or customer
 - There are 255 departments available to sort up to 8000 extensions. Each department and extension may be assigned its own name. Names are displayed in phone directory reports and department/extension reports.
 - The monthly report (below) is useful for determining each department's portion of the total phone bill. It emphasizes the detail of all calls in, out, local and long distance. You can quickly spot profitable trends or calls that may be a liability. This report also summarizes the percentage of calls for each department.



- Names may be associated to 2000 account codes. Names will be displayed in account code reports or enhanced format reports.
- Reports (as below) can be produced with Caller-ID numbers, which are collected from incoming traffic. Some telephone systems collect ANI or DNIS numbers instead of or in addition to Caller-ID.

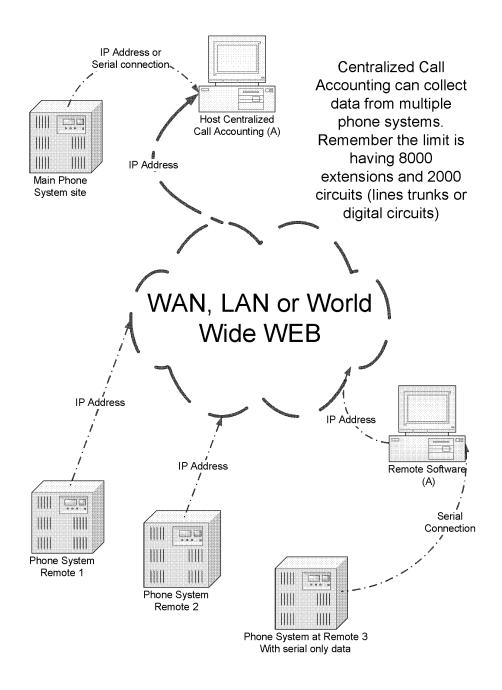


- An audit detail report is the same as a detail report with an option to clear records after the report is compiled. Audit reports are commonly used in the hospitality industry.
- Alternate Rates A second set of rates may be set up and accessed by reports to replace the primary set of rates.

Deliver reports automatically to your desktop

- Ultimate Call Accounting delivers automated reports to a printer, a shared drive or via e-mail. Simple commands will generate reports on demand. Custom reports may be designed in hundreds of variations.
- Any of the 50 template reports can be automated to print to a printer on a daily, weekly, or monthly basis.
- Report Display Reports may be posted to a display screen, text file, or printer.
- Sizable Display The main window can be reduced in size by half, quarter or minimal.
- Echo Call Records to File When initiated for Tech Support purposes, raw SMDR data and processed data can be recorded in a text file.
- Export Report to File A no-headers report will print out a fixed-length format report without headers, which can be imported into various database or spreadsheet programs.
- Real Time Data Collection Data is received and processed each time a
 call is completed. This allows reports to be run on demand without doing
 lengthy preprocessing of batch data.
- **Security** Three levels of administrative passwords are provided to protect system data, allow functionality of reports, and perform minor data maintenance.

• Blended Reports for Multi-site Installations - Centralized Call Accounting generates real-time reports for an entire network. Below is an example of a Centralized Call Accounting design.



- Print a Phone Directory -The phone directory report displays a list of
 extension numbers, extension names, and department names; it can be
 sorted by any of these items.
- Re-index Database Ultimate Call Accounting has the built-in ability to repair the indexed database when broken index links occur over time. Closing the program improperly or power loss to the computer causes broken index links.
- Recalculate Report Cost Reports may have the cost recalculated to register changes that are made to the pricing structure.
- Property Management System Integration for Hospitality Industry There are 15 different interfaces built in for Property Management
 Systems. (Option- call Cindy Ovokaitys, 262-789-9609 for details on
 Ultimate InnService for Strata CIX. Also, see section II and Appendix B of
 this document.)
 - PMS HOBIC Format -There are 6 standard HOBIC formats call accounting uses.
 - PMS Protocols There are a variety of protocols used before and or after sending the HOBIC String. Including Acknowledge, Negative Acknowledge, Check Sum, Line Feed, Start of Text, and End of Text.

(See Appendix A for additional sample reports)

VII. SUPPORTED PHONE SYSTEMS

Alcatel	Fujitsu	NEAX 2000	Saturn H
Omni PCX 4400	9600	NEAX 2400 IMS	Sprint
AT&T/Lucent/	Focus 100	Nortel	Protégé
Avaya	Focus 196	DMS100	SRX
Definity	Harris	Enterprise Edge	System One
Dimension 2000	110	Meridian SL-1	Tadiran
Merlin	2020	Norstar	Coral
Merlin Legend	Hitachi	Panasonic	Emerald Ice
Partner	EDX	DBS	Telrad
Pro Logic	Intertel	DBS 3.1	128
System 25	Axxess	DBS 576	1000
System 75	GX-152D	KX-TD 1232	Tie/Nitsuko
System 85	SPK	Premier	124i
Cardinal	ITT	Answer	384i
Motel PBX	3100XL	ESPMDX	DCX
Comdial	lwatsu	Rolm	TCX
DSU Impact	ADIX	CBX II 8000	Morgan
DXP	IDS 128	9751 CBX II 9000	Onyx
Executech	Omega 4	9751 CBX II 9005	Toshiba
Cortelco	ZTD	9751 CBX II 9006	Perception
Millennium	Mitel	Samsung	Perception 4000
Digital Voice	SX100	DCS	Strata
PBX 1200	SX200	IDCS	Strata DK
Ericsson	SX2000	Prostar	Strata CTX
FP15	NEC	Prostar 1224	Strata CIX
ESI	16/48	Shoretel	Vodavi
IVX 20	Aspire	Shoretel	Vodavi
IVX 128	Electra Mark II	Siemens	DVX Mach I
Communications	Electra Pro II	HiCom 300H	Infinite XTS
Server	NEAX IPK	HiPath 3000	WIN
Executone/Isoetec	NEAX IPK II	HiPath 4000	100D
228	NEAX 1400	Saturn IIE	

HARDWARE REQUIREMENTS

Minimum Specifications

Operating Systems

Windows Server 2008, 2008 R2 (one user logged in at a time) Windows Server 2012 (one user logged in at a time) Windows 7, 8, and 8.1, 10

Hardware

1 GB hard drive space (default)

1 serial port or network interface card for SMDR (may not be required if the data is IP)

Mouse

Keyboard

Monitor

Optical drive to load software (or load from web)

Additional Components (optional)

Remote access

Required in order for us to assist with installation, training, and tech support. We work with the following, among others:

- www.teamviewer.com
- www.LogMeIn.com

www.UltraVnc.com

- www.GoToMyPC.com
- www.showmypc.com
- www.join.me
- www.webex.com

Back-up device

Flash drive, external, or other

Printer

For printing reports

IX. SOFTWARE LIMITS

Database

Databass	
Account Codes (up to 12 digits per	2000
code)	
Circuits (up to 8 digits per circuit	2000
number)	
Circuit Groups	200
Departments	255
Extensions (up to 7 digits per	8000
extension)	
Phone Number Exceptions (per Table)	36
Phone Number Exception Tables	10
Pseudo Extensions	10

Reports

Total Reports	54
Customizable Reports	50
Phone Directory reports	3
Traffic Study Report	1
Report Filters	31

Pricing

Area Code Tables	30
Exception Tables	200
Long Distance Services	30
Rate Bands	150

Hard Drive usage based on number of Call Records

Call Records	Drive Space Needed
500 Thousand	52 MB
1 Million	104 MB
5 Million	520 MB
10 Million	1040 MB (1.04 GB)
50 Million	5.2 GB
99.9 Million	10.4 GB

X. POPULAR QUESTIONS AND ANSWERS

The warranty is for one year and a service contract is available to the customer through Ultimate or the local Ultimate Dealer. Call Roy Catron at 262-789-9654 for more information.

Auto Reports

When selecting an auto report to run daily, weekly, or monthly (Daily after 2 AM, weekly after 2 AM on Monday mornings, or monthly after the last day of the month also at 2 AM,) a settings option is available to determine the destination of the report. The report can be generated to any combination of these destinations:

- Printer will print to the windows default printer local or network. (Pressing the default button will set the auto report options to printer only.)
- **File** will print to a text file in the call accounting directory. Predefined file names are named report1.txt through report50.txt. New reports will overwrite any existing files.
- E-mail prompts the user to enter a single address or a distribution list name.

Optional software is available for custom timing and when delivery options are needed. Call Roy Catron at *Ultimate!* Software Products for more information 262-789-9654.

Requirements for E-Mail Options

- For Microsoft Outlook: Outlook needs to be installed and running on the call accounting computer with a valid e-mail account that has the ability to send outgoing e-mail traffic. If there are problems sending out the e-mails, copies of the e-mail will be saved in the drafts folder of Outlook. NOTE: Outlook Express does not work with Ultimate Products.
- **For SMTP:** You must enter the SMTP server IP address, sender name, sender e-mail address and, if using authentication, user name and password.

Network/Internet Bandwidth Usage in a Centralized Call Accounting Application

- A call record is produced whenever a call is completed or transferred
- Each call record sent over the network is 136 bytes long
- Each call record is sent to the Ultimate Communicator Server before being retransmitted to the central site, doubling the amount of data per transaction to 272 bytes
- Assuming a heavy call traffic scenario of 10,000 call records in an 8-hour period, this works out to an average bandwidth usage of 2.6 MB per 8 hours or 755 bps (bits per second)
- On a 100 Mbps LAN, this would be less than one part in 100,000
- On a 24-channel T1 with each channel at 64 Kbps, this would amount to about one part in 2,000 or 0.05%

XI. *ULTIMATE!* INSTALLATION AND SERVICE CONTACT INFORMATION FOR OUR CUSTOMERS AND DEALERS

Key contacts and phone numbers for use by our dealers are as follows:

Sales Demonstrations or Training
 262-789-9654 ask for Roy Or

roy@UltimateSoftwareProducts.com

Software Activation line 262-784-2312

Ultimate Call Accounting Technical Support 262-789-9616 or

techsupport@uspnet.com

Other Ultimate! Software Products info
 262-789-9654 ask for Roy

Or sales@uspnet.com

InnService for Strata CIX™

Customers often request additional features that were not included as part of the original application. *Ultimate!* reserves the right to charge for additional features. These charges will be discussed with the dealer, prior to making them. The rate for a Standard Custom Code (SCODEA) is a flat fee. For a Non-Standard Code (NCODEB) the rate is variable and defined in writing with approval by the dealer. All changes to the software are installed via pcAnywhere® or other remote desktop software and must be paid for by credit card prior to installation. (Amex, VISA, MasterCard)

The software warranty is for one year.

If you are about to make any changes to the telephone, voice mail, or computer system, we encourage you to call our tech support number for verification on the possible impact to the Ultimate Call Accounting software. There may be a trouble-shooting fee to you, the dealer, for our involvement to resolve a problem should an operational difficulty occur because a change was made by the user or you. This is a credit card only charge prior to our logging in via PcAnywhere® or other remote desktop software to assist you or your customer.

Appendix A. SAMPLE REPORTS

The **Department/Extension (Detail)** report provides a monthly list of calls placed or received, with totals, for every department and extension. For each call, the report shows the number dialed or caller's number (if the phone system and trunks are so equipped), length of call, time of day, circuit number used, and other pertinent details. A shortened example report is illustrated below.

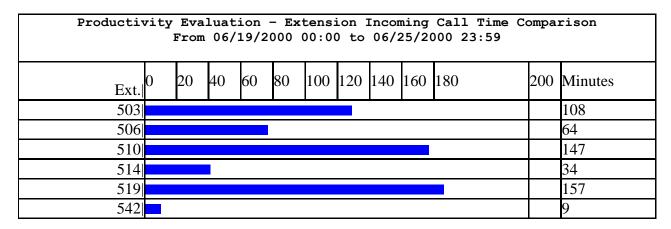
Cost Allocation/Billing - By Department/Extension (Detail) From 06/01/2000 00:00 to 06/30/2000 23:59 Department: Warehouse Ext. 108 Jackson, Marshall # Dialed St City Date Time Ckt. Account Туре Length I 0:00:31 I 0:05:20 555-7333 WI MILWAUKEE 0:01:42 I 0:01:03 555-6682 WI MILWAUKEE 0:02:07 555-1286 WI THIENSVI. 0:01:10 INCOMING 06/02 2:24p 000001 06/06 1:53p 000002 INCOMING 0.00 06/09 10:22a 000031 OUTGOING 06/14 10:40a 000003 INCOMING 06/14 10:42a 000023 OUTGOING 06/26 12:05p 000031 OUTGOING Totals for ext. 108: 6 call(s). 0 hours, 12 min. \$0.00 Ext. 147 Burns, Maureen
 Date
 Time
 Ckt.
 Account

 06/23
 3:16p
 000031
 Туре # Dialed St City Length Cost OUTGOING 608-555-5090 WI LA CROSSE Totals for ext. 147: 1 call(s). 0 hours, 2 min. \$0.00 Dept. Warehouse had 155 call(s). Totals: 4 hours, 29 min. \$0.00 Averages: 1 min., 44 sec. \$0.00 Total Calls: 6975
Total Length of Calls: 258 hours, 16 minutes
Total Cost of Calls: \$0.00 Average Length of Calls: 2 minutes, 13 seconds Average Cost of Calls: \$0.00 Calls Calls % Cost Cost % Department 2.6 8.0 14.9 1.8 10.9 3.2 5.9 182 0.00 Accounts Pavable 0.0 Accounts Receivable 558 0.00 0.0 Agent Group 0.00 0.0 Bookkeeping 126 0.00 Customer Service 0.00 Engineering 224 0.00 Executive 410 0.00 0.0 2.2 9.8 7.0 15.2 4.0 2.2 155 Personnel 684 489 Quality Control 0.00 0.0 Sales SwitchBoard 1060 0.00 281 Voice Mail 0.00 Warehouse 155 0.00 0.0

The **Extension Incoming Call Count Comparison** report provides a weekly comparison of the number of calls received by each extension. Compare employees with similar job functions to determine if the number of incoming calls is appropriate for each. A shortened example report is illustrated below.

Productivity Evaluation - Extension Incoming Call Count Comparison From 06/19/2000 00:00 to 06/25/2000 23:59												
Ext.	0	8	16	24	32	40	48	56	64	72	80	Calls
503												25
506												20
510												38
514												18
519												80
542												7

The **Extension Incoming Call Time Comparison** report provides a weekly comparison of the total time spent on incoming calls to each extension. Compare employees with similar job functions to determine if the time spent on incoming calls is appropriate for each. A shortened example report is illustrated below.



The **Extension Outgoing Call Count Comparison** report provides a weekly comparison of the number of calls originated by each extension. Compare employees with similar job functions to determine if the number of outgoing calls is appropriate for each. A shortened example report is illustrated below.

Productivi									Call Co 2000 23:		arison
Ext.	8	16	24	32	40	48	56	64	72	80	Calls
503											63
506											71
510											44
514											35
517											3
519											23
542											1

The **Extension Outgoing Call Time Comparison** report provides a weekly comparison of the total time spent on outgoing calls by each extension. Compare employees with similar job functions to determine if the time spent on outgoing calls is appropriate for each. A shortened example report is illustrated below.

Productivity Evaluation - Extension Outgoing Call Time Comparison From 06/19/2000 00:00 to 06/25/2000 23:59												
Ext.	0	25	50	75	100	125	150	175	200	225	250	Minutes
503												209
506												76
510												110
514												71
517												4
519												61
542												0

The **Directory Assistance Detail** report provides a monthly list of directory assistance calls with totals for every department and extension. For each call, the report shows the number dialed, length of call, time of day, circuit number used, and other pertinent details. Compare employees with similar job functions to determine if the number of directory assistance calls is appropriate for each. A shortened example report is illustrated below.

Caller Abuse/Misuse - Directory Assistance Detail From 06/01/2000 00:00 to 06/30/2000 23:59

Department: Accounts Receivable

Ext. 503 Grahm, Judy

Date	Time	Ckt.	Account	Туре	# Dialed St City	Length	Cost
06/14	12:58p	000042		DIRASST	262-555-1212 WI	0:00:35	0.00

Totals for ext. 503: 1 call(s). 0 hours, 1 min. \$0.00

Ext. 506 Spiegelberg, Simone

Date	Time	Ckt.	Account	Туре	# D	ialed	St	City	Length	Cost
06/06	0 04	000010		D.T.D.T. G.G.W.	600 FFF	1010		D.T.D. 3.00M	0 00 10	0 00
06/06	3:21p	000013		DIRASST	608-555	-1212	MΤ	DIR ASST	0:00:T8	0.00
06/20	10:34a	000031		DIRASST		1411	Т		0:00:11	0.00
00,20	10.010	000001		21111221			_		0.00.11	0.00

Totals for ext. 506: 2 call(s). 0 hours, 0 min. \$0.00

Ext. 510 Weber Polly

Date	Time	Ckt.	Account	Туре	# Dialed St City	Length	Cost
06/07	8:49a	000031		DIRASST	262-555-1212 WI	0:00:20	0.00
06/07	8:50a	000042		DIRASST	262-555-1212 WI	0:00:18	0.00
06/23	10:20a	000042		DIRASST	262-555-1212 WI	0:00:00	0.00
06/23	10:20a	000042		DIRASST	713-555-1212 TX DIR ASST	0:00:29	0.00

Totals for ext. 510: 4 call(s). 0 hours, 1 min. \$0.00

Dept. Accounts Receivable had 7 call(s).

Totals: 0 hours, 2 min. \$0.00 Averages: 0 min., 18 sec. \$0.00

Total Calls: 26

Total Length of Calls: 0 hours, 14 minutes Total Cost of Calls: \$11.55

Average Length of Calls: 0 minutes, 33 seconds Average Cost of Calls: \$0.44

The **Outgoing Calls Over 30 Minutes** report provides a monthly list of outgoing calls longer than 30 minutes in duration with totals for every department and extension. For each call, the report shows the number dialed, length of call, time of day, circuit number used, and other pertinent details. A shortened example report is illustrated below.

```
Caller Abuse/Misuse - Outgoing Calls Over 30 Minutes
From 06/01/2000 00:00 to 06/30/2000 23:59
Department: Cafeteria Services
 Ext. 401 Decker, Lynn

        Date
        Time
        Ckt.
        Account

        06/12
        12:09p
        000042

                                                                                          # Dialed St City
555-6787 WI MILWAUKEE
                                                          Туре
                                                                                                                                 Length Cost
                                                           OUTGOING
 Totals for ext. 401: 1 call(s). 0 hours, 48 min. $0.00
 Ext. 410 Small, Ken

        Date
        Time
        Ckt.
        Account
        Type
        # Dialed St City
        Length

        06/20
        2:06p
        00031
        OUTGOING
        555-6668
        WI MILWAUKEE
        0:32:53

 Totals for ext. 410: 1 call(s). 0 hours, 33 min. $0.00
 Dept. Cafeteria Services had 2 call(s). Totals: 1 hours, 21 min. $0.00 Avera
                                                         Averages: 40 min., 22 sec. $0.00
  Total Calls: 9
Total Length of Calls: 5 hours, 46 minutes
Total Cost of Calls: $0.00
Average Length of Calls: 38 minutes, 23 seconds
Average Cost of Calls: $0.00
```

The **Frequently Dialed Numbers** report provides a monthly listing of your organization's most frequently dialed numbers. Each line of the report contains a priority number, the dialed digits, and a frequency value. Compare the listing of your actual contacts with the priorities of your business. Decide whether the numbers you are calling are appropriate for your organization. A shortened example report is illustrated below.

Caller Abuse/Misuse - Frequently Dialed Numbers From 06/01/2000 00:00 to 06/30/2000 23:59

1.	5559494	121	calls
2.	5554126	60	calls
3.	5558036	55	calls
4.	12625559171	43	calls
5.	5554410	38	calls
6.	17155552046	38	
	5553565	29	calls
		29	calls
	5555470	25	calls
10.	5556740	22	calls
11.	17155555577	20	calls
12.	12625554971	20	calls
13.	5559191	18	calls
14.	5550270	17	calls
15.	5557200	16	calls
16.	5557853	15	calls
17.	5557887	14	calls
18.	5552304	14	calls
19.	17155552271	14	calls
20.	5551122	13	calls
21.	5559800	13	calls
22.	17155552116	13	calls
23.	5553730	12	calls
24.	5556554	12	calls
25.	12625555655	12	calls

The **Distribution of Calls By Trunk** report shows the number of calls each trunk, line or circuit placed or received during the month. Circuits may be compared, in the same group, to reveal potential problems. The example report, displayed below, illustrates a malfunction with line 000031. Tracking circuits from month to month may identify additional problems.

Tra	ffic Analy From 06/	ysis - Di 19/2000 0						
Circuit #	150 300	450 600 7	50 900	1050	1200	1350	1500	Calls
000001								1059
000002								437
000003								308
000004								167
000011								89
000012								50
000013								49
000014								76
000021								110
000022							_	204
000023								361
000024								544
000031								161
000042								874

The **Distribution of Calls By Time of Day** report sorts daily inbound and outbound calls into 30 minute time slots. Use this report to track staffing requirements during the workday. An example report is illustrated below.

Time 0 15 30 45 60 75 90 105 12 06:00 06:30 07:00	I			
06:00 06:30 07:00	20	135		
06:00 06:30 07:00	20	135		
06:00 06:30 07:00			150	Calls
06:30 07:00				
06:30 07:00				0
07:00				0
'				1
0= 00				0
07:30				2
08:00				22
08:30				57
09:00				62
09:30				69
10:00				64
10:30				63
11:00				67
11:30				93
12:00				45
12:30				82
13:00				68
13:30				93
14:00				101
14:30				93
15:00				75
15:30				69
16:00				70
16:30				29
17:00				16
17:30				2

Totals

The **Distribution of Calls By Day of Week** report compares the total number of calls for each day during the week. Use this report to determine staffing requirements for each day of the week. An example report is illustrated below.

	Traffic Analysis - Distribution of Calls By Day of Week From 06/19/2000 00:00 to 06/25/2000 23:59											
	0	150	300	450	600	750	900	1050	1200	1350	1500	Calls
Sunday												1
Monday												1023
Tuesday												1254
Wednesday												1089
Thursday												1081
Friday												988
Saturday												12

The **Circuit Group Traffic Summary** reports provide a monthly analysis of the primary lines, trunks or circuits in your telephone system. The traffic analysis is composed of two report files. The first report indicates peak circuit activity for each day in the month. In this example report, all lines were busy for 1.1 minutes (66 seconds) on the 19th day of June. The second report must be displayed with the Traffic Summary Detail Viewer (provided separately) to investigate days with high activity.

Traffic Summary for Circuit Group 1. LOCAL LINES(14 Circuits in Group)
From 06/01/2000 00:00 to 06/30/2000 23:59

			Peak	Peak	At Time	100 %
Date		Peak %	Time	Ckt.	of Day	Minutes
06/19/00	(MON)	100.0	0.5	14	01:57p	1.1
06/20/00	(TUE)	100.0	0.1	14	03:17p	0.1
06/21/00	(WED)	100.0	0.2	14	10:34a	0.6
06/22/00	(THU)	100.0	0.3	14	02:01p	0.6
06/23/00	(FRI)	100.0	0.2	14	09:45a	0.3
06/24/00	(SAT)	14.3	0.2	2	12:16a	0.0
06/25/00	(SUN)	1.2	0.1	0	06:35p	0.0
06/26/00	(MON)	98.8	0.1	14	01:59p	0.0
06/27/00	(TUE)	92.9	0.1	13	10:32a	0.0

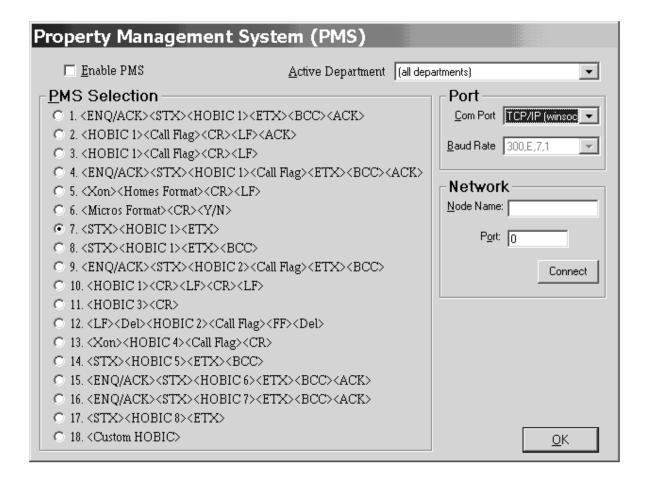
2.7

APPENDIX B. INFORMATION FOR APPLICATIONS IN THE HOSPITALITY INDUSTRY

The Ultimate Call Accounting System has the ability to integrate with a Hotel's new or existing Property Management System. When a call record comes in and is processed, it will be transformed into a selected PMS format. Then it will be sent out of the selected com port (or TCP port) via a serial connection (or TCP/IP connection), to a PMS which will then process the data. The information that follows explains the available PMS integrations, and how to enable them.

Select "Features" in Ultimate Call Accounting's main menu.

Property Management System (PMS)



Required for PMS Integration

In order to use Call Accounting to send information to the PMS, a serial or TCPIP connection is required. If using a serial connection, a serial comport is needed.

Setup

Port

This is where the settings for PMS port and PMS baud rate are set.

Active Department

This option has two settings. The default is 'all departments' and the other option is a specific department. The purpose of this option is that if only information from a select number of extensions are desired then that group of extensions can be placed in a single department and that department can be selected as the active department.

PMS Selection

Call Accounting supports 18 different types of PMS record formats. To decide which one fits the PMS requirements, see the reference of PMS Types to follow. To make a selection in the program, click on the circle next to the selected format. Only one may be selected at a time.

Network Node Name

Enter the node name or IP address where the PMS resides.

Network Port

Enter the TCP port number on which the PMS listens for data.

Enable PMS

Check the box entitled 'Enable PMS'. Once selected, Call Accounting will start sending relevant information to the PMS. Once this box is checked, changes to PMS port, PMS baud Rate, or PMS type will not be allowed.

Available PMS Types

Following are descriptions for the 13 PMS record formats. Special Characters are defined in the glossary of PMS terms found on page 34 and the HOBIC record formats are defined in more detail on page 35.

- Call Accounting sends an <ENQ> to the PMS and waits for a response in the form of an <ACK> or <NAK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the <ENQ> again. When an <ACK> is received Call Accounting will send the HOBIC Record as an <STX><HOBIC 1 Format><ETX><BCC>. Call accounting will then wait for an <ACK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the HOBIC Record again. When an <ACK> is received the process is complete.
- Type 2 Call Accounting sends HOBIC Record as <hOBIC 1 Format><Call Flag><CR><LF> to PMS. Call Accounting will then wait for an <ACK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the HOBIC Record again. When an <ACK> is received the process is complete.
- Type 3 Call Accounting sends HOBIC Record as <HOBIC 1 Format><Call Flag><CR><LF> to PMS.
- Call Accounting sends an <ENQ> to the PMS and waits for a response in the form of an <ACK> or <NAK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the <ENQ> again. When an <ACK> is received Call Accounting will send the HOBIC Record as an <STX><HOBIC 1 Format><call Flag><ETX><BCC>. Call accounting will then wait for an <ACK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the HOBIC Record again. When an <ACK> is received the process is complete.
- Type 5 Once an **<Xon>** is received from the PMS Call Accounting will start processing records (this only happens once). Call Accounting will send the record as **<Homes Format><CR> <LF>**.
- Type 6 Call Accounting sends record as <Micros Format><CR> to PMS. Call Accounting will then wait for an <ACK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the record again. When an <ACK> is received the process is complete. Note: This PMS substitutes an 'ay' for an <ACK> and an 'an' for a <NAK>.
- Type 7 Call Accounting sends HOBIC Record as <STX><HOBIC 1 Format><ETX> to PMS.
- Type 8 Call Accounting sends HOBIC Record as **<STX><HOBIC 1 Format><ETX><BCC>** to PMS.
- Type 9 Call Accounting sends an <ENQ> to the PMS and waits for a response in the form of an <ACK> or <NAK>. If a <NAK> is received or no response is received within 30 seconds Call Accounting will send the <ENQ> again. When an <ACK> is received Call Accounting will send the HOBIC Record as an <STX><HOBIC 2 Format><Call Flag><ETX><BCC>.
- Type 10 Call Accounting sends HOBIC Record as <HOBIC 1 Format><CR><LF><CR><LF> to PMS.
- Type 11 Call Accounting sends HOBIC Record as <HOBIC 3 Format><CR> to PMS.
- Type 12 Call Accounting sends HOBIC Record as <LF><HOBIC 2 Format><Call Flag><FF> to PMS.
- once an **<Xon>** is received from the PMS, Call Accounting will start processing records (this only happens once). Call Accounting will send the HOBIC Record as **<HOBIC 4**Format>**<Call Flag><CR>**.

Glossary of PMS Codes

- <ACK> Acknowledge character sent from the PMS.
- <BCC> Checksum Character.
- <CR> Carriage Return Character.
- Delete Character.
- <ENQ> Enquire Character sent to PMS.
- <ETX> End of Text Character
- <FF> Form Feed Character
- <LF> Line Feed Character
- <NAK> Negative acknowledge character sent from the PMS.
- <STX> Start of Text Character
- <Xon> Protocol for selected PMS.
- <Y/N> PMS for type 6 does not use <ACK> or <NAK> it sends 'ay' for acknowledge and 'an' for negative acknowledge.

Troubleshooting

 Serial Port - The serial port designated for the PMS doesn't appear to be working.

Temporarily switch over the SMDR cable to the serial port and then change the settings in call accounting to reflect this change. If SMDR call records are being received the com port is functional and the problem may lie in the serial cable being used. If call records are still not being received, the computer supplier needs to repair or replace the serial port

 Transmission of PMS record -The PMS system is either receiving incorrect data or no data at all.

To check this problem, it is possible to emulate the PMS by connecting call accounting with a null modem cable to a laptop running a terminal program. By doing so, all characters being sent from call accounting can be seen.

Note: Special characters will show up as single pictorial characters such as hearts or faces. To emulate an acknowledge character press **<CTRL><F>** on the laptop.

Available PMS Record Formats

HOBIC 1/HOBIC 4 Formats

Description	Position	Notes
Sequence Number	1-4	Incremental Number
Hotel ID	6-8	Type 1 is set at '000'
		Type 4 is set at 'LEH'
Date	10-14	MM/DD
Extension	16-19	Up to 4 digits
Time	21-25	HH:MM
Duration	27-30	0 to 999 minutes
\$	32	
Cost	33-38	Max Cost is 999.99
Number Dialed	40-51	12 digits max
Call Flag	53	If present returns L for local calls

HOBIC 2 Format

Description	Position	Notes	
Hotel ID	1-5	Type is set at 'A AAA'	
Date	7-11	MM/DD	
Extension	13-16	Up to 4 digits	
Time	18-22	HH:MM	
Duration	24-27	0 to 999 minutes	
\$	29		
Cost	30-35	Max Cost is 999.99	
Number Dialed	37-48	12 digits max	
Call Flag	50	If present returns L for local calls	

HOBIC 3 Format

Description	Position	Notes
Date	1-6	MM/DD
Time	8-12	HH:MM
Number Dialed	14-25	12 digits max
Extension	43-45	Up to 3 digits
\$	58	
Cost	59-64	Max Cost is 999.99

Micros Format

Description	Position	Notes
Hotel ID	1-4	Id is set as 'ac01'
Extension	5-8	Up to 4 digits
Cost	9-13	Max Cost is 999.99 (no decimal point or dollar sign)
Number Dialed	14-23	Up to 10 digits (no dashes)

Homes Format

Description	Position	Notes
Date	10-14	MM/DD
Extension	16-19	Up to 4 digits
Time	21-25	HH:MM
Duration	28-30	Reported in minutes
Cost	33-38	Max Cost is 999.99 (no dollar sign)
Number Dialed	44-55	Up to 12 digits



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